

2024

**STATE OF GLOBAL  
EHR & HEALTHCARE  
IT ADOPTION**

ANALYZING VENDOR COMPETITION  
AND REGIONAL DEVELOPMENTS

**BLACK BOOK™  
MARKET RESEARCH**

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QATAR, IRAN, IRAQ, LIBYA, KUWAIT, AFGHANISTAN



# ABOUT US

# ABOUT US

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Black Book Market Research is the parent group for Black Book Rankings, a full-service healthcare-centric market research and public opinion research company. Founded in 2002, the company today serves a wide variety of prominent national and international clients. Black Book Rankings offers complete quantitative and qualitative research services, excelling in the design of customized surveys and research approaches to meet specific client needs in healthcare, pharmaceuticals, biomedical devices, managed care, health insurance, and technology. A large segment of Black Book resources is devoted to health care technology and services client experience polling and research. In addition to serving health care organizations and associations with their research needs regarding patient satisfaction, physician performance, and service development opportunities, the company also serves national health care consultants to government, media, and financial/investment agencies.

We annually evaluate leading healthcare/medical software and service providers across 18 operational excellence key performance indicators completely from the perspective of the client experience. Independent and unbiased from vendors' influence, over 1,200,000 healthcare IT users are invited to contribute. Suppliers also encourage their clients to participate in producing current and objective customer service data for buyers, analysts, investors, consultants, competitive suppliers, and the media. For more information or to order customized research results, please contact the Client Resource Center at +1 (800) 863-7590 or [Research@BlackBookMarketResearch.com](mailto:Research@BlackBookMarketResearch.com)

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The image features a hand holding a silver stethoscope. The background is a collage of geometric shapes in shades of orange, grey, and dark blue. A blurred face is visible in the background, partially obscured by the text.

# **OUR EXPERTISE**

# OUR EXPERTISE

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We possess expertise in a range of survey research services including, but not limited to:

- Black Book Rankings™
- Vendor Comparisons and Report Cards
- Custom Polling for Client Base and Target Markets
- Patient & Health Consumer Satisfaction
- Market & Competitive Intelligence
- Public Opinion Polling and Political Party Member Sentiments on Healthcare Issues
- Sentiment Analysis
- Vendor Public Relations, Marketing and Business Development
- Opinion Mining

Black Book conducts small-scale and large-scale research projects to measure many items of interest, including image, attitudes, opinions, awareness, and market share. Our staff will be glad to discuss your research.

needs with you, refine your research objectives, and make recommendations regarding optimal research methods. We will share our experience relevant to your project and develop a proposal to fit your budget.



# AREAS OF EXPERTISE

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Black Book Rankings has had the opportunity to conduct a wide variety of research and analytical projects. Listed below are some industries we have assisted as well as some of the project topics:

- Healthcare Industry and Hospitals
- Medical and Physician services
- Public policy issues and Government Stimulus/Incentive programs
- Healthcare Consumer behavior
- Insurance and managed care
- Outsourcing & Managed Services
- Consultants & Advisory Services
- Cybersecurity
- Group Purchasing Organizations



# **RESEARCH METHODOLOGY**

# RESEARCH METHODOLOGY

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Our research process consists in large part to primary research, yet we also refer to creditworthy secondary sources. We have developed specialized surveying tools, opinion mining and knowledge management systems that capture relevant, accurate, and unbiased information in the global marketplace. Some of our primary research survey functions involve:

- Trend Studies
- Interviews
- Cohort Studies
- Executive (B2B)
- Questionnaires
- Telephone
- Internet/Mobile Apps

With a strong methodology we capture customer perceptions both in surveys and focus group settings, mining information about buying behavior and the utilization of products and services.

The background features a hand holding a magnifying glass over a globe. The scene is overlaid with various icons: a shield with a cross, a telephone with a plus sign, a flask, a thermometer, a padlock, a location pin with a plus sign, and a speech bubble. The design is accented with large, semi-transparent geometric shapes in shades of orange, grey, and dark blue.

# DISCLAIMER

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# **EXECUTIVE SUMMARY**

# EXECUTIVE SUMMARY

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The global electronic health records market grew from \$33.99 billion in 2022 to \$36.13 billion in 2023 at a compound annual growth rate (CAGR) of approximately 6.3 percent over the forecast period (The Business Research Company, 2023).

The state of electronic health records varies by country and region with each having their own struggles to adopt a consistent strategy for implementation. The target dates that were set forth prior to the pandemic have been unfulfilled and as a result, healthcare practitioners are trying to do more with less and still move forward with a universal electronic health record. The countries discussed throughout this report highlight the state of their current process, as well as the difficulties they are currently facing.

## Q1 2024: MAJOR DEVELOPMENTS IN GLOBAL ELECTRONIC HEALTH RECORDS AND HEALTHCARE DIGITAL SYSTEMS:

- **AUSTRALIA**

The Australian Digital Health Agency, established in July 2016, has national responsibility for the country’s digital health strategy. An interoperable national e-health program based on personally controlled unique identifiers is now in operation. More than 6 million patients (one-quarter of Australians) and 13.4 million providers are currently registered. As of February 2019, all Australians have a My Health Record created for them unless they have opted out of the system, although individuals can choose to delete their record at any time. The record supports prescription information, medical notes, referrals, and diagnostic imaging reports. Patients can view their own medical information and control who can see it, as well as add information about allergies, adverse reactions, and their health care wishes if they become unable to communicate.

There haven’t been any updates to the Australian government department of health and aged care website since April 13, 2022; however, the Australian government is providing new funding in the sum of \$643 million over the next four years. The importance of this funding is significant in which the emphasis will be placed on the Australian digital health infrastructure to modernize the country’s health record and continue to focus on the interoperability of the national digital health system.

The Australian federal government is also investing over \$75 million to continue to strengthen their electronic prescription's (E-scripts) and enhance their digital medicines.

- **BAHRAIN**

Ministry of Health in the Kingdom of Bahrain has built an Information and Communication Technology Strategy (ICT). The Health ICT Strategy which was launched in 2001 is defined to cover the Ministry of Health (MOH) as a corporate policymaker as well as administrative directorates and health service providers in hospitals, clinics, and health centers. It works in parallel with the Ministry of Health Strategic Direction and Framework for Action, in addition to focusing on innovative ideas to support the issues created from uncertainty in areas such as

- **BRAZIL**

Brazil made a multi-million dollar investment in late 2016 in three supercomputers designed to unify all the government's EMRs into a single system and it has set strict timelines for EMR adoption through 2020, Information technology is coordinated nationally by the Department of Informatics, which is linked to the Ministry of Health. However, states and municipalities use different information systems, leading to data integration challenges and making it difficult to implement a national integrated electronic health record (EHR).

- **CANADA**

Uptake of health information technologies has been slowly increasing in recent years. Provinces and territories are responsible for developing their own electronic information systems, with national funding and support through Canada Health Infoway.

However, there is no national strategy for implementing electronic health records and no national patient identifier.

Recently in Ontario, Canada, healthcare organizations across the province came together to help standardize their approach to interoperability. The province of Ontario is currently utilizing the platform Care Everywhere, where patient data is shared between hospitals that are using Epic within the province.

Care Everywhere facilitates the automatic distribution of exchange-ready providers and healthcare organization regardless of their EHR system of the network in which the user belongs to.



Canada is struggling to make connections beyond Epic because not all provinces have the currently technology or infrastructure to support the connection. The Ministry of Health and the Ministry of Long-Term Care are spearheading a new initiative called Project AMPLIFI. The initiative is hoping to expand the continuity of care for residents by streamlining transitions between care institutions, which will result in safer care for patients, and more efficient workflows for providers.

- **CHINA**

Nearly every health care provider has set up its own EHR system. Within hospitals, EHRs are also linked to the health insurance systems for payment of claims, with unique patient identifiers (insurance ID or citizenship ID). However, EHR systems vary significantly by hospital and are usually not integrated or interoperable. Patients often must bring with them a printed health record if they want to see doctors in different hospitals. Even if hospitals are owned by the same local bureau of health or affiliated with the same universities, different EHR systems may be used. Information technology investment in the country's hospital system will reach 65.7 billion yuan (\$9.47 billion) in 2022, surging 53.5 percent from 2017 and boosting the digitalization of the Chinese medical system

- **DENMARK**

IT is used at all levels of the health system as part of a national strategy supported by the National Agency for Health IT. Each of the five regions uses electronic health record (EHR) systems for hospitals, with adherence to national standards for compatibility. All citizens in Denmark have a unique electronic personal identifier that is used in all public registries, including health databases. The government has implemented an electronic medical card storing encoded information about each patient's prescriptions and medication use; this information is accessible by the patient and all relevant health professionals.

- **ENGLAND**

The NHS number assigned to every registered patient serves as a unique identifier. All general practice patient records are computerized. Since April 2015, all GP practices have been contractually obliged to offer patients the choice of booking appointments and ordering prescriptions online. As of March 31, 2016, practices are required to offer patients access to their own detailed coded record, including information about diagnoses, medications and treatments, immunizations, and test results. Practices are not required to allow patients access to information that clinicians enter in free-text fields. When electronic records are not available to patients, such as in dentistry, they can request a paper copy.

The government website for the United Kingdom has provided updates ensuring that 90% of National Health Service (NHS) trusts and foundation trusts should have electronic health records by December 2023, and 95% by March 2025. In addition to the EHR update, 80% of Care Quality Commission registered adult social care providers should have digital social care records in place by March 2024. The NHS is committed to transforming services and improving outcomes.

- **FRANCE**

The electronic health record (EHR) project (Projet dossier médical partagé) covered roughly 1,882,503 patients at the end of 2018, and an estimated 731 hospitals (one-third of all hospitals). Hospital-based and office-based professionals and patients have a unique electronic identifier, and any health professional can access the record and enter information subject to patient authorization. Interoperability is ensured via a chip on patients' health cards.

In June 2023, the French government launched a major national program for digital health. The National Institute for Health and Medical Research and the National Institute for Research in Digital Science and Technology are the two research bodies headlining this program, which has a budget of \$65 million over the next several years. This program for digital health will launch a new fast-track reimbursement pathway for digital health solutions.

- **GERMANY**

Since 2015, electronic medical chip cards have been used nationwide by all the SHI-insured; they encode information including the person's name, address, date of birth, and sickness fund, along with details of insurance coverage and the person's status regarding supplementary charges. Patients can decide whether they want clinical data, such as on medications, to be stored and whether these are to be passed on to their physician.

Electronic health records continue to be a major focus in the German healthcare system. The Integrated Care Document (ICD), is Germany's comprehensive record of a patient's health information that can be shared between healthcare providers. Germany's electronic health record market size was valued over \$1 billion in 2022.

- **INDIA**

The Ministry of Health and Family Welfare published the first national standards for electronic health records (EHRs) in 2013. An expert committee was then established to

support the adoption and implementation of an EHR system throughout the country. As of 2016, however, survey results have revealed that uptake of the system has been slow as compared to other middle- and high-income countries. Currently, there is no universal patient identifier.

- **ISRAEL**

All health plans have electronic health record (EHR) systems that link all community-based providers: primary care physicians, specialists, laboratories, and pharmacies. All GPs work with EHRs. Hospitals are also computerized but are not fully integrated with health plan EHRs. The Ministry of Health is leading a major national health information exchange project to create a system for sharing relevant information across all hospitals and health plans. Despite the fact that Israel has adopted a national information policy and a national Policy, it has not yet adopted a national eHealth policy, which is something the Ministry of Health (MOH) has been working towards in recent years. In Israel 100 % of the physicians at healthcare providers have access to their patients' EMR. For purposes of comparison in the United States in 2013, according to data from the Centers for Disease Control and Prevention, only 78 % of office-based physicians used any type of EMR and 48 % of office-based physicians reported having a system that met the basic criteria of an EMR "(Arnold et al., 2007). "In recent years, not only was an EMR implemented in Israel, but also, the health plans have been providing different services on-line and some via mobile phones. With these services the health plans have granted the patients access to their own healthcare information from a computer or smartphone, in a user-friendly way and with clear information, a key step towards more complete patient empowerment. This system is called Personal Health Record (PHR). Additionally, administrative services are offered via the PHR and other services such as electronic prescriptions or ePrescriptions began to be offered. At the onset of ICT implementation within the health plans the government exercised no defined role, neither as a regulator nor as a facilitator "(Berman et al., 2014)."More recently, however, the administration of the MOH started to acknowledge the benefits of eHealth and mHealth and it has been working on national projects such as the National EMR that finally led to the Health Information Exchange (HIE) project. This project is intended to facilitate the sharing of information at the point of care between different healthcare organizations

- **ITALY**

The New Health Information System (Nuovo sistema informativo sanitario, or NSIS) is being implemented incrementally, with the goal of establishing a universal system of electronic records connecting every level of care. It currently provides information on approximately 85 percent of services included in the LEA. Primary care is not included, but hospital,

emergency, outpatient specialist, residential, and palliative care are, as well as pharmaceuticals. The NSIS currently registers administrative information on care delivered, but medical information appears to be more difficult to gather. No unique patient identifier exists at the national level, while in most regions administrative records are linked together using unique patient identifiers generated at the regional level.

- **JAPAN**

Electronic health record networks have been developed only as experiments in selected areas. Interoperability between providers has not been generally established. The government has been addressing technical and legal issues prior to establishing a national health care information network so that health records can be continuously shared by patients, physicians, and researchers by 2020. Unique patient identifiers for health care are to be developed and linked to the Social Security and Tax Number System, which holds unique identifiers for taxation. In Japan, the order entry system has been employed in almost all university hospitals and popularization of this system has also started in medium-sized hospitals. However, there has been a tendency in general hospitals in Japan to consider the electronic chart system where there has been no order entry system. Moreover, in small-scale clinics, there is no benefit in using the order entry system. Young doctors in Japan are beginning to employ the electronic chart system directly for the first time, without experience with the order entry system. In this paper, the development of the hospital information system in Japan and that of the electronic health record system are described.

- **KUWAIT**

Kuwait has grown over the years in its use of digital health tools and systems; however, they are still considered limited. Adoption of EHR systems in Kuwait's healthcare has varied considerably, with only two government hospitals integrating their EHRs with other digital systems such as radiology and lab information systems, while other institutions only adopting "fragments" of digital solutions. This is despite the fact that establishment of central information technology department to integrate electronic communication networks.

- **MEXICO**

Mexico, one of Latin America's early EMR adopters in 2004, now has rates between 25 and 50 percent for EMR in its primary and secondary care facilities; like Brazil, Mexico has set strict EMR adoption timelines through 2024.

Mexico is currently facing many considerations for risk assessment regarding their current EHR implementation. The software that provides support and information for treatment and patient management, as well as mobile applications and various medical devices are under constant regulation from the government.

- **NETHERLANDS**

Virtually all GPs have a degree of electronic information capacity. For example, they use electronic health records (EHRs) and can order prescriptions and receive lab results electronically. At present, all hospitals have an EHR.

- **NEW ZEALAND**

The ability to access and share accurate clinical information is central to the New Zealand Health Strategy, which provides high-level direction for the country's health system. In 2015, the Ministry of Health announced, and has responsibility for, the Digital Health Work Programme 2020. The program aims to ensure appropriate access to health and wellness information facilitated by a single electronic health record. The electronic record will collect and present existing core health information in a single view, accessible by consumers and clinicians. Data will also be able to be shared with social-sector professionals.

- **NORWAY**

The eHealth Directorate is responsible for the national strategy for health information technology. The National Health Network, a state enterprise, provides efficient and secure electronic exchange of patient information between all relevant parties within the health and social services sector. It provides secure telecommunication for GPs, hospitals, nursing homes, pharmacists, dentists, and others.

- **QATAR**

Qatar has a well-developed healthcare infrastructure, comprising both the public and private sectors. Key aspects of the healthcare services in the country include:

1. A significant participation of the eight government hospitals in the delivery of healthcare services managed by Hamad Medical Corporation (HMC);

2. More than 30 government clinics managed by Primary Health Care Corporation (PHCC) that are being re-designed to be the cornerstone of a new Integrated Health Model for health care;
3. World renowned specialist centers and hospitals such as Aspetar and Sidra; 4. A recently established and evolving health insurance scheme that is transforming how services are funded in the country; and
5. The Supreme Council of Health (SCH), as regulator, leading an E-Health agenda to improve the health outcomes through the integration of the public and private providers and a greater participation of patients in their wellness management.

Many of these organizations are still providing healthcare supported by paper-based processes and lack the required systems to connect to one another. Without focused investment to transform its services through the introduction of information and communications technology, Qatar will be unable to meet the expectations and demands for excellent health care in the future. The impacts of an ageing population, chronic and complex conditions, and workforce constraints are all putting pressure on health services to deliver more effective healthcare with the current resources. Qatar's strategy to deliver a world-class health care has been impacted by the following four key issues which have been identified as typically affecting clinical service delivery in paper-based environments:

1. Safety and Quality: Paper based records, poor integration of systems and lack of information exchanges put at risk the patient's safety and hinder health service quality.
2. Effectiveness: Lack of digital data results in delays or prevents access to the health data needed for clinical care and incurs significant overhead costs as a result of the time wasted looking for information.
3. Decision Support and Research: Questionable data quality and absence of data analytics capabilities at a national level result in limited evidenced based decision support and lack of health data for research.

Qatar is one of the GCC countries that has undergone a fast development when it comes to their healthcare system. Qatari developed a healthcare system with universal coverage. According to Goodman (2015), Qatar imported several healthcare systems from other countries and currently struggle to mold these foreign systems to their unique indigenous culture. There has been an extraordinary development of both medical infrastructure and academic inquiry over the past two decades. In Kuwait, the government regulate and established standards for health care delivery across all primary, secondary and tertiary health care centers (Naim et. al., 1986). Kuwait spends 6.9% of the national budget on healthcare reforms and over the past 20 years, the Ministry of Health has put in place a

comprehensive information strategy to keep up with the demands by developing a ministry-wide health information system (Al-Jarallah et al, 2009; Almutairi, 2011).

- **SAUDI ARABIA**

Over the past 3 decades, "the government of Saudi Arabia has spent billions of Riyals to develop and improve the quality of healthcare, and expands its coverage (Bah et al., 2011). This has resulted in an increase in the numbers of both government and private hospitals and medical centers. Major hospitals provide all sorts of sophisticated treatments including open-heart surgery, kidney transplants and cancer therapy. Approximately 11,350 doctors, nurses, and other medical personnel, including the Saudi Red Crescent Society, provide medical service to the millions of people who visit the Kingdom for the annual pilgrimage of Hajj. Immunization against tuberculosis, polio, hepatitis, and tetanus is freely available. Medical insurance schemes are available at reasonable cost. Due to this rapid expansion, healthcare providers in Saudi Arabia have varied. While the ministry of health provides around 60% of the healthcare services, the remaining portion is provided by other government bodies such as the National Guard, the Ministry of Defense and Aviation, the Ministry of Interior, the University hospitals, and rapidly growing private sector. This variation of health service providers has led to variations in the way the healthcare facilities are administered and managed with significant variation in the information systems used. As a result, patient information/record has become scattered in different healthcare facilities without a provider having the complete patient record except in very rare cases where the patient chooses to always receive healthcare from one provider" (Almuayqil et al., 2015)." One additional negative impact of varied healthcare systems is the great waste of efforts and money resulting from treating patients repeatedly for the same health problems in several medical centers. Patients may at times be asked to repeat x-rays and other laboratory tests, and may be given different medications which may compromise patient' safety". Saudi Arabia has made noteworthy strides in adopting Health IT into their health system. The government has a Health IT plan in place and is developing a network to connect all government-supported health facilities and hospitals. Saudi Arabia has also created a favorable environment to promote entry of companies into the health IT market and currently relies on imported technologies and healthcare workers. Short-term reductions in healthcare budgetary expenditures may slow down Health IT adoption, but long-term trends still look strong.

- **SINGAPORE**

Since 2011, Singapore's national electronic health record (EHR) has been progressively deployed to both public and private health care institutions to support the goal of "One Patient, One Health Record." The national EHR is owned by the Ministry of Health and

managed by Integrated Health Information Services. The secure system collects summary patient health records from different health care providers, and authorized health care professionals can access the EHR to have a holistic and longitudinal view of a patient's health care history. As of 2019, more than 1,300 health care institutions participate in the national EHR.

- **SOUTH & LATIN/CENTRAL AMERICA (SPANISH LANGUAGE COUNTRIES)**

**Chile** is the most advanced country in the region when it comes to EMR penetration, with 77%

**Uruguay** adopted a national EMR system in 2014 and has had a strong adoption, currently boasting a 68% EMR penetration rate in its healthcare facilities.

**Costa Rica** has a 64% EMR penetration rate after approving a nationwide system in 2011.

**Guatemala** also has a higher-than-average EMR penetration rate, with 56%

**Panama** and **Colombia** respectively have a 54% EMR penetration rate.

EMR penetration is at 41% in the **Dominican Republic**

**Peru** adopted its own national EMR system in 2015 and has an EMR penetration of 39%, just below the regional average.

**Bolivia** (20%) and **Argentina** (18%) and a few other countries in Latin America still have significant room to improve when it comes to EMR penetration in their hospitals and facilities.

- **SWEDEN**



In 2016, the government developed a vision of Sweden as a world leader in e-health by 2025. The strategy involves four overarching tactics: coordination and communication among health care stakeholders; development of common concepts in the field; implementation of standards for health information exchange; and creation of national drug lists that assist health care professionals in efforts to improve patient safety.

- **SWITZERLAND**

In June 2015, a law addressing a national EHR was adopted; it came into effect in 2017. By spring 2020, an EHR with unique identifiers will be rolled out in all regions and should increase care coordination, quality of treatment, patient safety, and efficiency in the health care system. EHealth Suisse, a joint initiative of the federal and cantonal governments, is coordinating the introduction of the EHR.

- **TAIWAN**

Everyone in Taiwan carries an electronic NHI card bearing a unique personal identifier to access care. The card encodes personal information, insurance data, notes from recent medical visits, diagnoses, drug prescriptions, drug allergies, major illnesses, organ donation consent, palliative care directives, and public health records (including immunizations).

- **TURKEY**

Turkey is a moderate-sized Health IT market that has already set a solid foundation for their national Health IT system, particularly in the areas of Electronic Health Records (EHRs) and Hospital Information Systems (HIS). Turkey, however, has not done much to date in the areas of mobile health/telehealth, clinical decision support and data analytics, which offer significant potential to U.S. firms. A large public-private partnership project to build more than two dozen large hospital campuses will also be of interest to Health IT sector stakeholders. Turkey's Ministry of Health (MOH) is the largest provider of healthcare services and serves as the lead government body to plan and implement healthcare and Health IT-related projects. Local software companies also play a significant role in providing specific Health IT solutions, including EHRs and HIS, which are widely used in Turkish hospitals.

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- **UNITED ARAB EMIRATES**

The UAE Ministry of Health (MoH) has embraced the information technology (IT) revolution, an electronic patient record, generated by a state-of-the-art health information system, to improve the patient care experience. Wareed is the first of its scale healthcare improvement initiative in the UAE spearheaded by the MoH to revolutionize the quality, safety and efficiency of public healthcare delivery across all 15 public hospitals and more than 86 affiliate clinics across six emirates in the UAE. MoH partnered with iCapital, the prime contractor of Wareed, to implement Oracle Health Millennium as the core application for the project to link all clinical, operational and administrative data. Nurses can now access entire data to improve patient care across all MoH healthcare provider facilities.

- **UNITED STATES**

The Office of the National Coordinator for Health Information Technology, created in 2004, is the principal federal entity charged with the coordination of nationwide efforts to implement and advance the use of health information technology and the electronic exchange of health information. In 2017, an estimated 96 percent of nonfederal acute care hospitals and 86 percent of office-based physicians had adopted a “certified” electronic health record (EHR) system. Eighty percent of hospitals and 54 percent of physician offices had adopted an EHR with advanced capabilities, such as the ability to track patient demographics, list medications, store clinician notes, and track medication orders, laboratory tests, and imaging results. The 21st Century Cures Act, passed in 2016 to promote the use of EHRs overall, requires that all health care providers make electronic copies of patient records available to patients, at their request, in machine-readable form.

The United States is facing similar challenges as other more advanced countries including but not limited to, interoperability, healthcare access and health equity. Still grappling with the lingering effects of COVID, the United States is faced with social determinants of health and EHR optimization. In 2023, technology and advancements in AI are helping the EHR process along but not at an optimization rate that is significant.

Source: The Commonwealth Fund 2023

<https://www.commonwealthfund.org/international-health-policy-center/system-features/what-status-electronic-health-records>

Source: E-HEALTH STATE IN MIDDLE EAST COUNTRIES: AN OVERVIEW September 2018

DOI:10.7456/1080SSE/375 Wasit University

[https://www.researchgate.net/publication/331153677\\_E-HEALTH\\_STATE\\_IN\\_MIDDLE\\_EAST\\_COUNTRIES\\_AN\\_OVERVIEW](https://www.researchgate.net/publication/331153677_E-HEALTH_STATE_IN_MIDDLE_EAST_COUNTRIES_AN_OVERVIEW)

The growing adoption of EHR in healthcare firms is one of the major drivers of the growth of the global electronic health record market. Health care professionals are extensively adopting EHR as it assists clinicians and patients with the most accurate and current health data. Moreover, the increasing number of government regulations supporting healthcare IT and growing funding by the government and private organizations in the field of healthcare IT are augmenting the sale of EHR.

However, factors including concerns over data privacy, high initial investment, and lack of properly trained staff are expected to hamper market growth. Nevertheless, the growing demand for digital health solutions from developing economies is anticipated to offer business opportunities for the market players.

This study provides an in-depth analysis of the digital medicine market worldwide along with current vendor trends and future estimations. It also provides a quantitative and qualitative analysis for the period after 2018 to enable stakeholders to capitalize on the prevailing opportunities in health IT and EHR adoption. The world health information technology is segmented based on technology and geography. Based on technology, the market is segmented into mobile health, EMR/EHR, telehealth and wireless health. The market is analyzed across geographical regions namely North America, South America, Europe, Africa, Australia, and Asia.

IT, or the application of computers to store, retrieve, transmit, and manipulate data in healthcare is changing the way data is documented, stored, viewed, retrieved, shared, managed and consumed. Electronic health records have great potential in terms of improving health care, facilitating the rapid and accurate transmission of patient data, standardizing medical procedures, supporting decision making and allowing for the prevention of medical errors (in real time). The use of IT in the health sector has been associated with improvements in safety and quality indicators, as well as cost optimization. A major transition is underway in patient-related data documentation with the adoption of EMRs.

Key EHR providers profiled in the big data analytics (in the healthcare market) report include Altera, Oracle Health, InterSystems, ChipSoft, Orion Health, MV SOUL, and Neusoft. These vendors have adopted various strategies such as mergers & acquisitions and/or strategic alliances with start-ups and well-established players to expand their market presence and enhance their product portfolio. The presence of numerous private players, a growing use of healthcare apps, patients' support for digital medicine, and the variation in mobile apps technology offer lucrative business opportunities for the market to nurture.

Digital medicine technology is an innovative technological technique that has bridged the unsought gap between healthcare and digital technology. Digital medicine technology is more privileged than current medical practice since it is more precise, effective, well distributed, and feasible. Mobile health or m-health is the most popularly used application for clinical assistance in diagnosis, remote monitoring, reminders, alters, and references applications. Recent success in digital medicine services implements the measurements of heart rhythm or rate, stress levels, blood pressure, oxygen concentrations and even management and prevention of chronic or acute conditions.

The global digital medicine market is expected to register substantial growth in the near future, which is associated with high usage of smartphones, rising healthcare expenditures, expansion of software companies, high percentage of population with chronic diseases, and mobile phone proliferations. Other factors driving the markets are related to the increasing presence of biopharma and biotechnological institutes, augmented R&D investment on digital medicine and rising awareness of personalized healthcare. However, factors such as huge capital investment, lack of medical knowledge and limited functionality of apps are likely to restrain the growth of the market. In addition, the regulations and approvals by government imposed on the product can challenge industrial growth.

Vendors operating across the platform regarding big data analytics in today's healthcare market are concentrating on bringing interoperability and better health information technology using these big data analytics to aid hospitals and health systems, while their customers are still focusing (mostly) on securing the sensitive health data, ensuring patient safety and improving operational efficiencies. Furthermore, population health management and clinical analytics are contributing to the increasing growth of this market. There is a growing awareness regarding the adoption of these new technologies.

The pandemic of 2020 provided a snapshot of the vulnerability of the healthcare market, across various countries as their health systems were stretched to their limits. These vulnerabilities have had profound implications for health, economic progress, trust in governments (and the widespread speculation of vaccines), and social cohesion.

As governments and healthcare professionals worked together to mitigate the spread of the virus and produced, tested, and administered a vaccine at an unusual speed, trust in the safety and time in productivity were questioned by many in various countries. These factors provided more questions relating to production, delivery, and equitable access, all of which affect the lower to more middle-income countries. According to Johns Hopkins University of Medicine research facility as of July 10, 2022, there have been more than 555 million people that have been infected with the COVID-19 virus and the variants that evolved since the end of 2019. This pandemic has provided insight into the fragility of the healthcare system across the world and the need for interoperability and the utilize of technological advances in relation to the treatment and delivery of care.

Just as the world was just beginning to get some sort of grasp on the pandemic and return to some minuscule sense of normalcy, Russia invaded Ukraine in February 2022. The geopolitical, financial, infrastructural, and health impacts of this invasion are being felt throughout all of Europe and world-wide. There have been many attacks on healthcare facilities within the country of Ukraine, which has presented a challenge for providers in relation to the humanitarian crisis that has now emerged. These disruptions to surveillance and treatment programs risk an eruption of infectious disease outbreaks in the fragile economy. When there are interruptions to chronic care and routine health services this can threaten an increase in mortality and decrease the life expectancy of the population. The longer-term implications of the war will have a resonating effect on all of Eastern Europe as some of the countries were struggling to implement a universal EHR system prior to the war and the pandemic.

Today, the European Union is working to facilitate the cross-border interoperability of electronic health records. This stresses the importance and the necessity for citizens to be able to access their health data across borders within the EU. The format will allow citizens to access their privileged data when consulting a specialist or receiving emergency treatment in another EU country. However, the differences of varying electronic health records from country to country provides the main obstacle within the exchange of health data, therefore hindering the advancement of digital health and care in Europe.

## KEY BENEFITS FOR STAKEHOLDERS:

- This report provides an extensive analysis of the current and emerging market trends and dynamics in the global electronic health market.
- This study evaluates the competitive landscape along, as well as the value-chain, which has been taken into consideration to assist with the understanding of the competitive environment across various geographies.
- Region-wide and country-wide global digital medicine market conditions are comprehensively analyzed in this report. High usage of smartphones, rising healthcare expenditures, expansion of software companies, high percentage of population with chronic diseases, and mobile phone proliferations are expected to contribute to the growth of the market.
- This report entails the detailed quantitative analysis of the current market and estimations after 2018, which assists in identifying the prevailing market opportunities.
- An in-depth analysis of current research and clinical developments representing EHR adoption and IT health markets are provided with the concentration of key market dynamic factors that will help in understanding the behavior of the market.

With collective industry experience from analysts and experts, Black Book™ Market Research covers most accurate research methodology for its market intelligence and industry analysis. The research targets the deepest levels of the global markets and dissects the various details. Black Book™ surveyed 1,809 physicians, health administrators, technology managers and clinical leaders in ambulatory and inpatient settings across 13 foreign countries to help global stakeholders identify gaps, challenges, and successes in healthcare IT adoption and EHR systems connectivity. Black Book's™ approach helps the building of a greater market consensus view-for-size and industry trends within each industry segment.

With 21 countries in some phase of national EHR adoption were included in the sweeping seven-month poll of EHR users on the respective infrastructure and adoption of their countries, as well as the EHR vendors receiving the highest satisfaction scores in those respective locations. Black Book™ carefully considers industry trends and real developments for identifying key growth factors and forecasted opportunities. The research processes are designed to deliver a balanced view of the global markets and allow stakeholders to make informed decisions to attain KPIs. Black Book™ offer clients extensive research and analysis based on a wide variety of factual inputs which largely include interviews with industry participants, reliable statistics and regional intelligence. In-house industry experts play an instrumental role in collecting data that enhance the accuracy of Black Book's™ recommendations and advice. With a strong methodology Black Book™, therefore, is confident in the provided research and analysis that are most reliable and incorporates a blueprint for sound business planning.

### Citations

The Business Research Company (2020, March 1). Electronic Medical Records Global Market Report 2023. Report Linker. Retrieved August 13, 2023, from [https://www.reportlinker.com/p06316473/Electronic-Medical-Records-Global-Market-Report.html?utm\\_source=GNW](https://www.reportlinker.com/p06316473/Electronic-Medical-Records-Global-Market-Report.html?utm_source=GNW)

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The background features a complex geometric design with overlapping triangles in shades of orange, grey, and dark blue. A large, faint watermark is visible, containing the text 'BLACK BOOK' and '2024'.

# **BLACK BOOK METHODOLOGY**

# BLACK BOOK METHODOLOGY

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## HOW THE DATA SETS ARE COLLECTED

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Black Book™ collects ballot results on 18 performance areas of operational excellence to rank vendors by electronic medical and health record product lines. The gathered data is subjected immediately to an internal and external audit to verify completeness and accuracy and to make sure the respondent is valid while ensuring that the anonymity of the client company is maintained. During the audit, each data set is reviewed by a Black Book™ executive and at least two other individuals using this methodology. In this way, Black Book's™ clients can evidently see how a vendor is truly performing. The 18 criteria on operational excellence are subdivided by the client's industry, market size, geography and function outsourced and reported accordingly. Situational and market studies are conducted on areas of high interest such as e-Prescribing, health information exchange, accountable care organizations, hospital software, services providers, educational providers in e-health, bench markers and advisors. The specific survey areas of criteria range from four to 20 questions each.

## UNDERSTANDING THE STATISTICAL CONFIDENCE OF BLACK BOOK DATA

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Statistical confidence for each performance rating is based upon the number of organizations scoring the electronic medical and health records service. Black Book™ identifies data confidence by one of several means:

- Top ranked vendors must have a minimum of 10 unique clients represented. Broad categories require a minimum of 20 unique client ballots. Data sets that are asterisked



(\*) represent a sample size below the required limits and are intended to be used for only tracking purposes, not ranking purposes. Performance data for an asterisked vendor's services can vary widely until a larger sample size is collected. The margin of error can be very large, and the reader is responsible for considering the possible current and future variations (margin of error) in the Black Book™ performance score reported.

- Vendors with over 20 unique client votes are eligible for top 10 rankings and are assured to have highest confidence and lowest variation. Confidence increases as more organizations report on their outsourcing vendor. Data reported in this form are shown with a 95% confidence level (within a margin of 0.25, 0.20 or 0.15, respectively).
- Raw numbers include the quantity of completed surveys and the number of unique organizations contributing the data for the survey pool of interest.

## WHO PARTICIPATES IN THE BLACK BOOK RANKING PROCESS?

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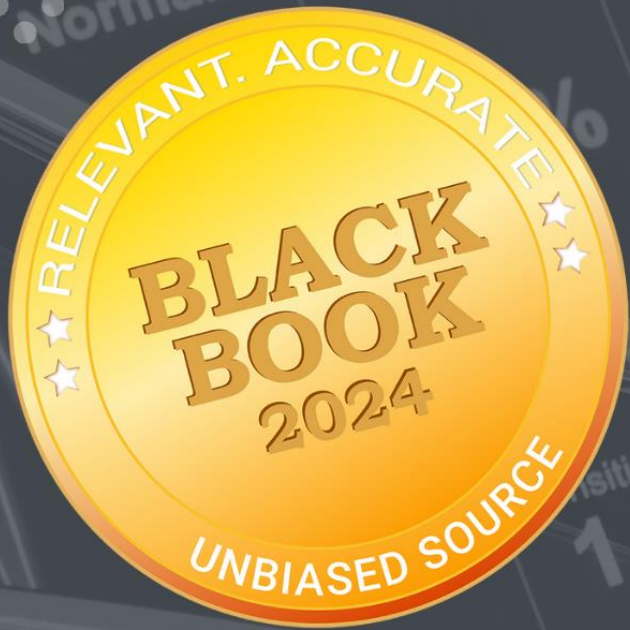
Over 50,000 health information technology users ranking from hospital and medical practice executives, clinicians, IT specialists and front-line implementation veterans are invited to participate in the 2024, annual Black Book™ EMR & EHR e-Health initiative satisfaction survey. Non-invitation receiving participants must complete a verifiable profile, utilize a valid corporate email address. Once that criterion is met, participants responses will then be included.

The Black Book™ survey web instrument is open to respondents and new participants ever year the survey is conducted. The survey can be accessed by visiting [blackbookmarketresearch.com](https://blackbookmarketresearch.com) and on mobile applications available from iTunes and GooglePlay. Only one ballot per corporation or public agency email address is permitted (per location). Changes of ballots during the open polling period require a formal email request. This process to implemented to ensure the integrity of the survey.

The members of 18 professional healthcare associations, nine media outlets and returning participants with previous identification verifications are among those invited to participate in the surveys. Nearly 90,000 email addresses from international marketing companies are also sent notifications of the survey availability (in Q1). Individuals and

provider management can register as new participants on mobile applications and online polling instruments. Ballots are validated through two independent survey verification (services & software) companies before being included in the scoring process.

Additionally, over 6,400 about-to-be users and those in the replacement phases, in regard to a non-original EHR and HIT system, answered questions about budgeting, vendor familiarity and vendor selection processes. However, current non-user ballots were not counted in the vendor ranking process of client satisfaction.



# GLOBAL EHR HIT MARKET OVERVIEW

# GLOBAL EHR/HIT MARKET OVERVIEW

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The number of EHR vendors has decreased in recent years following several mergers and acquisitions. In the early 2010's, there were over 1,000 vendors. In 2021, market research firm Business Intelligence estimates the number of EHR vendors is about half that of 2010 estimate (500) (Green, 2021). The decrease in EHR vendors can leave physicians with a host of problems, such as reduced levels of tech support, increased fees, and the need to migrate to a new system. Problems like these mentioned can contribute to a loss in productivity. For this reasoning, physicians must know how to handle and relocate their current data in case their current vendor makes unforeseen adjustments. The decreasing number of EHR vendors is not considered to consist of entirely all negative implications. Consolidation could yield benefits such as, increased interoperability among physician office systems, as there will be fewer systems with unique integration requirements. Black Book™ expects to see a lot more innovation as a result and that can be good for doctors and, more importantly, for patients.

Currently, as per The Business Research Company, the major vendors in the electronic medical records market are AdvancedMD Inc., Allscripts Healthcare, Athenahealth, Cerner Corp, CureMD Healthcare, eClinicalWorks, Epic Systems, GE Healthcare, Greenway Health, McKesson Corporation, NextGen Healthcare Inc., IBM, Modernizing Medicine Inc, Neusoft, and PCCW Solution. These electronic medical record vendors dominated the market in years past and are expected to continue that trend in the foreseeable future as they offer the most robust, comprehensive, and interoperable systems available on the market today. While there has been a decrease in the number of vendors in years past, the vendors that remain provide a reassuring sense of security with their portfolios.

The war between Russia and Ukraine has created myriad of issues pertaining to supply chain disruptions and inflation that has affected many markets throughout the world. Still, the electronic medical record market is expected to grow to nearly \$46 billion in 2027 with a CAGR of 5.9% (The Business Research Company, 2023)

The increasing developments of various health information technologies has been a major focus around the world. Recently, there has been an increasing collaboration among countries and their progress regarding electronic health technology. There has been a lack of focus on the approaches that each country has taken in order to successfully achieve EHR models that help alleviate medical costs and improve patient care through this technological innovation. Within this report, Black Book™ will focus on 16 countries, across six continents, and their methods of EHR development thus far. Black Book™ will also report on their successes and failures in their attempts to implement this technology. Because

health IT adoption is extremely important for healthcare systems around the world, the commitment and substantial investment in resources (and time) to develop EHR technologies is a major focal point. Electronic health records increase the likelihood of system-wide quality improvements, cost containment, and an overall improved access to care.

The global impact of big data analytics in the healthcare market is projected to have significant growth, especially in North America and Europe. This is due to the increase in the adoption of big data analytics and the rising need for business intelligence (in the healthcare industry) across these regions. Big data analytics in the healthcare market was valued at \$29.1 billion dollars in 2021 and is projected to grow at a CAGR of 21.5% from 2022 to 2030. The growth is contributed to the increase in regulatory compliance and the rising need for business intelligence to optimize health care administration. Big data analytics in the healthcare market in several European and Asia-Pacific countries, which include Finland, Sweden, China, Japan (and many others), possess a high-market potential due to a strong government support and an increase in the cloud adoption among end-users.

In November 2022, the European Commission announced, “Interoperable Europe,” which was the EC response for an integrated, interoperability policy across much of Europe (Guadagnoli, 2022). There has been a growing need for citizens of the EU to be able to access their healthcare documents across borders throughout Europe. The evolution of more up-to-date technologies that can support the capability to do so and has been a major focal point for the European Commission. This mentioned interoperability will allow administrators to cooperate and make public services function across territorial, sectoral and organizational boundaries.

The number of EHR vendors has decreased in recent years following several mergers and acquisitions. In the early 2010’s, there were over 1,000 vendors. In 2021, market research firm Business Intelligence estimates the number of EHR vendors is about half that of 2010 estimate (500). The decrease in EHR vendors can leave physicians with a host of problems, such as reduced levels of tech support, increased fees, and the need to migrate to a new system. Problems like these mentioned can contribute to a loss in productivity. For this reasoning, physicians must know how to handle and relocate their current data in case their current vendor makes unforeseen adjustments. The decreasing number of EHR vendors is not considered to consist of entirely all negative implications. Consolidation could yield benefits such as increased interoperability among physician office systems, as there will be fewer systems with unique integration requirements. Black Book™ expects to see a lot more innovation as a result and that can be good for doctors and, more importantly, for patients.



The exchange of health information through interoperable systems is an essential goal as providers transition from hard to digital copies of medical records. Paper records had some obvious disadvantages. They took up space, they were difficult to share with other doctors, hospitals, and insurance companies. Interoperable systems ensure

that electronic health information can be used and exchanged without any special effort from the sender or receiver using a common language. Without interoperable systems, the full potential benefits of adopting EHR cannot be achieved.

Over the next five years, industry experts predict big changes that will significantly impact managed care. As industries continue to blur, traditional healthcare companies will need to break down silos to drive value across the industry ecosystem. To compete with disruptors, healthcare companies will need to capitalize on data, maximize profitability, and innovate patient care all while managing the growing risk in the areas of patient privacy and data security. It's a daunting challenge, but preparation can help ensure success. Included below are some areas of disruption that could impact your medical organization.

The most substantial criticism includes the idea that EMRs absorb the medical and multidisciplinary team's time, thereby reducing their time at the patient's bedside. There are questions regarding the origin of EMRs, as some emerged from commercial interests in improving hospital billing and were adapted for clinical use, while others were developed based on clinical applications. Some EMRs interact with prescribers, warning of drug interactions and blocking incorrect administration routes, while others assist in inventory control or facilitate communication with clinical analysis laboratories and diagnostic imaging services. Others are less sophisticated and ultimately are not user-friendly; therefore, they place an extra workload on the prescriber.

Health care leaders need to maintain a learning environment that offers resources for health care practitioners who find themselves in redefined roles with the implementation of the new technologies. At this moment, health providers are finding themselves navigating and entering information into an unknown software database. A present issue that these stakeholders are witnessing is that more time is being spent on entering patients' information and searching drop-down menus as opposed to interacting with the patient.

Collaboration should be of key importance. It is imperative for stakeholders across the health care ecosystem to collaborate around an all-encompassing approach to funding and delivering sustainable health care.

Investments in technology, such as virtual health and telehealth, could expand services while also helping hospitals bend the cost curve. This will allow medical doctors to reach people who live in underprivileged neighborhoods and rural places without having to establish a physical locale in that area. Regardless of if the patient has monetary restraints, inconvenient weather conditions, or poor infrastructure they can remain in the comfort of their home while receiving medical instructions for themselves or family members.

The expansion of current expectations for telemedicine should be considered. The pandemic has highlighted the importance of this technology in recent years. This technology tool can be meaningfully imbedded into enhancing the patient and provider experience. State-of-the-art virtual care software platforms can be used to harness online patient interviews to transform the way patients can access their physician. Based upon condition and symptoms, patients are guided through a branching process of detailed questions. For example, a young female with insomnia may answer a chain of questions about the duration of symptoms, history, allergies, and the acknowledgement of any red flags. Following this structured framework of questioning (which mirrors that of which is performed during an in-person interview), a templated document is generated and forwarded to their physician for review. In the case of unfamiliar concerns, pictures can be uploaded as well. The physician can review documents and choose to treat or to refer for the appropriate level of evaluation. If treatment was/is provided, then a few clicks can generate sufficient documentation to pay the provider directly. Such platforms enhance the evaluation process and offer an efficient, alternative treatment for simple, acute conditions. As digital monitoring capabilities continue to improve and artificial intelligence progresses, these capabilities will only become more valuable. It is essential that telemedicine complements and expand daily healthcare delivery.

When dealing with personal information, medical professionals may consider mandatory business asset protection and/or a risk management solution. This level of security should be incorporated with devices that combine a mix of hardware and software (solutions) for specific medical or administrative functions, including electronic data storage devices and backups. As healthcare becomes increasingly interconnected, cybersecurity has become a primary concern of hospitals. Healthcare facilities have been the target of many high-profile attacks that have cost millions of dollars and have caused major disruptions in patient care. In response, many vendors highlighted their need for security software for ancillary devices, which are connected to the EMR, PACS and hospital information systems. The vendors, with

whom they partnered with, consider top-notch professional IT support systems, many of which include security software and online security training for their staff.

In regard to safety, some medical practitioners are considering the acceptance of online payments. According to data compiled in 2018, by MedData, 83% of physician practices with fewer than five practitioners reported that their top collection challenge were slow payments among their high-deductible patient plans. Physicians are taking advantage of some form of online payment service, either through an app or a patient portal. Because smartphone technology has evolved, patients can utilize this technology, which can also speed up the process for on time reimbursement. When providers offer more convenience to patients, then there is a higher engagement from the patient. By offering various, convenient ways to pay, such as PayPal or Apple Pay, the likelihood for payment may be increased because the patient is allowed options that are more aligned with the current landscape. As such, the recommendation is suggested to have a tight integration between payment services and practice management systems. An execution of such should be carefully considered as they may cause violations under certain patient protection acts, such as HIPAA in the United States.

Now that national policy and guidelines have been developed for EHR vendors and medical facilities, the initial stages of EHR implementation and optimization has shifted focus to single medical facilities and hospitals. In order to successfully optimize this complex technology and eventually address the difficult task of interoperability across various countries, individual systems need to be fully operational, and all medical professionals should have a solid understanding of how this technology works. While hospitals and health care providers have focused on fully optimizing this technology internally, government and state officials have begun to collaborate on how to make interoperability successful, thus considering this technology and how it may abide by all state privacy laws.

The use of Artificial Intelligence can improve the process for electronic health records. As AI becomes incredibly more sophisticated and advanced, the possibilities for the use within healthcare continues to evolve. Because there is an increased focus on homecare, preventative treatments and reducing patient recovery times, as well as a stressed importance regarding technologies, such as machine learning and Big Data, the use of AI assisted technology is being utilized more so than in years past. AI in electronic health records can help to improve data discovery, facilitate the use of Big Data and improve patient outcomes.





#### Citations:

The Business Research Company (2020, March 1). Electronic Medical Records Global Market Report 2023. Report Linker. Retrieved August 13, 2023, from [https://www.reportlinker.com/p06316473/Electronic-Medical-Records-Global-Market-Report.html?utm\\_source=GNW](https://www.reportlinker.com/p06316473/Electronic-Medical-Records-Global-Market-Report.html?utm_source=GNW)

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The image features a stylized, light gray map of North America centered on a white background. The map is overlaid with a complex geometric pattern of overlapping shapes in shades of gray, white, orange, and dark blue. The text "NORTH AMERICA" is prominently displayed in the center of the map area. The overall design is modern and abstract, with a focus on geometric forms and a limited color palette.

# **NORTH AMERICA**

## ○ CANADA

### EHR STATUS

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Over 90 percent of doctor's offices have adopted EHR's within their healthcare facilities; however, there are nearly 15 different electronic health records used throughout the country. One interesting factor regarding the number of different EHR's available is that the electronic health record vendors offer multiple versions of EHR records. This makes the ability for interoperability and seamless communication among healthcare providers challenging resulting in incomplete and/or missing information. Limiting the number of electronic health records available would help physician practices break barriers that prevent them from having the ability to operate efficiently.

An interoperable electronic health record is a secure consolidated record of an individual's health history and care, designed to facilitate authorized information sharing across the care continuum. Each Canadian province and territory have now implemented such a system. With that being said, the measuring of this adoption is essential to understanding the progress and optimization use. By doing so, Canada can fully rationalize the intended benefits. In response, the federal government created an independent organization called Canada Health Infoway, which is fully funded by the government and managed by the Deputy Ministers of Health. This organization is charged with the responsibility of creating and promoting the use of EHRs and electronic health information systems. This ensures the sharing of medical records and health knowledge among the federal, provincial, and territorial areas across the country.

About 250,000 health professionals in 2015 (half of Canada's anticipated potential physician, nurse, pharmacist, and administrative users), indicated that they electronically access data, such as those found in provincial/territorial lab or drug information systems. Trends suggest further growth as the maturity of use increases. The iEHR acts as a complement to point of service systems like electronic medical records (EMR) in physician offices or clinical information systems in hospitals. Regular measurement of adoption and maturity for these technologies has made progress easy to follow and manage. For example, in the 2014 National Physician Survey, 77 % of all family physicians reported they do use electronic records to enter and retrieve clinical notes.

There is strong interest in health information exchange through the iEHR in Canada, and continued growth in adoption is expected. Central to managing the evolution of digital health is the access to robust data about who is using the solutions, how they are used, as well as,

when and where. Stakeholders such as government, program leads, and health system administrators must critically assess progress and achievement of benefits, to inform future strategic and operational decisions.

In Canada, as EHRs are moving from the deployment stage towards broad clinical adoption, the focus will need to shift towards optimization of these systems to meet clinical and consumer needs. Comparable systems and initiatives internationally, such as HIE in the United States, have demonstrated the electronic health record as a foundation technology for improved utilization of services, improved chronic disease management and more patient-centered care and a powerful source of information to manage the health system. 76% of hospitals reported exchanging data with outside health professionals in 2014; up from 62% in 2013, and 41 % in 2008.<sup>1</sup>

By 2019, Meditech EMR systems were being used at 233 healthcare facilities, Epic systems at 134, Oracle Health systems at 102 and Altera systems at 25. From 2015 to 2019, Epic's market share in Canada grew from a single hospital to 134 hospitals that are live on or currently implementing its platform. Meanwhile, Meditech's Expanse platform was selected by 35 hospitals at the same time. But 31 of those were migrations from legacy Meditech systems, some as part of group decisions. Meditech's overall market share in the country has dropped, with eight organizations, accounting for 88 hospitals, choosing to leave the vendor — and most moving to Epic.

## MARKET DYNAMICS

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Income is a determinant of health, and over the past 20 years in Canada, as income inequality has increased, so has health care inequality. Unequal experience of health care is also affected by population density: while 19 percent of Canadians live in rural areas, only 8 percent of physicians practice in those areas. Furthermore, we have accepted unequal health care outcomes, particularly in areas with lower population density. A recent study found that the mortality rates following strokes were higher than those in the urban, academic hospitals and higher than the Canadian average.

The way people experience health care in Canada is inconsistent, especially in regard to the access to online appointments, test results and virtual consultations. Because of privacy concerns, the management of health care data is specific to the provider. As a result, the data is kept in disparate places, so frequently the data must be re-entered. As well, in the absence of portals and online access, citizens and families are managing their own health information, often turning to the Internet. Furthermore, the system lacks accountability,

because it does not consider consumers' experience of data access management as an important criterion and therefore does not evaluate it.

The main challenges facing the Canadian healthcare system are rising healthcare costs, increased incidents of chronic disease, and long waiting times for healthcare services. The government has put various measures in place to control costs, such as: negotiating lower prices for pharmaceuticals, mandatory global budgets for regional health authorities and hospitals, resource restrictions, and restrictions on investment.

Compared with other Organizations for Economic Cooperation and Development (OECD), countries that have universal health care systems, Canada ranks among the lowest for health system performance, although it spends more on health care delivery than many OECD countries. It ranks low on performance as wait times continue to increase, providers are not available, and constrained dental care/insurance. Overall, healthcare spending in Canada is 12.7% of GDP as of 2021, much higher than the OECD average of 9.7%. The increase in the average OECD was primarily due to the pandemic that ravaged the world in 2020 and 2021.

Considering the large amounts of capital invested in health care delivery, Canadians are eager to adopt digital health solutions that could dramatically improve the system. Such tools would validate two of the pillars of the Canada Health Act: accessibility and portability. By improving the accessibility and national portability of health care services, Canada can make its system more patient-centric. The country has a predominantly publicly financed and administered health care system. The Canada Health Act is Canada's federal health insurance legislation and defines the national principles that govern the Canadian health insurance system, namely, public administration, comprehensiveness, universality, portability and accessibility.

- Public administration means that provincial insurance programs must be publicly accountable for the funds they spend. Provincial governments determine the extent and amount of coverage of insured services.
- Accessibility means that Canadians must have reasonable access to insured services without charge or paying user fees.
- Comprehensiveness means that provincial health insurance programs must include all medically necessary services, "for the purpose of maintaining health, preventing disease, or diagnosing or treating an injury, illness or disability."
- Universality means that provincial health insurance programs must insure Canadians for all medically necessary hospital and physician care.

- Portability means that Canadians are covered by a provincial insurance plan during short absences from that province.<sup>3</sup>

To realize a consumer-driven health care system that truly enables equal access and portability for all Canadians, some pivots will be required. The federal, provincial and territorial governments would need to tackle the current fee structures to fairly compensate physicians for remote and virtual services. But first, the federal government should lead development of a national strategy for the adoption of health care innovations, and a policy framework for the adoption of digital health care solutions. Without such interventions at the federal level, the consumer experience will continue to change very slowly.

## CONSTRAINTS

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Several key factors will have to be addressed at national, provincial and territorial health tables to create an environment where the current model can incorporate digital health tools. There are structural biases in the system, such as fee structures for physicians that favor providers over patients. This can result in negative patient experiences like long waiting times, telephone tag with the provider, anxiety over unknown results, or process updates not well communicated.

An additional hindering factor is that physicians are not consistently compensated for signing patients onto on-line portals, for virtual visits, or for virtual-care provision. There is a tremendous opportunity for growth in digital health if only doctors were incentivized and compensated adequately for remote and virtual services performed with their patients.

Despite the millions of dollars that have been invested in the universal electronic health care records throughout the country the consistency of the shared information is fragmented. Healthcare providers continue to receive incomplete information regarding their patients and their medical records. This is the result that there is no agreed upon data sharing standard throughout Canada. Also, Canada is using a number of different EMR's throughout the provinces. Reducing the number of available EMR's can help support interoperability throughout the healthcare sector.

Residents are proud of their publicly funded system. With national cohesion and leadership, we can better ensure a digital future and improve adherence to the goals of portability and accessibility of health care. National policy makers have an obligation to ensure that the transition toward this end is consistent and fair for all.<sup>2</sup>

## OPPORTUNITIES

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While the journey toward a fully patient and family-centric approach to health care will be long, there are measures that governments could initiate to accelerate the process.

To begin, 90% of consumers are willing to share data from wearable health devices with their doctors and nurses or with other health care professionals. Compared to 2016, more are now willing to share wearables data with online communities or other app users (up from 38 percent in 2016, to 47 percent in 2018). And 38 percent of those people have accessed their electronic health records. In 2017, almost 9 out of 10 health care professionals agree that accessible, secure information-sharing between individuals and health care professionals would have a positive impact on patients' health outcomes. Governments must adjust the fees paid to physicians so that they are compensated adequately and fairly for the preparation and execution of visits with patients and family members that are conducted through virtual consultations, tele-visits, e-consults and online chats. While some provinces, such as British Columbia and Alberta, have implemented pilots or revised fee structures, there is no consistent strategy. In provinces where physician billing structures have been modified to allow for virtual consultations, interprovincial licensing and regulations might prohibit physicians from being able to employ these modifications across provincial borders.

On top of that, cloud solutions can enable communication infrastructure that is critical to advancing this agenda. The federal and provincial governments should collaboratively design a policy framework for the effective adoption of secure digital health solutions. It is time to enable new technologies to provide secure data oversight, such as cloud solutions. This could pave the way for shared policies and standards that will allow Canada to take full advantage of the significant data generated by their single-payer health care system. Innovations such as value-based care, population health management, and digital or mobile-user demand would require more storage infrastructure. Past concerns about privacy and security related to hosting data in cloud servers outside of Canada have largely been resolved by cloud providers building infrastructure within the United States to house the data.

If Canada can adopt a national standard throughout B.C., then there can be some consistency within the healthcare sector. By reducing the number of available EMR's the country can reduce the barriers to information sharing. Canada is faced with the daunting task that many other countries are grappling with at the same time. To implement a massive, sweeping change that would cost billions of dollars is unrealistic.

Observing how digital tools have impacted sectors ranging from financial services to education, it is likely that health care will not be immune to these disruptive technologies. Canadians are forging toward a new way of using digital tools and devices for personal health care purposes, leveraging mobile apps, websites and wearables to harness personal health data wherever it is available. They are already driving a consumer-centered approach to health care information management.<sup>2</sup>

## Citations

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## ○ JAMAICA

### EHR STATUS

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Jamaica does not have a highly sophisticated healthcare system; however, the county's government is making efforts to improve the overall quality of their healthcare system. The quality of their healthcare is ranked low, and the majority of the county's medical supplies, drugs and medical equipment are imported. Jamaica's healthcare system is a loosely regulated private sector that is accompanied by a state-sponsored system, which was derived from the British National Health Service Model. Jamaica has been free from British rule since the 1960's.

The public sector offers public benefits and affordable healthcare to most of its residents and the private health insurance model provides around 10% to the public.

Jamaica has established a Health System Strengthening Project with an investment of over \$100 million (USD) over a five-year period. This project will provide comprehensive health promotion, disease prevention and treatment to meet the specific needs of its residents.

In 2023, the Ministry of Health and Wellness signed a \$5 million-dollar contract for the implementation of an Electronic Health Records system in the public health sector (Angus, 2023).

### MARKET DYNAMICS

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Jamaica was founded in 1962 and is about the size of Florida and has an average life expectancy, reaching 74.4 years for men and 77.7 years for women in 2020. Out of the 100 countries that the world health organization tracks and monitors statistics, Jamaica ranks 66 out of 100. In 2020, the total health expenditure on healthcare was 6.61% of Jamaica's GDP (World Life Expectancy).

Jamaica has around 30 to 40 hospitals and clinics. Most of them fall under the public sector. These hospitals offer services to their citizens and residents, at no cost. There is a considerable difference in the quality of service each of them provides (Expat Financial).

Jamaica only has the capabilities to treat a few chronic health problems. In certain situations of crisis, evaluation is the only option that is available to its residents and citizens. This is disheartening considering that in Jamaica, 70% of all deaths are due to one of the four major NCDs (cancer, lung disease, diabetes, and heart disease).

## CONSTRAINTS

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Due to the lack of infrastructure within the country, many healthcare practitioners have found themselves experiencing overwork and extreme stress. These factors have contributed towards the performance of these practitioners as patient demand continues to increase.

In addition to the burnout from the existing practitioners, there is also a shortage of healthcare providers within the country. Jamaica's medical infrastructure does not match the demand for patients.

Another important factor to take into consideration is the availability of healthcare throughout the country. There are barriers to access that exist because of the number of residents that live in rural areas.

There are also a limited number of resources available to healthcare practitioners within the country. Because of the shortage of resources there is a shortage of critical supplies, such as medications. In the more extreme situations, patients have even had to purchase their own medical supplies.

## OPPORTUNITIES

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Jamaica has an extensive telecommunication system throughout most of the country; however, it is an aging infrastructure. Most of the telecommunications were monopolized until the beginning of the 21st century. Investments made to the telecommunication sector can help aid the country with their mission to achieve a more universal electronic health system. The infrastructure can also help support and aid those that live in more rural areas and have a limited availability regarding access to healthcare.

The Ministry of health has plans to upgrade several of the facilities on the island. These upgrades will help benefit over 400, 000 residents. These upgrades will provide a number of opportunities to the country's most vulnerable, babies, adolescents and young mothers.

## CITATIONS

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# CANADA

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
1,220 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	17%
Clinic/Practice Name	8%
Public Clinic	11%
Health System Clinic	11%
Academic Hospital and Medical Centers over 250 Beds	16%
Community Hospitals	21%
Small Hospitals under 100 Beds	16%
Ambulatory Surgery Centers/Other	1%
TOTAL	100%

Source: Black Book™ 2024

## 2024 RESULTS: CANADA

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

CANADA

### ALTERA DIGITAL SOLUTIONS

FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR CANADA

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**ALTERA DIGITAL HEALTH SUNRISE ACUTE CARE (FORMERLY ALLSCRIPTS)**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**ALTERA DIGITAL HEALTH SUNRISE ACUTE CARE (FORMERLY ALLSCRIPTS)**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**MEDITECH ENTERPRISE MEDICAL RECORD 6.x AND EXPANSE**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**ALTERA DIGITAL HEALTH SUNRISE ACUTE CARE (FORMERLY ALLSCRIPTS)**

## STOP LIGHT SCORING KEY

**FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS**

PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT
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Source: Black Book Research

**FIGURE 2: KEY TO RAW SCORES**

0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking Dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY	
<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research



## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

**Black Book raw score scales**

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

*Source: Black Book Research*

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY							
OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S& CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of questions or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **EHR Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

CANADA

Summary of criteria outcomes

SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
10	ALTERA	1
3	EPIC SYSTEMS	3
2	ORACLE HEALTH	2
1	MEDITECH	6
1	INTERSYSTEMS	5

Source: Black Book Research 2023

## OVERALL KPI LEADERS: EHR

### CANADA

Top score per individual criteria

TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>ALTERA</b>	1
2	Innovation & Optimization	<b>EPIC SYSTEMS</b>	3
3	Training	<b>MEDITECH</b>	6
4	Client relationships and cultural fit	<b>ALTERA</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>ALTERA</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>ORACLE HEALTH</b>	2
7	Deployment and implementation	<b>ALTERA</b>	1
8	Customization	<b>ALTERA</b>	1
9	Integration and interfaces	<b>INTERSYSTEMS</b>	5
10	Scalability, client adaptability, flexible pricing	<b>ALTERA</b>	1
11	Compensation and employee performance	<b>ALTERA</b>	1
12	Reliability	<b>ALTERA</b>	1
13	Brand image and marketing communications	<b>ORACLE HEALTH</b>	2
14	Marginal value adds and modules	<b>ALTERA</b>	1
15	Financial & Managerial Viability	<b>EPIC SYSTEMS</b>	3
16	Data security and backup services	<b>EPIC SYSTEMS</b>	3
17	Support and customer care	<b>ALTERA</b>	1
18	Best of breed technology and process improvement	<b>EPIC SYSTEMS</b>	3

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
	A = 90% Agree
	B = 75% Agree
	C = 50% Agree
	D = 25% or Less Agree

RANK	EHR VENDOR CANADA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	ALTERA SUNRISE	A	A	A
2	ORACLE HEALTH (CERNER) MILLENNIUM POWERCHART	B	B	B
3	EPIC CARE	A	B	D
4	CPSI	D	B	C
5	INTERSYSTEMS	C	C	C
6	MEDITECH EXPANSE & 6.x	D	C	A
7	MEDITECH LEGACY MAGIC	D	D	D

## Individual EHR Vendor Key Performance

CANADA

### Strategic Alignment of Vendor Offerings to Organizational Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.70	9.01	9.86	9.75	9.58
2	2	ORACLE HEALTH	9.00	8.66	8.40	8.06	8.55
4	3	MEDITECH	7.08	7.31	8.55	8.19	7.78
5	4	INTERSYSTEMS	8.15	8.04	7.85	7.02	7.77
3	5	EPIC	8.91	6.06	8.00	7.17	7.51
6	6	CPSI	6.19	6.95	9.27	5.84	7.11

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. The vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	Mean
3	1	EPIC SYSTEMS	9.01	9.14	9.67	8.60	9.11
1	2	ALTERA	8.74	8.99	8.74	9.85	9.08
4	3	ORACLE HEALTH	7.43	7.29	7.72	7.84	7.57
5	4	INTERSYSTEMS	6.89	7.98	6.77	7.90	7.39
2	5	CPSI	7.14	6.02	6.13	7.95	6.81
6	6	MEDITECH	5.25	4.82	6.01	5.07	5.29

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
6	1	MEDITECH	9.30	8.93	9.51	8.08	9.29
4	2	CPSI	9.39	8.99	9.54	9.16	9.27
1	2	ALTERA	9.18	9.10	9.16	9.60	9.26
5	4	INTERSYSTEMS	8.54	8.92	9.08	7.36	8.48
2	5	ORACLE HEALTH	7.76	7.39	7.73	7.91	7.70
3	6	EPIC SYSTEMS	7.61	5.78	7.21	7.63	7.06

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer’s reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyers nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship’s success or client’s satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.29	9.54	9.20	9.40	9.36
3	2	EPIC SYSTEMS	8.99	8.94	9.91	9.03	9.22
4	3	CPSI	9.00	8.80	9.25	9.34	9.10
5	4	INTERSYSTEMS	7.56	8.23	7.77	7.90	7.87
6	5	MEDITECH	6.81	6.39	8.04	5.89	6.78
1	6	ORACLE HEALTH	5.37	6.01	5.63	6.47	5.88

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.54	9.59	9.65	9.80	9.65
4	2	CPSI	8.10	8.37	8.05	8.05	8.17
5	3	INTERSYSTEMS	8.00	8.15	7.44	7.10	7.67
3	4	EPIC SYSTEMS	8.14	6.22	7.79	8.31	7.62
2	5	ORACLE HEALTH	7.20	7.38	6.43	6.29	6.83
6	6	MEDITECH	6.23	6.04	6.15	5.49	5.98

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. The vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. The breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.07	9.60	9.08	9.01	9.19
3	2	EPIC SYSTEMS	9.60	8.77	9.09	9.20	9.17
1	3	ALTERA	8.79	9.58	9.25	8.75	9.09
4	4	CPSI	5.74	6.50	7.69	7.50	6.86
5	5	INTERSYSTEMS	6.04	8.49	5.92	6.77	6.81
6	6	MEDITECH	5.50	5.82	6.29	5.09	5.68

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING				
6	1	ALTERA	8.80	7.94	7.99	8.65	8.35
4	2	CPSI	8.35	7.88	8.20	8.48	8.23
1	3	MEDITECH	8.47	8.00	8.11	8.22	8.20
5	4	INTERSYSTEMS	7.39	9.14	7.06	6.72	7.58
2	5	ORACLE HEALTH	7.21	7.06	7.04	7.26	7.24
3	6	EPIC SYSTEMS	5.97	5.26	5.76	5.84	5.71

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.16	9.18	9.09	9.49	9.23
4	2	CPSI	7.38	8.25	7.20	7.99	7.71
2	3	ORACLE HEALTH	5.95	8.56	6.09	7.42	7.24
5	4	INTERSYSTEMS	7.39	8.10	6.30	5.89	6.92
3	5	EPIC SYSTEMS	7.03	6.29	7.05	6.00	6.59
6	6	MEDITECH	5.34	5.07	4.76	4.99	5.04

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	INTERSYSTEMS	9.48	9.87	9.84	9.29	9.62
3	2	ALTERA	9.40	8.05	9.48	9.20	9.03
2	3	ORACLE HEALTH	9.13	9.19	9.29	8.37	9.00
1	4	EPIC SYSTEMS	8.91	9.25	8.70	9.03	8.97
4	5	CPSI	7.76	8.14	8.02	7.38	7.83
6	6	MEDITECH	6.06	6.45	6.27	6.06	6.21

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets the needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.62	9.75	9.43	9.70	9.63
6	2	MEDITECH	9.77	9.82	9.64	8.91	9.54
4	3	CPSI	8.00	7.29	8.24	8.40	7.98
5	4	INTERSYSTEMS	6.19	9.82	6.98	6.58	7.39
2	5	ORACLE HEALTH	7.84	7.60	6.80	6.98	7.31
3	6	EPIC SYSTEMS	4.10	4.92	5.26	4.38	4.67

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Vendor staff expertise, compensation, and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. The vendor attracts and retains high performing staff. The vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. The company is moving towards leveraged pay at all levels. The vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.28	9.07	9.72	9.26	9.33
3	2	EPIC SYSTEMS	8.77	8.96	8.85	8.74	8.83
4	3	CPSI	8.26	8.20	8.43	7.81	8.18
5	4	INTERSYSTEMS	8.65	8.11	7.06	7.19	7.75
2	5	ORACLE HEALTH	6.49	7.04	6.17	6.06	6.44
6	6	MEDITECH	5.01	5.41	5.81	5.50	5.43

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.71	9.00	9.65	9.48	9.46
3	2	EPIC SYSTEMS	9.49	8.26	9.88	9.61	9.31
2	3	ORACLE HEALTH	7.17	9.00	8.24	9.07	8.37
5	4	INTERSYSTEMS	8.65	9.61	8.01	7.15	8.36
4	5	CPSI	7.53	7.09	7.45	7.29	7.34
6	6	MEDITECH	6.22	6.01	5.95	5.33	5.88

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. The image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. The elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.19	9.06	8.19	8.88	8.83
3	2	EPIC SYSTEMS	9.29	8.04	9.88	7.98	8.80
1	3	ALTERA	8.91	9.07	8.00	9.15	8.78
5	4	INTERSYSTEMS	6.38	9.21	5.99	7.17	7.19
4	5	CPSI	6.09	5.12	6.27	4.87	5.59
6	6	MEDITECH	4.28	5.06	5.91	4.25	4.88

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

CANADA

### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.05	9.71	9.24	9.30	9.33
3	2	EPIC SYSTEMS	9.09	8.14	8.28	8.15	8.42
2	3	ORACLE HEALTH	7.49	8.64	8.73	8.67	8.38
4	4	CPSI	7.32	7.09	7.17	7.39	8.24
6	5	MEDITECH	7.06	7.27	7.18	5.93	6.86
5	6	INTERSYSTEMS	7.90	9.21	5.67	5.56	7.09

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	EPIC SYSTEMS	9.78	9.61	9.94	9.83	9.79
3	2	ORACLE HEALTH	9.90	9.06	9.91	9.67	9.64
6	3	MEDITECH	8.08	8.18	9.19	9.06	8.63
5	4	INTERSYSTEMS	9.09	6.89	8.90	9.01	8.47
1	5	ALTERA	8.30	8.45	8.25	8.78	8.45
4	6	CPSI	6.20	8.13	7.89	7.57	7.45

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	EPIC SYSTEMS	8.95	9.24	9.67	9.52	9.35
1	2	ALTERA	9.50	9.59	9.18	8.95	9.31
5	3	INTERSYSTEMS	8.92	9.22	8.91	8.38	8.86
4	4	CPSI	8.18	8.35	8.17	8.54	8.31
2	5	ORACLE HEALTH	7.03	7.97	7.64	7.90	7.64
6	6	MEDITECH	7.48	7.35	8.39	7.13	7.59

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.70	9.80	9.66	9.86	9.76
4	2	CPSI	8.46	9.11	8.75	9.06	8.85
3	3	EPIC SYSTEMS	9.04	8.01	9.14	8.71	8.73
6	4	INTERSYSTEMS	8.79	9.81	8.06	8.10	8.69
6	5	MEDITECH	7.51	5.66	8.21	5.14	6.63
2	6	ORACLE HEALTH	6.91	6.54	6.04	6.12	6.40

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CANADA

#### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	EPIC SYSTEMS	9.61	8.43	9.70	9.71	9.36
1	2	ALTERA	9.57	9.55	8.90	9.38	9.35
4	3	CPSI	8.04	7.19	7.11	6.80	7.19
2	4	ORACLE HEALTH	8.20	8.30	6.15	6.03	7.17
5	5	INTERSYSTEMS	7.70	9.50	6.14	5.28	7.16
6	6	MEDITECH	6.09	5.17	5.84	4.80	5.48

Source: Black Book™ 2024



# **SOUTH AMERICA**

## LATIN AMERICA



Are Electronic health record systems more likely to be implemented today in Latin America than in previous years? Electronic health records (EHR) today have become an integral part of the healthcare delivery system. Electronic health records have been implemented by many healthcare organizations during the worldwide pandemic (COVID19). The goal of implementing electronic health records is to gather and report data during the entire patient experience. EHR systems are available by several different vendors and allows hospitals, physician offices, and clinicians to receive assistance with decision support, results management, and health information.

This research report focuses on electronic health record systems within Latin American countries. This research also identifies electronic health record vendors of Spanish language and telehealth products available in the markets. The report focuses on the trends and opportunities available to all healthcare organizations during this ongoing pandemic. Further detail is also provided regarding the adoption processes of EHR in Latin America.

EHR vendors are implementing ways to improve their technology due to the struggles that arose in healthcare due to COVID19. Vendors are providing artificial intelligence products such as agnel robots, which assist with diagnosing patients. Vendors are also employing natural language processing and voice assistants which will make connecting with patients much easier. Telemedicine has also become increasingly important during the worldwide pandemic. Telemedicine has helped Latin American healthcare organizations continue patient care through virtual office visits.

Healthcare technology has become a top priority in many Latin American countries such as Mexico. Continuous technological developments are important to help solve existing problems and to improve overall healthcare services. Many vendors are now employing partnerships with companies such as Microsoft due to the investments in cyber security, which focus on advancing all healthcare segments.

## ○ MEXICO

### EHR STATUS

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EHR is a tool with the potential to improve the quality, safety, and efficiency of health services. It can also provide data for assessing the health status of the population and the performance of the health system itself. The collaborative effort of physicians, hospital administrators, IT specialists, and state officials was fundamental in the design and development process of EHRs utilized in the country.

In Mexico, different public and private healthcare institutions have adopted EHRs, including Mexico's Social Security Institute, the Institute for Social Security and Services for Government Employees, and the health services of several states and many private hospitals. As part of the national strategy for monitoring and improving the quality, functionality, and interoperability of EHRs in Mexico, in 2010 the General Directorate of Health Information published the Official Mexican Standard. However, the way in which EHRs have been introduced and their specific functionality have varied between institutions and states, mainly because they were developed and implemented before publication of the official standard.

The state of Colima demonstrated leadership and foresight with the development and implementation of an EHR beginning in 2005, called SAECCOL. Other states, such as Coahuila, Aguascalientes, and Yucatán, have expressed interest in adopting SAECCOL.<sup>1</sup>

There was a common view that the EHR is a valuable tool, and most agreed it was necessary to use it more effectively to improve the quality of healthcare so that it benefits patients. There were significant differences among the respondents regarding its functionality and usability. While young doctors found no difficulty in adapting their workflow in the consultation room to work with the EHR, older doctors complained that it was difficult to use. Doctors in health centers and hospitals where SAECCOL has recently been deployed also complained, but they also indicated interest in receiving more training to master its use. The one issue physicians expressed was frustration with the need to classify their diagnoses and that it was not part of their training as physicians. They also agreed that Colima's IT department has made important efforts to address those difficulties, but that the issue is still not resolved.<sup>1</sup>

Overall, our results suggest that designing and implementing EHRs is a gradual and slow process which requires attention to be given to technical, organizational, and behavioral factors.

## MARKET DYNAMICS

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Mexico has a growing urban middle class and is increasingly burdened by the highest rates of diabetes globally. Mexico is the second-most populated country in Latin America behind Brazil with a population of over 125 million and which is primarily urban (79% of the population lives in urban areas). Mexico's rapid urbanization, coupled with an increased population dispersion of rural communities, compound challenges related to healthcare access for smaller isolated communities. Mexico also has a large indigenous population (approximately 10% of the total population), which is concentrated within the more rural-poor areas in the central and southern regions of the country. In just one decade, from 2000 to 2010, Mexico's middle class grew by 17%, representing one of the fastest growing middle classes in Latin America. Poverty; however, continues to persist across the country, largely in rural areas.

Mexico has executed major health insurance reforms in the last ten years that have expanded coverage to the majority of the population. Mexicans with formal employment in the private sector are eligible for the Instituto Mexicano del Seguro Social (IMSS) healthcare program, which is funded by employees, and the federal government. Public sector employees have access to the Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (ISSSTE) healthcare program. Approximately 40% of the Mexican population receives coverage from either the IMSS or the ISSSTE. Everyone not covered by other insurance schemes is eligible for Seguro Popular (Popular Insurance), a publicly subsidized health insurance program. Seguro Popular was created as part of the 2003 reform to legislate access to healthcare for lower-income families previously excluded from traditional social security schemes. By 2013, Seguro Popular enrollment hit 55.6 million. Seguro Popular provides coverage for a limited set of services, and individuals requiring specialty medications or consultations must pay out-of-pocket or go without.<sup>2</sup>

The demand for care exceeds supply at all levels, from primary to specialty care, with exacerbated gaps in rural settings. In 2011, Mexico had a national average of 2.1 physicians per 1,000 people, below other Latin American countries such as Uruguay and Argentina. Rural areas are even worse off. Mexico struggles with an underutilized general practitioner population, an issue that was reiterated many times. Doctors often take jobs at pharmacy chains paying well below what would be expected for a newly practicing physician. There is a national opportunity to properly compensate and incentivize this workforce for an increased care provision.

Government spending on healthcare in Mexico is relatively low when compared to other countries in Latin America and, despite recent insurance reforms, out-of-pocket spending in Mexico is still the fourth highest among the 17 Latin American countries classified as upper-middle-income by the World Bank. In 2020, Mexico spent 6.2% of its GDP on health. Despite reforms and increased public investment in health, Mexico's per capita spending still remains below average.<sup>3</sup>

Public sector institutions are generally over-burdened and under-resourced. Users of public services also indicated an 18.2% cancellation rate of surgeries in 2004, mainly due to a lack of medical staff as well as surgery rooms. Issues like those mentioned above along with long wait times (both to schedule an appointment, as well as during the visit), and coverage gaps for specialty care drive users to seek care in the private sector, resulting in high out-of-pocket expenditures.

The stigma attached to public healthcare for low-income patients in Mexico, for example, can prevent private patients from going to the same clinic that also serves Seguro Popular patients, even if the quality and patient experience are highly rated. The private sector has its share of flaws too. Reimbursement structures can incentivize providers to over-treat and overprescribe, resulting in care that may not be aligned with the patient's interests. An analysis of the 2012 National Health and Nutrition Survey indicated a higher number of prescriptions being made in cases where the doctor was located adjacent to the pharmacy versus off-site.

Coordination is often missing in the public sector along with quality issues that arise around chronic disease management due to the absence of a comprehensive government strategy for addressing complex, chronic conditions. PreVita is working to improve management of chronic diseases such as cardiac disease, hypertension, obesity, and diabetes, by using technology to facilitate remote monitoring of chronic disease patients through telehealth. They provide physical care through affordable retail clinics located within Walmart stores and mobile medical units. PreVita created a population health management platform called E-healthtracker® that remotely monitors chronic disease patients and provides remote advice and guidance from health coaches. PreVita currently operates 86 retail clinics and provides more than 30,000 general consultations per month. PreVita is expanding its business, providing services to the government and other public institutions.

Black Book™ identified three primary themes among innovative models reaching the low-income population in Mexico: chronic disease, healthcare financing, and technology-enabled services.

## CONSTRAINTS

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Issues around quality healthcare regulation and little overlap among providers exist between public and private sector networks. This is worsened by the context of government health entities operating in silos, with multiple decision-makers for different parts of the care continuum, motivated by different incentives.

Black Book's™ research in Mexico found that the majority of healthcare innovations are from the private sector. These innovators face a lack of growth capital: most financing options are sector extensive and lack health-specific expertise. For most investors, however, health is a relatively recent area of focus, and most do not have deep expertise to effectively evaluate healthcare entrepreneurs, creating an uncertainty about how to enter the market. Many innovators cited a lack of grant funding and flexible capital as a primary challenge to growth. In particular, health is a sector of increasing interest for many investors in the Mexican market because of its potentially high financial returns and clear social value.

Other challenges in the ecosystem include public sector providers who are also poorly incentivized to implement innovations for efficiency gains, as they are paid based on how long they have worked for the public healthcare system, not how well or efficiently they deliver services.<sup>4</sup>

## OPPORTUNITIES

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Supportive ecosystem factors encompass a number of healthcare innovators in Mexico that are using technology to increase their reach to patients in a more efficient manner via telemedicine and enhancing access to provider information. An example is MedcallHome, a telemedicine model connecting patients throughout Mexico by phone with doctors in a Mexico City call center. Using standardized protocols, these doctors are able to resolve more than 60% of issues over the phone and avert unnecessary clinic and emergency department visits. MedcallHome is a subscription model, and users also receive access to a national network of clinics, labs, and hospitals at substantial discounts. The MedcallHome model provides a convenient, affordable option to access high-quality healthcare without the burden of scheduling, transportation, or wait times.

Innovations that span the value chain, addressing multiple health challenges in one solution, show promise but also face challenges in scaling up. Many of the innovators we observed were addressing more than one pain point in the health system, designing offerings that bundled financing, care, and technology. By structuring solutions in this way, innovators such as Salud Cercana simultaneously improve the functioning of multiple aspects of the healthcare delivery system.

Regional innovation hubs, such as in the state of Jalisco, show promise for the private sector to spur innovation, supported by government interest in potential public sector gains. Guadalajara, Jalisco's capital city, is Mexico's technology capital and a hot bed for certain types of healthcare innovation, including medical device and technology innovations. Although the target market for most of these companies is outside of Mexico, there is potential for Mexico to use this largely untapped homegrown capability.

There is a strong and growing supportive ecosystem for innovators in Mexico. Organizations like New Ventures, Angel Ventures, and Startup Mexico provide valuable support and networking opportunities for entrepreneurs and serve as pipeline partners for investors interested in funding innovations. These supportive ecosystem players, including accelerators, start-up funds, and other capacity building organizations, work across sectors in healthcare or health-related areas, driving an increase in focus on healthcare among supportive organizations. 2'

Mexico is growing at an unprecedented pace. As in any country, widespread population growth leads to a growing need to modernize healthcare in order to improve access and quality of care. With a current population of over 120 million people, the Mexican Government and the healthcare industry are seeking new technological solutions to traditional healthcare challenges. The digitization of medical records and implementation of new hospital information systems are some of the core strategies Mexico is using to achieve improvements on a national scale.

Over the past several decades, the Mexican government has put forth an ambitious initiative to steadily improve the overall quality of healthcare by analyzing data from national health records. This study revealed a large number of its citizens lack health insurance which in turn affects access to consistent and, in many cases, preventative healthcare. Despite financial issues and infrastructure limitations, Mexico has continued to move forward with public health reforms, gradually raising public health expenditures by nearly 50 percent.

Following these large-scale economic reforms, Mexico has since passed several acts to push progressive healthcare initiatives including providing Popular Health Insurance (Seguro Popular) for over half of the population. Most recently, the country has implemented a prevention-focused healthcare model in hospitals and in society as a whole by promoting

social participation and the development of healthier environments. A partnership between public and private businesses has developed to assist in greater health advocacy as well as in the construction of several new hospitals, bringing the total to over 6,000 across the country.

Today, as modern health challenges like obesity and diabetes strain the nation's healthcare system. Mexico continues to strengthen its resolve to improve the health and wellbeing of all of its citizens. A major step forward is the digitization of the healthcare system and implementation of electronic health record systems which has been shown to improve the quality of patient care and to provide a broad range of data which allows for tracking of health-related trends.

## Citations

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# MEXICO

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
971 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	40%
Clinic/Practice Name	10%
Public Clinic	3%
Health System Clinic	2%
Academic Hospital and Medical Centers over 250 Beds	27%
Community Hospitals	10%
Small Hospitals under 100 Beds	8%
Ambulatory Surgery Centers	0%
TOTAL	100%

Source: Black Book™ 2024



# 2024 RESULTS

## ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

MEXICO

**HARMONI MD MEDWAVE**

### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR MEXICO

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**HARMONI MD MEDWAVE**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**HARMONI MD MEDWAVE**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**HARMONI MD MEDWAVE**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**HARMONI MD MEDWAVE**

## STOP LIGHT SCORING KEY

**FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS**

PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT
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Source: Black Book Research

**FIGURE 2: KEY TO RAW SCORES**

0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY	
<b>Green</b> 8.71 +	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> 5.80 to 7.32	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> Less than 5.79	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

# OVERALL KPI LEADERS

## MEXICO

Summary of criteria outcomes

TABLE 1: SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
10	HARMONI MD	1
3	IBM	6
2	DEDALUS DXC TECHNOLOGY	3
1	MV SOUL, EVERIS NTT DATA	2
1	INTERSYSTEMS	4
1	PHILIPS	7

Source: Black Book Research \*

## OVERALL KPI LEADERS: EHR

### MEXICO

Top score per individual criteria

TABLE 3: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>HARMONI MD MEDWAVE</b>	1
2	Innovation & Optimization	<b>HARMONI MD MEDWAVE</b>	1
3	Training	<b>HARMONI MD MEDWAVE</b>	1
4	Client relationships and cultural fit	<b>HARMONI MD MEDWAVE</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>HARMONI MD MEDWAVE</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>IBM</b>	6
7	Deployment and outsourcing implementation	<b>DEDALUS DXC</b>	3
8	Customization	<b>HARMONI MD MEDWAVE</b>	1
9	Integration and interfaces	<b>INTERSYSTEMS</b>	4
10	Scalability, client adaptability, flexible pricing	<b>HARMONI MD MEDWAVE</b>	1
11	Compensation and employee performance	<b>DEDALUS DXC</b>	3
12	Reliability	<b>HARMONI MD MEDWAVE</b>	1
13	Brand image and marketing communications	<b>MV SOUL, NTT DATA</b>	2
14	Marginal value adds and modules	<b>PHILIPS</b>	7
15	Financial & Managerial Viability	<b>IBM</b>	6
16	Data security and backup services	<b>IBM</b>	6
17	Support and customer care	<b>HARMONI MD MEDWAVE</b>	1
18	Best of breed technology and process improvement	<b>HARMONI MD MEDWAVE</b>	1



INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR MEXICO	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	HARMONI MD MEDWAVE	A	A	A
2	MV SOUL, NTT DATA	B	A	C
3	DEDALUS DXC TECHNOLOGY	A	A	C
4	INTERSYSTEMS TRAKCARE	C	B	C
5	EVERIS	A	B	C
6	IBM	A	D	D
7	PHILIPS	C	D	D
8	ALEPHOO	B	D	C
9	EVA HEALTH	D	B	C
10	ORACLE HEALTH	D	D	D

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Strategic Alignment of Vendor Offerings to Organizational Goals & Client’s Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.89	9.98	9.80	9.91	9.79
9	2	EVA HEALTH	9.47	9.54	9.18	9.20	9.32
5	3	MV SOUL, NTT DATA	9.09	8.01	8.92	9.40	8.99
2	4	EVERIS	8.33	9.32	7.55	9.71	8.68
3	5	DEDALUS DXC	8.02	8.48	8.31	9.12	8.42
8	6	ALEPHOO	8.15	9.53	7.00	8.23	8.38
7	7	PHILIPS	8.20	8.78	8.40	8.21	8.28
6	8	IBM	7.25	8.07	8.24	8.85	8.10
4	9	INTERSYSTEMS	9.59	8.05	7.72	6.16	7.98
10	10	ORACLE HEALTH	6.73	7.62	7.88	6.51	7.38

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MEXICO

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.94	9.51	9.65	9.44	9.64
3	2	DEDALUS DXC	9.52	9.14	9.67	9.11	9.36
2	3	MV SOUL, NTT DATA	9.66	9.47	9.10	8.92	9.29
5	4	EVERIS	9.15	9.28	9.03	9.03	9.12
6	5	IBM	8.84	8.76	8.63	9.79	9.01
5	6	INTERSYSTEMS	8.89	9.37	8.74	8.73	8.93
7	7	PHILIPS	8.72	9.15	8.09	8.77	8.69
10	8	ORACLE HEALTH	8.02	9.17	8.31	8.67	8.54
9	9	EVA HEALTH	9.07	9.10	8.16	8.16	8.62
8	10	ALEPHOO	9.30	8.75	7.92	7.63	8.40

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.11	9.49	9.79	9.33	9.43
4	2	EVERIS	9.42	9.66	8.99	8.82	9.35
3	3	DEDALUS DXC	8.88	9.18	8.13	9.14	8.83
7	4	PHILIPS	9.26	8.23	8.40	9.33	8.81
2	5	MV SOUL, NTT DATA	8.80	9.32	7.86	9.07	8.76
5	6	INTERSYSTEMS	9.01	8.16	7.69	8.37	8.31
6	7	IBM	8.33	8.79	9.05	7.03	8.30
8	8	ALEPHOO	8.54	8.71	8.02	7.86	8.28
9	9	EVA HEALTH	8.96	8.36	8.16	7.51	8.25
10	10	ORACLE HEALTH	8.60	8.07	7.50	7.29	7.87

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.40	9.71	9.24	9.12	9.37
8	2	ALEPHOO	9.41	9.60	8.96	9.39	9.34
9	3	EVA HEALTH	9.06	8.87	9.72	8.18	8.96
5	4	EVERIS	9.28	8.97	7.96	8.90	8.75
10	5	ORACLE HEALTH	8.39	8.64	7.83	8.34	8.30
6	6	IBM	8.94	8.03	7.68	8.51	8.29
7	7	PHILIPS	8.62	8.49	7.70	8.34	8.29
2	8	MV SOUL, NTT DATA	8.44	7.67	8.64	8.35	8.28
3	9	DEDALUS DXC	8.48	8.16	7.78	8.26	8.17
4	10	INTERSYSTEMS	7.92	9.08	7.39	8.19	8.15

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.62	9.40	9.44	9.73	9.55
2	2	MV SOUL, NTT DATA	8.97	9.24	9.24	9.30	9.19
3	3	DEDALUS DXC	9.62	9.70	8.65	8.37	9.09
7	4	PHILIPS	8.94	9.43	8.72	8.85	8.99
6	5	IBM	8.82	8.87	8.08	8.97	8.69
10	6	ORACLE HEALTH	8.83	8.02	7.83	9.72	8.60
4	7	INTERSYSTEMS	9.41	9.07	7.81	7.67	8.49
8	8	ALEPHOO	8.12	8.84	8.31	8.25	8.38
9	9	EVA HEALTH	7.75	8.81	8.01	8.39	8.24
5	10	EVERIS	7.99	8.63	7.93	7.12	7.92

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

**Breadth of offerings, varied client settings, delivery excellence across all user types**

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
6	1	IBM	9.66	9.81	9.13	9.91	9.63
1	2	HARMONI MD	8.79	9.73	9.94	9.70	9.54
3	3	DEDALUS DXC	9.19	9.49	9.00	9.24	9.23
5	4	EVERIS	9.52	9.14	9.12	9.06	9.21
7	5	PHILIPS	8.93	9.48	9.13	9.01	9.14
2	6	MV SOUL, NTT DATA	9.12	9.17	8.46	9.16	8.98
9	7	EVA HEALTH	9.17	8.03	7.09	9.22	8.44
8	8	ALEPHOO	7.36	8.58	7.73	8.98	8.19
10	9	ORACLE HEALTH	7.32	8.63	7.72	6.90	7.64
4	10	INTERSYSTEMS	8.08	7.95	6.55	7.84	7.61

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	DEDALUS DXC	9.75	9.09	9.44	9.10	9.35
2	2	MV SOUL, NTT DATA	9.45	9.31	8.94	9.60	9.33
1	3	HARMONI MD	9.30	8.89	8.87	9.30	9.09
8	4	ALEPHOO	9.60	8.85	8.63	9.06	9.04
9	5	EVA HEALTH	8.57	9.37	8.28	9.23	8.86
6	6	IBM	9.09	9.02	8.21	9.09	8.85
7	7	PHILIPS	9.24	8.87	6.89	9.71	8.68
4	8	INTERSYSTEMS	8.62	8.63	8.24	9.23	8.68
10	9	ORACLE HEALTH	9.26	8.99	7.66	8.00	8.48
5	10	EVERIS	8.14	8.91	7.94	8.05	8.26

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.60	9.60	9.42	9.69	9.60
3	2	DEDALUS DXC	9.43	9.19	8.89	9.07	9.15
2	3	MV SOUL, NTT DATA	9.30	9.64	9.67	7.99	9.15
4	4	INTERSYSTEMS	9.02	9.22	8.55	8.16	8.74
5	5	EVERIS	8.91	8.62	8.42	8.81	8.69
7	6	PHILIPS	9.03	8.49	7.45	9.69	8.67
6	7	IBM	9.28	9.19	7.78	7.81	8.52
10	8	ORACLE HEALTH	8.67	9.03	7.36	8.72	8.45
9	9	EVA HEALTH	8.78	8.52	7.86	7.88	8.26
8	10	ALEPHOO	8.60	8.56	8.07	7.72	8.24

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MEXICO

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	INTERSYSTEMS	9.71	9.64	9.43	9.66	9.61
5	2	EVERIS	9.21	9.16	8.79	9.19	9.09
3	3	DEDALUS DXC	8.38	8.70	8.33	9.17	8.65
1	4	HARMONI MD	9.05	8.53	7.81	8.80	8.60
2	5	MV SOUL, NTT DATA	8.73	9.28	8.04	8.32	8.59
6	6	IBM	8.70	8.66	8.19	8.48	8.51
7	7	PHILIPS	8.36	7.26	9.54	8.58	8.44
8	8	ALEPHOO	8.31	8.87	7.33	7.94	8.11
9	9	EVA HEALTH	8.33	8.32	7.16	7.03	7.71
10	10	ORACLE HEALTH	7.68	7.62	6.64	6.41	7.09

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

**Scalability, client adaptability, flexible pricing**

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.09	9.72	9.65	9.67	9.53
4	2	INTERSYSTEMS	9.33	9.88	9.05	9.64	9.48
3	3	DEDALUS DXC	9.04	9.05	8.63	9.86	9.15
2	4	MV SOUL, NTT DATA	9.29	9.25	8.92	9.05	9.13
5	5	EVERIS	9.05	9.16	8.93	9.06	9.05
8	6	ALEPHOO	9.54	9.38	8.12	8.83	8.97
9	7	EVA HEALTH	9.01	9.49	8.24	8.89	8.91
7	8	PHILIPS	9.19	8.53	7.85	8.16	8.43
6	9	IBM	8.79	8.35	8.10	7.83	8.27
10	10	ORACLE HEALTH	8.16	8.65	7.58	8.40	8.20

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS DXC	9.28	9.46	9.49	9.55	9.45
2	2	MV SOUL, NTT DATA	9.80	9.79	9.85	8.17	9.40
1	3	HARMONI MD	9.68	9.38	8.92	9.58	9.39
4	4	INTERSYSTEMS	9.19	9.42	9.01	9.03	9.16
10	5	ORACLE HEALTH	9.22	9.30	8.38	9.01	8.98
6	6	IBM	9.49	9.18	8.19	8.55	8.85
7	7	PHILIPS	9.08	8.86	6.90	9.77	8.85
8	8	ALEPHOO	8.22	7.99	8.01	8.24	8.12
9	9	EVA HEALTH	8.13	6.80	7.27	7.02	7.31
5	10	EVERIS	8.20	7.02	7.53	7.09	7.21

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.52	9.67	9.28	8.39	9.22
2	2	MV SOUL, NTT DATA	9.32	9.37	8.77	9.37	9.21
3	3	DEDALUS DXC	7.91	9.50	9.85	8.68	8.99
6	4	IBM	9.47	9.12	8.22	8.94	8.94
7	5	PHILIPS	9.14	9.36	8.46	8.41	8.84
4	6	INTERSYSTEMS	8.93	9.09	8.28	8.82	8.78
5	7	EVERIS	8.59	8.32	8.07	8.89	8.47
10	8	ORACLE HEALTH	8.18	8.51	7.81	8.47	8.24
9	9	EVA HEALTH	8.94	9.00	6.97	8.05	8.24
8	10	ALEPHOO	8.25	8.67	7.72	7.09	7.93

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	MV SOUL, NTT DATA	9.28	9.36	9.02	9.26	9.23
6	2	IBM	8.98	9.61	8.81	9.24	9.16
7	3	PHILIPS	9.17	9.15	8.75	9.50	9.14
1	4	HARMONI MD	9.07	9.24	8.14	8.81	8.82
10	5	ORACLE HEALTH	8.89	9.07	8.60	8.61	8.79
3	6	DEDALUS DXC	9.28	9.19	8.21	8.33	8.75
4	7	INTERSYSTEMS	9.35	9.20	6.75	9.57	8.67
5	8	EVERIS	8.89	8.76	9.53	7.18	8.59
9	9	EVA HEALTH	8.61	8.38	7.90	8.99	8.47
8	10	ALEPHOO	7.63	7.76	6.12	7.30	7.20

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
7	1	PHILIPS	9.81	9.31	9.43	9.65	9.50
6	2	IBM	9.10	9.60	8.88	9.12	9.18
3	3	DEDALUS DXC	9.13	9.68	8.78	9.00	9.15
4	4	INTERSYSTEMS	8.89	8.92	8.83	9.72	9.09
5	5	EVERIS	9.26	9.33	8.91	8.22	8.93
2	6	MV SOUL, NTT DATA	8.66	9.10	8.56	8.99	8.83
1	7	HARMONI MD	9.22	8.92	8.49	8.52	8.79
8	8	ALEPHOO	8.55	8.25	9.68	8.27	8.69
9	9	EVA HEALTH	6.81	6.64	7.40	7.73	7.15
10	10	ORACLE HEALTH	6.96	7.61	6.90	7.08	7.14

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MEXICO

#### Financial viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
6	1	IBM	9.39	9.59	9.53	9.53	9.51
7	2	PHILIPS	9.53	9.00	9.55	8.24	9.08
3	3	DEDALUS DXC	9.24	9.39	9.07	8.33	9.01
4	4	INTERSYSTEMS	9.02	8.84	8.32	9.25	8.86
2	5	MV SOUL, NTT DATA	8.84	9.27	8.19	8.60	8.73
1	6	HARMONI MD	9.15	8.49	8.77	8.09	8.63
10	7	ORACLE HEALTH	8.94	9.40	7.98	8.07	8.60
9	8	EVA HEALTH	8.76	8.92	8.00	8.19	8.47
8	9	ALEPHOO	8.41	9.20	8.10	7.82	8.37
5	10	EVERIS	7.41	7.38	6.90	6.05	6.94

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
6	1	IBM	9.81	9.31	9.43	9.65	9.50
3	2	DEDALUS DXC	9.10	9.60	8.88	9.12	9.18
7	3	PHILIPS	9.13	9.68	8.78	9.00	9.15
4	4	INTERSYSTEMS	8.89	8.92	8.83	9.72	9.09
1	5	HARMONI MD	9.26	9.33	8.91	8.22	8.93
10	6	ORACLE HEALTH	8.66	9.10	8.56	8.19	8.63
2	7	MV SOUL, NTT DATA	9.22	8.42	8.49	8.12	8.69
8	8	ALEPHOO	6.55	7.25	7.68	7.27	7.19
5	9	EVERIS	7.81	7.60	6.40	6.73	7.14
9	10	EVA HEALTH	6.96	7.21	6.10	7.08	6.84

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.85	9.69	9.25	9.45	9.56
2	2	MV SOUL, NTT DATA	9.28	9.83	9.42	9.44	9.49
3	3	DEDALUS DXC	8.29	8.12	9.03	9.15	8.65
4	4	INTERSYSTEMS	8.44	8.17	8.90	8.88	8.60
7	5	PHILIPS	8.99	9.12	7.76	8.42	8.57
6	6	IBM	8.39	8.38	8.56	8.87	8.55
10	7	ORACLE HEALTH	9.20	8.93	8.01	7.97	8.53
8	8	ALEPHOO	8.64	8.75	7.84	8.42	8.41
9	9	EVA HEALTH	8.88	9.51	7.64	7.51	8.39
5	10	EVERIS	9.16	9.19	7.70	7.00	8.26

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

MEXICO

### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HARMONI MD	9.65	9.66	9.94	9.60	9.71
2	2	MV SOUL, NTT DATA	8.77	9.06	8.05	8.53	8.60
3	3	DEDALUS DXC	8.19	8.77	8.08	8.99	8.56
9	4	EVA HEALTH	9.06	8.05	8.62	8.28	8.55
6	5	IBM	8.34	9.50	9.13	7.20	8.54
7	6	PHILIPS	8.01	8.03	9.19	8.04	8.32
5	7	EVERIS	8.19	8.00	9.10	7.05	8.09
10	8	ORACLE HEALTH	7.31	7.22	7.09	7.09	7.18
4	9	INTERSYSTEMS	7.51	6.39	6.90	7.57	7.09
10	10	ALEPHOO	7.28	7.10	6.26	7.55	6.91

Source: Black Book™ 2024

## ○ BRAZIL

### EHR STATUS

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We have identified many information technologies models, with most examples in this category designed to facilitate access to information and/or medical professionals. Theoretically, technology-based solutions have the potential to be highly scalable and cost effective, resulting in increased access for the patient.

During an examination, of the 4,929 invitations sent, 499 physicians responded to the questionnaire. Most used electronic medical record and prescription systems (92.6%), worked in private hospitals (43.1%), worked in general adult intensive care units (66.7%); most systems had been used for between 2 and 4 years (25.5%). Furthermore, the majority (84.6%) believed that the electronic system provided better quality than a paper system, and 76.7% believed that electronic systems provided greater safety than paper systems.

Electronic medical record systems seem to be widely used by the Brazilian intensive care physicians who responded to the questionnaire and, according to the data, seemed to agree that EMRs provide greater quality and safety than that of paper records.

A systematic review notes that, "despite the great impact of information and communication technologies on clinical practice and on the quality of health services, this trend has been almost exclusive to developed countries, whereas countries with poor resources suffer from many economic and social issues that have hindered the real benefits of electronic health (eHealth) tools."

The use of deficient systems and their misuse can cause errors that compromise the integrity of the information in EMRs, leading to situations that present potential dangers and that affect patient safety or reduce health care quality. These unintended consequences can also increase cases of fraud and abuse and have serious legal implications. Moreover, a wide range of ethical, legal and technical issues currently prevents systematic entry of data into EMRs and their use for clinical research purposes. In this regard, there is a tendency in the market towards system certification in which various aspects of safety and quality are evaluated.<sup>1</sup>

## MARKET DYNAMICS

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Brazil has a transitioning economy with dissimilar geographic development and new incidence and control of disease challenges related to chronic conditions. Brazil is one of the five largest countries in the world, with a population of over 215 million people, over 85% of whom live in urban settings. Two significant changes in the population have increased the burden on an already- strained healthcare system. First, the proportion of people older than 60 years nearly doubled between 1960 and 2010. Second, noncontagious diseases, particularly cardiovascular diseases, have become the primary cause of all deaths in Brazil. Adding to the health system's challenge is Brazil's dramatic, unequal socioeconomic development. Although the free universal health program was established in 1990, stark regional disparities for accessing treatment and services persist, resulting in poorer health outcomes for certain regions of the country. For example, infant mortality in 2007 was 2.2 times greater in the north of the country than in the south.<sup>2</sup>

The government plays an enormous role in healthcare delivery, payment, and regulation in Brazil, with the private sector playing a strong supplementary role. The 1990 creation of Brazil's publicly funded Unified Health System, or Sistema Único de Saúde (SUS), decentralized Brazil's former healthcare system. As a result, healthcare delivery and financing responsibilities shifted to the state and municipal level, with municipalities responsible for management and provision of primary care services, and states helping to set policy goals and provide both technical and financial assistance. Prior to the creation of the SUS, half of Brazilians had no health insurance coverage. Two decades later, more than 75% of the population depends exclusively on the SUS for health insurance. Similar to Mexico; however, insurance coverage does not always lead to true access. Many citizens covered by the SUS still face significant access issues for a variety of reasons. One reason is the challenges in healthcare worker retention across municipalities due to variance in wage structures. Another is long wait times for appointments, surgeries, and certain medications. As a result, many Brazilians choose to seek care in the private sector to avoid delays and administrative frustrations. Private health insurance is only affordable for about a quarter of the population, creating access disparities between the wealthy, who can and do use the private sector, and the poor, who typically cannot. The government and employers offer individuals the option to purchase supplemental healthcare through private providers.

Brazil's decentralized political system gives significant autonomy to states and municipalities, which is reflected in healthcare financing, delivery, and regulation. This decentralized model of care delivery is designed to promote care that is more responsive to regional needs;

however, poor communication and resource management between federal, state, and municipal entities introduce bottlenecks that weaken the efficiency of the model. Administrative challenges are amplified by tensions between the public and private sector, particularly with regard to the provision of high-complexity services, management of referral systems, and reimbursement.

While healthcare coverage through the SUS in Brazil is universal (with the new constitution framing it as a fundamental right of the population), access to care still lags considerably. The increased access is due in part to Brazil's reinforcement of their primary care system, through the creation of programs such as the Family Health Strategy, which have increased healthcare utilization in low-income states and helped to reduce geographic disparities in utilization. Despite these improvements, however, at 1.9 physicians per 1,000 people, Brazil's ratio of doctors to the population is lower than other Latin American countries such as Argentina and Mexico, with the majority of physicians concentrated in the southeast region. In 2009, about 52% of physicians practiced in the southeast compared to only about 8% in the north.<sup>2</sup>

The large divide between public and private sectors in healthcare result in many challenges for patients and the business sector alike. Reciprocal knowledge is lacking between the two sectors, neither sector had significant work experience in or networks with the other sector. This disconnect is partly due to the fact that there are few formal mechanisms for collaboration between the sectors. This also results in challenges for care coordination for patients between public and private providers, with many reports of poor referral handoffs. Association between the two was needed, for instance, in 2016, when the unemployment rate rose significantly, more citizens moved into the public healthcare system.

Government providers are reportedly trying to think more systematically about innovation. Technology innovation receives more attention than process or business model innovation, particularly in the public sector. Some large private hospitals are starting to consider patient flow and other process-related issues, though these initiatives appear to be in the emerging stages, with a handful of leading-edge organizations like Albert Einstein Hospital standing out as early adopters. Black Book™ found almost no examples of government providers adopting business model and/or process innovations. Innovation adoption in the public sector was focused almost exclusively on technological innovations.<sup>3</sup>

## CONSTRAINTS

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In order to ease patient’s worry regarding their personal use of information, new legislation about privacy needs to be deployed, similar to HIPPA compliance in US. In August 14, 2018, Brazil approved the General Data Protection Law. This creates a new legal framework for the use of personal data in Brazil, both online and offline, in the private and public sectors. The result of a broad discussion aims not only to guarantee individual rights, but also to foster economic, technological and innovation development through clear, transparent and comprehensive rules for the adequate use of personal data. The law went into effect September 28, 2020.

Moreover, interoperability stalls technology due to varying health systems within a large population.<sup>3</sup> Telecommunication infrastructure must be built or updated to get in touch with physicians who do not want to travel to rural places because they are so far away from their place of work. Lastly, the scarcity of process innovation is due in part to the lack of labor flexibility, which limits implementation of task-shifting models. Similar to Colombia, many interviewees shared that existing laws and politically powerful unions make it difficult to implement healthcare innovations that involve task shifting between healthcare roles. For innovators, partnering with the public sector is made difficult by long repayment timelines, blurred payment processes, and corruption. Additionally, the government is notorious for slow repayment on existing contracts, a problem only intensified by Brazil’s struggling economy.

## OPPORTUNITIES

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There is clear opportunity for new models that facilitate access to both health information and medical professionals and help patients navigate the system. Additionally, the regulatory environment for telemedicine and mobile health (mHealth) is murky. In some cases, the existing regulations for telemedicine are sufficiently vague that companies operate in a gray area of legality. Consultation apps are largely illegal under current regulations but, in rare cases, companies have found ways to offer these within the regulatory scope. In other cases, the relevant government regulatory bodies have not come to consensus about which body should regulate in a given area. Interviewees reported that doctors are generally in agreement about using technologies that enhance doctor-to-doctor communication (e.g., sharing X-ray images between primary care doctors and specialists) but are more resistant to adopt doctor-to-patient models (e.g., providing medical consultation over video conferencing or through smart phone apps).

Furthermore, opportunities are presented if vendors largely focus on the fragmented relationships between the public and private sectors. New models that leverage the strengths of both sectors toward common goals have the potential to transform the experience of healthcare

delivery for Brazil's population. Private sector innovators balance public sector collaborations with other scaling strategies to maintain sustainability in the face of public-private partnership challenges. Given the previously described challenges of working with the government, a number of organizations who do partner with the government also explicitly build direct-to-consumer or business-to-business strategies. This protects them from the risks to cash flow and financial sustainability that come with dependency on the government. Namely, ProRadis, which offers a set of software solutions that improve clinic efficiency and is designed to drive down costs and improve quality. These solutions include clinic management tools (e.g., scheduling, electronic health records, and enterprise resource planning), telemedicine features (e.g., generating reports, sharing images), and clinic capacity optimization features (e.g., ability to see capacity and demand distribution across MRI and other imaging machines). ProRadis's primary scaling strategy is through sales to public providers, but they are complementing this with a direct-to-consumer line currently in the early stages of testing.<sup>2</sup>

### Citations

<sup>1</sup> Colleti, Jose, Alice Barone de Andrade, and Werther Brunow de Carvalho. *Evaluation of the use of EMR systems in Brazilian IRC*. Brazil, 2018. Web. 16 May 2019. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6180478/>

<sup>2</sup> Floriano, Rua J. *The Brazilian Healthcare Sector*. Brazil, 2015. Web. 15 May 2019. [https://www.businesssweden.se/contentassets/d66e1faed2614637b7f1da59f84ef1e3/brazil\\_fact\\_pack\\_healthcare\\_august-2015.pdf](https://www.businesssweden.se/contentassets/d66e1faed2614637b7f1da59f84ef1e3/brazil_fact_pack_healthcare_august-2015.pdf)

<sup>3</sup> Lofstrom, Joyce. *HIMSS Latin America Launches*. Brazil, 2014. Web. 15 May 2019. <https://www.himss.org/news/himss-latin-america-launches>

<sup>4</sup> Monteiro, Renato L. *The new Brazilian General Data Protection Law*. Brazil, 2018. Web. 15 May 2019. <https://iapp.org/news/a/the-new-brazilian-general-data-protection-law-a-detailed-analysis/>



# BRAZIL

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
419 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	19%
Clinic/Practice Name	19%
Public Clinic	9%
Health System Clinic	8%
Academic Hospital and Medical Centers over 250 Beds	40%
Community Hospitals	4%
Small Hospitals under 100 Beds	1%
Ambulatory Surgery Centers	0%
TOTAL	100%

Source: Black Book™ 2024

# 2024 RESULTS

## ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

BRAZIL

**PHILIPS**

### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR BRAZIL

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**PHILIPS**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**PIXEON SMARTHEALTH**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**PHILIPS**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**PIXEON SMARTHEALTH**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY	
<b>Green</b> 8.71 +	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> 5.80 to 7.32	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> Less than 5.79	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

# OVERALL KPI LEADERS

## BRAZIL

Summary of criteria outcomes

TABLE 2: SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
8	PHILIPS	1
7	DEDALUS	2
3	PIXEON SMARTHEALTH	3

Source: Black Book Research



## OVERALL KPI LEADERS: EHR

### BRAZIL

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>PHILIPS</b>	1
2	Innovation & Optimization	<b>DEDALUS</b>	3
3	Training	<b>PIXEON SMARTHEALTH</b>	2
4	Client relationships and cultural fit	<b>PHILIPS</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>PIXEON SMARTHEALTH</b>	2
6	Breadth of offerings, client types, delivery excellence	<b>PIXEON SMARTHEALTH</b>	2
7	Deployment and outsourcing implementation	<b>PHILIPS</b>	1
8	Customization	<b>PHILIPS</b>	1
9	Integration and interfaces	<b>DEDALUS</b>	3
10	Scalability, client adaptability, flexible pricing	<b>DEDALUS</b>	3
11	Compensation and employee performance	<b>PHILIPS</b>	1
12	Reliability	<b>PHILIPS</b>	1
13	Brand image and marketing communications	<b>DEDALUS</b>	3
14	Marginal value adds and modules	<b>DEDALUS</b>	3
15	Financial & Managerial Viability	<b>DEDALUS</b>	3
16	Data security and backup services	<b>PHILIPS</b>	1
17	Support and customer care	<b>DEDALUS</b>	3
18	Best of breed technology and process improvement	<b>PHILIPS</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
	A = 90% Agree
	B = 75% Agree
	C = 50% Agree
	D = 25% or Less Agree

RANK	EHR VENDOR BRAZIL	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	PHILIPS TASY	A	A	A
2	PIXEON SMARTHEALTH	B	B	A
3	DEDALUS MEDVIEW (AGFA)	B	A	B
4	MV SOUL	A	B	C
5	PRACTO TECHNOLOGIES	B	C	B
6	EVERIS	A	C	B
7	STYLUS SYSTEMS	C	C	C
8	MEDICACLOUD TECH	C	C	C
9	INTERSYSTEMS	C	C	C
10	SPDATA PEP	C	C	C
11	TOTVS PEP RM	C	C	C

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	PHILIPS	9.64	9.69	9.70	9.41	9.61
2	2	PIXEON	9.50	9.20	9.75	9.08	9.38
3	3	DEDALUS	9.01	9.36	9.50	9.19	9.27
4	4	MV SOUL	9.07	8.60	8.68	8.49	8.71
5	5	PRACTO TECH	8.75	7.93	9.35	8.67	8.68
9	6	INTERSYSTEMS	9.41	8.89	8.64	7.53	8.62
7	7	STYLUS SYSTEMS	8.67	7.98	7.89	7.09	7.91
8	8	MEDICACLOUD TECH	7.23	8.09	7.88	8.28	7.87
6	9	EVERIS	7.12	7.41	7.10	7.51	7.29

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.03	9.67	9.83	9.65	9.55
2	2	PIXEON	9.60	9.03	9.69	9.79	9.53
7	3	STYLUS SYSTEMS	9.30	9.56	9.67	9.38	9.48
8	4	MEDICACLOUD TECH	9.28	9.04	9.75	9.72	9.45
5	5	PRACTO TECH	8.85	9.48	9.58	9.13	9.26
6	6	EVERIS	8.71	9.15	9.37	9.43	9.17
9	7	INTERSYSTEMS	9.05	9.37	9.26	8.95	9.16
1	8	PHILIPS	9.21	9.35	9.08	7.92	8.79
4	9	MV SOUL	9.27	8.07	8.15	8.78	8.57

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	PIXON	9.68	9.79	9.52	9.73	9.68
1	2	PHILIPS	9.54	9.51	9.58	9.63	9.57
3	3	DEDALUS	9.34	9.14	9.21	9.32	9.25
4	4	MV SOUL	9.19	9.41	9.36	8.94	9.23
5	5	PRACTO TECH	9.39	9.19	8.80	9.43	9.20
6	6	EVERIS	8.84	9.51	9.33	8.42	9.03
7	7	STYLUS SYSTEMS	8.77	8.01	9.02	9.00	8.70
9	8	INTERSYSTEMS	8.88	8.34	9.07	8.27	8.64
8	9	MEDICACLOUD TECH	7.81	7.94	9.02	9.23	8.50

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	PHILIPS	9.59	9.68	9.56	9.89	9.68
3	2	DEDALUS	9.59	9.61	9.55	9.65	9.60
4	3	MV SOUL	9.77	9.31	9.65	9.21	9.49
5	4	PRACTO TECH	9.36	9.62	9.47	9.41	9.47
2	5	MV SISTEMIS	9.20	9.36	9.31	8.84	9.18
6	6	EVERIS	8.34	9.31	9.44	8.62	8.93
7	7	STYLUS SYSTEMS	8.12	8.19	9.11	8.58	8.60
8	8	MEDICACLOUD TECH	9.06	9.07	8.67	7.00	8.45
9	9	INTERSYSTEMS	9.01	9.22	8.02	7.36	8.55

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	PIXEON	9.40	9.28	9.02	9.53	9.31
3	2	DEDALUS	9.22	9.29	9.26	9.22	9.27
7	3	STYLUS SYSTEMS	9.16	9.30	9.24	9.18	9.22
1	4	PHILIPS	9.31	8.76	9.61	8.93	9.15
5	5	PRACTO TECH	9.17	9.27	8.79	8.43	8.92
4	6	MV SOUL	8.91	8.49	9.22	8.10	8.68
6	7	EVERIS	8.86	8.23	8.44	8.99	8.63
8	8	MEDICACLOUD TECH	8.37	8.69	8.25	9.08	8.60
9	9	INTERSYSTEMS	8.39	9.27	7.24	7.66	8.14

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

**Breadth of offerings, varied client settings, delivery excellence across all user types**

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	PIXEON	9.59	9.46	9.82	9.42	9.57
3	2	DEDALUS	9.65	9.57	9.32	9.70	9.56
1	3	PHILIOPS	9.52	9.55	9.14	9.70	9.48
5	4	PRACTO TECH	9.67	9.62	9.42	8.96	9.42
6	5	EVERIS	9.75	9.38	9.16	8.88	9.29
7	6	STYLUS SYSTEMS	9.08	9.15	8.90	9.15	9.07
8	7	MEDICACLOUD TECH	8.85	9.08	9.36	9.32	9.05
4	8	MV SOUL	9.26	8.29	9.02	9.31	8.87
9	9	INTERSYSTEMS	8.31	8.04	9.19	8.71	8.56

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	PHILIPS	9.59	9.75	9.60	9.12	9.52
2	2	PIXEON	9.23	8.97	9.82	9.82	9.46
9	3	INTERSYSTEMS	9.47	9.27	9.54	9.32	9.40
6	4	EVERIS	9.44	9.36	9.26	9.48	9.39
5	5	PRACTO TECH	8.87	9.20	9.41	9.65	9.28
4	6	MV SOUL	9.60	9.54	8.83	9.00	9.24
7	7	STYLUS SYSTEMS	9.20	9.06	9.30	9.20	9.19
8	8	MEDICACLOUD TECH	9.36	8.87	8.90	8.85	9.00
3	9	DEDALUS	8.90	8.93	9.07	8.74	8.91

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients’ needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	PHILIPS	9.68	9.66	9.59	9.50	9.61
8	2	MEDICACLOUD TECH	9.64	9.63	9.58	9.35	9.55
3	3	DEDALUS	9.04	9.08	9.86	9.86	9.46
1	4	MV SOUL	9.41	9.68	9.37	9.38	9.46
7	5	STYLUS SYSTEMS	9.34	9.48	9.11	8.96	9.22
6	6	EVERIS	8.65	9.75	9.49	8.06	8.99
5	7	PRACTO TECH	8.22	9.17	8.40	9.38	8.54
2	8	PIXEON	9.14	9.01	7.44	8.31	8.48
9	9	INTERSYSTEMS	8.06	8.68	7.14	7.40	7.82

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	PIXEON	9.89	9.72	9.41	9.66	9.67
3	2	DEDALUS	9.72	9.17	9.87	9.80	9.64
1	3	PHILIPS	9.65	9.72	9.47	9.51	9.59
4	4	MV SOUL	9.73	9.38	9.71	9.07	9.47
5	5	PRACTO TECH	9.57	9.44	9.39	9.20	9.40
6	6	EVERIS	9.29	9.22	9.22	8.14	8.97
7	7	STYLUS SYSTEMS	8.43	8.49	8.89	8.66	8.62
8	8	MEDICACLOUD TECH	9.09	7.10	8.84	7.22	8.06
9	9	INTERSYSTEMS	7.71	8.33	8.63	7.13	7.95

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor Invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	PIXEON	9.81	9.802	9.66	9.45	9.69
1	2	PHILIPS	9.76	9.88	9.43	9.12	9.55
3	3	DEDALUS	9.61	9.68	9.58	9.16	9.51
4	4	MV SOUL	8.89	9.35	9.80	9.88	9.48
5	5	PRACTO TECH	9.70	9.88	8.91	9.17	9.42
6	6	EVERIS	9.46	9.10	9.48	9.31	9.34
7	7	STYLUS SYSTEMS	9.53	9.72	9.45	8.52	9.31
8	8	MEDICACLOUD TECH	9.25	9.66	9.18	8.77	9.22
9	9	INTERSYSTEMS	9.25	9.13	8.31	8.01	8.68

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	PHILIPS	9.97	9.91	9.83	9.68	9.85
2	2	PIXEON	9.81	9.67	9.98	9.87	9.83
3	3	DEDALUS	9.41	9.75	9.51	9.08	9.44
9	4	INTERSYSTEMS	9.71	9.33	8.87	8.88	9.20
5	5	PRACTO TECH	9.55	9.26	9.01	8.60	9.11
6	6	EVERIS	9.62	9.47	9.13	8.19	9.10
7	7	STYLUS SYSTEMS	9.05	9.52	8.99	8.80	9.09
8	8	MEDICACLOUD TECH	9.00	9.06	8.91	9.26	9.06
4	9	MV SOUL	9.43	8.31	9.38	8.67	8.95

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	PHILIPS	9.69	9.71	9.78	9.80	9.75
3	2	DEDALUS	9.71	9.76	9.17	9.43	9.52
4	3	MV SOUL	9.57	9.54	9.25	9.42	9.45
7	4	STYLUS SYSTEMS	9.68	9.84	8.88	9.20	9.40
5	5	PRACTO TECH	9.61	9.78	9.12	8.78	9.32
6	6	EVERIS	9.09	8.84	8.87	9.51	9.08
2	7	PIXEON	9.18	8.91	8.84	8.86	8.95
8	8	MEDICACLOUD TECH	9.02	9.14	8.38	8.16	8.68
9	9	INTERSYSTEMS	8.77	9.27	8.09	8.37	8.63

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.45	9.72	9.90	9.80	9.72
2	2	PIXEON	9.83	9.87	9.57	9.51	9.70
1	3	PHILIPS	9.62	9.67	9.48	9.14	9.48
9	4	INTERSYSTEMS	9.81	9.56	9.19	8.97	9.38
5	5	PRACTO TECH	9.24	9.69	9.45	9.11	9.37
6	6	EVERIS	9.78	9.75	9.05	8.79	9.34
7	7	STYLUS SYSTEMS	9.40	9.58	9.07	8.88	9.23
8	8	MEDICACLOUD TECH	9.35	9.38	9.23	8.81	9.19
4	9	MV SOUL	9.32	9.34	9.02	8.92	9.15

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.49	9.54	9.28	9.16	9.37
1	2	PHILIPS	9.85	9.66	8.62	9.27	9.35
9	3	INTERSYSTEMS	9.64	9.81	8.84	8.83	9.28
8	4	MEDICACLOUD TECH	9.55	9.64	8.65	9.20	9.26
5	5	PRACTO TECH	9.35	9.53	8.91	8.83	9.16
6	6	EVERIS	9.59	8.99	8.33	9.49	9.10
7	7	STYLUS SYSTEMS	9.48	9.51	9.06	8.08	9.03
2	8	PIXEON	9.52	8.98	8.52	8.20	8.81
4	9	MV SOUL	8.84	9.57	8.81	7.95	8.79

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Financial viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes, and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.93	9.94	9.80	9.84	9.88
2	2	PIXEON	9.64	9.43	9.99	9.94	9.75
6	3	EVERIS	9.86	9.80	9.61	9.68	9.74
1	4	PHILIPS	9.77	9.76	9.72	9.22	9.62
5	5	PRACTO TECH	9.66	9.78	9.43	9.44	9.58
4	6	MV SOUL	9.69	9.63	9.41	9.38	9.53
7	7	STYLUS SYSTEMS	9.54	9.82	9.01	8.96	9.33
8	8	MEDICACLOUD TECH	9.82	9.79	9.31	8.41	9.33
9	9	PHILIPS	9.27	8.73	9.53	9.13	9.17

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	PHILIPS	9.80	9.82	9.46	9.63	9.68
2	2	PIXEON	9.72	9.65	9.67	9.41	9.61
3	3	DEDALUS	9.58	9.67	9.63	9.47	9.59
9	4	INTERSYSTEMS	8.34	9.50	9.77	8.62	9.06
5	5	PRACTO TECH	9.37	9.14	9.10	8.50	9.05
6	6	EVERIS	8.62	8.80	8.15	8.01	8.40
7	7	STYLUS SYSTEMS	8.10	8.62	8.30	8.54	8.39
8	8	MEDICACLOUD TECH	8.58	8.48	8.22	7.82	8.28
4	9	MV SOUL	6.67	6.16	8.02	8.54	7.25

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.75	9.90	9.99	9.95	9.90
1	2	PHILIPS	9.47	9.52	9.67	9.45	9.53
3	3	INTERSYSTEMS	9.68	9.49	9.72	9.14	9.51
9	4	MV SOUL	9.51	9.80	9.05	9.05	9.35
5	5	PRACTO TECH	9.77	9.56	9.03	8.93	9.32
6	6	EVERIS	9.84	9.43	9.23	8.75	9.31
7	7	STYLUS SYSTEMS	9.69	9.16	9.57	8.79	9.30
8	8	MEDICACLOUD TECH	9.60	9.69	8.99	8.72	9.25
2	9	PIXEON	9.45	9.72	9.51	8.18	9.22

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### BRAZIL

#### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	PHILIPS	9.62	9.65	9.08	9.50	9.47
2	2	PRACTO TECH	9.42	9.67	9.22	9.38	9.42
4	3	MV SOUL	9.54	9.09	9.56	8.80	9.25
3	4	DEDALUS	9.07	9.12	9.31	9.42	9.23
2	5	PIXEON	9.39	9.38	8.85	9.11	9.18
6	6	EVERIS	9.20	8.93	8.51	9.41	9.01
8	7	INTERSYSTEMS	9.10	9.31	8.83	8.21	8.86
7	8	STYLUS SYSTEMS	8.61	8.53	8.73	8.85	8.68
8	9	MEDICACLOUD TECH	8.16	9.11	8.75	8.64	8.67

Source: Black Book™ 2024



# **SOUTH AMERICA**

SPANISH LANGUAGE COUNTRIES

## EHR STATUS

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One of Colombia's system's biggest weaknesses is the limited coordination across care levels. PACS technology has been in use and in existence for more than 20 years and was revolutionary when it began to solve specific and departmental problems. Almost all PACS use patented technologies that are not open to interoperability or the ability to freely share or consolidate between systems or departments. With the passage of time, and the growth in the practice of diagnostic images, Columbia needs to find options to interoperate between the PACS and even with other departments in which the images, videos, or other formats are not generated in a certain format, and that, therefore, are not part of the PACS strategy.

An additional problem that arises is the limited transfer of clinical information, mainly between primary and specialist outpatient care. Informants report that insufficient information is recorded in referral and counter-referral forms and shared clinical records. This hinders the primary care doctors' follow-up of patients as they do not have access to the final diagnosis and treatment. It can also lead to the specialist restarting the diagnostic procedure, thus duplicating tests and delaying treatment. There are other things that are left unclear; if the specialist was to try for two or three months to see whether it went well or not, or if they were going to keep increasing the dose or reducing it gradually. Maintaining this level of ambiguity leaves the next physician/clinician feeling a bit lost.

In response to the challenge of achieving the coordination of healthcare, international agencies and governments in Latin America, including those of Colombia, have promoted the introduction of integrated healthcare networks (IHN), despite the scarce evidence of their impact. IHNs are defined as a network of organizations that provides or arranges to provide a coordinated continuum of services to a defined population and is willing to be held clinically and fiscally accountable for the health status and outcomes of the population served. Theoretically, the integration of healthcare delivery contributes to more efficient, equitable and higher quality health services through an intermediate goal: the improvement of care coordination. Care coordination should help to avoid wasteful duplication of diagnostic testing, perilous polypharmacy, inappropriate referrals, and conflicting care plans; thus, the effects of care coordination extend beyond cost reduction to improving quality of care.<sup>1</sup>

## MARKET DYNAMICS

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Colombia has a transitioning economy, increasing rates of non-communicable diseases (NCDs), and disparate geographic development. With a population of over 49 million people, 24% of the Colombian population lives in rural areas while the majority live in or near urban areas. This unequal population distribution has led to disparate rates of development, including in the healthcare sector, with rural areas showing the least improvement in the human development index over the last 14 years.<sup>2</sup>

At the same time, Colombia faces an extremely unequal distribution of wealth, with half of the population receiving less than 15% of the total income in the country. The majority of the population lives below the poverty line and 17% of the population lives below the extreme poverty line. These geographic and wealth disparities propel disparities in access to quality healthcare between income levels and between rural and urban settings. Despite insurance coverage, many citizens still face significant access issues for a variety of reasons that are well covered in the literature, including long wait times for appointments; trouble accessing providers due to insurance authorization issues, leading to greater out-of-pocket costs; and increased informal care use, such as self-medication and using pharmacists as primary points of contact. This country is home to 20 of the 42 best hospitals in Latin America and most urban areas feature advanced facilities and well-trained providers. However, patients in Colombia generally have limited choice when it comes to providers, considering they can only select a primary care provider within their designated network.

To alleviate healthcare disparities, the Colombian government ratified a landmark reform in 1993 (Law 100) to establish universal healthcare coverage, stipulating that all citizens are entitled to a comprehensive benefits package regardless of ability to pay. Cost is not considered a barrier for the majority of Colombians in accessing healthcare because most services are covered in part or full by public insurance. Rather, cost challenges have largely moved from individuals to the government.

The health system of the country is known as General System of Social Security in Health (SGSSS) which is made up of two insurance schemes. Their health system includes both an employment-based scheme (which is referred to as CR for contributory regime) and a subsidized scheme (which is referred to as SR for subsidized regime). The percentage of total population enrolled in CR is 47.4%, which are formally employed workers who have a predetermined income threshold. The contributory regime is financed by contributions from employers and employees with a 12.5% payroll tax. On the contrary, the percentage of total population enrolled in SR is 39.9%, they are low-income individuals identified through the Selection System of Beneficiaries for Social Programs (SISBEN) and financed by taxes.<sup>2</sup>

Colombia's e-health technology has helped connect patients in remote locations with healthcare specialists. Half of Colombia's population, or about 24 million people, still live in towns with less than 10,000 inhabitants. Platforms such as Medellin-based, X-rol Telemedicine, help local insurers and healthcare providers reduce the cost of having specialists treat patients suffering from high-cost diseases in remote areas, said Mejia.

However, in 2014, only 3.5 million patients in Colombia were cared for through e-health platforms, according to a study by the country's Ministry of Information and Communications Technology. The study also found that only about half of the country's healthcare providers have access to the internet and of those, only 48% have a cable or fiber-optic connection.<sup>3</sup>

Colombia's e-health sector is also stifled by the lack of interoperability between providers. An electronic medical record compiled by one company, for instance, cannot always be accessed by another provider.

Consequently, the best chance for the sector to grow is for individual providers to expand their reach as most hospitals and clinics rely on third-party providers like X-rol Telemedicine to offer e-health services.<sup>3</sup>

## CONSTRAINTS

The recent development of a regulatory framework for telemedicine has created new potential, but misaligned incentives prevent expansion of this mechanism. Expansion of telemedicine models would overcome distance barriers in rural communities. Challenges such as cultural barriers, are impeding greater uptake. Lack of experience amongst providers, leading to misunderstandings of where and how telemedicine could be deployed, even in cases where there is a sufficient budget for implementing new technologies. Ongoing challenges for telemedicine expansion include helping doctors, medical associations, political figures, and others key actors to better understand how to implement telemedicine most effectively, both technologically and within the current regulatory environment.<sup>4</sup>

A great deal of variability exists among this territory in regard to the importance of innovation. Our analysis of this context in Colombia suggests that several ecosystem factors impact the types and potential success of emerging innovative models.

First, there is a general lack of public trust and overall frustration with the healthcare system. The negative perception insurers charged with enrolling individuals into a plan and contracting with health service providers to deliver care has been fueled by high-profile corruption cases and long wait times for care.

Second, misaligned incentives to invest in innovation also impact the potential of emerging healthcare models. Public hospitals are less likely than private hospitals to engage in innovation activities; and within the private sector there is wide variation in degree of transformation. Public institutions seek to keep cost low while private organizations link with universities. However, these activities are generally research-focused with little to no commercialization or path to market.

Third, existing regulations hamper labor flexibility and ability to implement task-shifting models. In many countries around the world task-shifting approaches have helped to cut costs, address workforce shortages, and increase efficiencies in care delivery. However, despite the recognized gap in human resources for health in Colombia, particularly in rural areas, current regulations limit the adoption of this approach. For example, interviewees noted that it is illegal for any provider other than an obstetrician/gynecologist to conduct an ultrasound of a pregnant woman. While many of these laws were originally intended to



maintain clinical excellence, the current regulations are often maintained by entrenched special interest groups despite global evidence that other less-expensive providers can perform these same tasks with the same level of quality.

Fourth, there is a lack of risk capital to support healthcare entrepreneurs; most financing options lack health-specific expertise. Typical funding options for Colombian health entrepreneurs include banks, venture capitalists, government and public entities, and angel investors. Nevertheless, as seen in our research throughout Latin America, the funders that provide these types of capital are investing in multiple sectors, and few, if any, have deep competence in healthcare. The scarce health-specific expertise, combined with uncertainty around regulatory change, has caused many investors to shy away from health investments.<sup>4</sup>

## OPPORTUNITIES

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A growing emphasis on innovation and entrepreneurship within universities is spurring the development of new technologies across sectors, including healthcare. However, many of these programs are still in early stages. These programs tend to be more focused on new technologies, rather than business model or process innovations for healthcare. The Asociación Nacional de Empresarios de Colombia (ANDI), a leading national business association in Colombia that works across many sectors, hired staff in early 2014 to focus exclusively on innovation programming and support. Large multinational companies such as GSK and Sanofi are increasingly emphasizing healthcare innovation as a part of their strategy, both by restructuring existing roles to include an innovation focus and creating innovation-specific hires within their Colombian offices. Within government, President Santos is prioritizing innovation, largely with a focus on implementing changes within the Ministry of Health, which came under additional pressure as the Millennium Development Goals neared their 2015 deadline.<sup>5</sup>

Several new healthcare innovations are emerging in Colombia in response to gaps noted above. Of the innovating companies that we discovered in this research, the majority were either developing new products or were unfolding models designed to solve consumer-facing challenges in care delivery, such as wait times. Several innovators have developed promising new technologies with the potential to be disruptive. Take Ubiquo Telemedicina, their initial focus was on intra-hospital technology solutions to facilitate the storing and sharing of medical information, in particular images (such as CTs or ultrasounds). They primarily sell their technology to private providers but have begun to work with public hospitals as well. They also have expanded their focus from intra-hospital technology to include telemedicine and have added telemedicine components to their model. As of December 2015, Ubiquo Telemedicina was in more than 75 facilities around Colombia.

Another primary theme among innovative models in Colombia revolves around new consumer solutions. Companies are beginning to create new solutions that challenge the

way products and services are currently delivered in the Colombian healthcare system, including new e-commerce platforms that reduce costs to consumers and health plans that provide faster access to healthcare. As an illustration, Bive acts as a bridge between healthcare consumers and private providers, helping to connect low- and middle-income Colombians with high-quality, timely healthcare that they can afford. Bive has aggregated a network of healthcare providers in the state of Caldas who have agreed to offer services at discounted rates to Bive members. On the consumer side, Bive sells annual memberships for approximately \$40 USD that cover the purchasing individual and up to five additional family members. With this Bive membership, customers are able to schedule appointments with providers in the Bive network at discounted rates, and they are guaranteed to see a provider within seven days.

### Citations

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<sup>2</sup> Giedion, Ursula. *Colombia's Universal Health Insurance System*. Colombia, 2009. Web. 17 May 2019. <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.28.3.853>

<sup>3</sup> Maia, Bruna, Dominic Pasteiner, and Carlos Martinez. *Latin America Offers Sound Diagnosis for e-Health Investors*. Colombia, 2018. Web. 17 May 2019. <https://www.forbes.com/sites/mergermarket/2018/09/12/latin-america-offers-sound-diagnosis-for-e-health-investors/#7966feb3164b>

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# SOUTH AMERICAN SPANISH LANGUAGE COUNTRIES

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
1117 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	31%
Clinic/Practice Name	4%
Public Clinic	21%
Health System Clinic	3%
Academic Hospital and Medical Centers over 250 Beds	24%
Community Hospitals	6%
Small Hospitals under 100 Beds	2%
Ambulatory Surgery Centers	0%
<b>TOTAL</b>	<b>100%</b>

Source: Black Book™ 2024

## 2024 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## **2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### **INTERSYSTEMS**

#### **FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR SPANISH-SPEAKING SOUTH AMERICAN COUNTRIES**

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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#### **INTERSYSTEMS TRAKCARE**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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#### **INTERSYSTEMS TRAKCARE**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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#### **INTERSYSTEMS TRAKCARE**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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#### **EVERIS, NTT DATA**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.



## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

Summary of criteria outcomes

TABLE 3: SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
13	INTERSYSTEMS	1
2	EVERIS NTT DATA	2
2	DXC	3
1	PHILIPS	5

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	INTERSYSTEMS	1
2	Innovation & Optimization	INTERSYSTEMS	1
3	Training	DXC	3
4	Client relationships and cultural fit	INTERSYSTEMS	1
5	Trust, Accountability, Transparency, Ethics	INTERSYSTEMS	1
6	Breadth of offerings, client types, delivery excellence	PHILIPS	5
7	Deployment and outsourcing implementation	INTERSYSTEMS	1
8	Customization	DXC	3
9	Integration and interfaces	INTERSYSTEMS	1
10	Scalability, client adaptability, flexible pricing	INTERSYSTEMS	1
11	Compensation and employee performance	EVERIS NTT DATA	2
12	Reliability	INTERSYSTEMS	1
13	Brand image and marketing communications	INTERSYSTEMS	1
14	Marginal value adds and modules	EVERIS NTT DATA	2
15	Financial & Managerial Viability	INTERSYSTEMS	1
16	Data security and backup services	INTERSYSTEMS	1
17	Support and customer care	INTERSYSTEMS	1
18	Best of breed technology and process improvement	INTERSYSTEMS	1

RANK	EHR VENDOR SPANISH LANGUAGE SOUTH AMERICA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	INTERSYSTEMS TRAKCARE	A	A	A
2	EVERIS, NTT DATA	A	A	A
3	DXC TECHNOLOGY XHS	A	A	A
4	HARMONI MD	A	B	A
5	PHILIPS TASY	B	A	B
6	SPDATA	C	A	A
7	HEALTH360 EMEDICAL SYSTEMS	B	B	C
8	JUVONNO	C	C	C
9	MEDITECH	D	C	A
10	MV	C	A	B
11	CERNER I.S.H.	D	C	B
12	DEDALUS MEDVIEW (AGFA)	C	C	C
13	MEDILINK	D	C	C
14	RESERVO	C	D	C
15	OMNIA SALUD	C	D	C
16	SERAPIS EHR	D	C	C
17	HEON MD	D	C	D
18	GENEXUS	D	D	D
19	ALEPHOO	D	D	D
20	K2B HEALTH	D	D	D

# INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

## Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client’s Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.45	9.69	9.80	9.52	<b>9.62</b>
2	2	EVERIS NTT DATA	9.33	9.26	9.29	9.30	<b>9.30</b>
3	3	DXC	9.08	9.45	9.29	9.16	<b>9.25</b>
18	4	GENEXUS	8.99	9.51	9.17	9.20	<b>9.22</b>
6	5	SPDATA	9.27	8.49	9.01	9.34	<b>9.03</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.78	9.94	9.92	9.74	<b>9.85</b>
2	2	EVERIS NTT DATA	9.10	9.55	9.30	9.21	<b>9.29</b>
3	3	DXC	9.12	9.22	9.37	9.41	<b>9.28</b>
4	4	HARMONI MD	9.09	8.99	9.13	9.06	<b>9.07</b>
14	5	RESERVO	9.05	8.92	8.78	9.20	<b>8.99</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DXC	9.01	9.35	9.51	9.33	<b>9.30</b>
1	2	INTERSYSTEMS	9.56	9.09	8.97	9.52	<b>9.28</b>
2	3	EVERIS NTT DATA	9.31	9.22	8.99	9.05	<b>9.14</b>
9	4	MEDITECH	9.32	9.17	8.92	9.10	<b>9.13</b>
6	5	SPDATA	8.34	9.46	9.06	9.43	<b>9.07</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship’s success or client’s satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.96	9.47	9.83	9.78	<b>9.76</b>
6	2	SPDATA	9.39	9.35	9.06	9.70	<b>9.38</b>
3	3	DXC	9.34	9.31	9.16	9.09	<b>9.22</b>
10	4	MV SOUL	9.05	9.17	9.00	8.94	<b>9.04</b>
2	5	EVERIS NTT DATA	9.09	9.05	8.98	8.89	<b>9.00</b>

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.77	9.58	9.86	9.86	<b>9.77</b>
2	2	EVERIS NTT DATA	9.07	9.23	9.47	9.11	<b>9.22</b>
5	3	PHILIPS	9.34	9.44	8.71	9.03	<b>9.13</b>
4	4	HARMONI MD	9.06	9.26	9.59	8.56	<b>9.12</b>
3	5	DXC	8.95	8.96	8.62	8.93	<b>8.87</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

**Breadth of offerings, varied client settings, delivery excellence across all user types**

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	PHILIPS	9.56	9.68	9.56	9.54	<b>9.59</b>
2	2	EVERIS NTT DATA	9.57	9.48	9.57	9.61	<b>9.56</b>
8	3	JUVONNO	9.44	9.32	9.19	9.13	<b>9.27</b>
1	4	INTERSYSTEMS	9.41	9.36	9.40	8.76	<b>9.23</b>
17	5	HEON MD	9.05	9.20	8.72	8.63	<b>8.90</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.61	9.35	9.75	9.55	<b>9.57</b>
8	2	JUVONNO	9.46	9.02	9.41	9.73	<b>9.41</b>
6	3	SPDATA	9.03	9.38	9.35	9.40	<b>9.29</b>
2	4	EVERIS NTT DATA	9.03	9.48	8.45	9.51	<b>9.12</b>
14	5	RESERVO	8.90	9.04	8.55	8.99	<b>8.87</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician model-s. Little resistance is encountered when changing performance measurements as clients’ needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DXC	9.44	9.46	9.63	9.77	<b>9.58</b>
1	2	INTERSYSTEMS	9.52	9.55	9.87	9.35	<b>9.57</b>
2	3	EVERIS NTT DATA	9.41	9.42	9.10	9.41	<b>9.34</b>
9	4	MEDITECH	8.58	8.49	8.61	9.38	<b>8.77</b>
5	5	PHILIPS	8.97	8.44	8.35	9.06	<b>8.71</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.48	9.65	9.34	9.48	<b>9.49</b>
2	2	EVERIS NTT DATA	8.68	9.34	9.11	9.30	<b>9.11</b>
4	3	HARMONI MD	8.76	9.19	8.80	9.20	<b>8.99</b>
7	4	HEALTH360	8.62	8.59	8.85	9.43	<b>8.87</b>
16	5	SERAPIS EHR	9.36	8.22	9.07	8.46	<b>8.78</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

**Scalability, client adaptability, flexible pricing**

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor Invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.47	9.32	9.36	9.19	<b>9.34</b>
3	2	DXC	9.21	9.47	9.17	9.26	<b>9.28</b>
4	3	HARMONI MD	9.12	9.30	9.08	9.25	<b>9.19</b>
5	4	PHILIPS	8.51	9.36	9.46	8.98	<b>9.08</b>
1	1	INTERSYSTEMS	9.47	9.32	9.36	9.19	<b>9.34</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	EVERIS NTT DATA	9.15	9.50	9.06	9.53	<b>9.31</b>
1	2	INTERSYSTEMS	9.26	9.17	9.45	9.29	<b>9.29</b>
7	3	HEALTH360	9.16	9.15	9.05	8.68	<b>9.01</b>
8	4	JUVONNO	8.67	9.29	8.69	9.17	<b>8.96</b>
10	5	MV SOUL	8.76	8.88	8.86	9.25	<b>8.94</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.61	9.90	9.85	9.61	<b>9.74</b>
3	2	DXC	9.09	9.30	8.94	9.50	<b>9.21</b>
7	3	HEALTH360	8.15	8.80	8.86	8.93	<b>8.69</b>
2	4	EVERIS NTT DATA	8.42	8.63	8.43	9.23	<b>8.68</b>
10	5	MV SOUL	9.11	8.85	8.45	8.30	<b>8.68</b>

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.34	9.28	9.46	9.58	<b>9.42</b>
2	2	EVERIS NTT DATA	9.36	8.35	9.21	8.19	<b>8.78</b>
5	3	PHILIPS	8.50	8.66	8.64	8.33	<b>8.53</b>
13	4	MEDILINK	8.20	8.90	8.67	8.30	<b>8.52</b>
9	5	MEDITECH	8.99	8.86	8.13	7.88	<b>8.47</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	EVERIS NTT DATA	9.36	9.25	9.13	9.41	<b>9.29</b>
1	2	INTERSYSTEMS	9.49	9.17	8.85	9.18	<b>9.17</b>
3	3	DXC	8.82	9.13	8.67	8.96	<b>8.90</b>
18	4	GENEXUS	9.45	8.29	8.56	8.87	<b>8.79</b>
14	5	RESERVO	9.16	8.90	8.46	8.57	<b>8.77</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Financial viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes, and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.14	9.57	9.22	9.11	<b>9.26</b>
7	2	JUVONNO	9.18	9.16	8.49	9.45	<b>9.07</b>
2	3	EVERIS NTT DATA	9.12	8.87	8.60	9.27	<b>8.97</b>
4	4	HARMONI MD	9.25	8.52	9.09	8.87	<b>8.93</b>
9	5	MEDITECH	8.09	8.57	8.76	8.22	<b>8.41</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.45	9.59	9.49	9.47	<b>9.50</b>
3	2	DXC	9.35	9.31	9.42	9.26	<b>9.34</b>
6	3	SPDATA	8.71	8.77	9.32	9.00	<b>8.95</b>
4	4	HARMONI MD	8.84	8.51	8.98	8.98	<b>8.83</b>
2	5	EVERIS NTT DATA	9.09	8.30	9.10	8.75	<b>8.81</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.47	9.40	9.54	9.46	<b>9.47</b>
2	2	EVERIS NTT DATA	9.59	9.17	9.38	9.62	<b>9.44</b>
6	3	SPDATA	8.92	9.48	9.23	9.56	<b>9.30</b>
10	4	MV SOUL	9.41	9.19	8.70	9.18	<b>9.12</b>
15	5	OMNIA SALUD	8.74	8.56	9.13	8.63	<b>8.76</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

COLOMBIA, URUGUAY, CHILE, ARGENTINA, PERU, ECUADOR, BOLIVIA

### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	INTERSYSTEMS	9.31	9.58	9.24	9.29	<b>9.36</b>
2	2	EVERIS NTT DATA	8.92	9.32	9.04	9.35	<b>9.16</b>
3	3	DXC	9.15	9.04	8.33	9.40	<b>8.98</b>
5	4	PHILIPS	8.90	8.66	8.47	9.09	<b>8.78</b>
9	5	MEDITECH	9.04	8.53	8.32	9.08	<b>8.74</b>

Source: Black Book™ 2024

The background features a stylized map of Europe in a light gray tone, overlaid with a network of thin white lines. The map is partially obscured by large, overlapping geometric shapes in shades of orange, dark blue, and light gray. The text 'CENTRAL EUROPE' is prominently displayed in the center-left area.

# **CENTRAL EUROPE**

The European Commission has presented its Proposal for a Regulation on the European Health Data Space in July 2022. While it aims to strengthen the rights of individuals and unlock data's potential for research purposes, it also adds complexity to an already extensive legal framework. Here is what you need to know:

In its 2020 Data Strategy, the European Commission outlined a plan to unlock the untapped potential of the EU data economy. It envisioned a single European data space comprising several sectoral data spaces in key areas. To realise this vision, the Commission has devised a multi-layered legal framework, which it has been gradually introducing since then. The Data Governance Act and the Data Act Proposal (currently under discussion) form the horizontal part of this framework. The draft proposal for the European Health Data Space Regulation, published in May 2022, is the first sectoral text to build on this horizontal framework.

The Proposal aims to ensure the free movement, sharing and reuse of health data for the benefit of patients, researchers and businesses alike. It sets standards for the processing of electronic health data for both primary use (for the provision of health services to individuals) and secondary use (for research, innovation, policy-making, statistics and protection against cross-border health threats). We list the main highlights below:

Electronic Health Record (EHR) systems and wellness application manufacturers and providers;  
Controllers and processors who process the electronic health data of EU citizens or residents;  
Controllers and processors established in a third country connected (or interoperable) with MyHealth@EU; and,  
Data users to whom electronic health data is provided by data holders in the Union.  
All entities involved in the processing of health data or that may be in a position to use health data should follow these developments closely.

Chapter II of the Proposal outlines new rights and obligations for the main stakeholders (patients, health professionals, EHR system providers and the Member States) in this area:

For natural persons, the Proposal provides the right to free electronic access to their health data in a common European format. They will also have the right to rectification and to transfer their health data to third parties (portability).

Health professionals will have a corresponding right of access to the data of the persons under their treatment, including when they provide cross-border health services. However, they are obliged to register certain categories of health data in an electronic format.

To facilitate cross-border healthcare, the Proposal foresees that Member States will implement the MyHealth@EU platform to serve as the common infrastructure for the cross-border sharing of personal electronic health data and products. By 2025, the platform is expected to provide "ePrescriptions" for EU citizens to obtain medication in



another EU country, as well as digital patient summaries that can be translated into all EU languages.

EHR systems marketed in the EU will conduct a conformity assessment and demonstrate compliance with specifications adopted by the Commission through implementing acts. The Commission will maintain a publicly accessible database on EHR systems.

Permit-based secondary use of electronic health data:

To expand the reuse of health data, the Proposal provides a permit-based system. The Member States will designate one or more health data access bodies that will cooperate with the data protection authorities. Data holders will be obliged to transfer certain categories of electronic health data to the health data access bodies, which will be tasked with reviewing data access requests from data users who wish to re-use health data for secondary purposes.

The permit is granted on the basis of an application that must include details on a number of points, such as a description of the data requested, the reasons for the access requested, the intended uses, the safeguards, the duration and whether the data is to be provided in an anonymised or aggregated format. The Proposal specifies for which purposes and under which conditions access can be granted, but also which secondary uses are prohibited.

## **Supervision and enforcement**

The European Commission will establish a “European Digital and Health Data Board” composed of representatives of the competent authorities of all the Member States and the Commission. The Board will support the Regulation’s implementation and cooperation between the competent authorities.

As far as enforcement is concerned, it will be left to the Member States to establish “effective, proportionate and dissuasive” penalties for infringements.

Interaction with existing and imminent laws

The Proposal is without prejudice to existing laws, such as the General Data Protection Regulation (GDPR) and Data Governance Act, as well as laws that have not yet come into force, such as the proposed Data Act and AI Act. The Proposal seeks to build on these laws - but unlike them, it focuses exclusively on health data. The Proposal explicitly addresses the interplay with the GDPR, providing the legal basis for permit-based processing, and foreseeing the GDPR roles of different stakeholders. Nevertheless, it will inevitably lead to legal uncertainties as the EU legal framework for data sharing becomes more complex.

On May 3, 2022, the European Commission published a proposed regulation (the “EHDS Proposal”) for the establishment of a European Health Data Space (or “EHDS”). This is the first proposal for establishing domain-specific common European data spaces following

the European strategy for health data and an important step in building a European “Health Union”.

In short, the proposed regulation establishes the EHDS, a common space for health data where natural persons can control their electronic health data (primary use) and where researchers, innovators and policy makers have access to these electronic health data in a trusted and secure way that preserves the individual’s personal data (secondary use). Data holders (such as health care providers, including private and public hospitals, and research institutions) may be subject to new, burdensome obligations to make their data available for secondary use through the EHDS.

In this client alert we summarize the main principles the European legislature proposes to facilitate the primary and secondary use of health data in the EHDS and examine the consequences of this proposal for the different actors involved with the EHDS (individuals, health professionals, researchers, policy makers and the health care industry).

The starting point of EHDS Proposal is the finding that health data are fundamental for advancing scientific research and medical innovation, patient well-being and public health (as the Covid 19-pandemic has demonstrated), more efficient policy making and regulatory oversight. At the same time, the patient needs to have better control over their health data, protected as personal data. The EHDS Proposal aims to reconcile the regulation of the primary use of the health data by the individual and health professionals and the secondary use by researchers, innovators, and policy makers.

The EHDS Proposal is not an isolated piece of legislation: it sits on top of patchwork of relevant legislation, such as the General Data Protection Regulation, the NIS Directive and, specifically for the medical sector, the Medical Devices Regulation, the In Vitro Diagnostics Regulation and the Cross-Border Health Care Directive. Moreover, the proposal cannot be read without considering the proposed Data Governance Act, the proposed Data Act and the proposed Artificial Intelligence Act. While the Data Governance Act and Data Act would provide a generic, horizontal framework for the sharing of data, the EHDS Proposal would make these principles more concrete for health data.

Considering this complex legal framework, the EHDS Proposal is intended to offer some guidance on how electronic health data may be used for various purposes, considering not in the least that health data are protected under the GDPR as a “special category of data”, protected by additional safeguards for its processing. It does so through substantive rules, through technical regulation (e.g., formats of electronic health records or “EHRs” and interoperability requirements) and through regulatory oversight by dedicated national authorities.

The EHDS Proposal consists of two main components, being the primary and secondary use of electronic health data.

## **Primary Use of Electronic Health Data**

The first purpose of the EHDS Proposal is to strengthen the rights of natural persons in relation to the availability and control of their “electronic health data”, a notion that covers both personal and non-personal electronic health data, i.e., data concerning health and genetic data in electronic format within or outside the scope of the GDPR.

The rights of the data subjects regarding the “primary use” of electronic health data would be clarified in the EHDS Proposal, with “primary use” defined as the processing of such data “for the provision of health services to assess, maintain or restore the state of health of the natural person to whom that data relates, including the prescription, dispensation and provision of medicinal products and medical devices, as well as for relevant social security, administrative or reimbursement services”.

The EHDS Proposal would also provide more detailed guidance on how the data subject rights under the GDPR (e.g. rights to access, to obtain a copy in a standardized format or to rectify the data) may be exercised in relation to electronic health data, as well as on how to restrict such rights (e.g. delay the exercise of the rights to allow the health care professional the time to communicate with the patient). Individuals would be able to easily access and share these data (e.g., with the healthcare professionals of their choice) in and across Member States. They may even require a data holder to transmit their electronic health data to a “data recipient” in the health or social security sector. They would also be able to exercise better control over their data, in the sense that they would have the right to know which health care professionals have access to their data and to restrict their access to all or part of their data.

The health care professionals, on their end, would also have the right under the EHDS Proposal to access the electronic health data of individuals under their treatment (in particular patient summaries, prescriptions, dispensations, medical images and image reports, lab results and discharge reports, i.e., the “priority categories of personal electronic health data”). At the same time, they would be obligated to ensure that the electronic health data are updated in a European Health Record (“EHR”) system, with the information concerning the health services they provided.

## **Secondary Use**

Acknowledging the importance of health data for research, innovation, policy making, regulatory purposes, patient safety or the treatment of other patients, the EHDS Proposal would explicitly implement the possibilities to reuse personal data for secondary purposes authorized under the GDPR.

Under the proposal, the “data holder” (a notion similar to the one in the proposed Data Act) would be under the obligation to make certain categories of electronic data available for secondary use. These categories of data cover a wide variety of data, including EHRs but also data impacting on data, genomic data, socio-economic data, etc. from various

sources (generated using connected devices, administrative data, data from clinical trials, questionnaires, biobanks etc.).

The obligation to make these data available for secondary use would be required, even where the data may be protected under intellectual property rights or trade secrets, and measures must be taken to maintain this protection (although the EHDS Proposal does not indicate who would be responsible for these measures).

Access to these data would be managed by a “health data access body”, which would grant requests for access (in the form of a “data permit”) only for the broad objectives of scientific research, innovation, policy-making and regulatory activities.

In particular, the EHDS Proposal would authorize the processing of data for one of the following limited purposes: (a) public interest activities in public and occupational health (e.g. epidemics or pandemics), (b) supporting various public authorities in the health or care sector, (c) producing statistics, (d) education or teaching in the health or care sectors, (e) scientific research related to health or care sectors, (f) development and innovation in relation to products or services in public health or social security, medicinal products or of medical devices or, (g) training, testing and evaluating of algorithms (including in medical devices, AI systems and digital health applications) for medical applications (public health or social security, medicinal products or of medical devices); or (h) providing personalized healthcare.

Inversely, the EHDS Proposal would explicitly prohibit the use of data for a number of prejudicial secondary uses. It would forbid the use the data for taking decisions that are detrimental to the natural person, based on their electronic health data, or decisions that exclude natural persons from their insurance contracts or modify the terms to their detriment, developing harmful products or services. The data may not be used for advertising or marketing activities and the data may not be transferred in any way to a third party which is not mentioned in the data permit.

Interestingly, the “data users” may include any person who has lawful access to electronic health data – although some purposes are reserved for public authorities. This means that members of the pharmaceutical industry may request access to the data, even if they have a commercial purpose, as long as they intend to pursue one of the legitimate purposes, such as scientific research, innovation or the use of data to develop and train selected algorithms.

Whether this “permit-based approach” will be sufficient to facilitate the sharing of health data for secondary use, while at the same time guaranteeing the rights of individuals, remains to be seen: the success will largely depend on the practice and staffing of these national health data access bodies. It is noted that the GDPR follows a risk-based approach, creating more flexibility due to self-assessments and sufficient documentation.

## Technical Provisions

The EHDS Proposal not only contains substantive provisions on the use and reuse of health data but also organizes Europe’s technical infrastructure to support the primary and secondary uses of health data.

In order to make electronic health data accessible and transmissible, they should be processed using a common, interoperable format, the “European electronic health record exchange format” for which the Commission will determine the technical specifications. The natural person, the health care provider and the data recipient should be able to use this format to read and access the health data.

In order to guarantee a minimum level of security and interoperability, the EHDS Proposal would impose a self-certification scheme for EHR systems. The proposal also introduces a voluntary label for wellness applications to ensure transparency for users (and procurers) regarding the interoperability and security requirements (so the data generated by these apps can be added to the EHR). This scheme should also reduce cross-border market barriers for manufacturers (which must be established in the EU or have an authorized representative in the EU, prior to making an EHR system available in the EU). In the same vein, importers and distributors have specific obligations (e.g., verification of the conformity of the EHR system). A system of market surveillance of EHR systems is also provided, as Regulation 2019/1020 on market surveillance and compliance of products also applies to EHR systems. These rules apply in addition to compliance obligations resulting from the AI or medical device regulations.

Furthermore, a cross-border infrastructure at the European level would be set up under the name ‘MyHealth@EU’. It will bring together the “national contact points for digital health” and the “central platform for digital health”, in view of facilitating the exchange of electronic health data for primary use. The EHDS Proposal designates which Member States are joint controllers and the Commission as a processor.

Similarly, a cross-border infrastructure at the European level would be set up for the secondary use of electronic health data, under the name “HealthData@EU”. The Member States must designate a national contact point for secondary use of electronic health data, which will be responsible for facilitating such use by “authorized participants” in a cross-border context.

To optimize the secondary use of the health data, the EHDS Proposal contains some technical requirements to ensure the health data quality and utility for secondary use: a description of the available data sets, a data quality and utility label, an EU datasets catalogue, and minimum specifications for cross-border data sets for secondary use.

The EHDS Proposal would introduce new regulatory authorities, with distinct responsibilities for the primary and the secondary use of the electronic health data

Member States will be required to set up a digital health authority responsible for monitoring and guaranteeing the rights of individuals, under this primary use component.

The health data access bodies, to be created by the Member States, will decide whether access for secondary use is permissible and issue a “data permit”. Interestingly, they will also collect the data from various data holders (who must inform the health data access body about the data sets they hold), prepare and disclose the data to the data user, only for the permitted purposes, while preserving IP rights and trade secrets and allowing data subjects to exercise their rights. They would also have support, documentation, publicity and technical management obligations. They should also facilitate cross-border access to electronic health data for secondary use hosted in other Member States through HealthData@EU. Finally, they would monitor and supervise the compliance of data users and data holders with their respective obligations.

The EHDS Proposal contains detailed provisions on the content of the data permit, the application process and the access to the data (in a secure processing environment).

## OPPORTUNITIES

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The EHDS Proposal introduces an ambitious framework for facilitating the access to and (re-)use of health data. Its first purpose is to improve the access to health data for the data subjects, while at the same time strengthening their rights, and health care providers (primary use).

The harmonization of technical requirements and the self-certification scheme for EHRs may reduce the barriers for EHR-developers, importers and distributors and facilitate access to the EU-wide market.

It is, however, the incentives to unlock these sensitive data for secondary purposes that show the Commission’s ambitions. Importantly, research and innovation in data-intensive applications (including training algorithms for AI-applications, medical devices or medicinal products) are explicitly mentioned as authorized secondary purposes, meaning that data users can apply for a data permit for such intended purposes. As the EHDS Proposal intends to assure a certain data quality and the availability of large quantities of data from different sources, research institutions and industry actors should be able to leverage this new regulation to pursue faster and better innovations than if they only had access to their own data sets.

Health professionals should benefit from the EHDS as well, in particular with the secondary use of “providing personalized healthcare consisting in assessing, maintaining or restoring the state of health of natural persons, based on the health data of other natural persons”.

Finally, data holders (such as healthcare providers, including private or public hospitals, and research institutions) may be subject to new, burdensome obligations to make their data available for secondary use through the health data access bodies. The definition of “data holder” in the EHDS Proposal could use some clarification, as the current description covers any entity or body health or care sectors (or researchers in these sectors) that has the right or the legal obligation to make available certain data (in case of non-personal data the control of the technical design of a product or service suffices). On the other hand, they may also develop additional sources of revenue: data holders are indeed entitled to a fee, which is based on the cost of conducting the access procedure but (except for public sector bodies) may also include compensation for part of the cost of collecting and formatting the data.

We also note that entities that are operating in the US and the EU will likely need to navigate rules regarding health data that may not be harmonized, including US regulations governing health data privacy, interoperability, certification of EHRs, and oversight of medical devices.

Crowell <https://www.crowelldata.com/2022/06/proposed-european-health-data-space-regulation/>

## ○ GERMANY, SWITZERLAND, AUSTRIA

### EHR STATUS

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The government, through the Federal Ministry of Health developed electronic Health Cards for citizens covered by insurance. The smart card contains users' personal information, history of medical records, and insurance details. The card is used by patients to access healthcare services that are covered by the insurance, which significantly eases interaction between healthcare professionals and patients.

Acknowledging the importance of digitalization, Germany passed the first E-Health law of its history in 2015. The law outlines a roadmap to build a nationwide digital infrastructure, aims to facilitate access to health information, and governs the introduction of new digital applications. While the first new services, such as remote consultation, emergency data storage, electronic medication plan, and electronic physician's letter have been rolled out, the most significant changes came into place during the beginning of 2019.

As 2018 concluded, Germany had implemented a nationwide network that enabled the secure data transmission among healthcare providers. Designated as the largest IT project in the world by the Ministry of Health, the telematics infrastructure connects over 2.5 million healthcare professionals and hold data of 70-80 million citizens. Starting in 2019, healthcare professionals were able to store health related patient data on the new and highly secure infrastructure in the form of a statutory electronic patient record.

A few years ago, two health-insurance-led initiatives, covering together a total of 35 million people, launched a different and more patient-focused electronic patient record, termed personal health record (PHR). In contrast to the government-led and provider-focused statutory EPR, the PHR is patient-focused, includes patient-collected health data, and is more easily accessible through mobile devices.<sup>1</sup>

### MARKET DYNAMICS

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The Federal Republic of Germany is in central Europe, with 81.8 million inhabitants (2011), making it by some distance the most populated country in the European Union. Germany is the world's fourth largest healthcare market and ranked among the top ten in health expenditure per capita measured as a percentage of GDP. Nonetheless, Germany's



healthcare system to date exhibits a comparatively low degree of digitalization. Recent developments in infrastructure and legal provisions; however, imply that the time of change is soon to come.

In the German health care system, decision-making powers are traditionally shared between national and state levels, with much power delegated to self-governing bodies. It provides universal coverage for a wide range of benefits. Since 2009, health insurance has been mandatory for all citizens and permanent residents, through either statutory or private health insurance. A total of 70 million people or 85% of the population are covered by statutory health insurance. Another 11% are covered by substitutive private health insurance. A key feature of the health care delivery system in Germany is the clear institutional separation between public health services, ambulatory care, and hospital (inpatient) care. This has increasingly been perceived as a barrier to change and so provisions for integrated care are being introduced with the aim of improving cooperation between ambulatory physicians and hospitals.

Germany invests a substantial amount of its resources on health care: 12.5% of gross domestic product in 2020, which is one of the highest levels in the European Union. In international terms, the German health care system has a generous benefit basket, one of the highest levels of capacity as well as relatively low cost-sharing. However, the German health care system still needs improvement in some areas, such as the quality of care. In addition, the division into statutory and private health insurance remains one of the largest challenges for the German health care system, as it leads to inequalities. The general direction is clear; Germany is heading towards a digital transformation of its healthcare system, which will unlock many possibilities for manufacturers who wish to access the German healthcare market with innovative, digital health solutions.

The German Social Security Code requests that "data on findings, diagnoses, therapeutic measures, treatment reports and vaccinations for cross-case and multi-patient documentation about the patient" be stored in EHRs. The technical requirements for EHRs were specified by a company called *Gematik Gesellschaft für Telematikwendungen der Gesundheitskarte*, a company for telecommunication applications for the electronic health card, in December 2018.

EHRs are hailed as the key to increasing the quality of care. The Appointment Service and Supply Act adopted on March 14<sup>th</sup>, 2019, requires the German statutory health insurance funds to provide policyholders with electronic health records from January 1<sup>st</sup>, 2021, onwards.<sup>2</sup>

## CONSTRAINTS

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Widespread criticism of personal health records' security arose soon after the launch of a mobile application. According to the providers' websites, all personal health records are end-to-end encrypted. Some PHR apps even have a two-factor authentication system like the one used in online banking. Vivy was launched in September 2018, while other applications were still in the development phase. Vivy was strongly criticized barely 24 hours after it had been launched. Users discovered that the app transmitted data to third parties, in this case to tracking companies abroad, before the user even had the opportunity to agree to the app's privacy policy.

Customers pointed out that advertising and analytics modules have no place in apps that process highly sensitive information such as health data. Other security experts agree and have substantiated their findings with an in-depth safety report and a lecture at the 35th Chaos Communication Congress. In a press release published on December 27<sup>th</sup>, 2018, Vivy pointed out that the attack scenarios presented were no longer valid at the time of their presentation and that no Vivy user had been affected.<sup>1</sup> Although the issue had been resolved, a security breach like this leads people to be more skeptical of already new technology.

## OPPORTUNITIES

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The new government is putting significant emphasis on digital health and has announced to present its digitalization strategy for the healthcare system in autumn of 2018. Besides carving out the future direction of electronic patient records standards, the new plan is expected to shed light on more flexible methods for health technology assessment of digital health solutions, to open faster routes to market for quality-controlled apps and to unlock opportunities for data usage, both for patients and for research.

EHRs that conform to law are much safer than PHRs. There is an advantage in the use of connectors and the electronic health card. Health records were migrated towards approved and certified electronic health records by the end of 2020. A possible mobile application for EHRs will feature an authentication method that is different from the current one by way of connectors and PHRs. Near field communication, as used by credit cards, might be a possible solution. Health insurance companies were also given the possibility to transfer data from their systems to EHRs by mid 2019.

On February 6<sup>th</sup>, 2019, the European Commission issued recommendations that will facilitate access to health data across borders in full compliance with the General Data

Protection Regulation. The recommendations propose that EU Member States extend this possibility to patient summaries, ePrescriptions, laboratory tests, medical discharge reports and images and imaging reports. Germany appears to be well positioned as far as the EU's recommendations on a European personal health record exchange format are concerned.

E-Prescriptions is another opportunity that lies in Germany's IT. The e-Prescription was established in Germany by 2020. By 2022, the process became mandatory. The ideal process was that the e-Prescription would be part of the electronic patient record. The moment a patient is in the pharmacy with my electronic health card, the pharmacist can access it. The e-Prescription brings real added value to the economy. If they combine it with online consultations or pharmacy delivery services, the range of services offered to patients will be extended to bring the digital component to healthcare they are looking for.<sup>3</sup>

### Citations

<sup>1</sup>Tiedemann, Annika. *Electronic Health Records in Germany-An Answer to all Health Questions?* Germany, 2019. Web. 22 May 2019. <http://www.genre.com/knowledge/blog/electronic-health-records-in-germany-an-answer-to-all-health-questions-en.html>

<sup>2</sup>Busse, Reinhard, and Miriam Blümel. *Germany Health System Review*. Germany, 2014. Web. 22 May 2019 <http://www.who.int/iris/handle/10665/130246>

<sup>3</sup>Engberg, Anna. *German Health Minister Spahn Promotes use of ePrescriptions at the DMEA 2019*. Germany, 2019. Web. 22 May 2019. <https://www.healthcareitnews.com/news/europe/german-health-minister-spahn-promotes-use-eprescriptions-dmea-2019>

# GERMANY, SWITZERLAND, AUSTRIA

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS

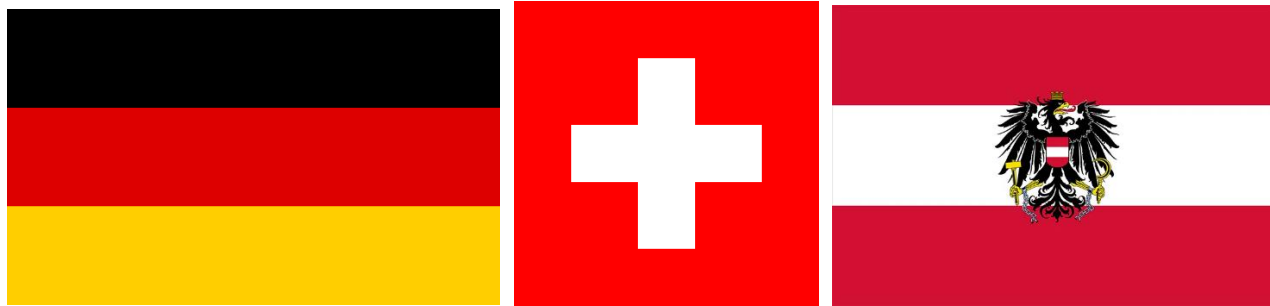
1266 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	20%
Clinic/Practice Name	9%
Public Clinic	12%
Health System Clinic	14%
Academic Hospital and Medical Centers over 250 Beds	30%
Community Hospitals	24%
Small Hospitals under 100 Beds	1%
Ambulatory Surgery Centers	0%
TOTAL	100%

Source: Black Book™ 2024

## 2024 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## **2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

GERMANY, SWITZERLAND, AUSTRIA

**DEDALUS**

FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR BRAZIL

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**IMEDONE DEUTSCHE TELECOM**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**COMPUGROUP MEDICAL**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**PHILIPS**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**INTERSYSTEMS**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research



## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY							
OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of questions or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

GERMANY, SWITZERLAND, AUSTRIA

Summary of criteria outcomes

TABLE 4: SUMMARY OF CRITERIA OUTCOMES

Total number one criteria ranks	Vendor	Overall rank
7	DEUTSCHE TELEKOM	1
4	COMPUGROUP MEDICAL	3
2	DEDALUS ORBIS	3
2	EPIC CARE	5
2	ORACLE HEALTH MILLENIUM	9
1	CERNER I.S.H. MED	8

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

### GERMANY, SWITZERLAND, AUSTRIA

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>COMPUGROUP MED</b>	1
2	Innovation & Optimization	<b>DEUTSCHE TELEKOM</b>	2
3	Training	<b>DEDALUS</b>	3
4	Client relationships and cultural fit	<b>COMPUGROUP MED</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>COMPUGROUP MED</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>ORACLE HEALTH</b>	9
7	Deployment and implementation	<b>COMPUGROUP MED</b>	1
8	Customization	<b>DEUTSCHE TELEKOM</b>	2
9	Integration and interfaces	<b>CERNER I.S.H.</b>	8
10	Scalability, client adaptability, flexible pricing	<b>COMPUGROUP MED</b>	1
11	Compensation and employee performance	<b>DEUTSCHE TELEKOM</b>	2
12	Reliability	<b>DEUTSCHE TELEKOM</b>	2
13	Brand image and marketing communications	<b>ORACLE HEALTH</b>	9
14	Marginal value adds and modules	<b>DEDALUS</b>	3
15	Financial & Managerial Viability	<b>EPIC CARE</b>	5
16	Data security and backup services	<b>DEDALUS</b>	3
17	Support and customer care	<b>COMPUGROUP MED</b>	1
18	Best of breed technology and process improvement	<b>DEUTSCHE TELEKOM</b>	2

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR GERMANY, SWITZERLAND, AUSTRIA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	COMPUGROUP MEDICAL	A	A	A
2	DEUTSCHE TELEKOM	A	A	A
3	DEDALUS	A	C	B
4	AGFA	A	C	B
5	EPIC CARE	A	A	C
6	NEXUS	B	B	B
7	M-KIS AKUT	B	B	B
8	MEIERHOFER	A	B	C
9	ORACLE HEALTH	C	D	D

# INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

## Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client’s Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY			
1	1	COMPUGROUP MED	9.59	9.57	9.79	9.65	9.65
2	2	DEDALUS	8.71	9.59	9.12	9.00	9.11
3	3	DEUTSCHE TELEKOM	8.60	8.68	8.43	9.52	8.81
6	4	NEXUS	8.04	7.23	7.15	8.51	7.73
5	5	EPIC CARE	7.95	8.24	6.91	7.07	7.54
4	6	AGFA	6.98	6.60	8.53	7.28	7.35
7	7	M-KIS AKUT	7.05	7.81	6.23	6.60	6.92
8	8	INTERSYSTEMS	7.22	7.24	7.08	5.92	6.87
9	9	ORACLE HEALTH	5.35	6.33	7.11	6.42	6.30

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY				
2	1	DEUTSCHE TELEKOM	9.09	9.17	9.88	9.62	9.44	
1	2	COMPUGROUP MED	8.92	9.48	9.23	9.56	9.30	
6	3	NEXUS	9.41	9.19	8.70	9.18	9.12	
4	4	AGFA	8.74	8.56	9.13	8.63	8.76	
5	5	EPIC	8.40	8.41	8.98	8.88	8.67	
3	6	IBM	8.27	9.11	8.89	8.34	8.65	
7	7	M-KIS AKUT	8.64	8.63	8.20	8.87	8.59	
8	8	INTERSYSTEMS	7.91	8.04	9.16	8.76	8.47	
9	9	ORACLE HEALTH	8.69	7.74	8.13	8.77	8.33	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING				
3	1	DEDALUS	9.35	9.31	9.42	9.26	9.34
6	2	NEXUS	8.71	8.77	9.32	9.00	8.95
1	3	COMPUGROUP MED	8.84	8.51	8.98	8.98	8.83
4	4	AGFA	9.09	8.30	9.10	8.75	8.81
5	5	EPIC	8.82	8.73	8.83	8.46	8.71
2	6	DEUTSCH TELEKOM	8.57	8.66	8.29	8.85	8.59
7	7	M-KIS AKUT	7.78	8.85	8.83	8.89	8.59
8	8	INTERSYSTEMS	8.12	8.69	8.70	8.82	8.58
9	9	ORACLE HEALTH	8.15	8.99	8.90	8.24	8.57

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MED	9.18	9.16	8.49	9.45	9.07
7	2	M-KIS AKUT	9.62	9.37	8.60	8.27	8.97
3	3	DEDALUS	9.25	8.52	9.09	8.87	8.93
4	4	AGFA	8.09	8.57	8.76	8.22	8.41
5	5	EPIC	7.86	8.30	8.23	8.36	8.19
2	6	DEUTSCHE TELEKOM	8.25	8.42	7.75	8.25	8.17
6	7	NEXUS	7.26	7.11	7.39	9.06	7.71
8	8	INTERSYSTEMS	6.96	7.02	7.50	8.58	7.52
9	9	ORACLE HEALTH	8.02	7.40	7.55	7.05	7.51

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MED	9.76	9.20	9.10	9.81	9.48
5	2	EPIC	9.09	9.17	9.25	9.18	9.17
6	3	NEXUS	8.82	9.13	8.67	8.96	8.90
4	4	AGFA	9.45	8.29	8.56	8.87	8.79
2	5	DEUTSCHE TELEKOM	9.16	8.90	8.46	8.57	8.77
3	6	IBM	8.56	9.27	8.41	8.61	8.71
7	7	M-KIS AKUT	8.25	8.77	9.34	8.13	8.62
8	8	INTERSYSTEMS	7.64	8.78	8.69	9.32	8.61
9	9	ORACLE HEALTH	8.29	8.31	8.24	8.45	8.33

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

**Breadth of offerings, varied client settings, delivery excellence across all user types**

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY			
9	1	<b>ORACLE HEALTH</b>	9.36	9.75	9.21	7.99	<b>9.08</b>
1	2	COMPUGROUP MED	8.50	8.66	8.64	8.33	8.53
3	3	DEDALUS	8.20	8.90	8.67	8.30	8.52
4	4	AGFA	8.99	8.86	8.13	7.88	8.47
5	5	EPIC	7.52	8.82	8.78	8.40	8.38
6	6	NEXUS	8.33	8.71	7.76	8.51	8.33
2	7	DEUTSCHE TELEKOM	8.41	8.87	8.22	7.40	8.23
8	8	INTERSYSTEMS	7.48	8.03	8.74	8.13	8.10
9	9	M-KIS AKUT	8.29	8.33	7.60	8.09	8.08

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING				
1	1	COMPUGROUP MED	9.61	8.95	9.99	9.61	9.54
4	2	AGFA	9.09	9.30	8.94	9.50	9.21
8	3	INTERSYSTEMS	8.15	8.80	8.86	8.93	8.69
6	4	NEXUS	8.42	8.63	8.43	9.23	8.68
5	5	EPIC	9.11	8.85	8.45	8.30	8.68
2	6	DEUTSCHE TELEKOM	8.69	8.60	8.02	8.95	8.57
7	7	M-KIS AKUT	8.74	8.75	8.16	8.19	8.46
9	8	ORACLE HEALTH	8.41	8.09	8.58	8.17	8.31
3	9	IBM	8.55	8.35	8.31	8.01	8.30

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING				
2	1	DEUTSCHE TELEKOM	9.06	9.07	9.45	9.39	9.24
1	2	COMPUGROUP MED	9.16	9.15	9.05	8.68	9.01
3	3	DEDALUS	8.67	9.29	8.69	9.17	8.96
4	4	AGFA	8.76	8.88	8.86	9.25	8.94
5	5	EPIC	8.78	8.68	8.67	8.86	8.75
6	6	NEXUS	8.64	8.51	8.97	8.48	8.65
7	7	M-KIS AKUT	8.22	8.39	9.05	8.77	8.61
8	8	INTERSYSTEMS	8.74	7.95	8.63	8.64	8.49
9	9	ORACLE HEALTH	8.10	7.93	8.85	8.79	8.42

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q19CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY				
8	1	<b>INTERSYSTEMS</b>	9.09	9.30	8.94	9.50	<b>9.21</b>	
1	2	COMPUGROUP MED	8.15	8.80	8.86	8.93	8.69	
3	3	DEDALUS	8.42	8.63	8.43	9.23	8.68	
2	4	DEUTSCHE TELEKOM	9.11	8.85	8.45	8.30	8.68	
5	5	EPIC	8.69	8.60	8.02	8.95	8.57	
9	6	ORACLE HEALTH	8.74	8.75	8.16	8.19	8.46	
7	7	M-KIS AKUT	8.41	8.09	8.58	8.17	8.31	
4	8	AGFA	8.55	8.35	8.31	8.01	8.30	
6	9	NEXUS	7.66	8.21	7.98	8.92	8.19	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets the needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MED	9.52	9.55	9.07	9.35	9.52
5	2	EPIC	9.41	9.42	9.10	9.41	9.41
3	3	DEDALUS	8.58	8.49	8.61	9.38	8.58
4	4	AGFA	8.97	8.44	8.35	9.06	8.97
2	5	DEUTSCHE TELEKOM	8.12	8.83	8.33	9.14	8.12
6	6	NEXUS	8.54	7.99	7.36	9.02	8.54
7	7	M-KIS AKUT	7.33	8.60	8.08	8.59	7.33
8	8	INTERSYSTEMS	7.76	7.98	8.57	7.99	7.76
9	9	ORACLE HEALTH	6.99	7.80	7.99	9.21	6.99

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY			
2	1	DEUTSCHE TELEKOM	9.46	9.02	9.41	9.73	9.46
1	2	COMPUGROUP MED	9.03	9.38	9.35	9.40	9.03
3	3	DEDALUS	9.03	9.48	8.45	9.51	9.03
4	4	AGFA	8.90	9.04	8.55	8.99	8.90
5	5	EPIC	8.63	8.94	8.09	9.08	8.63
6	6	NEXUS	8.59	8.78	8.05	8.68	8.59
7	7	M-KIS AKUT	8.22	8.93	7.99	8.75	8.22
8	8	INTERSYSTEMS	7.87	8.48	8.49	8.60	7.87
9	9	ORACLE HEALTH	8.99	7.60	7.87	8.33	8.99

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY			
2	1	DEUTSCHE TELEKOM	9.08	9.45	9.29	9.16	9.25
1	2	COMPUGROUP MED	8.99	9.11	9.17	9.20	9.12
3	3	DEDALUS	9.27	8.49	9.01	9.34	9.03
4	4	AGFA	9.26	8.92	8.65	8.87	8.93
5	5	EPIC	8.70	9.58	8.93	8.46	8.92
6	6	NEXUS	8.99	8.79	9.30	8.26	8.84
7	7	M-KIS AKUT	8.28	8.59	9.22	9.00	8.77
8	8	INTERSYSTEMS	8.70	8.51	8.39	8.52	8.53
9	9	ORACLE HEALTH	9.08	9.45	9.29	9.16	9.25

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY			
9	1	ORACLE HEALTH	9.28	9.29	9.68	9.69	9.49
5	2	EPIC	9.03	9.40	9.24	9.11	9.20
3	3	DEDALUS	8.94	9.02	9.12	9.11	9.05
4	4	AGFA	9.22	8.44	8.96	9.29	8.98
2	5	DEUTSCH TELEKOM	9.21	8.87	8.60	8.82	8.88
6	6	NEXUS	8.65	9.53	8.88	8.41	8.87
7	7	INTERSYSTEMS	8.94	8.74	9.25	8.21	8.79
1	8	COMPUMED GROUP	8.23	8.54	9.17	8.95	8.72
7	9	M-KIS AKUT	8.30	9.08	8.45	8.31	8.54

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA		ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY			
3	1	DEDALUS	9.28	9.29	9.68	9.69	9.49
1	2	COMPUGROUP MED	9.03	9.40	9.24	9.11	9.20
2	3	DEUTSCHE TELEKOM	8.94	9.02	9.12	9.11	9.05
9	4	ORACLE HEALTH	9.22	8.44	8.96	9.29	8.98
5	5	EPIC	9.21	8.87	8.60	8.82	8.88
6	6	NEXUS	8.65	9.53	8.88	8.41	8.87
7	7	M-KIS AKUT	8.94	8.74	9.25	8.21	8.79
8	8	INTERSYSTEMS	8.23	8.54	9.17	8.95	8.72
4	9	AGFA	8.30	9.08	8.45	8.31	8.54

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Financial viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes, and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q1 5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EPIC	9.51	8.96	8.92	9.47	9.21
1	2	COMPUGROUP MED	9.26	9.57	8.94	9.00	9.19
3	3	DEDALUS	9.27	9.52	8.87	9.05	9.18
4	4	AGFA	8.29	9.41	9.01	9.38	9.02
6	5	NEXUS	8.89	9.31	8.92	8.77	8.97
2	6	DEUTSCHE TELEKOM	8.04	8.42	9.38	9.16	8.75
7	7	M-KIS AKUT	9.11	8.84	8.49	8.37	8.70
8	8	INTERSYSTEMS	8.85	9.05	8.23	8.44	8.64
9	9	ORACLE HEALTH	8.29	8.59	8.50	8.81	8.55

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor’s service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.30	9.26	8.97	9.61	9.29
1	2	COMPUGROUP MED	9.25	9.22	9.07	9.00	9.13
2	3	DEUTSCHE TELEKOM	8.96	9.08	8.91	8.85	8.95
4	4	AGFA	9.00	8.96	8.89	8.80	8.91
5	5	EPIC	8.78	9.31	8.74	8.69	8.88
6	6	NEXUS	9.01	8.96	8.45	8.65	8.77
7	7	M-KIS AKUT	8.75	7.40	9.27	8.32	8.43
8	8	INTERSYSTEMS	8.22	8.90	8.13	8.37	8.40
9	9	ORACLE HEALTH	8.74	8.40	7.95	8.30	8.35

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING				
1	1	COMPUGROUP MED	9.68	9.49	9.77	8.97	9.48
2	2	DEUTSCHE TELEKOM	9.38	9.14	9.38	9.02	9.23
5	3	EPIC	9.25	9.35	8.62	8.94	9.04
6	4	NEXUS	8.97	9.17	9.50	8.47	9.03
4	5	AGFA	8.86	8.87	8.53	8.84	8.78
3	6	DEDALUS	8.44	8.78	8.46	9.45	8.78
7	7	M-KIS AKUT	9.23	8.87	7.96	8.74	8.70
8	8	INTERSYSTEMS	8.62	8.26	7.78	8.67	8.33
9	9	ORACLE HEALTH	8.73	8.47	8.16	7.83	8.30

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

GERMANY, SWITZERLAND, AUSTRIA

### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	DEUTSCHE TELEKOM	9.007	9.59	9.47	9.45	9.30
1	2	COMPUGROUP MED	9.48	9.39	9.08	9.20	9.29
3	3	DEDALUS	9.35	9.23	9.10	9.04	9.18
4	4	AGFA	9.32	9.27	9.31	8.67	9.14
5	5	EPIC	8.56	9.11	8.63	8.14	8.61
6	6	NEXUS	8.54	8.52	8.18	9.15	8.60
7	7	M-KIS AKUT	9.13	8.77	8.06	8.32	8.57
8	8	INTERSYSTEMS	8.09	8.36	8.01	8.87	8.33
9	9	ORACLE HEALTH	8.11	8.17	8.26	8.11	8.16

Source: Black Book™ 2024

## ○ ITALY

### EHR STATUS

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The national pact for eHealth was approved on July 7th, 2016. It represents the strategic plan aimed to achieve efficiency, transparency, and sustainability of the National Healthcare Service, through digital innovation in healthcare.

The implementation of a program known as Bricks, representing common elements and building blocks of the healthcare system, was launched in 2004. It establishes the toolkit necessary to ensure a common language for:

- classification and codification of concepts such as healthcare services, facilities etc.
- sharing of methodologies to measure and compare quality and efficiency of the Regional Healthcare Services such as waiting times
- achieving a uniform approach in the generation of data and information for the Fundamental Levels of Healthcare Services

The Bricks toolkit helps to ensure interoperability in the information systems developed by the regions and by the local healthcare administrations.

The New National Healthcare Information System seeks to build an integrated system of individual health records, where patient information and the healthcare delivery structure are the central entities but provide information on all levels of operating healthcare facilities, services delivered, as well as human and financial resources used by the patient. The Ministry of Health and the Digital Italy Agency monitored the progress of EHRs in all of the regions: 33% work, 47% are in progress, and 19% are not yet working in certain regions.<sup>1</sup>

### MARKET DYNAMICS

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Italy is the sixth largest country in Europe and has the second highest average life expectancy, reaching 79.4 years for men and 84.5 years for women in 2011. There are marked distinctions for both men and women in most health indicators, reflecting the economic and social imbalance between the north and south of the country. In 2019, total health expenditure accounted for 8.7% of GDP, slightly below the EU average of 9.6%.<sup>2</sup>



It has nationalized health care, and every legal resident of Italy can access the system either for free or at a relatively limited cost. The health care system in Italy is a regionally based national health service known as Servizio Sanitario Nazionale (SSN). It is organized first by region and then by district within each region and is funded through both national and regional taxes. It provides free of charge universal coverage at the point of service. How much each person co-pays for specific health services or pharmaceuticals is determined by which income bracket he/she has declared when registering with the system. While the national level ensures the general objectives and fundamental principles of the national health care system are met, regional governments in Italy are responsible for organizing and delivering primary and secondary health care services as well as preventive and health promotion services. Health care facilities vary in terms of quality in different regions of Italy.

Italy shows an articulated health care system aimed at ensuring citizens with essential levels of care, in terms of access and quality. A law passed in 2012, has defined the linkage of all health data flows at national level. It introduced a unique identifier nation-wide which allows interconnection of all health data flows focused on that person, known as Codice Univoco Nazionale dell'Assistito (CUNA). The decree of the Ministry of health on December 7th, 2016, defines the allowed purposes, processes, technical measures, and the security measures to guarantee the compliance of the treatments with the law. The CUNA will allow to "follow" patients in their path throughout all regions through different care settings such as hospitalization, drugs, and homecare.<sup>3</sup>

The Italian Ministry of Health has identified eHealth as one of the paramount strategic goals to be reached. Its priorities cover EHRs, telemedicine, and e-Prescriptions. Since 2008, this branch of government has been implementing many different eHealth initiatives nation-wide in collaboration with regions. This will generate essential levels of information thus supporting health care processes, National Healthcare Service governance, and clinical documents dematerialization in favor of managerial and organizational processes.<sup>1</sup>

Electronic Health Records will be utilized to respond to the citizen's needs while being a key element towards an integrated model of care. In order to accelerate the implementation of the interoperability services among the regional EHRs, and to speed-up deployment of EHR for regions behind schedule, the law modified the provisions regarding the National Infrastructure for Interoperability (INI). This infrastructure will also provide a complete EHR solution, to be used by those regions where the local implementation is late or too slow, hence enabling a timely roll-out of the EHR.

The National Guidelines for Telemedicine have been endorsed, on February 20th, 2014, by the National Permanent Conference for relations between State and Regions. The law

models that systems should be flexible, interoperable, and adaptable to different social health care systems in order to share telemedicine best practices. In regard to regulations for e-Prescriptions, a decree established in 2010, defined the prescription dematerialization process. It established that the data electronic transmission of e-Prescriptions replaces conventional paper prescriptions. Further regulations stated the gradual transition should lead to 90% of e-Prescriptions in all Italian regions.

## CONSTRAINTS

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Interregional inequity is a long-standing concern. The less affluent south trails the north in the number of beds and availability of advanced medical equipment, has proportionally fewer public versus private facilities, and has less-developed community care services; this gap in availability is increasing. Income-related disparities in self-reported health status are significant, though similar to those in the Netherlands, Germany, and other European countries.

Containing health care costs is a core concern of the central government, as Italy's public debt is among the highest of the industrialized nations. Fiscal capacity varies greatly across regions. To meet cost-containment objectives, the central government can impose recovery plans on regions with health care expenditure deficits. These identify tools and measures needed to achieve economic balance: revision of hospital and diagnostic fees, reduction of the number of beds, increased copayments for pharmaceuticals, and reduction of human resources through limited turnover.<sup>3</sup>

The eHealth initiatives are aimed at bridging the gap between the regions and also at pursuing improved health and health care delivery together with sustainability of the whole National Healthcare Service. To this aim it is fundamental to ensure maximum synergy between all actors involved in order to achieve a harmonious and coherent development of eHealth in the whole country.

## OPPORTUNITIES

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In order to reduce disparities, the regions receive a proportion of funding from an equalization fund, known as Fondo Perequativo Nazionale. Aggregate funding for the regions is set by the Ministry of the Economy and Finance, and the resource allocation mechanism is based on capitation adjusted for demographic characteristics and use of health services by age and sex.

As for the status of electronic health records, some regions have developed computerized networks to facilitate communication between physicians, pediatricians, hospitals, and territorial services and to improve continuity of care. These networks allow the automatic transfer of patient registers and of information on services provided, prescriptions for specialist visits and diagnostics, and laboratory and radiology test outcomes. A few regions have also developed a personal electronic health record, accessible by the patient, which contains all of his or her medical information, such as outpatient specialty care results, medical prescriptions, and hospital discharge instructions. Personal electronic health records are meant to provide support to patients and clinicians across the whole process of care, but diffusion is still limited.<sup>3</sup>

### Citations

<sup>1</sup> Sheshabalaya, Tosh. *Healthcare IT and E-Health in Italy*. Belgium, 2009. Web. 25 May 2019. <https://healthmanagement.org/c/it/issuearticle/healthcare-it-and-e-health-in-italy>

<sup>2</sup> Ferre, F, et. al. *Italy: Health System Review*. USA, 2014. Web. 25 May 2019. <https://www.ncbi.nlm.nih.gov/pubmed/25471543>

<sup>3</sup> Donatini, Andrea, and Emilia Romagna. *The Italian Health Care System*. Italy, 2017. Web. 25 May 2019. <https://international.commonwealthfund.org/countries/italy/>

# ITALY

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
440 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	10%
Clinic/Practice Name	15%
Public Clinic	28%
Health System Clinic	1%
Academic Hospital and Medical Centers over 250 Beds	29%
Community Hospitals	15%
Small Hospitals under 100 Beds	0%
Ambulatory Surgery Centers	0%
TOTAL	100%

Source: Black Book™ 2024

# 2024 RESULTS

## ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

**2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

**ITALY**

**COMPUGROUP MEDICAL**

**FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR BRAZIL**

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT &  
ADMINISTRATIVE PROCESSING

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**COMPUGROUP**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND  
CONNECTIVITY

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**INTERSYSTEMS**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**DEDALUS**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION  
SUPPORT

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**COMPUGROUP**

## STOP LIGHT SCORING KEY

**FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS**

PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT
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Source: Black Book Research

**FIGURE 2: KEY TO RAW SCORES**

0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY	
<b>Green</b>  <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b>  <b>5.80 to 7.32</b>	Scores better than half of vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b>  <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research



## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

1 = Deal breaking dissatisfaction ◀ ▶ 10 = Exceeds all expectations

Source: *Black Book Research*

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY							
OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- Company** – name of the EHR vendor.
- Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

## OVERALL KPI LEADERS: EHR

### ITALY

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>COMPUGROUP MEDICAL</b>	1
2	Innovation & Optimization	<b>ENGINEERING INGEGERIA</b>	3
3	Training	<b>COMPUGROUP MEDICAL</b>	1
4	Client relationships and cultural fit	<b>COMPUGROUP MEDICAL</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>COMPUGROUP MEDICAL</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>DEDALUS DXC</b>	2
7	Deployment and outsourcing implementation	<b>COMPUGROUP MEDICAL</b>	1
8	Customization	<b>COMPUGROUP MEDICAL</b>	1
9	Integration and interfaces	<b>INTERSYSTEMS</b>	4
10	Scalability, client adaptability, flexible pricing	<b>COMPUGROUP MEDICAL</b>	1
11	Compensation and employee performance	<b>DEDALUS DXC</b>	2
12	Reliability	<b>COMPUGROUP MEDICAL</b>	1
13	Brand image and marketing communications	<b>COMPUGROUP MEDICAL</b>	1
14	Marginal value adds and modules	<b>COMPUGROUP MEDICAL</b>	1
15	Financial & Managerial Viability	<b>COMPUGROUP MEDICAL</b>	1
16	Data security and backup services	<b>DEDALUS DXC</b>	2
17	Support and customer care	<b>COMPUGROUP MEDICAL</b>	1
18	Best of breed technology and process improvement	<b>COMPUGROUP MEDICAL</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR ITALY	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	COMPUGROUP MEDICAL	A	A	A
2	DEDALUS	A	B	C
3	ENGINEERING INGEGERIA	B	B	D
4	INTERSYSTEMS ITALIA	C	C	D

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	ENGINEERING INGEGERIA	9.70	9.30	9.70	9.48	9.55
1	2	COMPUGROUP MEDICAL	9.55	9.66	9.72	9.18	9.53
2	3	DEDALUS DXL	9.13	7.39	7.50	9.21	8.31
4	4	INTERSYSTEMS ITALIA	8.11	7.87	8.58	8.55	8.28

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	8.60	8.72	9.25	8.83	8.85
2	2	DEDALUS DXC	9.51	8.17	8.90	8.50	8.77
3	3	ENGINEERING INGEGERIA	7.64	7.77	8.85	9.06	8.33
4	4	INTERSYSTEMS ITALIA	8.16	8.22	8.52	8.40	8.33

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.03	9.19	9.14	8.67	9.01
2	2	DEDALUS DXC	8.57	9.14	9.67	8.05	8.86
3	3	ENGINEERING INGEGERIA	8.35	8.82	8.94	9.21	8.83
4	4	INTERSYSTEMS ITALIA	8.89	9.30	8.50	7.63	8.58

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	8.74	8.32	9.05	8.73	8.71
2	2	DEDALUS DXC	8.69	8.06	8.67	8.82	8.56
3	3	ENGINEERING INGEGERIA	8.20	8.52	8.08	8.91	8.43
4	4	INTERSYSTEMS ITALIA	8.62	9.10	7.87	7.89	8.37

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

**Breadth of offerings, varied client settings, delivery excellence across all user types**

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	DEDALUS DXL	9.31	8.98	8.73	9.38	9.10
1	2	COMPUGROUP MEDICAL	8.68	9.31	9.19	9.15	9.08
3	3	ENGINEERING INGEGERIA	9.09	8.52	9.25	9.14	9.00
4	4	INTERSYSTEMS ITALIA	8.54	8.27	9.02	8.54	8.59

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	8.92	8.68	8.49	9.11	8.80
2	2	DEDALUS DXC	9.06	8.55	8.34	9.10	8.76
3	3	ENGINEERING INGEGERIA	8.29	9.13	8.26	8.83	8.63
4	4	INTERSYSTEMS ITALIA	9.07	8.65	8.55	8.12	8.60

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.37	9.65	9.50	8.97	9.37
2	2	DEDALUS DXC	9.42	9.58	9.43	8.95	9.35
3	3	ENGINEERING INGEGERIA	9.06	8.80	9.69	9.65	9.30
4	4	INTERSYSTEMS ITALIA	9.30	9.10	9.37	9.15	9.23

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	INTERSYSTEMS ITALIA	9.43	9.37	8.66	8.83	9.07
2	2	DEDALUS DXC	9.03	8.89	9.13	9.03	9.02
3	3	ENGINEERING INGEGERIA	9.19	8.70	8.73	8.68	8.83
1	4	COMPUGROUP MEDICAL	8.73	8.76	8.90	8.57	8.74

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor Invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.51	9.49	9.42	9.33	9.44
2	2	DEDALUS DXC	9.47	9.46	9.41	9.18	9.38
4	3	INTERSYSTEMS ITALIA	7.07	7.91	7.69	7.69	7.34
3	4	ENGINEERING INGEGERIA	7.24	7.01	7.71	7.21	7.29

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	DEDALUS DXC	8.05	9.00	9.23	9.21	8.87
1	2	COMPUGROUP MEDICAL	8.97	8.84	9.27	8.14	8.81
3	3	ENGINEERING INGEGERIA	8.89	9.51	7.97	8.23	8.65
4	4	INTERSYSTEMS ITALIA	8.77	9.24	8.62	7.65	8.57

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.56	9.21	9.54	8.90	9.30
2	2	DEDALUS DXC	9.00	9.27	9.62	9.03	9.23
3	3	ENGINEERING INGEGERIA	7.12	7.45	7.05	6.77	7.10
4	4	INTERSYSTEMS ITALIA	7.26	7.32	6.72	6.49	6.95

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.35	9.76	9.60	9.39	9.53
2	2	DEDALUS DXC	9.70	9.82	9.37	9.06	9.49
3	3	ENGINEERING INGEGERIA	9.55	9.62	9.52	9.10	9.45
4	4	INTERSYSTEMS ITALIA	8.83	9.29	9.74	9.82	9.42

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.47	9.66	9.39	8.46	9.25
2	2	DEDALUS DXC	9.19	9.10	9.62	8.71	9.16
3	3	ENGINEERING INGEGERIA	9.19	9.07	8.25	7.95	8.62
4	4	INTERSYSTEMS ITALIA	8.02	8.19	8.92	8.06	8.30

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Financial viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes, and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q1 5CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.49	9.66	9.00	8.66	9.20
2	2	DEDALUS DXC	8.97	8.72	8.75	9.39	8.96
4	3	INTERSYSTEMS ITALIA	9.06	8.79	8.72	8.74	8.83
3	4	ENGINEERING INGEGERIA	6.30	6.42	5.26	5.04	5.76

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	DEDALUS DXC	9.69	9.44	9.07	8.85	9.26
1	2	COMPUGROUP MEDICAL	9.12	9.57	9.33	8.99	9.25
3	3	ENGINEERING INGEGERIA	7.66	7.63	6.93	6.67	9.22
4	4	INTERSYSTEMS ITALIA	7.28	7.46	6.95	6.76	9.11

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.50	9.68	9.03	8.89	9.28
2	2	DEDALUS DXC	8.98	9.50	9.18	9.42	9.27
3	3	ENGINEERING INGEGERIA	9.10	9.36	9.46	8.70	9.16
4	4	INTERSYSTEMS ITALIA	9.55	9.04	8.70	8.42	8.93

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### ITALY

#### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	COMPUGROUP MEDICAL	9.63	9.89	9.76	9.83	9.78
2	2	DEDALUS DXC	9.75	9.40	9.15	9.43	9.41
3	3	ENGINEERING INGEGERIA	8.16	8.37	8.20	8.02	8.19
4	4	INTERSYSTEMS ITALIA	7.39	7.68	6.93	6.93	7.23

Source: Black Book™ 2024

# FRANCE

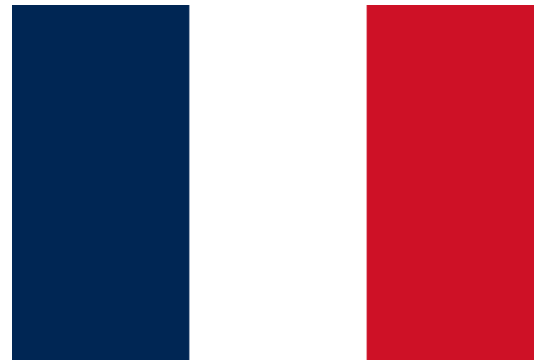
2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
490 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	34%
Clinic/Practice Name	2%
Public Clinic	8%
Health System Clinic	12%
Academic Hospital and Medical Centers over 250 Beds	23%
Community Hospitals	19%
Small Hospitals under 100 Beds	0%
Ambulatory Surgery Centers	2%
TOTAL	100%

Source: Black Book™ 2024

## 2024 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

FRANCE

**DEDALUS**

### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR FRANCE

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**DEDALUS**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**INTERSYSTEMS**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**DEDALUS**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**DEDALUS**



## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY							
OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

# OVERALL KPI LEADERS

## FRANCE

Summary of criteria outcomes

TABLE 5: SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
10	DEDALUS DXL	1
4	DEDALUS ORBIS	2
3	ORACLE HEALTH	3
1	INTERSYSTEMS	4

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

### FRANCE

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>DEDALUS DXL</b>	1
2	Innovation & Optimization	<b>DEDALUS DXL</b>	1
3	Training	<b>ORACLE HEALTH</b>	3
4	Client relationships and cultural fit	<b>DEDALUS ORBIS</b>	2
5	Trust, Accountability, Transparency, Ethics	<b>DEDALUS DXL</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>DEDALUS ORBIS</b>	2
7	Deployment and implementation	<b>DEDALUS DXL</b>	1
8	Customization	<b>DEDALUS DXL</b>	1
9	Integration and interfaces	<b>INTERSYSTEMS</b>	5
10	Scalability, client adaptability, flexible pricing	<b>COMPUGROUP</b>	2
11	Compensation and employee performance	<b>ORACLE HEALTH</b>	3
12	Reliability	<b>DEDALUS DXL</b>	1
13	Brand image and marketing communications	<b>DEDALUS DXL</b>	1
14	Marginal value adds and modules	<b>ORACLE HEALTH</b>	3
15	Financial & Managerial Viability	<b>COMPUGROUP</b>	2
16	Data security and backup services	<b>DEDALUS DXL</b>	1
17	Support and customer care	<b>DEDALUS DXL</b>	1
18	Best of breed technology and process improvement	<b>DEDALUS DXL</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
	A = 90% Agree
	B = 75% Agree
	C = 50% Agree
	D = 25% or Less Agree
	-

RANK	EHR VENDOR FRANCE	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	DEDALUS DXL	A	B	B
2	DEDALUS ORBIS	A	B	B
3	ORACLE HEALTH	B	C	C
4	MAINCARE SOLUTIONS	C	B	C
5	INTERSYSTEMS	C	C	D

# INDIVIDUAL EHR VENDOR KEY PERFORMANCE

## FRANCE

### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client’s Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS DXL	9.57	9.04	9.45	8.67	9.18
2	2	DEDALUS ORBIS	9.48	9.57	8.87	8.60	9.13
3	3	ORACLE HEALTH	9.33	9.60	9.39	8.06	9.10
4	4	MAINCARE	9.20	9.69	8.89	8.54	9.08
5	5	INTERSYSTEMS	8.57	8.04	8.45	7.67	8.18

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS DXL	8.67	9.10	9.29	8.95	9.00
2	2	DEDALUS	9.50	8.05	8.75	9.44	8.94
3	3	AGFA	8.18	9.40	8.73	8.09	8.60
4	4	MAINCARE	8.79	8.66	7.97	8.82	8.56
5	5	INTERSYSTEMS	6.82	7.23	6.96	6.79	6.45

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	AGFA	9.21	8.75	9.05	9.62	9.16
2	2	COMPUGROUP	9.24	9.12	8.94	9.08	9.10
1	3	DEDALUS	8.91	9.15	9.11	9.01	9.05
4	4	MAINCARE	8.07	9.01	8.05	8.93	8.52
5	5	INTERSYSTEMS	7.96	6.60	6.31	7.97	7.46

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	9.87	9.70	9.79	9.85	9.80
2	2	COMPUGROUP	9.90	9.39	9.57	9.33	9.55
3	3	AGFA	8.99	9.37	9.51	9.30	9.29
4	4	MAINCARE	8.80	9.73	9.12	9.26	9.23
5	5	INTERSYSTEMS	9.13	9.03	9.20	9.18	9.14

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	8.93	9.16	9.21	8.93	9.06
2	2	COMPUGROUP	8.86	9.65	8.98	8.71	9.05
3	3	AGFA	9.09	8.82	9.40	8.69	9.00
4	4	MAINCARE	8.20	9.10	9.11	7.50	8.48
5	5	INTERSYSTEMS	7.34	7.54	7.93	8.02	7.71

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	COMPUGROUP	9.20	9.40	9.22	8.17	9.00
1	2	DEDALUS	8.73	9.00	9.19	8.87	8.95
3	3	AGFA	8.55	8.64	9.05	8.75	8.75
4	4	MAINCARE	8.54	8.04	8.26	9.21	8.51
5	5	INTERSYSTEMS	8.71	8.05	8.51	8.02	8.32

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	8.93	9.81	9.19	8.08	9.00
2	2	COMPUGROUP	8.89	8.84	9.11	8.99	8.96
3	3	AGFA	8.64	8.42	8.94	9.60	8.90
4	4	MAINCARE	8.36	8.39	9.02	8.59	8.59
5	5	INTERSYSTEMS	8.18	8.75	8.18	8.61	8.46

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	9.57	9.83	9.61	9.83	9.71
2	2	COMPUGROUP	9.73	9.17	9.18	9.13	9.30
3	3	AGFA	9.30	9.17	9.47	9.27	9.30
4	4	MAINCARE	8.14	9.64	9.05	9.23	9.02
5	5	INTERSYSTEMS	8.71	8.81	8.97	9.06	8.90

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	<b>INTERSYSTEMS</b>	8.69	9.14	8.63	8.88	<b>8.85</b>
2	2	COMPUGROUP	8.24	8.10	8.84	8.85	8.51
3	3	AGFA	8.51	7.88	8.99	8.48	8.47
1	4	DEDALUS	8.12	8.13	8.80	7.93	8.25
4	5	MAINCARE	7.80	7.72	8.43	8.43	8.10

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	COMPUGROUP	9.17	8.74	9.53	9.32	9.19
1	2	DEDALUS	8.88	9.29	9.22	9.07	9.12
3	3	AGFA	8.87	9.06	9.30	9.05	9.07
4	4	MAINCARE	9.67	8.87	8.93	8.76	9.06
5	5	INTERSYSTEMS	8.67	8.96	9.17	8.94	8.94

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	AGFA	9.14	8.61	9.05	8.86	8.92
1	2	DEDALUS	8.68	8.80	8.82	8.74	8.76
2	3	COMPUGROUP	8.29	8.64	8.30	8.20	8.36
4	4	MAINCARE	8.36	7.85	8.34	8.32	8.22
5	5	INTERSYSTEMS	7.81	8.42	8.19	7.87	8.07

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	9.50	9.47	9.64	9.51	9.53
2	2	COMPUGROUP	9.13	9.81	9.47	9.18	9.40
3	3	AGFA	9.14	8.96	9.10	8.92	9.03
4	4	MAINCARE	9.11	9.16	8.84	9.02	9.03
5	5	INTERSYSTEMS	8.72	8.87	9.24	8.97	8.95

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	9.02	9.28	8.58	8.84	8.93
3	2	AGFA	8.84	8.89	8.93	8.79	8.86
2	3	COMPUGROUP	8.73	8.89	8.87	8.72	8.80
4	4	MAINCARE	7.82	7.57	7.31	7.66	7.59
5	5	INTERSYSTEMS	7.17	7.56	6.98	7.19	7.24

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	AGFA	8.72	8.83	9.02	9.06	8.91
2	2	COMPUGROUP	8.85	9.07	9.02	8.60	8.89
1	3	DEDALUS	8.74	8.88	8.96	8.89	8.87
4	4	MAINCARE	8.59	9.10	8.86	8.80	8.84
5	5	INTERSYSTEMS	8.40	9.57	8.59	8.42	8.75

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Financial viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes, and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	COMPUGROUP	8.44	9.92	7.99	8.97	8.83
1	2	DEDALUS	9.24	9.33	7.82	8.89	8.82
3	3	AGFA	9.47	8.99	8.26	8.45	8.79
4	4	MAINCARE	8.62	8.23	9.76	8.14	8.69
5	5	INTERSYSTEMS	7.70	8.16	7.90	7.53	7.82

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	9.17	9.57	9.50	9.45	9.42
2	2	COMPUGROUP	9.46	9.25	9.27	9.14	9.28
3	3	AGFA	9.36	9.43	9.10	9.04	9.23
4	4	MAINCARE	8.59	7.90	8.20	9.70	8.60
5	5	INTERSYSTEMS	8.43	8.02	8.36	9.30	8.53

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DEDALUS	9.73	8.99	9.30	9.20	9.31
2	2	COMPUGROUP	9.12	9.13	8.81	9.26	9.08
3	3	AGFA	9.49	8.54	9.46	8.43	8.98
4	4	MAINCARE	8.88	9.30	8.64	8.53	8.84
5	5	INTERSYSTEMS	8.62	8.42	8.53	9.73	8.83

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### FRANCE

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>DEDALUS</b>	9.55	9.15	9.35	9.12	<b>9.29</b>
2	2	COMPUGROUP	8.55	8.29	9.21	7.81	8.47
3	3	AGFA	8.16	8.28	8.25	7.73	8.11
4	4	MAINCARE	8.01	7.73	8.30	8.12	8.04
5	5	INTERSYSTEMS	8.91	7.02	7.89	8.21	8.01

Source: Black Book™ 2024



# **EASTERN EUROPE**

## ○ UKRAINE

### EHR STATUS

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At the beginning of 2018, Ukraine stopped using paper documentation in the field of health care. This decision involved the creation of a “single digital medical platform”, a new system of electronic data on the health status of a particular patient.

The system started operating in March 2019, in test mode: The Ministry of Health (MOH) together with the National Health Service of Ukraine (NHSU) launched the option of maintaining Electronic Health Records (EHR) through medical information systems.

Family doctors, therapists, and pediatricians connected to eHealth could enter patient information by creating an EHR. In turn, information about referral to specialists, diagnoses, prescribed treatments, etc., became available to patients.

Since March 2019, the EHR management system has been operating in Ukraine in test mode. Initially, physicians received only basic functionality and the option to enter data on patient treatment through medical information systems.

In 2020, all the necessary patient information was entered into the EHR, thus replacing paper records with digital data.

The EHR of each patient who has signed the declaration on choosing the primary care physician is automatically made available to specialists through the medical information system and is stored in eHealth. The NHSU plans to create a patient’s user account, which will allow to submit the declaration online, monitor their data in the EHR, save referrals, prescriptions, treatment, make an appointment and so on<sup>1</sup>.

### MARKET DYNAMICS

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Ukraine is the second largest country in Europe, and has a very low life expectancy, reaching 68 years for men and 77.8 years for women in 2020. Of the 100 countries that the WHO tracks and monitors statistics, Ukraine ranks 73 out of 100. In 2019, total health expenditure accounted for 7.1% of GDP, well below the EU average of 9.6%<sup>2</sup>.

The healthcare system in Ukraine is part of a universal healthcare system being a successor of the Soviet healthcare system. The Ministry of Healthcare implements the state policy within the country. Ukraine is a unique situation presently because of the war with Russia. Prior to the war, Ukraine was faced with an increasing burden in regard to their healthcare market. Medical professionals in Ukraine have been plagued with limited tools, knowledge and resources to provide high quality, modern healthcare to all Ukrainians.

Ukraine has had to focus efforts on responding to infectious diseases, such as HIV/AIDS, tuberculosis, and hepatitis C. They have also had to improve immunization coverage for diseases such as polio. Ukraine has among the highest burden of HIV/AIDS in Eastern Europe and close to the highest rate of multi-drug resistant tuberculosis in the world. Efforts have been put into place to build a routine immunization program to ensure that Ukraine's children are protected from preventable diseases such as polio and the measles.

Ukraine has the second largest HIV epidemic in the region with nearly 250, 000 people living with HIV. Many Ukrainians do not know their HIV status. Support and technical assistance have been put in place to strengthen HIV program governance, financing, and human resources.

In 2019, 27.2% of all new tuberculosis cases in Ukraine involved drug-resistant TB. In 2020, only 76% of TB cases were successfully treated in Ukraine. Many of these cases were due to the fact that people stop treatment prematurely.

In August 2014, the Ministry of Health of Ukraine initiated the development of a National Strategy on Health Reform to revitalize and speed up the process of reforms in health sector through elaborating strategic approaches to improve the quality and access to health care and therefore ensuring the mitigation of financial risks for population. In 2016, the Cabinet of Ministries of Ukraine approved the Concept of Reforming of the Health Care Financing. In 2017, a few legislative documents adopted by the Verkhona Rada (Parliament) of Ukraine, as well the orders adopted by the Cabinet of Ministries of Ukraine has opened the process of the re-shaping the Ukrainian health care system providing a new approach to the financing of healthcare institutions and individual healthcare practitioners. The introduction of a new system on the primary level was planned for 2018, while the whole reform was to be incrementally conducted in 2020.

## CONSTRAINTS

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Ukraine, one of the largest states formed on the rubble of the Soviet Union, is widely perceived as a country that has lost its opportunities. Being devastated by corruption, it shows incapable to modernize and enter the economic path of sustainable growth. Similarly, in the health care system no deeper reform efforts have been taken in the entire post-soviet period, leaving the system in bonds of ineffective solutions taken out of the Soviet era.

Currently, the county is characterized by considerable differences in the level of income and tensions between supporters because of the close ties with Russia. Ukraine has been in a constant battle with Russia for the past several years, which has put a strain on the advancement of medical technologies within the state. Because changes in the economy occur in a slow and uncontrolled manner, there have been very little reforms taken in the entire post-soviet period. As a result, from the legal standpoint the Ukrainian system is so

far formally functioning in accordance with the organizational assumptions of the Semashko model, with central budgetary financing, lack of pro-effective solutions in the financing of medical services (global budgeting of health units), hierarchical organizational structure, and dominance of public sector.

The Semashko model was named after the first minister of health in the USSR – Nikolai Semashko. The system provides universal access to care, and thus has substantially improved the health status of the population. The implementation of the Semashko model started in the late 1920's. Healthcare in the Soviet Union was and is heavily underfunded and has a number of noticeable problems with the dominance of inpatient care, inefficient service provision, and weak incentives for providers.

## OPPORTUNITIES

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Ukraine has the opportunity to reform its healthcare system. The fall of communism left the country vulnerable at a time when there was a systematic increase in the financial burden on the side of the patients. The current war in Ukraine has put the country under severe pressure. WHO has increased its presence within the state to help the escalating health needs of the people,

The war has created a humanitarian crisis for the country. The delivery of healthcare and the health system are faced with a dire crisis within Ukraine. The crisis expands across neighboring borders as well, into countries, including Poland, the Czech Republic, Moldova and Romania. This is due to the large number of refugees that are crossing the borders to seek refuge.

### Citations

<sup>1</sup> *The digital doctor: how electronic health records are transforming health care in Ukraine*. Ukraine, 2020. Web. 1 July 2022. <https://eufordigital.eu/the-digital-doctor-how-electronic-health-records-are-transforming-health-care-in-ukraine/>

<sup>2</sup> *Life Expectancy in Ukraine*. (n.d.). World Life Expectancy. Web. 1 July 2022.

<https://www.worldlifeexpectancy.com/ukraine-life-expectancy>

## ○ POLAND

### EHR STATUS

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In January of 2019, Poland started an electronic-prescriptions system. At the time of inception there were over 1 million prescriptions being processed every week. According to data issued from the Healthcare Information Systems Centre, there were over 220,000 prescriptions being issued daily. This meant that Poland was in a new era of e-health, and everything related to digital health solutions.

The e-prescription, e-referral, e-dismissal, and patient accounts are all elements of digitization that are integrated into the healthcare system. Poland has accelerated their electronic health capabilities to that of neighboring countries in the European Union.

Poland was slower than other countries to adopt an electronic healthcare record system; however, they were first introduced in the Opole region of the country. Since 2021, they have been introduced across the country.

Patients and healthcare professionals in the Polish Voivodeship of Pomorskie will profit from a new regional e-health platform that will intensify the exchange of medical documentation and improve the quality of and accessibility to medical services. 13 healthcare centers will implement the new platform, with CompuGroup Medical (CGM) leading the consortium.

The e-health platform is to be implemented within 20 months and will be open to all interested healthcare centers in the region.

### MARKET DYNAMICS

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Poland is the ninth largest country in Europe (its health spending is the lowest in the EU), and has average life expectancy, reaching 74.5 years for men and 81.9 years for women in 2020. Of the 100 countries that the WHO tracks and monitors statistics, Poland ranks 42 out of 100. In 2020, total health expenditure accounted for 7.2% of GDP, below the EU average of 9.6%. Poland's population was nearly 38 million by the end of 2021<sup>1</sup>.

The dynamics of Poland's healthcare system are interesting. The medical device market has been growing in recent years and this is especially true in Poland. In 2011, Poland's medical device exports were \$524 million dollars. This is five times the \$100 million they were worth in 2002. 8 percent of these medical device exports are shipped to the United States; however, this situation within the country is complicated.

Poland has a mix of publicly and privately funded hospitals and many of these hospitals are well behind those of other countries within the EU. The technological advances of neighboring countries are well more advanced than that of Poland.

Asecco, a hospital IT vendor within Poland provides information systems, which include EHRs, billing systems, and appointment bookings (to name a few), to more than 50% of the country's hospitals, estimates that, as of 2014, 80% of the Polish hospitals are still using paper records.

In 2014, Poland's government mandated a switch to EHRs. The government wanted the switch to happen within two years and in conjunction wanted all of the records to be interoperable on a health information exchange system.

## CONSTRAINTS

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Poland had been isolated from most other European nations in recent years. Poland has struggled to hold together democracy and security, which are two of the existential goals that have shaped the European Union. Conflict, aggression, and an abundance of refugees within the country from neighboring countries seeking asylum have left Poland at a divide.

In November 2021, Putin aggravated the crisis at the border of Ukraine, a country eager to have tighter relations with Europe. The Russian leader sent more than 90,000 troops to the area in a move reminiscent of what happened before the invasion of Georgia in 2008. Putin intended to generate parallel crises, moving against Ukraine, while helping Belarus pile pressure on the Polish border, straining Europe's internal tensions on the distribution of migrants.

Poland is facing challenges to train and retain a sufficient number of health workers, promote access to good-quality care and respond to growing needs for long-term care. The government is embarking on a reform program that aims to address access and efficiency issues.

National health Institutes and clinics of medical universities provide services at the national level. This division of responsibilities across these levels of government and levels of care makes the coordination of services more difficult.

## OPPORTUNITIES

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Healthcare financing and care delivery underwent substantial changes in Poland over the past 30 years. The current financial management model builds around the central role of the NHF has proved inefficient, resulting in some of the problems, such as long wait times. The Polish government has embarked on a program of ambitious reforms of the health system, and some of these reforms will influence healthcare governance, accountability and planning.

The commitment to healthcare reform in Poland aimed at improving access to care and care coordination, improving efficiency and reducing duplication will have a profound impact on the current system. New reforms will allow health authorities to finance health services at the regional level, supervise hospitals, and be responsible for forward planning. The reforms will also change the contracting process for acute care. Activity-based funding will be replaced with annual budgets.

### Citations

<sup>1</sup>*Life Expectancy in Poland*. (n.d.). World Life Expectancy. Web. 1 July 2022.  
<https://www.worldlifeexpectancy.com/poland-life-expectancy>



## ○ CZECH REPUBLIC

### EHR STATUS

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Since 1992, the Czech Republic has had a universal healthcare system based on a compulsory insurance model, with fee-for-service care funded by mandatory employment-related insurance plans. Some important changes have taken place within the healthcare system in the Czech Republic since 2005, and they are important factors that have helped influence the Republic's progress towards the goal of the adoption of an EHR system. Those factors are:

1. In the years between 2005 and 2006, there was an implementation of a new risk adjustment scheme for redistributing the social health insurance contributions among the health insurance funds within the Republic.
2. In 2008, the healthcare system introduced a schedule for user fees for doctor visits, hospital stays, prescription pharmaceuticals, and out-of-pocket payments.
3. In 2008, the State Institute for Drug Control (Státní ústav pro kontrolu léčiv, SÚKL) inclusion assisted the process of setting maximum prices for pharmaceuticals for transparency of price settings.
4. The same year in 2008, accredited providers were provided a program to supple those providers with additional financial support for training nurses and physicians.
5. An initiative was established to improve the quality of highly specialized care by identifying high performing healthcare facilities and allowing for special contractual conditions between these facilities and the health insurance funds.

In 2013, the Department of Informatics in Medicine of the Ministry of Health discussed the implementation of an eHealth system for the Czech Republic. This was due to the low motivation of doctors, patients and state institutions, insufficient legislation and lack of finances as the main risks for a successful implementation of an eHealth system in the Czech Republic.

Since 2018, the Czech Republic has taken steps towards digitizing its healthcare system by introducing mandatory electronic prescriptions and electronic sick notes. In 2020, they were ready to introduce an electronic medications record. Unfortunately, there has been little progress on other areas relating to electronic medical records. The Ministry of Health had a target goal of this implementation to go into effect in 2021 and then the pandemic happened.

## MARKET DYNAMICS

The Czech Republic was founded in 1993, and is about the size of South Carolina, and has a high life expectancy, reaching 76.3 years for men and 81.9 years for women in 2020. Of the 100 countries that the WHO tracks and monitors statistics, The Czech Republic ranks 36 out of 100. In 2015, total health expenditure accounted for 7.7% of GDP, well below the EU average of 9.6%<sup>1</sup>. The Czech Republic lacks the technical infrastructure to support most technology assessments of treatments and procedures. The information and communication technologies are still not sufficiently spread within the Czech health system. With a lack of technology and a system to support implementation a universal EHR system seems like a far-fetched reality.

The use of electronic medical records has been in development for quite some time; however, physicians are allowing the sharing of patient information between them and the concerned patient. Information systems are broadly being used for reimbursement and accounting purposes, and the use of web pages is being increasingly spread among health insurance funds, healthcare facilities and physicians.

The country lacks a unified system, and the government aims to ensure the secure sharing of important health and economic information. If the country can secure this sharing and update of technical infrastructure then it can secure their achieved improved quality of care, comfort, security and transparency of the healthcare system. Modern communication strategies should contribute to a better and more cost-effective delivery of care.

## CONSTRAINTS

The Czech Republic has many ongoing reforms that are focused mainly on the improved efficiency of the health system via cost containment and more market-oriented solutions.

The challenge to continue increasing the efficiency of healthcare spending in order to adequately respond to the increasing healthcare expenditure over the coming years imposes a risk to the long-term sustainability of public finances.

Currently there isn't a defined basic package of healthcare services. In addition, there isn't a clear understanding of what is covered in the general insurance benefits.

The Czech Republic needs to further develop a human resources strategy to tackle the spatial and regional disparities in the healthcare accessibility throughout the nation.

Various governmental process and various legislations have crippled the Czech healthcare sector. Currently, the governmental has a plan to replace the nontransparent process of determining the reimbursements of various medical procedures. The government also aims to strengthen, through legal measures, the state supervision of their health insurance flows and monitor the functioning of health insurance companies.

## OPPORTUNITIES

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If the Cech Republic can fully implement a successfully e-health strategy and introduce a system of quality indicators for quality healthcare, then they can improve the cost-efficiency within their hospital network.

If the Republic can establish clear guidelines and invest in a solid, technological infrastructure that can support the development of electronic health capabilities, then they can become more aligned with that of other more developed nations in relation to this technology.

The need for healthcare reform in order to financially sustain the healthcare system became evident after the global financial crisis, but there is no clear consensus on how to achieve this. The Czech Republic is a landlocked country that is situated in central Europe and is boarded by numerous countries (Germany, Poland, Slovakia and Austria. From an economic standpoint the country performed well after the revolution in 1989; however, the global impact of the financial crises mentioned above had a substantial impact on the economy. The financial crisis as well as government debt has steadily increased the Republic's situation since then.

## Citations

<sup>1</sup>*Life Expectancy in Czech Republic.* (n.d.). World Life Expectancy. Web. 1 July 2022.  
<https://www.worldlifeexpectancy.com/czechrepublic-life-expectancy>

# EASTERN EUROPE

## UKRAINE, POLAND, CZECH REPUBLIC, SLOVAKIA, HUNGARY

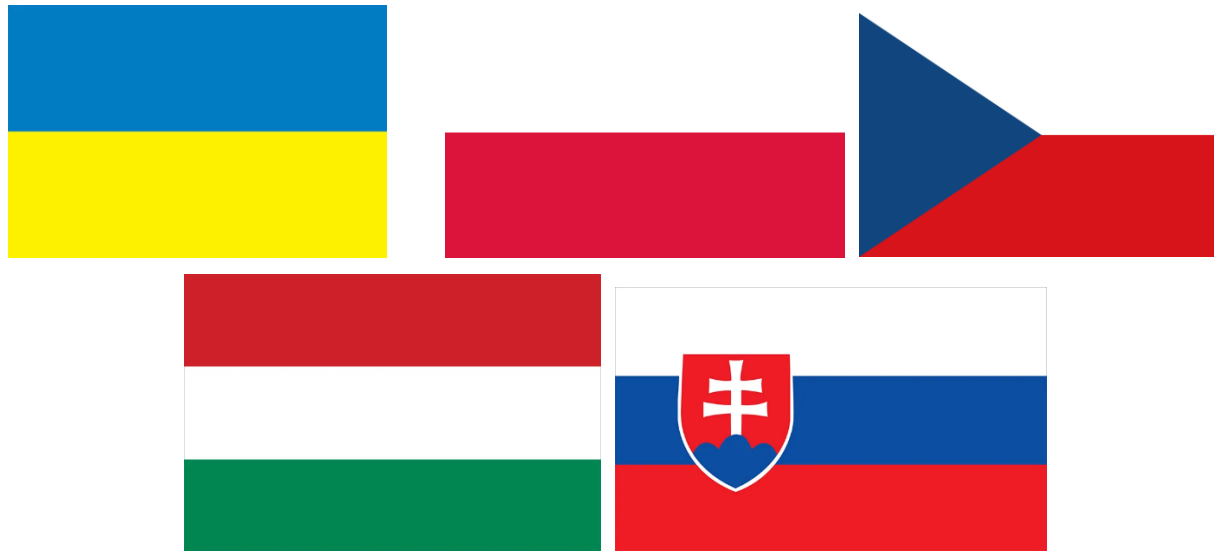
2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
487 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	25%
Clinic/Practice Name	4%
Public Clinic	21%
Health System Clinic	18%
Academic Hospital and Medical Centers over 250 Beds	25%
Community Hospitals	5%
Small Hospitals under 100 Beds	2%
Ambulatory Surgery Centers	0%
<b>TOTAL</b>	<b>100%</b>

Source: Black Book™ 2024

# 2024 RESULTS

## ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## **2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

**EASTERN EUROPE**

**ASSECO GROUP**

### **FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR EUROPE**

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**COMPUGROUP MEDICAL**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**ASSECO GROUP**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**ASSECO GROUP**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**ASSECO GROUP**

## STOP LIGHT SCORING KEY

**FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS**

PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT
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Source: Black Book Research

**FIGURE 2: KEY TO RAW SCORES**

0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research



## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

**FIGURE 5: SCORING KEY**

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

Summary of criteria outcomes

TABLE 6: SUMMARY OF CRITERIA OUTCOMES

Total number one criteria ranks	Vendor	Overall rank
8	ASSECO	1
7	LEIDOS	2
2	CONCENTRIX	3
1	INTERSYSTEMS	4

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>LEIDOS</b>	2
2	Innovation & Optimization	<b>ASSECO</b>	1
3	Training	<b>LEIDOS</b>	2
4	Client relationships and cultural fit	<b>LEIDOS</b>	2
5	Trust, Accountability, Transparency, Ethics	<b>ASSECO</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>ASSECO</b>	1
7	Deployment and outsourcing implementation	<b>ASSECO</b>	1
8	Customization	<b>LEIDOS</b>	2
9	Integration and interfaces	<b>INTERSYSTEMS</b>	4
10	Scalability, client adaptability, flexible pricing	<b>CONCENTRIX</b>	3
11	Compensation and employee performance	<b>LEIDOS</b>	2
12	Reliability	<b>LEIDOS</b>	2
13	Brand image and marketing communications	<b>ASSECO</b>	1
14	Marginal value adds and modules	<b>LEIDOS</b>	2
15	Financial & Managerial Viability	<b>ASSECO</b>	1
16	Data security and backup services	<b>CONCENTRIX</b>	3
17	Support and customer care	<b>ASSECO</b>	1
18	Best of breed technology and process improvement	<b>ASSECO</b>	1

KEY	
A	A = 90% Agree
B	B = 75% Agree
C	C = 50% Agree
D	D = 25% or Less Agree

RANK	EHR VENDOR POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	ASSECO GROUP	A	A	A
2	LEIDOS	A	A	B
3	CONCENTRIX	A	C	B
4	INTERSYSTEMS	C	C	C

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	LEIDOS	8.96	8.93	9.13	8.78	8.95
1	2	ASSECO	8.53	9.08	9.85	8.64	8.78
3	3	CONCENTRIX	8.97	8.52	9.32	8.20	8.75
4	4	INTERSYSTEMS	9.03	8.27	8.14	8.50	8.49

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	9.12	8.91	9.04	9.16	9.06
2	2	LEIDOS	8.99	8.81	9.09	9.32	9.05
3	3	CONCENTRIX	8.96	8.98	9.38	8.71	9.01
4	4	INTERSYSTEMS	9.32	8.87	8.67	9.09	8.99

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	LEIDOS	9.24	9.45	9.17	9.20	9.27
1	2	ASSECO	9.14	9.09	9.53	8.49	9.06
3	3	CONCENTRIX	9.24	9.54	9.36	8.10	9.06
4	4	INTERSYSTEMS	8.67	8.84	9.15	8.99	8.91

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	LEIDOS	9.17	9.33	9.01	8.99	9.13
1	2	ASSECO	9.03	9.09	9.22	9.13	9.12
3	3	CONCENTRIX	8.96	9.40	9.07	8.24	8.92
4	4	INTERSYSTEMS	8.71	8.79	8.14	8.62	8.67

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	9.69	8.97	9.58	9.47	9.43
2	2	LEIDOS	9.91	9.11	8.30	9.19	9.13
3	3	CONCENTRIX	9.21	9.09	9.07	8.80	9.04
4	4	INTERSYSTEMS	9.36	8.57	8.38	9.83	9.04

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client's EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	9.16	8.89	8.49	8.61	8.79
2	2	LEIDOS	8.54	8.99	8.69	8.74	8.74
3	3	CONCENTRIX	7.09	6.24	6.49	6.40	6.56
4	4	INTERSYSTEMS	6.72	6.21	6.39	6.37	6.42

Source: Black Book™ 2024

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## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	9.91	9.99	9.90	9.67	9.87
3	2	CONCENTRIX	9.76	9.82	9.99	9.79	9.84
2	3	LEIDOS	9.45	9.23	9.03	9.47	9.30
4	4	INTERSYSTEMS	9.35	9.52	8.99	8.93	9.20

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	LEIDOS	8.80	8.63	8.72	9.54	8.92
1	2	ASSECO	8.88	9.34	8.68	8.40	8.83
3	3	CONCENTRIX	8.66	8.19	9.41	8.91	8.79
4	4	INTERSYSTEMS	9.35	9.06	8.21	7.76	8.60

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	INTERSYSTEMS	9.69	9.90	9.84	9.53	9.74
1	2	ASSECO	9.16	9.32	9.77	9.17	9.36
2	3	LEIDOS	9.36	9.05	9.27	9.19	9.22
3	4	CONCENTRIX	8.79	9.23	9.21	8.63	8.97

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	CONCENTRIX	9.17	9.33	9.01	8.99	9.13
2	2	LEIDOS	9.03	9.09	9.22	9.13	9.12
1	3	ASSECO	8.96	9.40	9.07	8.24	8.92
4	4	INTERSYSTEMS	8.71	8.79	8.94	8.62	8.77

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	LEIDOS	8.99	8.81	9.09	9.32	9.05
1	2	ASSECO	8.96	8.98	9.38	8.71	9.01
3	3	CONCENTRIX	9.32	8.87	8.67	9.09	8.99
4	4	INTERSYSTEMS	9.08	8.95	8.31	8.84	8.80

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	LEIDOS	8.96	9.39	9.76	9.19	9.33
1	2	ASSECO	9.25	9.01	9.88	8.93	9.27
3	3	CONCENTRIX	9.39	9.48	9.13	9.01	9.25
4	4	INTERSYSTEMS	9.12	8.91	9.04	9.16	9.06

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	9.49	9.18	8.19	8.55	8.85
4	2	INTERSYSTEMS	9.05	8.86	6.90	9.77	8.65
3	3	CONCENTRIX	8.62	8.79	8.01	8.64	8.52
2	4	LEIDOS	9.13	8.88	7.27	8.02	8.33

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	LEIDOS	9.21	9.16	8.79	9.19	9.09
1	2	ASSECO	8.78	9.10	8.33	9.57	8.95
3	3	CONCENTRIX	9.05	8.53	7.81	8.80	8.60
4	4	INTERSYSTEMS	8.73	9.28	8.04	8.32	8.59

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	8.36	7.26	9.54	8.58	8.44
2	2	LEIDOS	8.31	8.87	7.33	7.94	8.11
3	3	CONCENTRIX	8.73	8.32	7.56	7.83	8.11
4	4	INTERSYSTEMS	8.68	8.62	7.64	7.41	8.09

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor’s service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	<b>CONCENTRIX</b>	8.91	8.62	8.42	8.89	<b>8.71</b>
1	2	ASSECO	9.03	8.49	7.45	9.69	8.67
2	3	LEIDOS	9.28	9.19	7.78	7.81	8.52
4	4	INTERSYSTEMS	8.67	9.03	7.36	8.72	8.45

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	9.19	9.62	9.46	9.37	9.43
2	2	LEIDOS	9.27	9.24	9.97	9.16	9.41
3	3	CONCENTRIX	9.16	9.71	9.36	9.24	9.37
4	4	INTERSYSTEMS	9.35	9.40	8.69	9.39	9.21

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### POLAND, UKRAINE, CZECH REPUBLIC, HUNGARY, SLOVAKIA

#### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ASSECO	9.22	9.52	8.47	9.48	9.17
2	2	LEIDOS	9.60	8.97	8.34	9.67	9.15
4	3	CONCENTRIX	9.14	9.66	8.20	9.41	9.10
3	4	NEXUS	9.35	9.30	8.03	8.71	8.85

Source: Black Book™ 2024



The image features a stylized map of Northern Europe in a light grey tone, centered on a background of overlapping geometric shapes. These shapes include triangles and chevrons in shades of orange, dark grey, and light grey. The text 'NORTHERN EUROPE' is prominently displayed in the center-left area of the map.

# **NORTHERN EUROPE**

In software design, involving end users in design and decision-making processes, so called participatory design, is sometimes referred to as “the Scandinavian approach.” This is because back in the 1970s, when computers were being introduced in the workplace, workers unions in different fields demanded a say in the design of their future “working tools.” I believe that this culture of public participation is one reason why the Nordic and Scandinavian countries have taken the lead in giving patients online access to their electronic health records (EHRs). It is a lead that we seek to maintain via the new NORDeHEALTH research project.

This three-year project was launched on 1 January 2021 with funding from NordForsk. It will draw together an in-depth analysis of current implementation of Patient Accessible Electronic Health Records (PAEHRs) in four countries: Sweden, Norway, Finland, and Estonia. Project partners are.

Uppsala University, Örebro University, Skövde University, and Karlstad University (Sweden)

Tallinn University of Technology (Estonia)

Aalto University (Finland)

Norwegian Centre for E-health Research (Norway)

OpenNotes research group, Beth Israel Deaconess Medical Center (USA)

This joint project will increase the empirical evidence on how implementation of PAEHRs affects different patient groups and healthcare systems, and how best to evaluate and compare results across countries and different healthcare contexts. This is essential in order to use resources wisely, avoid failed implementations, and ensure that the benefits of digitalization reach as many patients, family caregivers, and healthcare professionals as possible. The results of this project will not only benefit the four countries involved. We hope that they will also inform and inspire the global digital health community as it moves to increase transparency on how health information is collected, shared, and used, and promote patient access to personal health information and data.

The Nordics is an advanced market in terms of EMR deployment and is well-served by several local entrenched vendors such as Cambio, Tieto, DIPS, Systematic and Evry. Over recent years international vendors have targeted the region in order to expand their geographic footprint. However, this has not always proven an easy route, illustrated by Oracle Health/Cerner and Epic’s withdrawal from the upcoming Helse Midt-Norge contract in Norway and implementation challenges experience by Epic in Denmark. Market entry should be taken without due consideration for local system demands. As a region there is

a big push to integrate primary, acute and, in some cases, long-term/social care provision and to centralize EHR procurement over large regions. Vendors that can offer enterprise-scale EMR solutions with a breadth of operational and clinical EMR tools, alongside PHM/integrated care technologies (e.g., data integration tools, risk stratification tools and care coordination modules) are forecast to have the greatest level of success as the drive towards integrated care changes the expectations that providers will have of their EMR vendors.

## ○ DENMARK

### EHR STATUS

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Current EHR Market Status The use of EMRs is widespread and relatively mature in Denmark. The five regions now centrally purchase EMR solutions for use across all primary and secondary care settings, although implementation is still underway in most regions. Prior to 2013 there were approaching 30 different vendor EMR solutions used across Denmark. The move towards centralized purchasing in the five regions has reduced this significantly, although some independent systems are still being used by individual hospitals and primary care organizations. There has also been significant effort over recent years to improve interoperability between the EMRs used throughout the healthcare system resulting in the National eHealth Authority and the Regionernes Sundheds-IT (RSI) being established. As well as there being widespread use of EMR solutions, the solutions used, particularly in primary care, tend to be advanced White Paper in terms of functionality, including offering some level of risk stratification functionality. As well as EMRs used regionally/locally by municipalities, individual healthcare professionals and hospitals, there are several national platforms in use in Denmark. Organisations Procuring EMR Solutions - Denmark MoH/Medcom Administrative Regions Local Municipalities Individual hospitals and primary care facilities The MoH and Medcom are key organizations in the development of the national E-Journalen and P-Journalen initiatives The five regions are responsible for purchasing region-wide EMR solutions that are used in both acute and ambulatory settings. Contracts for the five regions have largely been given during the period 2016-2018. Implementation for several are underway, Southern Region won't start implementing the regional systems until 2020. The 98 local municipalities are responsible for commissioning EMR solutions used for social care Whilst the overall general direction of travel has been for the five regions to centrally purchase EMR solutions, some individual hospitals and primary care facilities still own and purchase their own EMR solutions The E-Journalen is a centralized database collecting hospital information from all the five Danish regions. This is supplemented by the P-Journalen which centralizes data from GPs and other private healthcare professionals. There is also the Faelles Medicinkor which stores centralised information on patients' prescribed medication and vaccinations. These are hosted on the Sundhed.dk, a digital platform set up by the MoH in collaboration with the five regions and 98 local communes. The platform and the component elements can be accessed by professionals and patients via the NemID platform (a secure platform that acts as the gatekeeper). Sundhed.dk was originally developed by the Maersk Data

Consortium (consisting of LEC, ACURE, PLS/Ramboll and Bysted). Many elements of the wider EMR solution have been developed internally by Danish government, healthcare agencies and a dedicated development department that was set up (e.g., the ePrescription solution was provided by the Danish Public Health Institute). The fact that much of the system has been developed internally using existing IT, has enabled interoperability to be a central feature. However, other off-the-shelf EMR solutions are widely used within individual hospitals and tertiary care in Denmark resulting in continuing challenges maintaining the high level of interoperability. The National eHealth Authority had put in motion a project to establish a platform to healthcare data exchange amongst different regions, municipalities and providers. However, this was abandoned for financial and technical reasons in 2013. Future Developments in January 2018, the MoH published its vision for how eHealth would develop in Denmark over the next four years in its “Digital Health Strategy 2018-2022” report. This set out five key areas where it expected IT to support developing health services in Denmark. The five focus areas were: The patient as an active partner: This relates to a priority to expand the breadth of data patients can access electronically to include full medical records as opposed to their top-level health record (as is the case now). It is also intended that the patient will be able to view the full longitudinal record across all care settings and become a central partner in the development of their care plans. Tools will be developed to expand how patients can increasingly support themselves, e.g., decision support tool for cancer patients and a digital pregnancy tool for expectant mothers. Finally, patient reported outcomes White Paper will be captured to support value-based care outcomes measurements. These initiatives will be supported via a major upgrade to the sundhed.dk platform. Knowledge on time: This relates to an assessment of the frameworks and regulations that are barriers to the adoption of coherent patient pathways and is being driven by the need to improve care coordination between agencies. In terms of technology, this will drive the use of solutions that allow for greater data integration and better communication between healthcare agencies – i.e., PHM and data aggregation tools. The plans state that new care management workflow tools will also need to be implemented at a primary care/GP level to support more efficient, high-quality and broader care coordination. The plan also states that for some of the knowledge on time objectives to be met, there will need to be a major upgrade to the central EMR platforms used across Denmark and that a decision on whether there would be budgetary approval for such investment needs to be made prior to the end of 2019. Signify Research has assumed that approval is given and that this will boost the overall EMR market from 2020 onwards. Prevention: A core element of the prevention objective is the improved use of data and advanced analytics to manage populations and to use risk stratification tools to pre-empt disease, hospital readmission and rising risk. Several pilots have been put in place to evaluate technology, applications and the benefits of using these platforms before wider rollout. The prevention objective

also demands that care management solutions that support care planning for COPD, diabetes and chronic lower back pain patients are rolled out at GPs from 2018. COPD is the first area where electronic care plans will be implemented with patients and professionals able to access the care plans via the sundhed.dk platform. Trustworthy and secure data: This initiative focuses on placing the patient in control of which information is shared across the healthcare sector. Progress and common building blocks: The focus is to ensure that IT is built on open, supplier-independent components linked by common standards. Recent Contracts/ Vendor Activity 9 Epic became the provider for the Zealand region and Capital Region in 2016 9 Systematic holds the contract for the central/mid-Jutland Region, Northern Region and South Region. The Northern Region being its latest contract (Sept 2018). The South Region contract was allocated in May 2018.

## ○ FINLAND

### EHR STATUS

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EMR solutions are used in all provider settings although the decentralized nature of the country's healthcare system has resulted in a wide range of EMR solutions being used by different providers with some limitations on interoperability. Most of the local EMR market is served by CGI Group (via its 2012 acquisition of Logica), Tieto and several smaller local vendors. CGI Group supplies the EMR to all five of the Finnish university medical hospitals which tend to be the most advanced in terms of technology implementation. Historically, international vendors/US EMR vendors have not had a significant share of the Finnish EMR market. As well as the individual EMR solutions used by the local hospitals and primary care providers, Finland also has a national EMR system. In 2002 the government took the decision that by the end of 2007 there should be a nationwide, interoperable EMR in place.

White Paper Organisations Procuring EMR Solutions - Finland Local Municipalities Health Care Centres District Hospitals University Hospitals Sote Areas Kela There are 192 local municipalities in Finland that are responsible for providing primary care. Ambulatory EMR solutions are, at present, purchased by these individual municipalities. There are 20 district hospitals in Finland that are responsible for specialized medical care. Acute EMR purchasing is made locally by these district hospitals in conjunction with the local municipalities. There are five university hospitals in Finland that are responsible for commissioning their own EMR solutions. New integrated care networks called Sote Areas will be established in Finland by 2020. There will be 18 Sote areas that will integrate care provided by the 192 local municipalities. It is expected that over time EHR procurement will transition away from the local Health Care Centres and District Hospitals and be coordinated by the Sote Areas. In the short term, the development of Sote areas will create demand for more integration tools to allow data exchange between legacy healthcare IT. The Finish Social Insurance Institution (Kansanelakelaitos) is responsible for the technical implementation and maintenance of the national EMR solution, Kanta. It is also responsible to setting the interoperability requirements of other local EMR solutions that interface with Kanta. This is the Kanta system. The solution offers information exchange with the district hospital/other local EMR solutions, electronic referrals & discharge letters, ePrescription services, eArchive services, eAccess services (to professionals and the Finnish population) and access to patient summary data such as diagnoses, vaccinations, radiology results, risks, care plans, medication and consent management data. The solution integrates not only with public healthcare providers (acute, primary and social care), but also most private healthcare providers and pharmacies. The solution was

designed to take a standards-based approach and complies with a variety of standards including HL7 V3 CDA R2. Fujitsu Services was the primary contractor for the Kanta system, with elements of the system development contracted out to other vendors such as EMC. Future Developments Primary healthcare is provided by healthcare centers run by the 192 municipalities. The municipalities purchase primary care EMR solutions at present. In 2015 the government published its social welfare and health care reform program. This included proposals to restructure how healthcare is provided in Finland creating larger autonomous areas (larger than the current municipalities) called “sote-areas”. The government intended that a maximum of 19 sote-areas would be created (with the current plan set at 18). The municipality-based system had encountered significant issues enveloping high-quality, efficient healthcare services and the intention was that transferring to larger administrative service would address these problems and also allow the development of an integrated care system. Health and social care services are to be brought together in these new areas creating a more integrated care management structure. Sote-areas will have their responsibilities refocused towards the wider management of the entire population, instead of just the sick. The current plan is to have the sote-areas established by the start of 2020 (delayed from the original plan of 2019). The delay to 2020 (announced in June 2018) is a result of some of the struggles that have taken place getting the reform act through the Finnish parliament, and an indication that the reform could potentially be delayed further. However, many of the delays focused on issues relating to the increased use of private care providers and introducing more competition to healthcare provision, rather than the move to an integrated care model. Despite the government delays, some regions have already been set up independently of government legislation. the Kanta system to support the integrated care approach and to better support populations in self-managing care and preventative care. The development of sote-areas is expected to consolidate EMR purchasing.



## ○ NORWAY

### EHR STATUS

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The Directorate of Health executes the political decisions which are implemented via four regional health authorities responsible for specialist care and 428 municipalities responsible for primary care, GP care, public health, long-term care and rehabilitation. Hospitals are organized into 21 health enterprises (trusts) which act as service delivery units and are owned by the corresponding regional health authority. Although specialist care is run by these regional health authorities, primary care, including general practice, mental health care, nursing homes, rehabilitation, physiotherapy, and health promotion is still managed by the municipalities. The four regional authorities have historically purchased their own EMR solutions, whilst aligning system functionality with national requirements. A local EMR supplier, DIPS, had been the primary healthcare IT supplier in many parts of Norway and is estimated that 70-80% of regional EMR implementations have been with DIPS. Core to the restructure was developing ICT in general and White Paper [www.signifyresearch.net](http://www.signifyresearch.net) | [info@signifyresearch.com](mailto:info@signifyresearch.com) EMR/EHR in the Nordics - White Paper The company has contracts with three of Norway's four regional health authorities, including five of the six university hospitals. The Northern authority and the Southern & Eastern authority signed contracts with DIPS for a new EMR solutions in 2012 with the Western regional authority also using the solution. All hospitals in these regions have an agreement to use the company's core products, DIPS Electronic Patient Journal (EPJ) and Patient Administration System (PAS). Cerner (via its acquisition of Siemens' EMR business) has the fourth contract in the Central regional health authority with its DocuLive solution, although it pulled out of the renewal contract for the new "one patient – one record" EMR upgrade in April/May 2018 as it felt it could not justify a business case that would fully address the specific development requirements of the new platform. The Central region had been identified as a testbed for the upcoming "one patient – one record" initiative. Just one vendor is left competing in this bid for the contract in this region. Originally three had been shortlisted - Cerner (Oracle Health), Epic and DXC. However, only Epic now remains. The contract is due to be awarded at the beginning of 2019. Although contracts for EMR procurement have already been allocated, there are still specific related product purchases that fall outside of these central contracts where opportunities still exist for other vendors. For White Paper example, the care coordination/messaging service IHR, supplied by Evry, has been procured for use in Helse SørØst and Helse Midt-Norge, despite

these regions using DIPS for EMR. As well as local EMR implementations, a national patient record, named Kjernejournal, was also commissioned by the Norwegian Directorate of Health in 2012. This record effectively integrates data from local/regional EMRs to give a longitudinal view of the patient. Accenture was awarded with the contract and the solution has now been fully rolled out across Norway. Future Developments In 2012 a health reform (the Coordination Reform) was launched, aiming at better coordination of the health care services, both between primary and secondary care, and within each level of care. This reform will be a key driver of EHR upgrades over the forecast period, particularly in relation to data integration. DIPS was recently a beneficiary of this trend winning a NOK28M/USD3.4M contract with Helse Sør-Øst/Health Southeast for data integration tools to support connectivity between several legacy EMR solutions. A key element of the reform is driving services to be directed more towards preventive care, and measures are taken to reduce the burden of changing demographics (increasingly older population, migration, overweight etc). Focus areas of the reform included:

- 9 Improve coordination and information exchange among care providers
- 9 Reduce the need to expensive specialized care
- 9 Increase the share of health services provided by primary care

Developments in the use of IT within the Norwegian healthcare service are key in achieving these objectives. In particular, an emphasis was put on empowering patients using technology, developing a “one patient – one record” IT solution, reviewing health registry regulation.

Recent Contracts/ Vendor Activity

- 9 DIPS recently won a NOK28M/USD3.4M contract with Helse Sør-Øst/Health Southeast for data integration tools to support connectivity between several legacy EMR solutions.
- 9 ORACLE HEALTH pulled out of the renewal contract for the new Central Region “one patient – one record” EMR upgrade in early 2018 as it felt it could not justify a business case that would fully address the specific development requirements of the new platform. The Central region had been identified as a testbed for the one patient – one record initiative.
- 9 Epic was also originally bidding for the Central Region contract but also withdrew in January 2018 leaving just one vendor bidding for the project, assumed to be DIPS. The contract is due to be awarded at the beginning of 2019.
- 9 The South-Eastern Norway Regional Health Authority (Helse Sør-Øst) and EVRY have signed a new agreement for an electronic patient record solution in May 2018

## ○ SWEDEN

### EHR STATUS

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By 2012 all county councils in Sweden had fully implemented EMR solutions in hospitals, psychiatry and primary care. To increase cooperation and allow care providers to access patients' records stored at another provider, the National Patient Summary (NPÖ) was initiated in 2009. The key driver for the NPÖ was to enable health care staff to directly access a patient's medical records from other healthcare providers, if certain legal requirements are fulfilled. All 21 county councils' healthcare providers in Sweden have now implemented NPÖ. The first regional contract awarded was to Finnish EMR vendor Tieto which contracted out the provision of HIE to InterSystems which supplied its HealthShare HIE/ PHM product. The main goal of the NPÖ project was to provide integrated healthcare records across all providers, hospitals, and patients in all county council regions. In addition to Tieto/InterSystems, there are four others major EMR vendors that have a significant market share in Sweden: Cerner (via its acquisition of Siemens' EMR business), Evry, Cambio and CompuGroup Medical. Norrbotten County Council has also developed its own solution that is believed to have been used commercially by other councils. A major focus of EMR deployment in Sweden has been the drive to ensure that there is coordination in relation to the ICT projects undertaken by the different county councils. As part of this drive the Centre for eHealth in Sweden (CeHis) was established as a specialist eHealth ICT purchasing organization that coordinates health IT purchasing across Sweden. Future Developments "National eHealth - the strategy for accessible and secure information in health and social care" is one of the key policies driving the use of technology in Sweden. In its original iteration "The National eHealth Strategy", it was the driver for the NPÖ. More recently it is impacting how technology is being used for integrated care in Sweden. A key element of the strategy is how technology can be used to support coordinated care. In particular, it is driving the use of healthcare data analytics tools and smart decision support tools, such as the care management and care coordination tools. Specific to integrated care, there are several national initiatives that have been implemented that will impact how the EMR market develops in Sweden. These include projects such as: Patient safety: coordinated approaches to reduce preventable adverse events associated with health and social care provision (e.g., hospital infection rates). Integrated care for children and youth: coordinated approaches across maternity care, social care, dental care, police, pharmaceuticals, school health care, sexual health etc. with a focus on prevention and collaboration. Care of sick elderly: development of systemic preventative care, coordinated alert systems, outcome analytics and results

analysis. National quality registries: development of approximately 100 national quality registries (with scorecard and visualization tools for analysis outcomes), with a focus on understanding quality outcomes for care management processes for different patient cohorts Primary care: Using stratification tools to segment populations based on behaviors and preferences and understanding how primary care processes can be developed to improve outcomes, reduce waiting times and improve patient satisfaction IT: Evaluate how IT, such as patient engagement, ePrescription, online booking, patient communication and telehealth tools can support integrated care. Recent Contracts/ Vendor Activity 9 In October 2017 Cerner was selected as the EMR supplier for the Region Skåne, where it will provide its Cerner (Oracle Health now) Millennium solution to 10 hospitals and 190 primary care locations, straddling several municipalities. The deal also includes HealthIntent PHM platform. The platform will start to go live in the middle of 2019. 9 Oracle Health/Cerner added to this with a second Swedish regional contract in Västra Götalandsregionen in November 2018. Again, this was a region-wide contract for 17 hospitals and 200 primary care centers.

# NORDICS & BENELUX

## BELGIUM, LUXEMBOURG, DENMARK, FINLAND, NETHERLANDS, NORWAY, SWEDEN, ICELAND

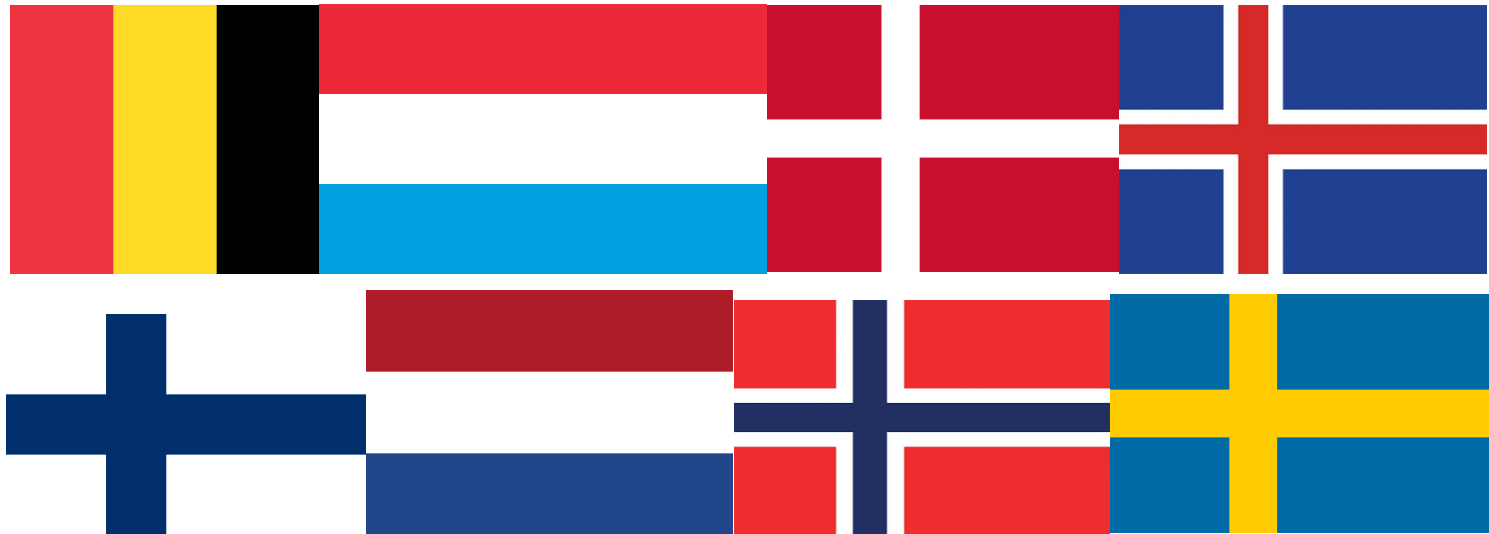
2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
1,777 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	8%
Clinic/Practice Name	6%
Public Clinic	15%
Health System Clinic	34%
Academic Hospital and Medical Centers over 250 Beds	13%
Community Hospitals	20%
Small Hospitals under 100 Beds	4%
Ambulatory Surgery Centers	0%
<b>TOTAL</b>	<b>100%</b>

*Source: Black Book™ 2024*

## 2024 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## **2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

**NORDICS & BENELUX**

**TIETO LIFECARE**

### **FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR NORDICS & BENELUX**

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**CHIPSOFT**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**TIETO LIFECARE**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**CHIPSOFT**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**TIETO LIFECARE**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research



## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

# OVERALL KPI LEADERS

## NORDICS & BENELUX

Summary of criteria outcomes

TABLE 7: SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
10	TIETO EVRY CARE	1
3	CHIPSOFT	2
3	SYSTEMATIC	3
1	COMPUGROUP	4
1	CAMBIO	7

Source: Black Book Research

# OVERALL KPI LEADERS: EHR

## NORDICS & BENELUX

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>TIETO EVRY CARE</b>	1
2	Innovation & Optimization	<b>SYSTEMATIC</b>	3
3	Training	<b>CHIPSOFT</b>	2
4	Client relationships and cultural fit	<b>TIETO EVRY CARE</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>CHIPSOFT</b>	2
6	Breadth of offerings, client types, delivery excellence	<b>TIETO EVRY CARE</b>	1
7	Deployment and outsourcing implementation	<b>CAMBIO</b>	7
8	Customization	<b>COMPUGROUP</b>	4
9	Integration and interfaces	<b>CHIPSOFT</b>	2
10	Scalability, client adaptability, flexible pricing	<b>TIETO EVRY CARE</b>	1
11	Compensation and employee performance	<b>TIETO EVRY CARE</b>	1
12	Reliability	<b>TIETO EVRY CARE</b>	1
13	Brand image and marketing communications	<b>TIETO EVRY CARE</b>	1
14	Marginal value adds and modules	<b>TIETO EVRY CARE</b>	1
15	Financial & Managerial Viability	<b>SYSTEMATIC</b>	3
16	Data security and backup services	<b>SYSTEMATIC</b>	3
17	Support and customer care	<b>TIETO EVRY CARE</b>	1
18	Best of breed technology and process improvement	<b>TIETO EVRY CARE</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RAN-K	EHR VENDOR NORDICS & BENELUX	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	TIETOEVRY CARE	A	A	A
2	CHIPSOFT	A	A	A
3	VIVUS JIVEX	A	A	A
4	COMPUGROUP MEDICAL	A	A	A
5	AGFA	A	A	B
6	DEDALUS DXC TECHNOLOGY	A	B	B
7	CAMBIO COSMIC	B	A	C
8	NEXUS	A	A	D
9	EXTENSOR	B	B	B
10	CGI	B	B	B
11	ACCENTURE	B	B	B
12	MYCLINIC AS	A	C	C

<b>13</b>	EPIC SYSTEMS	<b>B</b>	<b>C</b>	<b>D</b>
<b>14</b>	HOVE MEDICAL	<b>C</b>	<b>C</b>	<b>C</b>
<b>15</b>	FUJITSU	<b>C</b>	<b>C</b>	<b>C</b>
<b>16</b>	INTERSYSTEMS	<b>C</b>	<b>C</b>	<b>D</b>
<b>17</b>	INFODOC	<b>C</b>	<b>D</b>	<b>C</b>
<b>18</b>	MEDCOM MAERSK	<b>C</b>	<b>D</b>	<b>D</b>
<b>19</b>	ORACLE HEALTH	<b>D</b>	<b>D</b>	<b>D</b>
<b>20</b>	DIPS	<b>D</b>	<b>D</b>	<b>D</b>
<b>21</b>	VCM TECHNOLOGIES	<b>D</b>	<b>D</b>	<b>D</b>

## NORDICS & BENELUX

### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT			
1	1	TIETO	9.87	9.43	9.80	9.28	9.59	
3	2	SYSTEMATIC	9.58	9.45	9.56	9.04	9.41	
2	3	CHIPSOFT	8.89	9.56	8.61	9.71	9.19	
6	4	DEDALUS DXC	9.34	9.48	8.60	9.15	9.14	
4	5	COMPUGROUP	9.49	9.16	8.39	9.11	9.04	
5	6	AGFA	9.35	8.01	8.88	8.88	8.78	
9	7	EXTENSOR	9.09	9.06	8.15	8.36	8.67	
7	8	CAMBIO	8.66	7.31	9.03	8.77	8.44	
11	9	ACCENTURE	9.14	8.65	7.45	8.53	8.44	
10	10	CGI	9.16	7.40	8.27	8.83	8.42	

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	SYSTEMATIC	9.73	9.83	9.12	9.83	9.63
2	2	CHIPSOFT	9.78	9.72	9.03	9.59	9.53
5	3	AGFA	9.05	9.48	9.32	9.23	9.29
1	4	TIETO CARE	9.13	9.10	9.83	9.02	9.27
10	5	CGI	9.02	9.57	9.22	9.10	9.23
12	6	MYCLINIC AS	9.21	9.26	8.55	9.25	9.07
6	7	DEDALUS DXC	9.36	9.32	8.18	9.41	9.07
9	8	EXTENSOR	9.05	9.07	8.92	8.77	8.95
7	9	CAMBIO	9.41	8.72	7.81	8.99	8.73
11	10	ACCENTURE	9.17	9.04	7.64	8.93	8.70

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	& RESULTS REVIEW/ MANAGEMENT		
2	1	CHIPSOFT	9.77	9.85	9.32	9.59	9.63	
1	2	TIETO CARE	9.65	9.22	9.89	9.05	9.58	
3	3	SYSTEMATIC	9.24	9.54	8.49	9.50	9.19	
4	4	COMPUGROUP	9.62	8.99	8.36	9.69	9.17	
7	5	CAMBIO	9.16	9.68	8.22	9.43	9.12	
12	6	MYCLINIC AS	9.37	9.32	8.05	8.73	8.87	
5	7	AGFA	9.09	9.15	9.41	7.79	8.86	
6	8	DEDALUS DXC	8.90	9.07	8.38	8.22	8.64	
16	9	INFOR	9.32	8.72	8.52	7.87	8.61	
9	10	EXTENSOR	8.96	8.83	7.86	8.05	8.43	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	& RESULTS REVIEW/ MANAGEMENT		
1	1	TIETO CARE	9.68	9.77	9.81	9.19	9.51	
2	2	CHIPSOFT	9.78	9.83	9.20	9.43	9.46	
4	3	COMPUGROUP	9.31	9.03	8.74	9.58	9.30	
3	4	SYSTEMATIC	8.95	9.54	8.17	9.93	9.10	
11	5	ACCENTURE	9.24	9.30	8.53	9.34	9.04	
7	6	CAMBIO	9.17	9.75	8.02	8.45	9.00	
8	7	IBM	8.92	9.00	8.62	8.83	9.00	
5	8	AGFA	8.47	9.19	8.46	8.37	8.92	
6	9	DEDALUS DXC	9.81	9.27	7.94	7.38	8.70	
9	10	EXTENSOR	7.95	8.84	9.10	7.73	8.60	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	CHIPSOFT	9.71	9.57	9.13	9.70	9.53
1	2	TIETO CARE	9.55	9.41	9.70	9.04	9.43
7	3	CAMBIO	9.53	9.12	9.10	9.53	9.32
9	4	EXTENSOR	9.83	9.08	8.86	9.29	9.27
4	5	COMPUGROUP	8.80	9.60	8.51	9.46	9.09
10	6	CGI	9.32	9.25	8.44	9.32	9.08
3	7	SYSTEMATIC	9.47	9.10	8.12	8.94	8.91
8	8	IBM	8.85	8.86	8.47	9.46	8.91
5	9	AGFA	9.49	9.22	7.89	8.23	8.71
6	10	DEDALUS DXC	8.37	9.14	8.17	8.28	8.49

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT			
1	1	TIETO CARE	9.79	9.80	9.80	9.56	9.74	
4	2	COMPUGROUP	9.22	9.80	9.10	9.48	9.40	
5	3	AGFA	9.51	9.49	9.09	9.44	9.38	
6	4	DEDALUS DXC	9.41	9.58	8.48	9.15	9.16	
7	5	CAMBIO	9.23	9.41	8.94	8.95	9.13	
12	6	MYCLINIC AS	9.62	9.53	8.55	8.67	9.09	
3	7	SYSTEMATIC	9.69	9.54	8.09	8.91	9.01	
2	8	CHIPSOFT	9.23	9.10	8.52	8.87	8.93	
8	9	IBM	8.95	8.72	8.24	9.33	8.81	
10	10	CGI	9.07	9.20	8.00	8.74	8.75	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational, and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
7	1	CAMBIO	9.64	9.91	8.86	8.63	9.26
1	2	TIETO CARE	9.63	9.47	9.81	8.14	9.25
2	3	CHIPSOFT	9.33	9.30	8.78	9.24	9.16
4	4	COMPUGROUP	9.13	8.95	8.43	9.36	8.97
9	5	EXTENSOR	8.96	9.40	8.30	9.10	8.94
3	6	SYSTEMATIC	9.56	8.80	8.28	8.94	8.90
5	7	AGFA	9.05	9.51	8.09	8.18	8.71
13	8	EPIC SYSTEMS	8.83	9.07	7.10	9.25	8.56
6	9	DEDALUS DXC	9.52	9.35	7.21	7.93	8.49
15	10	FUJITSU	8.53	8.89	7.01	8.16	8.15

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	& RESULTS REVIEW/ MANAGEMENT		
4	1	COMPUGROUP	9.46	9.64	9.27	9.33	9.43	
2	2	CHIPSOFT	9.78	9.77	8.83	9.15	9.38	
1	3	TIETO CARE	9.59	9.29	9.49	8.83	9.30	
10	4	CGI	9.23	9.46	9.05	9.07	9.20	
8	5	IBM	9.26	9.34	8.42	9.05	9.02	
6	6	DEDALUS DXC	9.53	9.22	8.23	8.59	8.89	
3	7	SYSTEMATIC	9.09	8.90	6.94	9.81	8.69	
14	8	HOVE MED	8.66	8.83	8.05	8.68	8.56	
11	9	ACCENTURE	9.17	8.92	7.31	8.06	8.37	
13	10	EPIC SYSTEMS	8.24	9.06	7.57	8.13	8.25	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	CHIPSOFT	9.77	9.84	9.21	9.79	9.65
1	2	TIETO CARE	9.32	9.87	9.63	9.04	9.47
3	3	SYSTEMATIC	9.22	9.17	8.75	9.92	9.27
4	4	COMPUGROUP	9.41	9.37	9.04	9.17	9.25
9	5	EXTENSOR	9.17	9.28	9.05	9.18	9.17
7	6	CAMBIO	9.66	9.50	8.24	8.95	9.09
5	7	AGFA	9.13	9.61	8.36	9.01	9.03
14	8	HOVE MED	9.31	8.65	7.97	8.28	8.55
16	9	INFOR	8.91	8.47	8.22	7.95	8.39
12	10	MYCLINIC AS	8.28	8.77	7.70	8.52	8.32

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor Invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	TIETO CARE	9.86	9.86	9.86	9.77	9.83
6	2	DEDALUS DXC	9.56	9.51	9.14	9.54	9.44
3	3	SYSTEMATIC	9.19	9.45	8.68	9.86	9.30
10	4	CGI	9.40	8.88	8.16	9.15	8.95
7	5	CAMBIO	9.08	9.63	8.39	8.67	8.94
4	6	COMPUGROUP	9.05	9.01	8.54	8.83	8.86
2	7	CHIPSOFT	9.24	9.33	7.66	8.93	8.79
9	8	EXTENSOR	8.66	9.22	7.68	8.29	8.46
8	9	IBM	9.08	8.67	7.91	8.18	8.46
11	10	ACCENTURE	9.03	8.97	7.99	7.76	8.44

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	& RESULTS REVIEW/ MANAGEMENT		
1	1	TIETO CARE	9.91	9.74	9.80	9.22	9.67	
14	2	FUJITSU	9.63	9.39	9.09	9.27	9.35	
2	3	CHIPSOFT	9.50	9.84	8.87	9.19	9.35	
5	4	AGFA	9.22	9.42	8.75	8.36	8.94	
9	5	EXTENSOR	9.11	8.82	8.62	9.09	8.91	
3	6	SYSTEMATIC	9.23	8.69	7.65	9.89	8.87	
6	7	DEDALUS DXC	9.48	9.39	7.98	8.01	8.72	
4	8	COMPUGROUP	8.87	9.23	7.56	8.92	8.65	
8	9	IBM	8.98	8.72	8.06	8.08	8.46	
15	10	FUJITSU	8.80	8.76	8.27	7.92	8.44	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	& RESULTS REVIEW/ MANAGEMENT		
1	1	TIETO CARE	9.57	9.68	9.79	9.09	9.53	
10	2	CGI	9.26	9.76	9.04	9.28	9.34	
5	3	AGFA	9.29	9.79	8.99	9.16	9.31	
3	4	SYSTEMATIC	9.05	9.08	9.08	9.79	9.25	
6	5	DEDALUS DXC	9.42	9.49	9.07	8.38	9.09	
8	6	IBM	8.82	9.26	8.72	9.15	8.99	
4	7	COMPUGROUP	9.38	9.08	8.65	8.68	8.95	
2	8	CHIPSOFT	8.71	9.53	8.34	8.82	8.85	
12	9	MYCLINIC AS	8.97	8.80	7.56	7.89	8.31	
17	10	INFODOC	8.12	8.77	8.06	8.24	8.30	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	TIETO CARE	9.88	9.67	9.88	9.52	9.74
2	2	CHIPSOFT	9.81	9.88	9.45	9.22	9.59
13	3	EPIC SYSTEMS	9.40	9.53	9.01	9.45	9.35
5	4	AGFA	9.28	8.88	9.72	9.43	9.33
16	5	INFOR	9.27	9.47	9.00	9.03	9.19
6	6	DEDALUS DXC	9.56	9.62	8.49	8.78	9.11
7	7	CAMBIO	9.13	9.32	8.67	9.08	9.05
4	8	COMPUGROUP	9.48	9.03	8.30	8.93	8.94
8	9	IBM	9.07	9.00	8.07	9.52	8.92
3	10	SYSTEMATIC	8.37	9.26	8.76	8.89	8.82

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	TIETO CARE	9.63	9.62	9.77	9.26	9.57
2	2	CHIPSOFT	9.69	9.29	9.02	9.35	9.34
4	3	COMPUGROUP	9.67	9.75	8.70	8.42	9.14
8	4	IBM	8.99	9.48	8.77	8.90	9.04
9	5	EXTENSOR	8.87	8.92	8.13	9.02	8.74
3	6	SYSTEMATIC	8.88	8.07	8.88	8.77	8.65
6	7	DEDALUS DXC	9.46	9.12	7.86	7.72	8.54
7	8	CAMBIO	8.17	8.89	8.36	8.30	8.43
18	9	MEDCOM MAERSK	7.80	8.86	8.06	8.44	8.29
13	10	EPIC SYSTEMS	8.04	8.68	7.98	7.17	7.97

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	SYSTEMATIC	9.13	9.35	9.18	9.81	9.37
1	2	TIETO CARE	9.39	9.23	9.70	9.11	9.36
2	3	CHIPSOFT	9.18	8.99	8.84	9.30	9.08
5	4	AGFA	9.20	9.09	8.08	8.12	8.62
8	5	IBM	8.51	8.76	7.95	8.46	8.42
11	6	ACCENTURE	9.06	8.15	7.80	8.63	8.41
12	7	MYCLINIC AS	8.74	8.61	7.82	8.46	8.41
6	8	DEDALUS DXC	8.56	7.79	8.76	8.47	8.40
10	9	CGI	8.60	8.28	7.90	8.38	8.29
17	10	INFODOC	8.04	9.20	7.51	8.31	8.27

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	SYSTEMATIC	9.25	9.65	9.64	9.05	9.40
1	2	TIETO CARE	9.48	9.29	9.49	9.30	9.39
5	3	AGFA	9.68	9.69	8.67	8.95	9.25
8	4	IBM	9.56	9.42	8.57	8.96	9.13
6	5	DEDALUS DXC	8.73	9.89	9.52	7.99	9.03
2	6	CHIPSOFT	9.04	9.22	9.36	8.43	9.01
19	7	ORACLE HEALTH	8.98	9.19	9.49	8.24	8.98
4	8	COMPUGROUP	8.78	8.61	8.88	8.48	8.69
12	9	MYCLINIC AS	8.90	7.78	8.29	8.96	8.48
7	10	CAMBIO	8.00	8.28	7.91	9.16	8.34

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	TIETO CARE	9.66	9.50	9.93	9.29	9.60
2	2	CHIPSOFT	9.61	9.63	9.20	9.76	9.55
12	3	MYCLINIC AS	9.85	9.66	9.29	9.11	9.48
5	4	AGFA	9.34	9.47	9.22	9.22	9.31
3	5	SYSTEMATIC	9.03	8.95	9.82	8.98	9.20
9	6	EXTENSOR	9.08	9.56	8.93	8.92	9.12
8	7	IBM	8.91	9.33	8.68	8.96	8.97
10	8	CGI	9.01	9.36	8.50	8.86	8.93
13	9	EPIC SYSTEMS	9.26	9.29	8.35	8.35	8.81
6	10	DEDALUS DXC	9.49	8.94	8.11	7.82	8.59

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### NORDICS & BENELUX

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	& RESULTS REVIEW/ MANAGEMENT		
1	1	TIETO CARE	9.33	9.77	9.81	9.65	9.64	
2	2	CHIPSOFT	9.52	9.66	9.14	9.23	9.39	
5	3	AGFA	9.11	9.12	8.83	9.37	9.11	
3	4	SYSTEMATIC	8.72	8.30	8.34	9.86	8.81	
7	5	CAMBIO	9.23	9.36	8.00	8.66	8.81	
4	6	COMPUGROUP	8.63	8.62	8.80	9.11	8.79	
6	7	DEDALUS DXC	9.44	9.17	8.25	8.21	8.77	
8	8	IBM	8.88	8.99	8.08	8.66	8.65	
9	9	EXTENSOR	9.12	8.75	8.88	7.15	8.48	
10	10	CGI	8.70	8.43	7.44	9.24	8.45	

Source: Black Book™ 2024

# OVERALL SUMMARY (BENELUX & NORDIC COUNTRY VENDOR SCORES)

NORDIC & BENELUX COUNTRIES (EUROPE) TOP RANKED ELECTRONIC HEALTH RECORDS & PRACTICE MANAGEMENT VENDORS – RAW/AGGREGATE EHR PM SATISFACTION SCORES 2024																				
Rank	Vendor	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Mean
1	TIETO EVRY CARE	9.70	9.27	9.68	9.76	9.53	9.74	9.25	9.30	9.47	9.83	9.67	9.53	9.74	9.57	9.37	9.39	9.60	9.64	9.56
2	CHIPSOFT	9.19	9.53	9.73	9.46	9.63	8.93	9.16	9.38	9.65	8.79	9.35	8.85	9.59	9.34	9.08	9.01	9.55	9.39	9.31
3	SYSTEMATIC	9.41	9.63	9.19	9.10	8.91	9.01	8.90	8.69	9.27	9.30	8.87	9.25	8.82	8.65	9.36	9.31	9.20	8.81	9.09
4	COMPUGROUP	9.04	8.67	9.17	9.30	9.09	9.40	9.66	9.43	9.25	8.86	8.65	8.95	8.94	9.14	8.06	8.69	8.01	8.79	8.95
5	AGFA	8.78	9.29	8.86	8.92	8.71	9.38	8.71	8.07	9.03	8.14	8.94	9.31	9.33	7.89	8.62	9.25	9.31	9.11	8.87
6	DEDALUS DXC	9.14	9.07	8.64	8.70	8.49	9.16	8.49	8.89	8.15	9.44	8.72	9.09	9.11	8.54	8.40	9.03	8.59	8.77	8.80
7	CAMBIO	8.44	8.73	9.12	9.00	9.32	9.13	8.97	8.23	9.09	8.94	8.31	7.79	9.05	8.43	8.17	8.34	7.83	8.81	8.65
8	IBM	8.33	8.16	7.99	9.00	8.91	8.81	7.41	9.02	8.13	8.46	8.46	8.99	8.92	9.04	8.42	9.13	8.98	8.65	8.60
9	EXTENSOR	8.67	8.95	8.43	8.60	9.27	7.31	8.96	7.52	9.17	8.46	8.91	7.27	8.51	8.74	7.81	8.26	9.12	8.48	8.47
10	CGI	8.42	9.23	7.62	7.69	9.08	8.75	8.12	9.20	8.13	8.95	7.90	9.34	8.50	7.31	8.29	8.00	8.93	8.45	8.44
11	ACCENTURE	8.44	8.70	7.54	9.04	8.30	7.19	7.93	8.37	7.11	8.44	8.43	7.67	8.22	7.59	8.41	7.86	8.39	8.19	8.10
12	MYCLINIC AS	7.96	9.07	8.87	8.44	7.27	9.09	8.12	8.21	8.32	7.11	7.80	8.31	6.31	6.75	8.41	8.48	9.48	7.33	8.07
13	EPIC SYSTEMS	8.24	7.55	7.47	7.33	7.53	7.69	8.56	8.25	7.70	7.74	8.16	7.79	9.35	7.97	7.56	8.05	8.81	7.81	7.98
14	HOVE MEDICAL	7.92	8.28	8.41	8.50	7.30	7.52	7.96	8.56	8.55	6.30	9.35	8.20	8.50	7.55	8.04	6.89	7.07	7.61	7.92
15	FUJITSU	6.66	7.51	8.14	8.30	8.28	6.49	8.15	7.73	7.99	8.29	8.44	7.76	8.28	6.55	8.17	7.54	7.95	8.15	7.80
16	INTERSYSTEMS	8.31	8.12	8.61	8.30	7.84	6.62	7.00	7.76	8.39	7.95	7.44	7.54	9.19	7.67	6.71	6.50	7.47	7.59	7.72
17	INFODOC	7.79	6.46	7.96	6.29	6.98	7.49	6.20	6.79	7.30	7.90	7.10	8.30	8.76	7.60	8.27	7.22	7.77	7.83	7.45
18	MEDCOM MAERSK	7.90	7.36	7.06	6.91	6.32	5.95	5.97	7.24	6.51	6.66	8.26	6.72	6.36	8.29	5.99	7.39	7.18	7.54	6.98
19	ORACLE HEALTH	7.92	8.28	5.82	6.03	4.87	6.56	6.34	6.09	5.99	5.74	7.22	5.78	6.46	6.93	4.93	8.98	8.57	7.27	6.65
20	VCM TECH	8.38	6.27	5.75	6.30	5.44	6.98	7.93	6.83	6.41	6.98	5.80	5.53	6.41	7.01	6.31	5.87	7.80	7.08	6.62



# **AFRICA**

Electronic Health Records (EHRs) are one of the exploding innovations in the twenty-first century. It serves as the backbone of medical operations in the developed countries. However, many developing countries including sub-Saharan Africa are yet to incorporate EHRs, despite the multiplicity of benefit it offers.

There are many factors that limit broad adoption of EHR in sub-Saharan Africa. These include high initial costs of procurement of EHR system and ongoing maintenance, costs, lack of financial incentives for adoption, lack of priorities, poor electricity supply, lack of internet connectivity, primary user's limited computer skills, and lack of robust healthcare infrastructure. Therefore, any efforts that will be directed towards widespread adoption of EHR in this region by any stakeholders must be tackled at a much more fundamental level within the context of sub-Saharan African region and uniqueness of the region's present situation. The following strategies have been shown to promote EHR adoption: proper and adequate implementation planning, financial supports from the government, appropriate EHR selection, training of primary users, and adoption of the phased implementation process.

An installation of EMR in the developing world in association with epidemiological research will guide different stakeholders including the government and healthcare providers to optimize the use of limited resources for which disease categories at what time. In addition, establishing a map of disease prevalence and incidence will yield more cost-effective strategies for enhancing the quality of life in low-resource settings.

Studies have shown that while it is true that the cost of implementation of an EHR can be prohibitive for most developing countries, the use of low-cost technologies has been demonstrated to be sustainable in many such African countries.

## ○ SOUTH AFRICA

### EHR STATUS

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The adoption and use of technology in South African (SA) hospitals is not new.

Technology at hospitals still take place in SA but no study as at current has being undertaken to hear the voices of the users, which are clinicians. Clinicians are not necessarily involved in the design, development and implementation of technological systems at their workplace so there is a discomfort expressed by some of them with regards this.

The reason for such discomfort can be traced to clinicians' non-participation in decisions regarding technology adoption and implementation. Though their perceptions towards technology are positive, it is evident their input will make a positive difference

## ○ GHANA

### EHR STATUS

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Devdex, a software company in Ghana, has rolled out Africa's first healthtech platform built on blockchain to provide electronic medical records (EMR) solutions for medical facilities.

Called Yarysa, it was founded in 2019 by Nana Osafo-Bosompem, Dr. Appiah-Sakyi, and Caleb Hoffmann but fully functioned in 2020. The Yarysa platform acts as a management system for hospitals by providing patients with transparent and data-driven results. Initially, Devdex focused on building software solutions for customers but branched into the health sector after it identified gaps within the sector with the help of a doctor. Nana identified that doctors were still used to the traditional paperwork which often led to the loss of data or information. He also noted the rigmarole process of consulting with a doctor. This was enough motivation to launch the platform.

Now, patients can consult with their physicians via video. Doctors can be efficient and more focused on the practice than the administrative work. Importantly, all patients' records, diagnoses, inventories, consultations, prescriptions are digitized for easy access. Furthermore, medical facilities can have access to loans and credit facilities to grow and scale their business.

## ○ KENYA

## EHR STATUS

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In 2012, International Training and Education Center for Health (I-TECH) designed and developed an EMR system, KenyaEMR, to support the care and treatment of HIV/AIDS. I-TECH supported the implementation of KenyaEMR in over 300 health facilities throughout Kenya, one of the largest open sources EMR rollouts in Africa. Following the implementation of EMRs in health facilities with high HIV and AIDS burden, the government shared how the EMR system is used for collecting billing information, scheduling patient appointments, and enabling clinicians to conduct ad hoc queries.

I-TECH supports the use of the system through extensive capacity building of the health managers and through on-site training on system use, for mentors who then train other staff at the facility. The system provides a platform to conduct case-based surveillance of HIV/AIDS and other infectious diseases as efforts are geared toward data quality and data use.

Since 2009, I-TECH has collaborated with the Ministry of Health to standardize electronic health information systems in Kenya, streamlining data collection so that more accurate, complete, and accessible information is available to health care workers, leaders, and managers at all levels of the health system through establishing standards and guidelines for electronic exchange and integrating these into policy.

Other highlights stemming from Kenya's remodeling is the support of 449 data quality assessments on EMR data across over 173 health facilities. After data cleansing, data quality results improved on sites by up to 66%.

Another example is piloted automated indicator reporting between EMR systems and the District Health Information System 2 (DHIS2) with the aim to support electronic transmission of reporting from EMRs to DHIS2.

Moreover, this country supported the design and development of a national unique person identifier for pilot use in Homa Bay County of Nigeria.

Kenya's goal is to support the Ministry of Health, County Health Management Teams, and Service Delivery Partners in maintaining and using health information systems innovations.<sup>1</sup>

## MARKET DYNAMICS

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Health outcomes have improved in Kenya since 2006. The burden of communicable diseases decreased but continues to prevail in the total disease burden in 2016, whereas the non-communicable disease burden increased. Health gains varied strikingly across counties, indicating targeted approaches for health policy are necessary.<sup>2</sup>

Over the past several decades, the Government of Kenya has developed strategic plans and frameworks to strengthen coordination between private facilities and nongovernmental organizations, provided clear guidelines on health information systems, integrated data collection and reporting tools, improved data flow, and improved feedback mechanisms at all levels.

Kenya has shown a strong interest in improving health IT performance, including mandating units in the government to improve the eHealth, providing standards and guidelines to counties through the Health Sector M&E Framework, and showing a keen interest in developing a scorecard to measure health IT performance. However, gaps and opportunities remain in which health information systems performance monitoring can be improved in policies and practices at the national and subnational levels.

Kenya's healthcare information system has several data sources that are being integrated with District Health Information System 2, the national platform for the management of routine health data. Sub counties, community health workers, and health facilities submit data that are aggregated at the county and national levels to the DHIS2. DHIS2 is the world's largest health management information system platform, in use by 67 low and middle-income countries or 30% of the world's population. With DHIS2 you can capture data on any type of device, including desktops, laptops, tablets, smartphones and feature phones. Similarly, most solutions provided by this healthcare system work-offline, enabling improved reach in locations with poor connectivity.<sup>3</sup>

## CONSTRAINTS

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Although governance and coordination structures are in place to coordinate the health information system at the national level, these guidelines were not communicated to the county level. In addition, it has been pointed out that there may not be enough oversight of the counties in data collection. Data quality can improve by automating data entry at the lowest levels to reduce redundancy and errors when transferring data from the lower level, such as the facility or community level, to a higher level, such as the county level or the national health management information system.

Several health programs have integrated their data sources into District Health Information System 2, including the Malaria, HIV/AIDS, and Tuberculosis programs. The Kenya Medical Supplies Authority has developed a central platform for the electronic supply chain management system for all users from facilities, counties, and health programs so they can order, procure, and distribute drugs to facilities. However, other organizations reported difficulties in integrating their data, particularly with EMRs. The interoperability is not there. As of right now, anybody from any facility can use different software, whether it is standard or not standard. There is no ability to communicate to other systems.

Furthermore, in Kenya there are challenges in maintaining staff, having adequate training, and ensuring financial investment in health information systems. On top of that, having outdated equipment and the lack of an Internet connection prevent them from producing health information effectively. There are multiple computers at health facilities that are being used for different purposes, creating inefficiencies. Let's say you are employed at a certain healthcare facility, one day you have a computer that is possibly being used at 10% of its full potential. Then the next day you are in the same facility but are instructed to use another set of computers. This creates instability and wastes time.<sup>4</sup>

## OPPORTUNITIES

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From 2007–2008, the Health Metrics Network supported an evaluation in Kenya which raised concerns over the low reporting rates and lack of a policy framework to guide health information system activities. In response, Kenya invested in policy development and implemented at national scale in September 2011, the computerized District Health Information System 2 that is now widely used across Africa (J6/assessing). DHIS2 lets you manage aggregate, routine data through a flexible data model. You can set up data elements, data entry forms, validation rules, indicators and reports in order to create a fully-fledged system for data management. DHIS2 has advanced features for data visualization, like GIS, charts, reports, and pivot tables which will bring meaning to your data.<sup>5</sup>

Improving the environment and information generation of the systems used will positively affect the data quality. Increasing communication among the national and county levels, coordinating among partners, improving training of HIE staff, and improving technology infrastructure to increase efficiency of equipment use and Internet connectivity will enable organizations to better access data and draw conclusions.

By improving these aspects and addressing these challenges, Kenya will strengthen the data quality and data use of the HIT.

There has also been increased commitment to training local scientists and encouraging research through programs such as Human Health and Heredity in Africa, which was recently established by the National Institute of Health and by Wellcome Trust. This initiative funds African scientists and local institutions to conduct basic research on the genomic and environmental bases of health issues prevalent within the continent.<sup>6</sup>

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## ○ NIGERIA

### EHR STATUS

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At present, most hospitals in Nigeria still rely on the paper-based way of keeping health records of patients. This comes with a lot of challenges like inadequate physical space to keep the cards in case of high number of patients, inconsistency in handwriting of individuals, as well as vulnerability to attacks. Hence, there is a need to migrate to an electronic method of keeping medical records.

The rate of eHealth technology applications adoption is low. This is due in part, to barriers such as resistance from healthcare professionals, poor infrastructure, and low technical expertise. Nigeria had a population of 206 million in 2020, and the majority reside in remote rural and poor areas, where access to basic social amenities such as quality healthcare services, good roads, electricity supply, etc., is either poor or non-existent. According to statistics by the Nigeria Medical Association, there are over 45,000 medical doctors in Nigeria. This indicates a ratio of one doctor to 4,000 patients. Clearly, it represents a far cry from the recommendations of the WHO of one doctor to not more than 600 patients. In Nigeria, the Federal government has made efforts to develop and deploy e-health technology applications in hospitals to improve healthcare services. However, healthcare workers reported that they were not carried along in the planning process, and implementation is largely at pilot stages, uncoordinated, and yet to be scaled up due to lack of comprehensive e-health national policies and strategies. Other barriers to acceptance of e-health by the healthcare professionals include apathy in embracing ICT tools, and poor awareness of e-health advantages

Apart from the inaccessible rural areas in need of telemedicine solutions, the impact of brain drain, emigration of those highly trained or educated to other countries that provide more opportunity, is enormous. If such technology like telemedicine is appreciated and embraced, the effects of brain drain may be minimized, if not completely eradicated, because the skills of those experts are still available through remote technologies. Some of the major hindrances to telemedicine, like infrastructure and power, seem to be improving in Nigeria. If the current momentum given to electricity by the present government continues, then hope is on the horizon.

The government and the stake holders should make sure that all government and private hospitals and healthcare institutions are equipped with enough information and communication equipment that will enable them to gradually swap from the old and stressful paper-based patient record system to the fast, easy and secure EMR system.

Health workers (e.g., doctors, nurses, pharmacists, radiologists, laboratory technicians) with little or no computer knowledge should be encouraged across the board to embrace

HIT related skills so that this technology can be more adaptable to their work. The Nigerian Medical and Dental Council is adding eHealth as part of the continuing medical education needed for license renewal. Thus, providing incentives and opportunities for clinicians and healthcare managers to acquire and update digital eHealth IT skills and knowledge.<sup>1</sup>

## MARKET DYNAMICS

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With eHealth expanding its influence on healthcare management, the Healthcare Informatics Society of Nigeria (HISN) is one of the major groups establishing and highlighting the importance of information and communications technology in the clinical management of patients. Nigeria is witnessing continuing advocacy and increase in the number of individuals yearning for computerization of health information and healthcare processes. As expected, there are still many challenges facing eHealth solutions in Nigeria, including fundamentals like internet connectivity and electric power. With the present national administration's commitment to improve eHealth knowledge and infrastructure shortages, eHealth should begin to gain ground and traction in Nigeria. The Government of this most populous black nation is evolving plans and strategies for the adoption and implementation of health information technology. Currently, a high-powered initiative is being established within the Nigerian Government through HISN to enhance a national policy on eHealth.

Despite the progress made, the prospects for an eHealth specialist in a developing country like Nigeria can seem very discouraging since many eHealth experts have emigrated from the region due to a lack of a promising career post-graduation. If this trend is not reversed through the active participation of major global eHealth stakeholders, the WHO's vision for 2030 of providing, "universal affordable healthcare coverage" may be unachievable. Currently, a proposal is being worked on for, "universal affordable healthcare coverage through telemedicine." Once accepted, the use of software such as a device, smart devices, and telemedicine kits, will enable automatic data acquisition. The issue of patient data safety, consent and confidentiality are also being taken very seriously.

Previous healthcare policies have not been able to deliver the expected outcomes in Nigeria because modern health information system tools have not been used to drive healthcare delivery solutions. This makes healthcare less affordable, inaccessible and unable to deliver value for the money.

It is an obvious fact that telemedicine solutions are in urgent need throughout Nigeria to address the continuing medical expert shortage problem, inclusive of eHealth experts. Remote villages are difficult to reach and eHealth education in Nigeria is still far below expectations. For example, most of the universities have yet to begin offering eHealth courses, as there are not enough students interested in enrolling. To address this lack, a distinct eHealth career path should be created and marketed to attract prospective students.

Presently, many hospitals are interested in EMRs, although no hospital or clinic has attained HIMSS Electronic Medical Record Adoption Model stage adoption grading to date. This reiterates that the field of health informatics is still very new in Nigeria and throughout Africa. Additionally, more and more vendors are showing interest in the Nigerian market, suggesting that things are improving.<sup>2</sup>

## CONSTRAINTS

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Given that there is no distinct eHealth program, infrastructure, or dedicated personnel to drive the HISN, the possibility of getting reliable data is slim. Arguably, if the HISN is not functioning or is non-existent there is poor public health intelligence to drive policies.

Moreover, there are territories, mostly in rural areas, that expert medical personnel may not access, are unwilling to access, or the number of health care givers is inadequate based on available resources. To achieve universal and affordable healthcare, it is assumed that all territories should be coverable. A new, modern and technological driven policy is needed to ensure these areas are provided healthcare access.

Furthermore, evidence has shown that most healthcare practitioners trained in this developing country immigrate to developed nations due to poor welfare and outdated infrastructures. Viable, affordable and efficient telemedicine solutions should address this, since the expertise of these healthcare providers will still be accessible remotely. If this is not addressed, eHealth solutions may increase socioeconomic healthcare inequalities.<sup>1</sup>

## OPPORTUNITIES

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With the renewed efforts of HISN, a lot of positive institutional change is beginning to emerge in Nigeria. HISN continues to engage both the online and offline healthcare practitioners training in important information and communications technology health innovations. However, since there has been no official governmental support, progress has been slow, which is mostly attributed to financial constraints. The trainings offered have been free for the students, with most expenses covered by HISN members, making sustainability very challenging. Hopefully, this trend will continue progressing and gain funding from the government or other eHealth organizations, and more courses and training will be available to healthcare practitioners in Nigeria.

A number of improvements were incorporated into the HISN program and training for 2018. For example, each state was mandated to hold state and regional conferences, while the national eHealth conference was held in Lagos towards the end of 2018. These conferences,

especially the national one, will draw many key stakeholders and are sure to create broader awareness on eHealth innovations. Many international vendors were present in hopes of networking and collaborating. This is a great improvement, considering it has been three years since a similar conference was held, most likely due to insufficient local eHealth experts, though this is gradually improving. In the very near future, health information technology is poised to be a rewarding career in Nigeria and other developing countries, if the renewed momentum generated in the field is sustained.<sup>2</sup>

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[https://www.researchgate.net/publication/269572805\\_Health\\_information\\_technology\\_in\\_Nigeria\\_Stakeholders'\\_perspectives\\_of\\_nationwide\\_implementations\\_and\\_meaningful\\_use\\_of\\_the\\_emerging\\_technology\\_in\\_the\\_most\\_populous\\_black\\_nation](https://www.researchgate.net/publication/269572805_Health_information_technology_in_Nigeria_Stakeholders'_perspectives_of_nationwide_implementations_and_meaningful_use_of_the_emerging_technology_in_the_most_populous_black_nation)

# AFRICA

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
904 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	15%
Clinic/Practice Name	4%
Public Clinic	21%
Health System Clinic	7%
Academic Hospital and Medical Centers over 250 Beds	38%
Community Hospitals	11%
Small Hospitals	4%
Ambulatory Surgery Centers	0%
TOTAL	100%

Source: Black Book™ 2024

## 2023 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS



## 2023 TOP OVERALL EHR EMR HIT VENDOR HONORS

AFRICA

**DXC TECHNOLOGY**

### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR AFRICA

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**DXC TECHNOLOGY**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**ORACLE HEALTH**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**DXC TECHNOLOGY**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**DEDALUS**

## STOP LIGHT SCORING KEY

**FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS**

PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT
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Source: Black Book Research

**FIGURE 2: KEY TO RAW SCORES**

0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

*Source: Black Book Research*

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

AFRICA

Summary of criteria outcomes

TABLE 8: SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
7	DXC TECHNOLOGY	1
5	ORACLE HEALTH	2
3	DEDALUS	3
1	NAPIER	4
1	HEALTH INSIGHTS	5
1	MEDITECH	7

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

### AFRICA

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA

Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>DXC TECHNOLOGIES</b>	1
2	Innovation & Optimization	<b>DXC TECHNOLOGIES</b>	1
3	Training	<b>DEDALUS</b>	3
4	Client relationships and cultural fit	<b>ORACLE HEALTH</b>	2
5	Trust, Accountability, Transparency, Ethics	<b>DXC TECHNOLOGIES</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>HEALTH INSIGHTS</b>	5
7	Deployment and outsourcing implementation	<b>DEDALUS</b>	3
8	Customization	<b>DXC TECHNOLOGIES</b>	1
9	Integration and interfaces	<b>ORACLE HEALTH</b>	2
10	Scalability, client adaptability, flexible pricing	<b>MEDITECH</b>	7
11	Compensation and employee performance	<b>DXC TECHNOLOGIES</b>	1
12	Reliability	<b>DXC TECHNOLOGIES</b>	1
13	Brand image and marketing communications	<b>ORACLE HEALTH</b>	2
14	Marginal value adds and modules	<b>DEDALUS</b>	3
15	Financial & Managerial Viability	<b>ORACLE HEALTH</b>	2
16	Data security and backup services	<b>ORACLE HEALTH</b>	2
17	Support and customer care	<b>NAPIER</b>	4
18	Best of breed technology and process improvement	<b>DXC TECHNOLOGIES</b>	1

# INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR AFRICA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	DXC TECHNOLOGIES	A	A	A
2	ORACLE HEALTH	A	A	C
3	DEDALUS	B	B	C
4	NAPIER	B	C	B
5	HEALTH INSIGHTS	C	B	C
6	EPIC SYSTEMS	A	B	D
7	MEDITECH	D	D	A
8	DEVDEX	D	B	D
9	INTERSYSTEMS	C	C	C



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>DXC</b>	9.94	8.98	9.44	9.24	<b>9.40</b>
3	2	DEDALUS	9.21	9.40	8.23	7.39	8.56
5	3	<b>HEALTH INSIGHTS</b>	7.23	7.29	7.24	6.26	<b>7.00</b>
7	4	<b>MEDITECH</b>	5.36	5.96	6.35	5.05	<b>5.78</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	& RESULTS REVIEW/ MANAGEMENT		
1	1	<b>DXC</b>	8.93	9.03	8.75	9.80	<b>9.13</b>	
2	2	ORACLE HEALTH	9.27	7.99	7.70	9.50	8.62	
3	3	DEDALUS	8.24	8.79	9.20	7.65	8.47	
4	4	NAPIER	9.11	7.03	8.69	8.99	8.46	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	<b>DEDALUS</b>	8.79	9.40	9.53	8.46	<b>9.13</b>
2	2	ORACLE HEALTH	8.93	8.80	9.78	8.81	8.62
7	3	MEDITECH	7.90	8.08	8.11	8.20	8.47
1	4	DXC	8.00	7.36	7.49	8.08	8.46

Source: Black Book™ 2024

## AFRICA

### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	8.98	9.44	8.91	8.75	9.02
1	2	DXC	8.79	8.22	7.83	9.87	8.68
4	3	NAPIER	8.07	8.27	8.67	8.16	8.29
3	4	DEDALUS	8.33	7.90	7.16	7.98	7.84

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DXC	9.44	9.49	9.30	9.71	9.49
3	2	DEDALUS	8.98	9.31	9.04	8.54	8.97
5	3	HEALTH INSIGHTS	9.00	7.76	7.82	8.84	8.36
7	4	MEDITECH	5.49	5.30	6.14	5.65	5.65

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	HEALTH INSIGHTS	9.44	9.08	9.25	8.17	8.99
1	2	ORACLE HEALTH	9.05	8.66	8.59	9.28	8.90
6	3	EPIC SYSTEMS	8.23	9.46	9.00	8.91	8.90
7	4	MEDITECH	8.42	7.04	8.24	6.04	7.44

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.65	9.50	9.64	9.41	9.55
2	2	ORACLE HEALTH	8.98	8.93	9.54	9.30	9.19
1	3	DXC	8.82	8.88	8.85	9.00	8.89
4	4	NAPIER	8.93	9.07	7.99	7.84	8.46

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DXC	9.85	9.88	9.77	9.66	9.79
3	2	DEDALUS	9.77	9.94	8.75	9.07	9.38
2	3	ORACLE HEALTH	8.84	8.09	8.99	9.54	8.87
4	4	NAPIER	8.69	9.03	8.91	7.32	8.49

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT			
2	1	ORACLE HEALTH	9.59	9.80	9.45	9.67	9.63	
3	2	DEDALUS	9.84	9.22	9.60	8.33	9.25	
4	3	NAPIER	7.99	9.00	8.95	9.02	8.74	
1	4	DXC	8.88	8.92	9.07	8.00	8.71	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
7	1	<b>MEDITECH</b>	9.25	9.64	9.14	9.28	<b>9.33</b>
2	2	ORACLE HEALTH	9.02	8.54	8.11	9.00	8.67
1	3	DXC	8.95	7.98	9.65	7.92	8.63
4	4	NAPIER	8.46	7.79	8.34	7.73	8.08

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT			
1	1	<b>DXC</b>	9.45	9.09	9.46	9.40	<b>9.35</b>	
4	2	<b>NAPIER</b>	9.72	9.55	9.33	8.50	<b>9.28</b>	
2	3	ORACLE HEALTH	9.20	8.84	8.08	7.56	8.42	
3	4	DEDALUS	9.10	9.25	7.98	7.20	8.38	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>DXC</b>	9.26	9.56	9.24	8.98	<b>9.26</b>
2	2	<b>ORACLE HEALTH</b>	9.20	8.61	8.55	8.90	<b>8.82</b>
3	3	DEDALUS	8.77	8.73	9.00	7.92	8.61
4	4	NAPIER	8.06	8.24	8.25	8.17	8.18

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.56	9.60	9.73	9.90	9.70
3	2	DEDALUS	9.56	9.24	8.89	8.92	9.15
1	3	DXC	8.98	9.15	8.94	9.24	9.08
7	4	MEDITECH	5.90	5.52	6.23	5.40	5.76

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DEDALUS	9.09	9.82	8.92	8.51	9.09
4	2	NAPIER	7.98	9.14	9.49	9.39	9.00
2	3	ORACLE HEALTH	8.05	8.67	8.99	8.34	8.51
1	4	DXC	9.45	7.95	7.77	8.61	8.45

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural\* mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	8.94	9.81	9.56	9.02	9.34
3	2	DEDALUS	9.53	8.09	8.92	9.00	8.89
1	3	DXC	7.94	8.92	9.09	8.84	8.71
4	4	NAPIER	8.71	7.06	8.94	7.95	8.17

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.30	9.72	9.34	9.49	9.46
1	2	DXC	9.19	9.76	8.99	9.14	9.27
4	3	NAPIER	8.35	8.37	8.98	8.92	8.66
3	4	DEDALUS	8.42	8.49	9.29	8.35	8.64

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	NAPIER	9.77	9.53	9.44	9.82	9.64
3	2	DEDALUS	9.64	8.78	8.84	8.53	8.95
2	3	ORACLE HEALTH	9.28	8.53	8.48	9.16	8.87
1	4	DXC	9.65	8.00	8.73	8.54	8.77

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AFRICA

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	DXC	9.98	9.27	9.49	9.45	9.55
3	2	DEDALUS	9.44	9.09	8.74	9.02	9.07
2	3	ORACLE HEALTH	8.57	9.03	9.28	8.38	8.82
7	4	MEDITECH	5.65	4.99	5.14	5.72	5.34

Source: Black Book™ 2024



# OCEANIA

## ○ AUSTRALIA

### EHR STATUS

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In practical terms, eHealth is the means of ensuring that the right health information is provided to the right person at the right place and time in a secure, electronic form for the purpose of optimizing the quality and efficiency of health care delivery. According to a report by Global Market Insights, the EHR market size in Australia was valued at US \$526.3 million in 2018 and is expected to witness a 4% in exponential growth rate (CAGR) from 2022 to 2030. Specifically, the web/cloud based EHR software product market is expected to have large uptake. It was valued at US \$27.2 billion in 2021.

The healthcare system in Australia is equipped with the necessary infrastructure to launch a national EHR program as 85% of Australians and over 95% of general practitioners have access to the internet.

Government initiatives such as My Health Record, aimed at maintaining the health records of all the Australian citizens will also drive growth of various digital health systems platforms in the country. Along with the strong growth rate of EHR, there is also a lack of skilled professionals to handle the sophisticated technology. As such, they urged the healthcare industry to prepare for this change.

Similarly, they warned that the potential threats for data breaches and privacy leaks will continue to impede the Australian EHR market growth over the coming years.<sup>1</sup>

### MARKET DYNAMICS

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Australia's health system is highly respected internationally for its effectiveness and efficiency. It has made steady inroads in implementing digital health solutions. By the end of 2021, over 23 million Australians created a My Health Record, except those who choose not to have one. This has ensured that the great majority of Australian patients will accrue a comprehensive, accessible medical history, which can become a vital resource for clinical interventions and ongoing health management. Healthcare providers can use the My Health Record system and associated digital health infrastructure to share health information with their patients, transfer prescriptions to pharmacies, and provide interactive decision-making support. Consumers can take a proactive and participatory approach to their healthcare by adding personal notes and controlling the information displayed in their personal record.

An implementation plan was created to outline the roles and activities for government, healthcare providers, the technology industry, consumers, and researchers to contribute to

achieving the digital health goals by 2022. Key themes that will guide the approach to delivery of digital health within Australia is to help all the people who care for the patient understand them, and together, provide safe and personalized care. In addition to, creating an environment where healthcare providers and the patient can use and benefit from innovative technologies. But above all, preserve the users trust in the healthcare system and protect their rights.

Despite strong foundations, a number of demographic and health trends are stretching the financial, physical and human resources of our healthcare system. These factors include an ageing population and increasing rates of chronic disease, compounded by systemic issues such as challenges in maintaining a skilled workforce in light of new technologies, and inequalities in health outcomes across different communities.

Consequently, there is increasing need for healthcare reform to prepare Australia to respond to the emerging health needs of its communities and to maintain existing high standards. This reform includes, among other things, the funding and large-scale adoption of digital health technologies to support new and improved models of care that drive greater safety, quality and efficiency for Australian patients and their care givers.<sup>2</sup>

## CONSTRAINTS

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Australia, like many industrialized countries, will confront major issues and challenges over the next decade in maintaining and improving patient health care. The following are the major core health issues and challenges that the country will need to address.

Technology and technological breakthroughs have improved the lives of patients in terms of diagnostics and the management serious diseases in the 21st century. However, the continual cost and diffusion of technology will impose serious budgetary constraints in maintaining and improving health care. Health care technology and the specific types of medical systems have increased the burden on government budgets. The challenge will be to use technologies that not only improve the health and well-being of citizens but are also cost-effective treatments.

Generally speaking, the main risks to the My Health Record program are factors that could discourage the use of these digital health services in Australia's healthcare system. Such factors include a lack of awareness of the My Health Record system and other digital health services, or a loss of faith among clinicians and consumers in these services, perhaps due to privacy or security concerns, or a perception of general irrelevance to grassroots healthcare delivery.

There have been huge improvements in the health outcomes in Australia, as measured by increased life expectancy, lower mortality rates, more efficient disease management controls, among others. However, this has not been shared equally across groups. For example, the life expectancy of the indigenous population is significantly lower than the

non-indigenous population. There is also a significant difference with the health care treatment that affluent people receive versus the less affluent.<sup>3</sup>

## OPPORTUNITIES

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To capitalize on this once in a generation opportunity, Australia should embark on a strategy of national eHealth coordination and alignment. National action should be focused in four key areas:

- Implementing the national 'health information highway' infrastructure and rules to allow information to be seamlessly accessed and shared across the Australian health system
- Stimulating investment in high priority computer systems and tools that can deliver tangible benefits to Australian consumers, care providers and health care managers
- Encouraging health sector participants to adopt and use high priority systems and tools as they become available
- Establishing an E-Health governance regime to enable effective coordination and oversight of national E-Health activities.

This would involve the establishment of national frameworks and infrastructural components that can be leveraged at national, regional, and local levels to deliver solutions that are able to be integrated and share data across geographic and health sector boundaries.<sup>4</sup>

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## ○ NEW ZEALAND

### EHR STATUS

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Implementation of EHRs could provide wider benefits to clinicians, patients, and healthcare managers as well as enhance healthcare delivery systems. Benefits of EHRs could be classified into clinical, organizational and societal outcomes. Improved quality of care and patient safety are the key clinical outcomes associated with using EHRs. Some reported advantages of EHRs include improved legibility of clinical notes, accessible information, computerized reminders to physicians, standardized care reduced clinical investigations, reduced medication errors, and low mortality rates associated with reduced medical complications. Ultimately, this has been shown to improve the quality and patient safety.

The cost associated with implementation, converting paper charts to an electronic one, and the maintenance work associated with software upgradation, as well as the ongoing training support needs, which are the reported barriers to successfully implement EHRs. Furthermore, disruption of the normal workflow, temporary loss of productivity and the increased risk of patient privacy violations, lack of interoperability standards between EHRs continuously presents a challenge to successfully implement EHRs. The emergence of new standards for exchanging, integrating, sharing and retrieving information has facilitated implementing EHRs in New Zealand.

In 1992, the Ministry of Health introduced the National Health Identifier (NHI). It is a unique identifier assigned to every person who uses health and disability support services in New Zealand. This is utilized to make an error-free identification. This NHI is associated to medical warnings systems, which warns health professional about any risk factors when making a clinical decision with an individual patient. Every health provider is uniquely identified by a Health Provider Index to enable secure ways to access and transfer health information.

14% of GP practices with a patient portal are offering patients online access to their medical notes. The latest figures from the Ministry of Health show that 610 practices (out of 970) across New Zealand offer a patient portal. Having access to their health information empowers people to be more involved in their healthcare. On a practical level, portals can help them understand their health condition better, and send reminders in regard to their care plan and medications. The Ministry figures show that four physician-hospital organizations have all practices offering a portal and around 800,000 people are registered with a patient portal across the country. In addition, 21 practices also offer video-conference consults.



Initiatives such as the NHI, the health provider index, the medical warnings systems, a national clinical terminology catalog, and the national health information privacy code have contributed to the early adoption of integrated healthcare, provided the building blocks for the national EHR implementation. EHR architecture shares information, either on a need-to-know basis or limits the data access to providers within the “circle of care”. Some of the well-functioning regional EHRs are associated with the Primary Information Systems Management (PRISM). With the consumer in mind, developers designed the single national EHR to turn data into meaningful information. This single EHR can consolidate information to improve decision support and patient care coordination for patients with chronic health conditions.<sup>1</sup>

## MARKET DYNAMICS

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New Zealand’s health sector has seen increasing demands in regard to the ageing population and the ongoing inflation of medical costs. These demands are growing, and the importance of technology could optimize the healthcare sector performance. Advancement in technology drives EHRs implementation to add substantial value to the health delivery systems. The investment and promotion of health information infrastructure have positioned New Zealand as a world leader in the field regarding the primary care sector. Factors such as organization structure, culture, leadership and workflow design are important to achieving the successful implementation of EHRs.

This country is similar to the United States of America in that there are strict guidelines for the protection and sharing of electronic medical information. In the USA, they are directed by the Health Insurance Portability and Accountability Act (HIPAA). In New Zealand, the Privacy act of 1993, and Health Information Privacy code of 1994, governs the collection, usage, and disclosure of medical information. The National Health IT Board established Connected Health Programs, to share secure health information between health professionals.

Moreover, the Ministry of Health developed Digital Health 2020, which was established to progress the core digital technologies presented in the New Zealand Health Strategy. It guided the strategic digital investments that were expected to occur across the health and disability sector through 2016–2020. It aligned sector investments with value delivery and encouraged health organizations to invest with greater clarity and confidence.

It has five core components:

- an electronic health record for New Zealanders: a single longitudinal view of health information accessible to consumers, care givers and decision-makers.
- health and wellness dataset - access to health data to support government, health organizations and individuals to make evidence-based decisions aligned to the Government's social investment approach.
- a preventative health IT capability - information and enabling ICT capability to support and improve the targeting of screening, immunization and other public health initiatives.
- digital hospitals - to lift the digital capability within hospitals and the integration with the wider sector.
- regional IT foundations - eHealth foundations that support regional access to health information, delivery of the single electronic health record and lifting digital capability within hospitals.

These actions will ultimately contribute to the stated goal that “... all New Zealanders live well, stay well, get well, in a system that is people-powered, provides services closer to home, is designed for value and high performance, and works as one team.”<sup>2</sup>

The investment and promotion of health information infrastructure have positioned New Zealand as a world leader in the field of primary care sector. But a system-wide approach to managing the electronic health information across the health sector is currently in early stages in New Zealand. Despite having unique identifiers such as the national health identifier and the health provider index, it remains a challenge to merge data from different systems and aggregate into useful information. This relates to poor data quality and reduced patient outcomes as it lacks management, reporting, and analytical capabilities. Some of the regional and national initiatives that consolidate the information offer a promising prospect for further consolidating the information. This could progress the ability to integrate the health information to implement the single EHR system at New Zealand. The well-developed electronic medical record foundation in New Zealand puts it on par with most of the countries across the world. Leadership and the governance models could standardize the clinical workflow and would contribute towards a successful implementation of a single national EHR. Such an implementation could improve decision support and foster patient care coordination for the health and wellbeing of citizens in New Zealand.<sup>2</sup>

## CONSTRAINTS

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Findings from a new study show that some physicians receive more than 100 notifications per day via EHR-based inboxes and dealing with this electronic burden requires more than an hour every day. Excessive EHR-based notifications can overburden physicians, and lead to potentially disastrous consequences. Unmanageable numbers of alerts not only make it difficult for physicians to filter out important information but also increase the chances that physicians will miss patient's test results.

Another fault in this country's health system relates to mobile phone applications. Figure 1 is currently the most prominent app enabling healthcare providers to share patient images, although many other platforms exist. According to its website, Figure 1 has over one million users internationally. It is freely available for anyone to download and enables users to upload photographic and radiological images for other users to view. Explanatory notes, observations or questions can be added. Users who self-identify as healthcare providers, including nursing and medical students, can leave comments about images.

Image-sharing apps and social media sites that allow image sharing raise issues about patient confidentiality, privacy, consent and what is permissible and expected within the provider-patient relationship. New Zealand has established professional guidelines and legal mechanisms that set expectations for how healthcare providers treat patient information, including the use and dissemination of images.

This policy applies the principles contained in the Code of Health and Disability Services Consumers' Rights of 1996, and the Health Information Privacy Code (HIPC) of 1994, in regard to the taking and sharing of photographic and radiological images of patients.

The HIPC was written before image-sharing apps emerged, and thus does not directly address them. In the absence of specific guidance, providers contemplating uploading images on any electronic site must interpret how the HIPC's rules apply to their proposed practice.

Governments should listen to people, technology companies, drug producers, and healthcare providers to shape policy according to real needs while keeping pace with innovation.<sup>3</sup>

## OPPORTUNITIES

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New Zealand's Ministry of Health gathered the summer of 2019, to get approval to develop a detailed business case for a national Health Information Platform, which is a major opportunity. It has empowered patients to self-manage their wellbeing and improve data driven healthcare. The Ministry has been pondering off moving away from the idea of building a single EHR, towards developing a national health provider index that will enable data about a single patient to be shared.

The plan to build a national EHR was expected to take three to five years when first announced by the government at the Health Informatics New Zealand 2015 conference. Complications in regard to the pandemic changed the trajectory of that goal. Recently, the Ministry of Health is currently leading a 3-year project to establish a national EHR system which will integrate with health provider systems, patient portals and personal health apps to be the source of truth about medications, adverse reactions, problems, tests, events and care plans.

Besides enabling clinical decision support and care coordination, the EHR will allow people to tell their own health story. SNOMED CT will be used throughout as the standard for trusted, actionable health information.

Interoperability is core to the new platform, which will have the ability to assemble a virtual electronic record on an 'as required' basis from multiple trusted sources and provide access to data and services. The national Health Information Platform will be a key enabler for real-time clinical decision support.

In order to move from an episodic model of care to a wellbeing model the country needs to get patients really and truly engaged. This includes the need for social license to use patient data to inform decisions about the system. As of right now the current way they are doing things in healthcare is not sustainable.<sup>4</sup>

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# AUSTRALIA/NEW ZEALAND/INDONESIA

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS

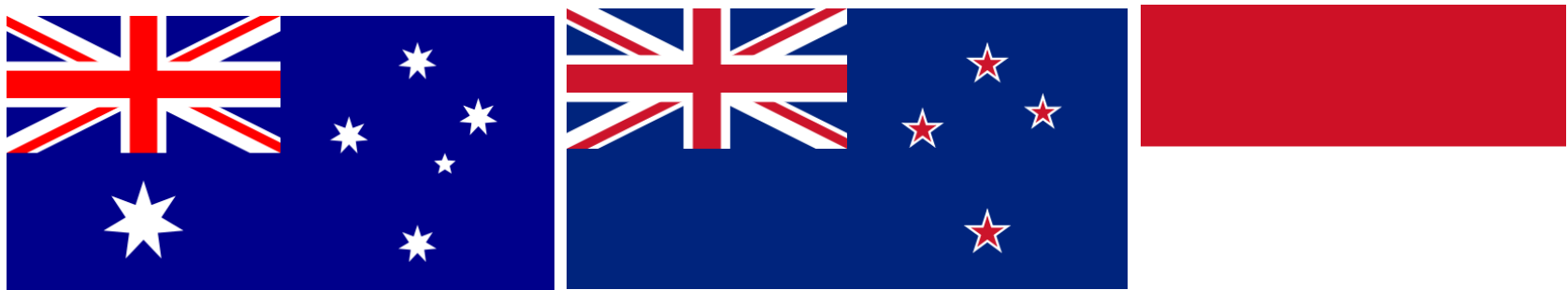
1,010 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	15%
Clinic/Practice Name	26%
Public Clinic	13%
Health System Clinic	12%
Academic Hospital and Medical Centers over 250 Beds	15%
Community Hospitals	4%
Small Hospitals under 100 Beds	0%
Ambulatory Surgery Centers	15%
<b>TOTAL</b>	<b>100%</b>

Source: Black Book™ 2024

## 2024 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## **2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

AUSTRALIA/NEW ZEALAND/INDONESIA

**ALTERA**

### **FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR AUSTRALIA/NEW ZEALAND**

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**ALTERA**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**INTERSYSTEMS**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**ALTERA**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**ALTERA**



## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

AUSTRALIA/NEW ZEALAND

Summary of criteria outcomes

TABLE 9: SUMMARY OF CRITERIA OUTCOMES

Total number one criteria ranks	Vendor	Overall rank
12	ALTERA	1
2	ORACLE HEALTH	2
4	INTERSYSTEMS	3

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

### AUSTRALIA/NEW ZEALAND

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>ALTERA</b>	1
2	Innovation & Optimization	<b>ALTERA</b>	1
3	Training	<b>INTERSYSTEMS</b>	3
4	Client relationships and cultural fit	<b>INTERSYSTEMS</b>	3
5	Trust, Accountability, Transparency, Ethics	<b>ALTERA</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>ALTERA</b>	1
7	Deployment and outsourcing implementation	<b>ALTERA</b>	1
8	Customization	<b>ALTERA</b>	1
9	Integration and interfaces	<b>ORACLE HEALTH</b>	2
10	Scalability, client adaptability, flexible pricing	<b>ALTERA</b>	1
11	Compensation and employee performance	<b>INTERSYSTEMS</b>	3
12	Reliability	<b>ALTERA</b>	1
13	Brand image and marketing communications	<b>ORACLE HEALTH</b>	2
14	Marginal value adds and modules	<b>ALTERA</b>	1
15	Financial & Managerial Viability	<b>ALTERA</b>	1
16	Data security and backup services	<b>INTERSYSTEMS</b>	3
17	Support and customer care	<b>ALTERA</b>	1
18	Best of breed technology and process improvement	<b>ALTERA</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR AUSTRALIA /NEW ZEALAND	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	ALTERA DIGITAL HEALTH HARRIS	A	A	A
2	ORACLE HEALTH	A	B	B
3	INTERSYSTEMS	A	B	B
4	IBM	A	C	C
5	NAPIER	B	B	B
6	MIMSYS	D	C	C
7	ORION	D	B	D
8	MEDITECH	D	D	B

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.43	9.51	9.00	9.23	9.30
2	2	ORACLE HEALTH	8.63	8.95	7.70	7.96	8.31
5	3	NAPIER	8.80	8.02	8.22	8.13	8.29

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.28	9.20	9.32	9.32	9.28
3	2	INTERSYSTEMS	9.30	8.00	9.15	8.16	8.75
2	3	ORACLE HEALTH	8.67	9.02	8.53	8.07	8.57

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	3	INTERSYSTEMS	9.00	9.50	8.71	9.40	9.05
1	1	ALTERA	9.14	9.07	9.10	8.94	9.04
8	2	MEDITECH	8.03	9.09	9.31	9.33	8.94

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	INTERSYSTEMS	8.97	9.12	8.98	9.69	9.18
2	2	ORACLE HEALTH	9.01	9.11	9.17	9.00	9.08
1	3	ALTERA	8.68	8.92	9.28	9.02	9.08

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>ALTERA</b>	9.47	9.50	9.73	9.89	<b>9.65</b>
3	2	INTERSYSTEMS	8.10	8.31	8.14	8.33	8.22
2	3	ORACLE HEALTH	9.00	6.11	9.22	7.17	7.89

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>ALTERA</b>	9.52	9.61	9.12	8.85	<b>9.28</b>
2	2	ORACLE HEALTH	8.91	8.81	7.73	8.97	8.61
3	3	INTERSYSTEMS	8.99	8.62	6.62	8.21	7.86

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.14	9.32	9.81	9.33	9.40
3	2	INTERSYSTEMS	7.93	8.13	8.72	8.43	8.40
2	3	ORACLE HEALTH	8.08	8.03	8.02	7.93	7.98

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	8.90	9.04	9.05	9.30	9.07
2	2	ORACLE HEALTH	8.10	7.39	7.05	7.91	7.61
3	3	EPIC SYSTEMS	8.03	6.26	6.84	8.14	7.32

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.74	9.84	9.45	9.34	9.59
3	2	INTERSYSTEMS	9.01	9.74	9.68	9.69	9.53
1	3	ALTERA	9.14	9.76	9.81	9.33	9.51

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	8.77	8.93	8.72	8.43	8.71
2	2	ORACLE HEALTH	8.28	8.03	8.42	7.93	8.17
3	3	INTERSYSTEMS	7.63	7.15	8.54	8.56	7.97

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	INTERSYSTEMS	9.07	9.04	9.18	8.71	9.00
1	2	ALTERA	8.87	8.67	8.98	9.29	8.95
2	3	ORACLE HEALTH	8.07	8.16	7.93	8.20	8.09

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.55	9.86	9.72	9.59	9.68
2	2	ORACLE HEALTH	9.05	8.92	9.25	9.38	9.15
3	3	INTERSYSTEMS	9.50	9.30	9.33	8.13	9.07

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.84	9.45	9.05	9.41	9.44
1	2	ALTERA	8.90	9.03	9.81	9.88	9.41
3	3	INTERSYSTEMS	7.06	8.03	7.05	6.71	7.21

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.40	9.43	9.46	8.89	9.30
2	2	ORACLE HEALTH	9.25	8.45	9.13	8.11	8.74
3	3	INTERSYSTEMS	7.96	8.05	9.11	9.05	8.54

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	8.93	8.30	7.74	9.16	8.53
3	2	INTERSYSTEMS	8.28	8.79	8.24	8.78	8.52
2	3	ORACLE HEALTH	8.72	9.11	7.28	8.83	8.49

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor’s service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	INTERSYSTEMS	8.92	9.04	9.43	9.60	9.25
1	2	ALTERA	9.33	9.25	9.93	8.42	9.23
2	3	ORACLE HEALTH	9.29	9.54	8.22	9.10	9.02

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.40	9.50	9.51	9.59	9.50
2	2	ORACLE HEALTH	9.17	8.33	7.95	9.64	8.77
5	3	NAPIER	9.08	8.83	8.14	8.84	8.72

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### AUSTRALIA/NEW ZEALAND

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA	9.75	9.02	9.50	9.10	9.34
3	2	INTERSYSTEMS	8.10	9.05	8.18	7.97	8.33
2	13	ORACLE HEALTH	7.21	7.02	8.22	8.07	7.63

Source: Black Book™ 2024



**INDIA**

## EHR STATUS

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The market for healthcare IT in India has witnessed progressive growth over the last few years and is expected to have a CAGR growth of 39.37% over the period from 2021-2026. The Indian government started an ambitious Digital India program in August 2014. It intends to bridge the digital divide in India and enable e-delivery of services. Digital India Initiative of Indian Government intends to transform India into a digital empowered society and knowledge economy. It was a wide and ambitious project of the present government and was to be implemented in multiple phases from the year 2014 to 2018; however, as with many technology implementations there were setbacks. In September 2021, India was able to finally roll out their integrated digital health infrastructure. There are many segments of the Digital India projects and e-health is one of them. A proposal to constitute a national e-health Authority of India (NeHA) was mooted as early as June 2014. NeHA would lay down operational guidelines and protocols, policies for sharing and exchange of data, audit guidelines and the like. These shall be guided by experience in operation and use of proof of concept, global best practices, and consultations with stakeholders.<sup>1</sup>

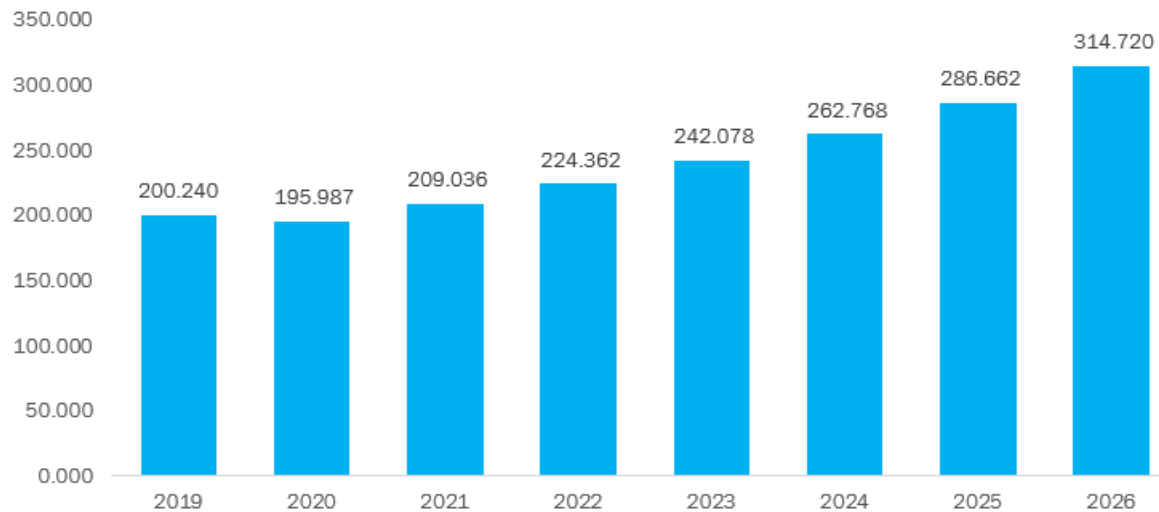
The Centre for Development of Advanced Computing, an autonomous government scientific organization developed Hospital Management Information System in various models like conventional stand-alone hospital version and Software as a Service over the cloud infrastructure. The real time HMIS streamlines the treatment flow of patients and simultaneously empowers the hospital's workforce to perform their duties efficiently and effectively. It has implemented HMIS across various government hospitals ranging from super specialty hospitals, medical college hospitals, district hospitals to area hospitals. HMIS has been deployed in more than 40 hospitals across India.

The Ministry of Health & Family Welfare has issued guidelines for EHR standards. It is also in the process of creating the National e-Health Authority. The Ministry is implementing an IT system for the processing of insurance claims under the new National Health Protection Scheme. The Ministry is also implementing the National Medical College Network project to provide connectivity for telemedicine. The Ministry of Electronics & IT has been supporting the development and deployment of digital health solution for a long time. It has deployed telemedicine systems in several states in the country. It has sponsored R&D projects in various areas, including EMR system for oncology, technology for HIE, among others.

The department of Information Technology, Govt. of India, has started telemedicine projects in different parts of the country. As a facilitator, the department of information technology has taken initiative for the development of technology, initiation of pilot schemes and standardization of telemedicine within the country. These include the telemedicine network located in West Bengal for diagnosis and monitoring of tropical diseases, the Kerala and Tamil Nadu Oncology Network for facilitating cancer care, and the Northeastern and Himachal Pradesh hilly states for specialty health care access. It has established more than 75 nodes all over India and support research and

development. It has developed telemedicine software systems and its applications towards optimization of medical resources by the Centre for Development of Advanced Computing.<sup>2</sup>

### INDIA ELECTRONIC MEDICAL RECORD MARKET, US\$ MILLION, 2019 TO 2026



Source: Knowledge Sourcing Intelligence Analysis

In India, EMR adoption gained popularity in the last decade. In our sample, all private hospitals have some form of EMR system while the public hospitals said that in villages and remote areas, there are digital access issues, and they maintain paper records. Only 8 out of the 13 hospitals were using the EMR system to record clinical data. They used this data for analysis, for quality assurance and to identify areas of improvement in hospitals. The other 5 EMR systems had health information systems (HIS), which were being used for billing and inventory management. EMRs provide improved patient data tracking. However, EMRs are not designed to be shared outside a particular practice which makes EMRs hard to be shared across medical facilities like labs, pharmacies, and specialists. All hospitals that were surveyed have plans to either expand their EMR systems towards EHR or implement an EMR system to ease the process of recording and sharing data and leverage the same to improve health outcomes. For example- a CTO pointed out that they intend to create a biobank of diagnostic images and use it in the future for appropriately designing care for cancer. However, given the low IT budgets of the hospitals and other issues, these goals and their implementations are at a nascent stage. 5

## MARKET DYNAMICS

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The current status of the healthcare sector in India is associated with low public spending, 1% of GDP, high out of pocket payments (71%), a high level of anemia among young women (56%), high infant mortality (47/1,000 live births), and high maternal mortality (212/100,000 live births), etc. The country lags behind other countries, such as Bangladesh and Sri Lanka, when it comes to the health of its people. The situation is worse for the poor as they cannot afford healthcare at high rates from private sector providers, which currently serve 78% of outpatients and 60% of inpatients.<sup>2</sup>

The healthcare system in India is comprised of both private and public hospitals and providers. Though public hospitals are available many people opt for private hospitals because they often provide better care, have better infrastructure, shorter wait times, and more supplies. Most people pay out-of-pocket for their medical costs. In 2011, The Integrated National Health System was created, and the government of India had hoped to provide universal health care to all of its citizens by 2020. They want to achieve this goal by increasing its public spending from its current 1% to over 6% of its gross domestic product meaning that more taxes, about 15% of revenue, would be enforced and allocated towards healthcare. India stuck to their promise and in June of 2020, all Indian citizens were allowed free outpatient and inpatient care at government facilities. Under India's decentralized approach to health care delivery, the states were/are primarily responsible for organizing health services.

India has a population of 1.4 billion people. Though India is classified as a “developing nation” it is important to study the approaches the country has advanced so far in terms of EHR development. India is not only focusing on technology as a way to achieve successful HIE, but also the important policy decisions based around standard management in the current healthcare system that is crucial to daily operations.

Moreover, the country has seen the benefits of information and communication technology (ICT) in transforming the lives of its people by the use of ICT in banking, railway reservations, public service delivery, etc. The same can be achieved in the healthcare sector too. The proliferation of mobile phones and the availability of high-speed Internet offer the possibilities to provide healthcare services in rural and remote areas of the country.

In public healthcare institutions, the usage of information and communication technology is limited to billing and registration. The private sector has a limited form of EMR, but it has not yet started the exchange of health information to improve quality of care. However, the situation is changing due to the efforts being made by the government and industry.

They need to ensure the trust of vendors, citizens, and stakeholders in order to successfully create an electronic system that can transmit and receive information. In addition, the National Knowledge Commission hopes to establish national standards, create a common and national EHR for India, which will have additional IT tools created by private vendors. Similarly, India hopes to create a system of standards that help promote interoperability and bolster the national system. Currently, the country is only in the process of creating those standards, but it is important to note the lack of security measures in place in EHR systems in India.

The Centre for Development of Advanced Computing which is considered the most comprehensive EHR system in India does not have strong security and privacy capabilities functioning. This makes the system extremely vulnerable to breaches. Considering the amount of people who reside in this country, India will face serious issues if they do not put more security measures in place. The idea of creating a national EHR system in such a big country is a lofty goal.

Despite this, the rapid increase in internet connectivity has been an important catalyst for the growth of e-learning in all discipline. Medical domains cannot remain behind. E-learning raises the level of education, literacy and economic development in India where medical education is expensive. The online training medium is used extensively to train the workforce in the healthcare sector.

## CONSTRAINTS

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Unlike the United States and the United Kingdom where the adoption of electronic health records are driven by efficiency outcomes, such is not the case in India. In India the most accurate focus is the country's effort to expand access as widely as possible. Electronic health records can improve care in a number of different areas and in some situations where information is collected there is not an available EHR. The disparity that exists between the ability to utilize an EHR and implement an EHR prevents the country from moving forward to a universal, widely used system. The main issues faced for fruitful implementation of health informatics in India involve:

- Funding- the requisite fund is required in order to implement a project; thus, the government or individual investors/companies need to promote and rally the necessary funds.
- Computer Literacy- proper training and computer literacy programs need to be organized periodically among the staff members who are associated with health care services.
- Infrastructure and Coordination- proper infrastructure and support systems should be developed among the hospitals and health care centers, both public and private sectors. As of right now, the private sector is superior to the public sector in this measure.

- Standards and guidelines- instead of using local system, it would be better to use a system following national and international standards that way there is a common ground between all users.
- Privacy- patient confidentiality should be maintained.
- Information Overload- health IT is a part of health care system. Too much information coming from different areas may result in over information, which may cause hindrance to the health care system.<sup>2</sup>

## OPPORTUNITIES

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In the beginning of 2023, India's National Health Authority started to provide incentives to healthcare providers that promoted the creation of digital health records. The incentive driven program, which will provide nearly a half million dollars to various health facilities, diagnostic centers, and providers will help increase the engagement of electronic health records. With the creation of this incentive scheme the ecosystem regarding India's digital health environment has the ability to move forward towards a more universal system.

The roadmap identifies different tasks that need to be taken up by various stakeholders to adopt EHR at the national level.

Regulations are needed to build trust in patients and providers while using e-health applications. Patients need to be assured that the confidentiality of their health data will not be compromised. Healthcare providers also have to be assured that whatever they record will not be altered without their knowledge. As the number of persons involved in the treatment process is quite large, it is necessary to have a role-based access system.

As more than 75% of outpatients and more than 60% of inpatients are being treated in private healthcare facilities, it is necessary for the government to bring them on-board for using EHR. In view of the size of the country, there is a need to take a free and open-source software approach to making good quality software available to hospitals and individual practitioners. It should support all major national language scripts. If it is in the free and open-source software domain, even local entrepreneurs can provide technical support.

To further elaborate the topic of innovative software, a large number of IT professionals with exposure to health IT will be required to staff the IT unit of healthcare organizations. At present, no Indian university offers any master or doctoral-level degree in this area. Steps need to be taken to start such courses in some of the institutions in the country.

At present, each hospital has its own way of giving a patient number to each visiting patient, but these are not recognized outside that organization. A consensus is needed on how to assign a number to each patient. The Aadhaar number given by the Unique Identity Authority of India appears to be a good solution. As the seeding of the Aadhaar number is not 100%, an alternate mechanism has to be put in place. An algorithm must be prescribed for use when the Aadhaar number is not available.<sup>3</sup>

Although EMR has tangible positive outcomes, the adoption rate has been low. The market comprises handful of hospitals using EMR. The usage of EMR is limited to corporate hospitals in the various metro cities of India. The known hospital chain Fortis and Apollo have been using EMR in a few of their hospitals.

In comparison to developed nations, the adoption of EMR in India has drastically low. The low adoption rate is due to several gaps existing from the doctors to EMR vendors.

The lack of awareness about the benefits of EMR is the largest perceived barrier. The prevailing low awareness about the advantages of EMR among the small and medium scale healthcare service providers is limiting the adoption rate.

The resistance in acceptance of the product new and novel information technology platform impedes the adoption. Doctors who are the basis of healthcare service are defiant about EMR. This is primarily due to lack of compatible technology available in the market. Additionally, the EMR necessitates the use of computers by the doctors. Along with doctors, the stakeholders operating within a hospital are defiant in changing to the EMR.

The high cost of implementation increases capital requirement. This is beyond in reach of the small medium scale hospitals. The capital intensive EMR will add to the healthcare service providers' financial burdens. The fragmented Indian healthcare market that does not have a steady revenue and cash flow might view that capital burden as a risk.

The implementation process of time that negatively influences the ongoing workflow in any hospital. The vendors implement the various modules of EMR in phases. This implementation process affects the ongoing workflow in the hospital.

Lack of user-friendly interface adoption. The complicated EMR interfaces discourage the technological defiant doctors in adoption. Additionally, the EMR are inadequate to capture the entire data gathered by the doctors.

The vendors lack domicile knowledge in healthcare. This results in development of EMR with various gaps. Technology being the primary competence of the vendors, they tend to develop products that highly are incompetent. The gap existing between the information technology and healthcare needs to be bridged by vendors to develop effective EMR products. 4



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# INDIA

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS

3,104 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	7%
Clinic/Practice Name	20%
Public Clinic	5%
Health System Clinic	34%
Academic Hospital and Medical Centers over 250 Beds	16%
Community Hospitals	16%
Small Hospitals under 100 Beds	2%
Ambulatory Surgery Centers	0%
TOTAL	100%

Source: Black Book™ 2024

# 2024 RESULTS

## ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

INDIA

**NAPIER HEALTHCARE**

### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR INDIA

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**NAPIER HEALTHCARE**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**MD SYNERGY**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**NAPIER HEALTHCARE**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**DOC ENGAGE**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.



# OVERALL KPI LEADERS

## INDIA

Summary of criteria outcomes

TABLE 10: SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
13	NAPIER HEALTHCARE	1
2	DOC ENGAGE	2
1	MD SYNERGY	3
1	ECARE INDIA	4
1	NOVA CURA	5

Source: Black Book Research

## OVERALL KPI LEADERS:

### INDIA

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>NAPIER HEALTHCARE</b>	1
2	Innovation & Optimization	<b>NAPIER HEALTHCARE</b>	1
3	Training	<b>DOC ENGAGE</b>	2
4	Client relationships and cultural fit	<b>NAPIER HEALTHCARE</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>NAPIER HEALTHCARE</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>NAPIER HEALTHCARE</b>	1
7	Deployment and outsourcing implementation	<b>NOVA CURA</b>	5
8	Customization	<b>ECARE INDIA</b>	4
9	Integration and interfaces	<b>DOC ENGAGE</b>	2
10	Scalability, client adaptability, flexible pricing	<b>NAPIER HEALTHCARE</b>	1
11	Compensation and employee performance	<b>NAPIER HEALTHCARE</b>	1
12	Reliability	<b>NAPIER HEALTHCARE</b>	1
13	Brand image and marketing communications	<b>NAPIER HEALTHCARE</b>	1
14	Marginal value adds and modules	<b>NAPIER HEALTHCARE</b>	1
15	Financial & Managerial Viability	<b>NAPIER HEALTHCARE</b>	1
16	Data security and backup services	<b>MD SYNERGY</b>	3
17	Support and customer care	<b>NAPIER HEALTHCARE</b>	1
18	Best of breed technology and process improvement	<b>NAPIER HEALTHCARE</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR INDIA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	Napier Healthcare	A	A	A
2	Doc Engage	A	A	B
3	MD Synergy	B	A	A
4	ecare India Pvt. Ltd.	A	A	B
5	Nova Cura	A	B	B
6	Philips	B	A	B
7	Medisense Healthcare	B	A	B
8	HealthLink Technologies	B	B	B
9	Oracle Health	B	B	A
10	Omni MD	B	B	B
11	Gem3S Technologies	C	A	B
12	CureMD	B	B	B
13	Synergy EHR	B	B	B
14	I-S Infotech	C	B	B
15	Doctor 24 by 7	D	A	B
16	Acrostic IT Solutions	C	C	A
17	Medpac Systems	C	C	B
18	LexiHMS	B	D	B
19	KareXpert Technologies	C	C	C

20	ITECH	C	C	C
21	Akhil Systems Pvt. Ltd.	C	C	C
22	Healthcell India	C	C	C
23	EasyClinic	C	C	C
24	Aosta Software Technologies	D	C	C
25	DocEngage Informatics	C	C	C
26	NovoCura Tech	D	C	D
27	Medinous	D	D	C
28	Fresh Logics MedicalShop	D	D	D
29	BigSun Technologies	D	D	D
30	JVS Group	D	D	D
31	Indus Infocom Pvt. Ltd.	D	D	D
32	Visma	D	D	D

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

Q1 CRITERIA	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.96	9.96	9.89	9.81	9.90
2	3	MD SYNERGY	9.27	9.54	9.25	9.13	9.30
3	2	DOC ENGAGE	8.94	9.61	8.66	9.76	9.24
4	6	PRACTO	9.43	9.57	8.69	9.24	9.23
5	4	ECARE INDIA	9.58	9.25	8.48	9.20	9.13
6	5	MILLENIUM	9.44	8.10	8.97	8.97	8.87
7	9	ORACLE HEALTH	9.18	9.15	8.24	8.05	8.66
8	7	MEDISENSE	8.75	7.40	9.12	8.86	8.53
9	11	I-TECH	9.23	8.74	7.54	8.62	8.53
10	10	OMNI MD	9.25	7.49	8.36	8.92	8.51

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

Q2 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.91	9.97	9.66	9.97	9.88
2	2	DOC ENGAGE	9.92	9.46	9.57	9.37	9.58
3	5	NOVA CURA	9.19	9.62	9.46	9.37	9.43
4	3	MD SYNERGY	9.27	9.24	9.97	9.16	9.41
5	10	OMNI MD	9.16	9.71	9.36	9.24	9.37
6	12	CURE MD	9.35	9.40	8.69	9.39	9.21
7	6	PRACTO	9.50	9.46	8.32	9.55	9.21
8	9	ORACLE HEALTH	9.19	9.21	9.06	8.91	9.09
9	7	MEDISENSE	9.55	8.86	7.95	9.13	8.87
10	11	I-TECH	9.31	9.18	7.18	9.07	8.64

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

Q3 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	2	DOC ENGAGE	9.75	9.83	9.30	9.57	9.61
2	1	NAPIER HEALTHCARE	9.23	9.20	9.07	9.07	9.27
3	3	MD SYNERGY	9.22	9.52	8.47	9.48	9.17
4	4	ECARE INDIA	9.60	8.97	8.34	9.67	9.15
5	7	MEDISENSE	9.14	9.66	8.20	9.41	9.10
6	12	CURE MD	9.35	9.30	8.03	8.71	8.85
7	5	NOVA CURA	9.07	9.13	9.39	7.77	8.84
8	6	PRACTO	8.88	9.05	8.36	8.20	8.62
9	16	ACROSTIC IT	9.30	8.70	8.50	7.85	8.59
10	9	ORACLE HEALTH	8.94	8.81	7.84	8.03	8.41

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship’s success or client’s satisfaction.

Q4 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.71	9.80	9.88	9.62	9.66
2	2	DOC ENGAGE	9.37	9.82	9.11	9.42	9.33
3	4	ECARE INDIA	9.30	9.02	8.73	9.57	9.29
4	3	MD SYNERGY	8.94	9.53	8.16	9.92	9.09
5	11	I-TECH	9.23	9.29	8.52	9.33	9.03
6	7	MEDISENSE	9.16	9.74	8.01	8.44	8.99
7	8	HEALTHLINK	8.91	8.99	8.61	8.82	8.99
8	5	NOVA CURA	8.46	9.18	8.45	8.36	8.91
9	6	PRACTO	9.80	9.26	7.93	7.37	8.69
10	9	ORACLE HEALTH	7.94	8.83	9.09	7.72	8.59

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

Q5 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.70	9.60	9.88	9.69	9.61
2	2	DOC ENGAGE	9.58	9.32	9.65	8.99	9.36
3	7	MEDISENSE	9.48	9.07	9.05	9.48	9.27
4	9	ORACLE HEALTH	9.78	9.03	8.81	9.24	9.22
5	4	ECARE INDIA	8.75	9.55	8.46	9.41	9.04
6	10	OMNI MD	9.27	9.20	8.39	9.27	9.03
7	3	MD SYNERGY	9.42	9.05	8.07	8.89	8.86
8	8	HEALTHLINK	8.80	8.81	8.42	9.41	8.86
9	5	NOVA CURA	9.44	9.17	7.84	8.18	8.66
10	6	PRACTO	8.32	9.09	8.12	8.23	8.44

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

Q6 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.76	9.77	9.73	9.89	9.79
2	4	ECARE INDIA	9.15	9.73	9.03	9.41	9.33
3	5	NOVA CURA	9.44	9.42	9.02	9.37	9.31
4	6	PRACTO	9.34	9.51	8.41	9.08	9.09
5	7	MEDISENSE	9.16	9.34	8.87	8.88	9.06
6	12	CURE MD	9.55	9.46	8.48	8.60	9.02
7	3	MD SYNERGY	9.62	9.47	8.02	8.84	8.94
8	2	DOC ENGAGE	9.16	9.03	8.45	8.40	8.76
9	8	HEALTHLINK	8.88	8.65	8.17	9.26	8.74
10	10	DOCTOR 24 BY 7	9.00	9.13	7.93	8.67	8.68

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

Q7 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	5	NOVA CURA	9.59	9.86	8.81	8.58	9.21
2	1	NAPIER HEALTHCARE	9.68	9.32	9.36	8.13	9.11
3	2	DOC ENGAGE	9.28	8.85	8.33	9.19	8.91
4	4	ECARE INDIA	9.08	8.90	8.34	9.31	8.90
5	9	ORACLE HEALTH	8.91	9.35	8.25	9.05	8.89
6	3	MD SYNERGY	9.11	8.71	8.23	8.49	8.64
7	7	MEDISENSE	9.00	9.06	8.04	8.13	8.56
8	13	SYNERGY EHR	8.78	9.02	7.05	9.20	8.51
9	6	PRACTO	9.47	9.30	7.16	7.88	8.44
10	15	DOCTOR 24 BY 7	8.48	8.84	6.96	8.11	8.10

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients’ needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

Q8 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	4	ECARE INDIA	9.57	9.75	9.78	9.48	9.65
2	2	DOC ENGAGE	9.49	9.48	8.94	9.26	9.29
2	1	NAPIER HEALTHCARE	9.30	9.40	9.20	8.94	9.21
4	10	OMNI MD	9.34	9.17	9.16	9.10	9.19
5	8	HEALTHLINK	9.37	9.45	8.53	9.16	9.13
6	6	PRACTO	9.64	9.33	8.34	8.70	9.00
7	3	MD SYNERGY	9.20	9.01	7.05	9.92	8.80
8	14	I-S INFOTECH	8.77	8.94	8.16	8.79	8.67
9	11	I-TECH	9.28	9.03	7.42	8.17	8.48
10	13	SYNERGY EHR	8.35	9.17	7.68	8.24	8.36

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

Q9 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	2	DOC ENGAGE	9.82	9.89	9.70	9.84	9.81
2	1	NAPIER HEALTHCARE	9.34	9.92	9.68	9.89	9.71
3	3	MD SYNERGY	9.27	9.22	8.80	9.97	9.32
4	4	ECARE INDIA	9.46	9.42	9.09	9.22	9.30
5	9	ORACLE HEALTH	9.22	9.33	9.10	9.23	9.22
6	7	MEDISENSE	9.71	9.55	8.29	9.00	9.14
7	5	NOVA CURA	9.18	9.66	8.41	9.06	9.08
8	14	I-S INFOTECH	9.36	8.70	8.02	8.33	8.60
9	16	ACROSTIC IT	8.96	8.52	8.27	8.00	8.44
10	12	CURE MD	8.33	8.82	7.75	8.57	8.37

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

Q10 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.37	9.37	9.81	9.72	9.57
2	6	PRACTO	9.47	9.42	9.05	9.45	9.35
3	3	MD SYNERGY	9.10	9.36	8.59	9.77	9.21
4	10	OMNI MD	9.31	8.79	8.07	9.06	8.86
5	7	MEDISENSE	8.99	9.54	8.30	8.58	8.85
6	4	ECARE INDIA	8.96	8.92	8.45	8.74	8.77
7	2	DOC ENGAGE	9.15	9.24	7.57	8.04	8.50
8	9	ORACLE HEALTH	8.57	9.13	7.59	8.20	8.37
9	8	HEALTHLINK	8.99	8.58	7.82	8.09	8.37
10	11	I-TECH	8.94	8.88	7.90	7.67	8.35

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

Q11 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.39	9.30	9.80	9.26	9.45
2	14	DOCTOR 24 BY 7	9.59	9.35	9.05	9.23	9.31
3	2	DOC ENGAGE	9.06	9.44	8.43	9.19	8.93
4	5	NOVA CURA	9.18	9.38	8.71	8.32	8.90
5	9	ORACLE HEALTH	9.07	8.78	8.58	9.05	8.87
6	3	MD SYNERGY	9.19	8.25	7.61	9.05	8.83
7	6	PRACTO	9.44	9.35	7.94	7.97	8.48
8	4	ECARE INDIA	8.83	9.19	7.52	8.08	8.41
9	8	HEALTHLINK	8.94	8.28	8.02	8.04	8.32
10	15	DOCTOR 24 BY 7	8.76	8.72	8.23	7.08	8.20

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

Q12 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.49	9.60	9.71	9.81	9.65
2	10	OMNI MD	9.18	9.68	8.96	9.20	9.26
3	5	NOVA CURA	9.21	9.71	8.91	9.08	9.23
4	3	MD SYNERGY	8.97	9.00	9.00	9.71	9.17
5	6	PRACTO	9.34	9.41	8.99	8.30	9.01
6	8	HEALTHLINK	8.74	9.18	8.64	9.07	8.91
7	4	ECARE INDIA	9.30	9.00	8.57	8.60	8.87
8	2	DOC ENGAGE	8.23	9.05	8.26	8.34	8.47
9	12	CURE MD	8.89	8.72	7.48	7.81	8.23
10	17	MEDPAC	8.04	8.69	7.98	8.16	8.22

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

Q13 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.89	9.68	9.89	9.93	9.85
2	2	DOC ENGAGE	9.82	9.89	9.46	9.63	9.70
3	13	SYNERGY EHR	9.41	9.54	9.02	9.46	9.36
4	5	NOVA CURA	9.29	8.89	9.73	9.44	9.34
5	16	ACROSTIC IT	9.28	9.48	9.01	9.04	9.20
6	6	PRACTO	9.57	9.63	8.50	8.79	9.12
7	7	MEDISENSE	9.14	9.33	8.68	9.09	9.06
8	4	ECARE INDIA	9.49	9.04	8.31	8.94	8.95
9	8	HEALTHLINK	9.08	9.01	8.08	9.53	8.93
10	3	MD SYNERGY	8.38	9.27	8.77	8.90	8.83

Source: Black Book™ 2024\*

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

Q14 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.50	9.89	9.64	9.93	9.74
2	2	DOC ENGAGE	9.16	9.16	8.09	9.22	8.91
3	4	ECARE INDIA	9.54	9.62	8.17	8.29	8.91
4	8	HEALTHLINK	8.86	9.35	8.64	8.77	8.91
5	9	ORACLE HEALTH	8.74	8.79	9.21	8.89	8.91
6	3	MD SYNERGY	8.75	7.94	8.75	8.64	8.52
7	6	PRACTO	9.33	8.99	7.73	7.59	8.41
8	7	MEDISENSE	8.04	8.76	8.23	8.17	8.30
9	18	LEXIHMS	7.67	8.73	7.93	8.31	8.16
10	13	SYNERGY EHR	7.91	8.55	7.85	7.04	7.84

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

Q15 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.12	9.74	9.97	9.80	9.66
2	3	MD SYNERGY	9.38	9.22	9.69	9.10	9.35
3	2	DOC ENGAGE	9.17	8.98	8.93	9.29	8.87
4	5	NOVA CURA	9.19	9.08	8.07	8.11	8.61
5	8	HEALTHLINK	8.50	8.75	7.94	8.45	8.41
6	11	I-TECH	9.05	8.14	7.79	8.62	8.40
7	12	CURE MD	8.73	8.60	7.81	8.45	8.40
8	6	PRACTO	8.55	7.78	8.75	8.46	8.39
9	10	OMNI MD	8.59	8.27	7.89	8.37	8.28
10	17	MEDPAC	8.03	9.19	7.50	8.30	8.26

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor’s service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

Q16 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	3	MD SYNERGY	9.33	9.69	9.68	9.89	9.55
2	1	NAPIER HEALTHCARE	9.52	9.33	9.53	9.30	9.42
3	5	NOVA CURA	9.72	9.73	8.71	8.91	9.27
4	8	HEALTHLINK	9.60	9.46	8.61	9.00	9.17
5	6	PRACTO	8.77	9.93	9.56	8.03	9.07
6	2	DOC ENGAGE	9.08	9.26	9.40	8.47	9.05
7	19	KAREXPRT	9.02	9.23	9.53	8.20	9.00
8	4	ECARE INDIA	8.82	8.61	8.92	8.52	8.72
9	12	CURE MD	8.94	7.82	8.33	9.00	8.52
10	7	MEDISENSE	8.04	8.32	7.95	9.20	8.38

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

Q17 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.55	9.79	9.82	9.22	9.60
2	2	DOC ENGAGE	9.42	9.52	9.01	9.65	9.40
3	12	CURE MD	9.74	9.55	9.18	9.00	9.37
4	5	NOVA CURA	9.23	9.36	9.11	9.11	9.20
5	3	MD SYNERGY	8.92	8.84	9.71	8.87	9.09
6	9	ORACLE HEALTH	8.97	9.45	8.82	8.81	9.01
7	8	HEALTHLINK	8.80	9.22	8.57	8.85	8.86
8	10	OMNI MD	8.90	9.25	8.39	8.75	8.82
9	13	SYNERGY EHR	9.15	9.18	8.24	8.24	8.70
10	6	PRACTO	9.38	8.83	8.00	7.71	8.48

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### INDIA

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

Q18 CRITERIA RANK	OVERALL RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NAPIER HEALTHCARE	9.76	9.80	9.84	9.72	9.78
2	2	DOC ENGAGE	9.11	9.21	9.17	9.26	9.18
3	5	NOVA CURA	9.14	9.15	8.86	9.40	9.14
4	3	MD SYNERGY	8.75	8.33	8.37	9.89	8.84
5	7	MEDISENSE	9.26	9.39	8.03	8.69	8.84
6	4	ECARE INDIA	8.66	8.65	8.83	9.14	8.82
7	6	PRACTO	9.47	9.20	8.28	8.24	8.80
8	8	HEALTHLINK	8.91	9.02	8.11	8.69	8.68
9	9	ORACLE HEALTH	9.15	8.78	8.91	7.18	8.51
10	10	OMNI MD	8.73	8.46	7.47	9.27	8.48

Source: Black Book™ 2024



# **SOUTHEAST ASIA**

# SOUTHEAST ASIA

## SINGAPORE/THAILAND/MALAYSIA

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
729 RESPONDENTS

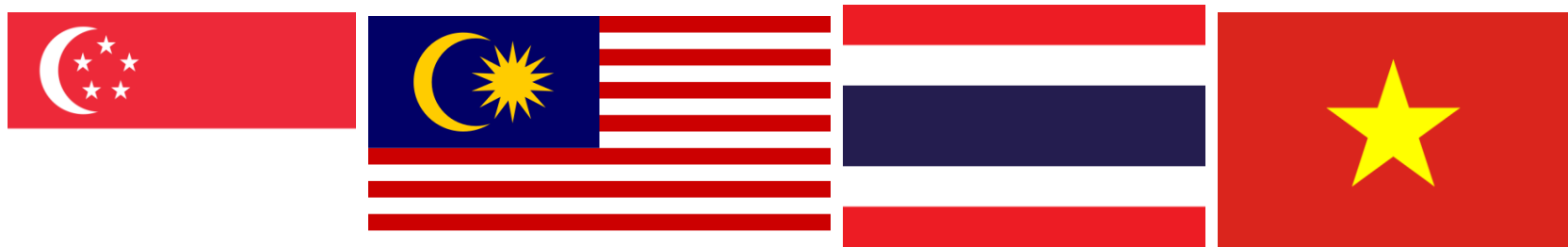
2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	5%
Clinic/Practice Name	11%
Public Clinic	1%
Health System Clinic	22%
Academic Hospital and Medical Centers over 250 Beds	16%
Community Hospitals	42%
Small Hospitals under 100 Beds	3%
Ambulatory Surgery Centers	0%
<b>TOTAL</b>	<b>100%</b>

Black Book™ 2023



## 2024 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## **2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

**SOUTHEAST**

**ASIA/SINGAPORE/THAILAND/MALAYSIA/THAILAND/MALAYSIA/VIETNAM**

**HEALTH INSIGHTS MEDICA CLOUDCARE**

### **FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR ASIA**

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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#### **HEALTH INSIGHTS**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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#### **INTERSYSTEMS**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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#### **HEALTH INSIGHTS**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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#### **ALTERA DIGITAL HEALTH**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

*Source: Black Book Research*

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

Summary of criteria outcomes

TABLE 11: SUMMARY OF CRITERIA OUTCOMES

Total number one criteria ranks	Vendor	Overall rank
5	HEALTH INSIGHTS MEDICA CLOUDCARE	1
7	ALTERA DIGITAL HEALTH	2
3	INTERSYSTEMS	3
3	EPIC SYSTEMS	4

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>HEALTH INSIGHTS</b>	1
2	Innovation & Optimization	<b>HEALTH INSIGHTS</b>	1
3	Training	<b>ALTERA DIGITAL HEALTH</b>	2
4	Client relationships and cultural fit	<b>HEALTH INSIGHTS</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>ALTERA DIGITAL HEALTH</b>	2
6	Breadth of offerings, client types, delivery excellence	<b>EPIC SYSTEMS</b>	4
7	Deployment and outsourcing implementation	<b>ALTERA DIGITAL HEALTH</b>	2
8	Customization	<b>INTERSYSTEMS</b>	3
9	Integration and interfaces	<b>INTERSYSTEMS</b>	3
10	Scalability, client adaptability, flexible pricing	<b>ALTERA DIGITAL HEALTH</b>	2
11	Compensation and employee performance	<b>HEALTH INSIGHTS</b>	1
12	Reliability	<b>ALTERA DIGITAL HEALTH</b>	2
13	Brand image and marketing communications	<b>HEALTH INSIGHTS</b>	1
14	Marginal value adds and modules	<b>EPIC SYSTEMS</b>	4
15	Financial & Managerial Viability	<b>EPIC SYSTEMS</b>	4
16	Data security and backup services	<b>ALTERA DIGITAL HEALTH</b>	2
17	Support and customer care	<b>INTERSYSTEMS</b>	3
18	Best of breed technology and process improvement	<b>ALTERA DIGITAL HEALTH</b>	2



INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR SOUTHEAST ASIA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	HEALTH INSIGHTS MEDICA	A	A	A
2	ALTERA (ALLSCRIPTS)	B	A	A
3	INTERSYSTEMS	C	A	C
4	EPIC SYSTEMS	B	B	C
5	NAPIER	B	D	A
6	MIMSYS	C	C	C
7	PHILIPS	C	C	C
8	CLINICEA	C	C	C
9	MEDITECH EXPANSE	D	D	B
10	DOCENGAGE	D	D	C
11	ORION HEALTH	D	D	D

## Individual EHR Vendor Key Performance

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client’s Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HEALTH INSIGHTS	9.00	8.94	9.75	8.57	8.93
3	2	INTERSYSTEMS	8.81	9.08	9.18	8.36	8.71
2	3	ALTERA	8.97	8.47	9.08	8.13	8.66

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HEALTH INSIGHTS	9.13	8.36	9.12	8.11	8.68
3	2	INTERSYSTEMS	8.07	8.27	8.94	9.25	8.53
2	3	ALTERA	8.07	8.96	7.93	9.00	8.49

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	8	<b>ALTERA</b>	8.95	8.65	9.22	9.38	<b>9.05</b>
3	9	INTERSYSTEMS	9.07	8.04	7.57	8.17	8.21
1	10	HEALTH INSIGHTS	7.73	7.99	8.62	6.43	7.69

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HEALTH INSIGHTS	9.84	9.89	9.85	9.89	9.87
3	2	INTERSYSTEMS	8.86	9.07	9.81	9.48	9.31
2	3	ALTERA	8.90	9.83	8.85	8.81	9.22

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ALTERA	9.66	9.56	9.69	9.60	9.63
3	2	INTERSYSTEMS	7.66	7.99	8.10	7.69	7.86
1	3	HEALTH INSIGHTS	7.78	7.10	9.16	7.07	7.78

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client's EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	EPIC SYSTEMS	9.79	9.05	9.91	9.77	9.63
2	2	ALTERA	9.92	9.57	9.08	9.89	9.62
3	3	INTERSYSTEMS	8.92	7.00	7.43	9.60	8.24

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ALTERA	9.77	9.25	9.93	8.50	9.36
3	2	INTERSYSTEMS	8.00	9.50	8.22	9.02	8.69
4	3	EPIC SYSTEMS	7.10	6.39	6.45	6.91	6.71

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	INTERSYSTEMS	8.80	8.83	8.14	8.44	8.55
1	2	HEALTH INSIGHTS	8.18	9.05	8.50	7.17	8.23
2	3	ALTERA	7.90	8.12	8.05	8.59	8.17

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	INTERSYSTEMS	9.79	9.90	9.58	9.54	9.70
2	2	ALTERA	9.40	9.50	9.11	9.67	9.42
1	3	HEALTH INSIGHTS	7.80	8.13	8.56	8.76	8.31

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ALTERA	9.31	9.02	9.56	9.69	9.40
3	2	INTERSYSTEMS	8.69	8.88	9.23	9.01	9.00
1	3	EPIC SYSTEMS	5.96	6.34	6.19	6.07	6.12

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HEALTH INSIGHTS	9.19	9.49	9.04	8.23	8.99
3	2	INTERSYSTEMS	8.17	8.93	9.16	8.32	8.65
2	3	ALTERA	9.10	8.03	8.94	7.90	8.52

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ALTERA	9.29	9.76	9.19	9.64	9.47
1	2	HEALTH INSIGHTS	9.09	9.29	8.87	8.28	8.77
3	3	INTERSYSTEMS	7.21	7.83	6.94	8.05	7.50

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	HEALTH INSIGHTS	9.14	9.68	9.40	9.42	9.41
2	2	ALTERA	9.75	9.20	9.31	9.16	9.36
3	3	INTERSYSTEMS	8.50	8.01	8.18	8.24	8.03

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	EPIC SYSTEMS	9.31	9.00	8.73	8.61	8.90
2	2	ALTERA	9.09	9.29	8.51	8.68	8.89
1	3	HEALTH INSIGHTS	8.53	8.83	8.74	9.45	8.88

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	EPIC SYSTEMS	9.70	9.39	9.06	9.35	9.38
3	2	INTERSYSTEMS	9.09	9.39	9.20	9.74	9.36
2	3	ALTERA	9.01	9.17	9.00	8.14	8.83

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor’s service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	<b>ALTERA</b>	9.67	9.40	9.63	8.78	<b>9.37</b>
1	2	HEALTH INSIGHTS	9.10	8.05	9.14	8.34	8.66
3	3	INTERSYSTEMS	8.88	7.49	9.36	8.49	8.56

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	INTERSYSTEMS	9.27	9.07	9.00	8.77	9.03
2	2	ALTERA	9.20	9.17	7.98	9.64	9.00
1	3	HEALTH INSIGHTS	7.99	8.81	8.32	7.92	8.26

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTHEAST ASIA/SINGAPORE/THAILAND/MALAYSIA

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ALTERA	9.50	9.04	9.52	9.49	9.48
1	2	HEALTH INSIGHTS	9.20	9.47	9.61	9.46	9.44
3	3	MEDITECH	6.05	7.33	7.01	6.61	6.76

Source: Black Book™ 2024

# CHINA, TAIWAN, HONG KONG

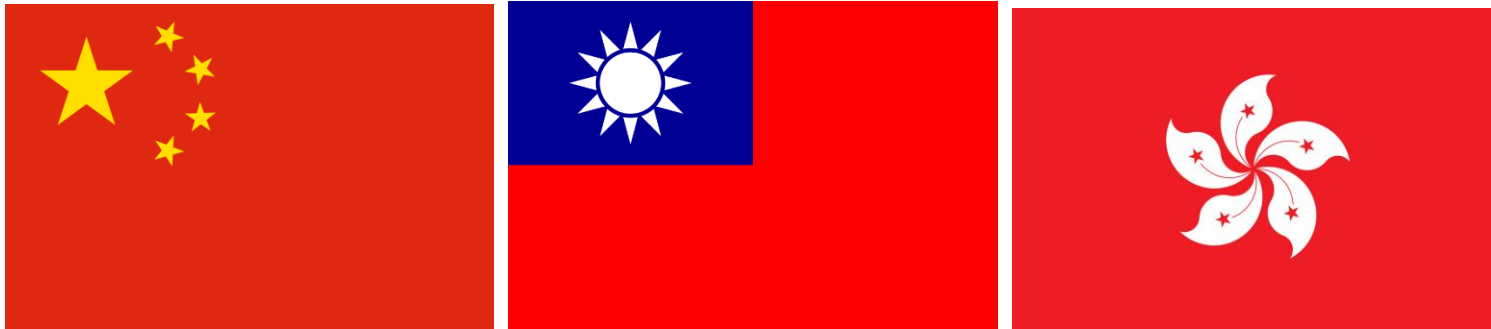
2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
419 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	1%
Clinic/Practice Name	23%
Public Clinic	3%
Health System Clinic	31%
Academic Hospital and Medical Centers over 250 Beds	40%
Community Hospitals	2%
Small Hospitals under 100 Beds	0%
Ambulatory Surgery Centers	0%
<b>TOTAL</b>	<b>100%</b>

Source: Black Book™ 2024

## 2024 RESULTS

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## **2024 TOP OVERALL EHR EMR HIT VENDOR HONORS**

CHINA, HONG KONG, TAIWAN

**NEUSOFT MEDICAL**

### **FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR CHINA**

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**ORACLE HEALTH**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**NEUSOFT**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**NEUSOFT**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**ISTONESOFT**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research



## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY							
OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

CHINA, HONG KONG, TAIWAN

Summary of criteria outcomes

TABLE 12: SUMMARY OF CRITERIA OUTCOMES

Total number one criteria ranks	Vendor	Overall rank
12	NEUSOFT MEDICAL	1
5	ORACLE HEALTH	2
1	ISTONESOFT	3

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

### CHINA, HONG KONG, TAIWAN

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA

Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>NEUSOFT MEDICAL</b>	1
2	Innovation & Optimization	<b>ORACLE HEALTH</b>	2
3	Training	<b>NEUSOFT MEDICAL</b>	1
4	Client relationships and cultural fit	<b>NEUSOFT MEDICAL</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>NEUSOFT MEDICAL</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>ORACLE HEALTH</b>	2
7	Deployment and outsourcing implementation	<b>NEUSOFT MEDICAL</b>	1
8	Customization	<b>ORACLE HEALTH</b>	2
9	Integration and interfaces	<b>ORACLE HEALTH</b>	2
10	Scalability, client adaptability, flexible pricing	<b>NEUSOFT MEDICAL</b>	1
11	Compensation and employee performance	<b>ORACLE HEALTH</b>	2
12	Reliability	<b>NEUSOFT MEDICAL</b>	1
13	Brand image and marketing communications	<b>NEUSOFT MEDICAL</b>	1
14	Marginal value adds and modules	<b>ISTONESOFT</b>	3
15	Financial & Managerial Viability	<b>NEUSOFT MEDICAL</b>	1
16	Data security and backup services	<b>NEUSOFT MEDICAL</b>	1
17	Support and customer care	<b>NEUSOFT MEDICAL</b>	1
18	Best of breed technology and process improvement	<b>NEUSOFT MEDICAL</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

<b>KEY</b>	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR CHINA, HONG KONG, TAIWAN	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	NEUSOFT MEDICAL SYSTEMS	A	A	A
2	ORACLE HEALTH	A	A	A
3	ISTONESOFT	A	A	A
4	BEIJING LAN-POWER TECH	A	B	B
5	CHINA NATIONAL SOFTWARE	B	B	B
6	IBM	B	C	C
7	DIPS	C	B	C
8	INTERSYSTEMS	C	C	B
9	PHILIPS	B	C	C
10	YON YOU	D	C	C
11	CISCO	D	D	D
12	BEIJING NOVASTAR TECH	D	D	D
13	SIEMENS	D	D	D

# Individual EHR Vendor Key Performance

## CHINA

### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client’s Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.66	9.29	9.42	9.65	9.50
2	2	ORACLE	8.94	9.43	8.81	8.94	9.08
3	3	ISTONESOFT	8.63	9.43	9.05	8.54	8.91

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE	9.61	9.81	9.66	9.75	9.71
1	2	NEUSOFT	9.29	9.56	9.32	9.43	9.40
3	3	ISTONESOFT	8.90	9.02	9.67	9.72	9.32

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	8.95	7.98	9.17	8.82	8.73
2	2	ORACLE	7.27	8.39	7.17	7.15	7.50
3	3	ISTONESOFT	7.01	7.32	7.31	7.34	7.25

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.83	9.79	9.85	9.87	9.79
2	2	ORACLE	9.85	9.74	9.68	9.73	9.75
3	3	ISTONESOFT	9.16	9.59	8.44	9.93	9.63

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	8.96	9.34	9.45	9.58	9.33
2	2	ORACLE	8.82	9.86	8.90	8.86	9.11
3	3	ISTONESOFT	9.15	9.02	9.10	9.13	9.10

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE	8.94	9.52	9.68	9.29	9.30
1	2	NEUSOFT	9.21	9.53	9.24	9.26	9.16
3	3	ISTONESOFT	9.07	8.69	9.61	9.40	8.99

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.84	9.59	9.70	9.31	9.58
2	2	ORACLE	9.14	9.11	9.25	9.14	9.31
3	3	ISTONESOFT	8.65	8.85	9.13	7.92	8.43

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE	9.31	9.21	9.32	9.12	9.24
1	2	NEUSOFT	8.76	8.79	9.24	8.63	8.86
3	3	ISTONESOFT	8.76	8.26	8.68	8.19	8.52

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE	8.97	8.41	8.94	8.08	8.60
1	2	NEUSOFT	8.98	7.59	8.78	8.60	8.50
3	3	ISTONESOFT	7.70	6.80	7.84	8.61	8.44

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.59	9.13	9.27	9.34	9.33
3	2	ISTONESOFT	8.86	8.92	9.41	8.23	8.86
2	3	ORACLE	7.33	8.55	8.01	8.28	8.04

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE	8.96	9.48	9.63	8.50	9.20
3	2	ISTONESOFT	8.85	9.57	8.83	9.42	9.17
1	3	NEUSOFT	8.86	8.98	9.43	9.28	9.14

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.80	9.63	9.69	9.37	9.62
2	2	ORACLE	9.64	9.69	8.98	9.64	9.49
3	3	ISTONESOFT	9.47	9.45	8.65	9.60	9.29

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.71	9.67	9.48	9.69	9.64
2	2	ORACLE	9.43	9.57	9.39	9.42	9.51
3	3	ISTONESOFT	9.52	8.69	9.60	9804	9.42

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	ISTONESOFT	9.10	9.11	9.55	9.80	9.39
2	2	ORACLE	8.04	7.34	8.09	8.70	8.04
1	3	NEUSOFT	6.76	9.01	7.81	7.92	7.38

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.68	9.04	9.62	9.06	9.35
2	2	ORACLE	9.04	9.58	9.11	9.51	9.31
3	3	ISTONESOFT	8.96	8.29	8.46	8.31	8.51

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.00	8.94	7.90	9.16	8.75
3	2	ISTONESOFT	9.06	8.75	8.91	8.55	8.72
2	3	ORACLE	8.80	8.71	8.32	8.97	8.71

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.62	9.35	9.61	9.40	9.50
3	2	ISTONESOFT	9.04	8.84	8.96	8.80	8.91
2	3	ORACLE	8.76	8.90	8.70	8.79	8.79

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### CHINA

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NEUSOFT	9.00	9.36	9.31	8.65	9.09
2	2	ORACLE	8.00	8.84	9.36	9.08	9.02
3	3	ISTONESOFT	8.97	8.97	8.92	9.08	8.99

Source: Black Book™ 2024

## ○ SOUTH KOREA

### EHR STATUS

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The adoption rate of electronic health record (EHR) systems in South Korea has continuously increased. However, in contrast to the situation in the United States (US), where there has been a national effort to improve and standardize EHR interoperability, no consensus has been established in South Korea. The goal of this study was to determine the current status of EHR adoption in South Korean hospitals compared to that in the US. Methods All general and tertiary teaching hospitals in South Korea were surveyed regarding their EHR status in 2015 with the same questionnaire as used previously. The survey form estimated the level of adoption of EHR systems according to 24 core functions in four categories (clinical documentation, result view, computerized provider order entry, and decision supports). The adoption level was classified into comprehensive and basic EHR systems according to their functionalities. Results EHRs and computerized physician order entry systems were used in 58.1% and 86.0% of South Korean hospitals, respectively. Decision support systems and problem list documentation were the functions most frequently missing from comprehensive and basic EHR systems. The main barriers cited to adoption of EHR systems were the cost of purchasing (48%) and the ongoing cost of maintenance (11%). Discussion

The EHR adoption rate in Korean hospitals (37.2%) was higher than that in US hospitals in 2010 (15.1%), but this trend was reversed in 2015 (58.1% vs. 75.2%). The evidence suggests that these trends were influenced by the level of financial and political support provided to US hospitals after the HITECH Act was passed in 2009. Conclusions The EHR adoption rate in Korea has increased, albeit more slowly than in the US. It is logical to suggest that increased funding and support tied to the HITECH Act in the US partly explains the difference in the adoption rates of EHRs in both countries.

South Korea's rollout of a new electronic health record system will give patients greater accessibility and control over their data, but questions about security and privacy remain unanswered, writes Junho Jung

The ambitious digitalization of health in South Korea is largely the result of state driven innovation. Indeed, in 2021 the national research and development budget on digital health was US\$850 million.<sup>1</sup> In a country that has a more than 90% adoption rate of



electronic health records systems in medical institutions and where around 93% of the adult population owns smartphones, the government is aiming for complete digital transformation in healthcare. Although interest in digital health is high, industry involvement is currently limited, but it is expected to grow rapidly in the coming years.

In August 2017, the government established the goal of creating new economic growth engines based on “DNA” (Data, Network, and AI technology), and securing the industrial base and related policy frameworks needed to do this. As part of this, a special taskforce for digital healthcare was formed to “establish personal medical data sovereignty and collect comprehensive strategies for improving public health.” This came hand in hand with changes to data protection laws. The newly introduced Data 3 Act (consisting of amendments to the Personal Information Protection Act, the Credit Information Act, and the Information and Communications Network Act) has allowed pseudonymized data, rather than anonymized data, to be used without consent for scientific research, and opened the way to records from public databases being used flexibly by private companies.

In February 2021, the Korean Ministry of Health and Welfare launched the My HealthWay app. This app is designed to “establish the sovereignty of personal medical data.”<sup>2</sup> Currently, it provides integrated management of medical check-up data (from National Health Insurance records), prescription data (from the Health Insurance Review and Assessment Service), and vaccination history (from the Disease Control and Prevention Agency).

By 2023, once electronic medical record (EMR) compatibility issues are resolved between institutions, all personal health records will be stored in this single app. It is expected that in 2023, all medical records and health records, including data from personal “wearable” medical devices, will be integrated and saved into a single location—on the patient’s own medical app. This will not only provide patients with an integrated record but also full ownership of all their health data. What is notable is that Korea’s plans for integrating data are not only focused in the health sector, but also encompass personal financial and administrative information. My HealthWay is part of a broader MyData umbrella programme.<sup>3</sup>

Korea has a single mandatory national health insurance system, and all citizens are registered into it under a number given at birth.<sup>4</sup> This number is linked with the national identification system that holds the biometric data of each citizen. The number is a key individual identifier in any medical, financial, and administrative work in Korea. Consequently, the government's merging of a person's entire digital data record through a single registration is possible.

It was evident during the covid-19 pandemic that the single registration system was effective for contact tracing, however, it also raised significant concerns about invasions of privacy. An amendment to the Infectious Diseases Control and Prevention Act allowed the Korea Disease Control and Prevention Agency to collect data on credit card usage from banks, geolocation information through telecom companies, and surveillance camera footage from the police for contact tracing. This meant people who'd come into contact with infected individuals could be traced and quarantined in almost real time. At certain stages of the pandemic, the Ministry of Health even made information on infected individuals public, including their means of transportation, the names of places they'd visited, the medical institutions they'd been treated at, and their health status. Even though names and addresses weren't given out, the level of detail in the personal information the government revealed risked people being identified, potentially leading to discrimination and personal distress.

These integrated records clearly hold vast amounts of confidential personal data, and it could have devastating consequences if they were breached. There is a risk that pseudonymized data could be re-identified. At the same time, such concentration of sensitive personal information in a single location controlled by the government may widen state control and surveillance. To avoid criticism on this front, My HealthWay claims to act only as a platform or "highway" that transmits the data, avoiding storing any unnecessary personal data on its server.<sup>5</sup> Despite these reassurances, the government's position that it only acts as a "highway" of data transfers still worries many citizens in Korea.

The general public's view on My HealthWay has been mixed. Consumer groups welcome the initiative as each person will have control and ownership over their data and sharing information between medical institutions and insurance companies will enhance accessibility and choice.<sup>6</sup> On the other hand, some patient groups argue that simple storage and merging of health data does not guarantee autonomy. Health records are complex datasets and giving informed consent for access for specific uses may be difficult

to understand and implement. Furthermore, there are currently no effective measures or sanctions in place for its misuse. The government has emphasized that data in My HealthWay are not for commercial use, but this will not stop patients from sending their data to private institutions, such as large hospitals, insurance companies, and data mining companies.

Questions about good governance remain. Regrettably, at the early stages of policy development, the My HealthWay Development Committee did not include any patient group or civil society representatives. It was only in 2021, during the implementation stage, that one patient representative was able to participate in a committee where the rest of the 15 members were from the government and industry.<sup>7</sup>

My HealthWay has the potential to return the ownership of data to patients, when at present it is largely in the domain of individual medical institutions. The ability to personally store your own digital health records and to decide when to selectively transfer data for secondary use will empower people and enhance their autonomy. However, the sensitivity of health data, especially when merged with other identifiable data, poses risks to privacy. Ensuring that the app doesn't simply hand over the ownership of the data without sufficient safeguards is essential and should be achieved not only through technological means but by transparent governance. Without this there is a very real risk that My HealthWay will cause harms that offset its benefits.

Junho Jung is a researcher at the Center for Health and Social Change, a non-profit community-based research center specializing in transdisciplinary research on health issues. He is leading the project in critically analyzing digitalization of health in Korea.

Competing interests: none declared.

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# SOUTH KOREA

2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS

788 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	15%
Clinic/Practice Name	26%
Public Clinic	13%
Health System Clinic	12%
Academic Hospital and Medical Centers over 250 Beds	15%
Community Hospitals	4%
Small Hospitals under 100 Beds	0%
Ambulatory Surgery Centers	15%
TOTAL	100%

Source: Black Book™ 2024

# 2024 RESULTS

## ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

SOUTH KOREA

**BESTCARE EZCARETECH**

### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR AUSTRALIA/NEW ZEALAND

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**BESTCARE EZCARETECH**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**BESTCARE EZCARETECH**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**BESTCARE EZCARETECH**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**BESTCARE EZCARETECH**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research



## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

## OVERALL KPI LEADERS

### SOUTH KOREA

Summary of criteria outcomes

Total number one criteria ranks	Vendor	Overall rank
14	BESTCARE EZCARETECH	1
2	INTERSYSTEMS	2
2	NAVER P-HIS	2

Source: Black Book Research

## OVERALL KPI LEADERS: EHR

### SOUTH KOREA

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>BESTCARE EZCARETECH</b>	1
2	Innovation & Optimization	<b>BESTCARE EZCARETECH</b>	1
3	Training	<b>BESTCARE EZCARETECH</b>	1
4	Client relationships and cultural fit	<b>BESTCARE EZCARETECH</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>BESTCARE EZCARETECH</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>INTERSYSTEMS</b>	2
7	Deployment and outsourcing implementation	<b>BESTCARE EZCARETECH</b>	1
8	Customization	<b>BESTCARE EZCARETECH</b>	1
9	Integration and interfaces	<b>BESTCARE EZCARETECH</b>	1
10	Scalability, client adaptability, flexible pricing	<b>BESTCARE EZCARETECH</b>	1
11	Compensation and employee performance	<b>NAVER P-HIS</b>	4
12	Reliability	<b>BESTCARE EZCARETECH</b>	1
13	Brand image and marketing communications	<b>BESTCARE EZCARETECH</b>	1
14	Marginal value adds and modules	<b>NAVER P-HIS</b>	4
15	Financial & Managerial Viability	<b>INTERSYSTEMS</b>	2
16	Data security and backup services	<b>BESTCARE EZCARETECH</b>	1
17	Support and customer care	<b>BESTCARE EZCARETECH</b>	1
18	Best of breed technology and process improvement	<b>BESTCARE EZCARETECH</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR SOUTH KOREA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	BESTCARE EZCARETECH	A	A	A
2	INTERSYSTEMS	A	C	C
4	IQVIA ARCUS AIR HIS	B	C	B
5	NAVER P-HIS	C	B	C

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	BESTCARE EZCARETECH	9.67	9.76	9.80	9.18	9.50
4	2	NAVER P-HIS	9.77	9.82	9.19	9.42	9.45
3	3	IQVIA ARCUS AIR HIS	9.30	9.02	8.33	9.57	9.19
2	4	INTERSYSTEMS	8.14	9.13	8.16	9.12	8.59

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT		
1	1	BESTCARE EZCARETECH	8.91	8.99	8.61	8.82	8.99
4	2	NAVER P-HIS	8.46	9.18	8.45	8.36	8.91
3	3	IQVIA ARCUS AIR HIS	9.80	9.26	7.93	7.37	8.69
2	4	INTERSYSTEMS	6.14	7.03	8.09	6.72	7.19

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	BESTCARE EZCARETECH	9.78	9.03	8.81	9.24	9.22
2	2	INTERSYSTEMS	8.75	9.55	8.46	9.41	9.04
3	3	IQVIA ARCUS AIR HIS	9.27	9.20	8.39	9.27	9.03
4	4	NAVER P-HIS	9.42	9.05	8.07	8.89	8.86

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship’s success or client’s satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT		
1	1	<b>BESTCARE EZCARETECH</b>	9.72	9.73	9.73	9.49	<b>9.67</b>
2	2	<b>INTERSYSTEMS</b>	9.15	9.73	9.03	9.41	<b>9.33</b>
4	3	NAVER P-HIS	8.08	8.65	8.17	9.26	8.54
3	4	IQVIA ARCUS AIR HIS	9.00	9.13	7.13	8.67	8.48

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>BESTCARE EZCARETECH</b>	8.91	9.35	8.25	9.05	<b>8.89</b>
2	2	INTERSYSTEMS	9.51	8.75	8.23	8.09	8.65
3	3	IQVIA ARCUS AIR HIS	9.00	9.06	8.04	8.13	8.56
4	4	NAVER P-HIS	8.78	9.02	7.05	9.20	8.51

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client's EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
2	1	INTERSYSTEMS	9.37	9.45	8.53	9.16	9.13	
1	2	BESTCARE EZCARETECH	9.64	9.33	8.34	8.70	9.00	
3	3	IQVIA ARCUS AIR HIS	9.20	9.01	7.05	9.92	8.80	
4	4	NAVER P-HIS	8.77	8.94	8.16	8.79	8.67	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT		
1	1	<b>BESTCARE EZCARETECH</b>	9.18	9.66	8.41	9.06	<b>9.08</b>
2	2	INTERSYSTEMS	9.36	8.70	8.02	8.33	8.60
3	3	IQVIA ARCUS AIR HIS	8.96	8.52	8.27	8.00	8.44
4	4	NAVER P-HIS	8.33	8.82	7.75	8.57	8.37

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients’ needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
1	1	BESTCARE EZCARETECH	9.15	9.24	7.57	8.84	8.70	
2	2	INTERSYSTEMS	8.57	9.13	7.59	8.20	8.37	
3	3	IQVIA ARCUS AIR HIS	8.99	8.58	7.82	8.09	8.37	
4	4	NAVER P-HIS	8.94	8.88	7.90	7.67	8.35	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	2	INTERSYSTEMS	9.87	9.70	9.76	9.18	9.63
2	1	INTERSYSTEMS	9.59	9.35	9.05	9.23	9.31
3	3	IQVIA ARCUS AIR HIS	9.46	9.80	8.83	9.15	9.31
4	4	NAVER P-HIS	9.18	9.38	8.71	8.32	8.90

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
1	1	BESTCARE EZCARETECH	9.44	9.35	7.94	7.97	8.68	
4	2	NAVER P-HIS	8.83	9.19	7.52	8.88	8.61	
3	3	IQVIA ARCUS AIR HIS	8.94	8.68	8.02	8.04	8.42	
2	4	INTERSYSTEMS	8.76	8.72	8.23	7.88	8.40	

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
4	1	NAVER-P HIS	8.74	9.18	8.64	9.07	8.91	
2	2	INTERSYSTEMS	9.30	9.00	8.57	8.60	8.87	
3	3	IQVIA ARCUS AIR HIS	8.63	9.45	8.26	8.74	8.77	
1	4	BESTCARE EZCARETECH	8.89	8.72	7.48	7.81	8.23	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
1	1	BESTCARE EZCARETECH	9.14	9.33	8.68	9.09	9.06	
2	2	INTERSYSTEMS	9.49	9.04	8.31	8.94	8.95	
4	3	NAVER P-HIS	9.08	9.01	8.08	9.53	8.93	
3	4	IQVIA ARCUS AIR HIS	8.38	9.27	8.77	8.90	8.83	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
1	1	BESTCARE EZCARETECH	9.89	9.68	9.89	9.53	9.75	
2	2	INTERSYSTEMS	9.82	9.89	9.46	9.23	9.60	
3	3	IQVIA ARCUS AIR HIS	9.41	9.54	9.02	9.46	9.36	
4	4	NAVER P-HIS	9.29	8.89	9.73	9.44	9.34	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT		
4	1	NAVER P-HIS	9.33	8.99	7.73	7.59	8.41
3	2	IQVIA ARCUS AIR HIS	8.04	8.76	8.23	8.17	8.30
1	3	BESTCARE EZCARETECH	7.67	8.73	7.93	8.31	8.16
2	4	INTERSYSTEMS	7.11	8.55	7.05	7.04	7.44

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
2	1	<b>INTERSYSTEMS</b>	9.38	9.22	9.69	9.10	<b>9.35</b>	
1	2	<b>BESTCARE EZCARETECH</b>	9.17	8.98	8.83	9.29	<b>9.07</b>	
3	3	IQVIA ARCUS AIR HIS	9.19	9.08	8.07	8.11	8.61	
4	4	NAVER P-HIS	8.50	8.75	7.94	8.45	8.41	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 - CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
1	1	<b>BESTCARE EZCARETECH</b>	9.29	9.69	9.68	9.09	<b>9.44</b>	
2	2	<b>INTERSYSTEMS</b>	9.52	9.33	9.53	9.34	<b>9.43</b>	
3	3	<b>IQVIA ARCUS AIR HIS</b>	9.72	9.73	8.71	8.99	<b>9.29</b>	
4	4	<b>NAVER P-HIS</b>	9.60	9.46	8.61	9.00	<b>9.17</b>	

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT		
1	1	BESTCARE EZCARETECH	8.80	9.62	8.97	8.85	9.06
4	2	NAPER P-HIS	8.90	9.25	8.39	8.75	8.82
2	3	INTERSYSTEMS	9.15	9.18	8.24	8.24	8.70
3	4	IQVIA ARCUS AIR HIS	8.38	7.03	7.00	6.71	7.28

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### SOUTH KOREA

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

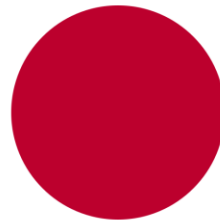
OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA			DECISION		MEAN
			MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	SUPPORT & RESULTS REVIEW/ MANAGEMENT		
1	1	<b>BESTCARE EZCARETECH</b>	9.14	9.95	8.86	9.80	<b>9.44</b>	
2	2	<b>INTERSYSTEMS</b>	8.75	8.73	8.37	9.89	<b>8.94</b>	
3	3	IQVIA ARCUS AIR HIS	6.86	9.39	8.03	8.29	8.64	
4	4	NAVER P-HIS	8.26	8.25	8.03	9.14	8.42	

Source: Black Book™ 2024



# 2024 RESULTS

## ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

### JAPAN

#### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR ASIA

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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## STOP LIGHT SCORING KEY

**FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS**

PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT
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Source: Black Book Research

**FIGURE 2: KEY TO RAW SCORES**

0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> 8.71 +	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor who has middle of the pack results.
<b>Yellow</b> 5.80 to 7.32	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> Less than 5.79	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

## OVERALL KPI LEADERS: EHR

### JAPAN

Top score per individual criteria

TABLE 2: TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>NTT DOCOMO</b>	1
2	Innovation & Optimization	<b>NTT DOCOMO</b>	1
3	Training	<b>INTERSYSTEMS JAPAN</b>	4
4	Client relationships and cultural fit	<b>IQVIA ARCUS AIR HIS</b>	2
5	Trust, Accountability, Transparency, Ethics	<b>NTT DOCOMO</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>NTT DOCOMO</b>	1
7	Deployment and outsourcing implementation	<b>NTT DOCOMO</b>	1
8	Customization	<b>NTT DOCOMO</b>	1
9	Integration and interfaces	<b>INTERSYSTEMS</b>	4
10	Scalability, client adaptability, flexible pricing	<b>INTERSYSTEMS</b>	4
11	Compensation and employee performance	<b>NEC MEGAOAK ASSIST</b>	3
12	Reliability	<b>NTT DOCOMO</b>	1
13	Brand image and marketing communications	<b>INTERSYSTEMS JAPAN</b>	4
14	Marginal value adds and modules	<b>NTT DOCOMO</b>	1
15	Financial & Managerial Viability	<b>NTT DOCOMO</b>	1
16	Data security and backup services	<b>NTT DOCOMO</b>	1
17	Support and customer care	<b>NTT DOCOMO</b>	1
18	Best of breed technology and process improvement	<b>NTT DOCOMO</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR JAPAN	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	NTT DOCOMO	A	A	A
2	IQVIA ARCUS AIR HIS	A	B	B
3	NEC MEGAOAK ASSIST	B	B	B
4	INTERSYSTEMS JAPAN	A	C	B



**JAPAN**

**Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client’s Mission**

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>NTT DOCOMO</b>	9.50	9.39	8.68	9.75	<b>9.33</b>
2	2	<b>IQVIA ARCUS AIR HIS</b>	9.25	9.01	8.82	9.44	<b>9.13</b>
3	3	NEC MEGAOAK ASSIST	9.39	8.08	8.27	9.03	8.69
4	4	INTERSYSTEMS JAPAN	7.62	8.16	8.46	7.59	7.96

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	9.92	9.91	9.85	9.99	9.92
2	2	IQVIA ARCUS AIR HIS	9.73	9.44	8.77	9.46	9.35
3	3	NEC MEGAOAK ASSIST	9.40	9.15	8.88	9.55	9.25
4	4	INTERSYSTEMS JAPAN	9.53	8.80	9.37	9.15	9.21

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	INTERSYSTEMS JAPAN	9.17	8.91	8.47	8.58	8.78
2	2	IQVIA ARCUS AIR HIS	8.57	9.28	8.42	8.62	8.72
3	3	NEC MEGAOAK ASSIST	8.26	8.78	9.35	8.14	8.63
1	4	NTT DOCOMO	7.65	8.79	8.70	9.33	8.62

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship’s success or client’s satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	<b>IQVIA ARCUS AIR HIS</b>	8.44	9.14	8.91	8.54	<b>8.76</b>
1	2	<b>NTT DOCOMO</b>	9.23	9.10	8.37	8.12	<b>8.71</b>
3	3	NEC MEGAOAK ASSIST	9.06	9.02	7.76	8.64	8.62
4	4	<b>INTERSYSTEMS JAPAN</b>	7.17	7.35	7.00	7.15	<b>7.17</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	8.88	8.79	8.21	9.14	8.76
3	2	IQVIA ARCUS AIR HIS	8.93	8.94	8.35	8.38	8.65
4	3	INTERSYSTEMS JAPAN	8.60	8.28	8.77	8.36	8.50
2	4	NEC MEGAOAK ASSIST	8.74	8.54	8.50	8.20	8.50

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client’s EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	9.10	9.00	8.99	9.18	9.07
3	2	NEC MEGAOAK ASSIST	8.96	8.83	8.80	9.29	8.97
2	3	IQVIA ARCUS AIR HIS	8.54	8.71	9.37	9.09	8.93
4	4	INTERSYSTEMS JAPAN	9.06	8.27	8.95	8.96	8.81

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>NTT DOCOMO</b>	8.76	8.75	8.92	9.04	<b>8.87</b>
2	2	IQVIA ARCUS AIR HIS	7.78	7.92	8.02	8.94	8.17
3	3	NEC MEGAOAK ASSIST	8.28	8.39	7.06	8.52	8.06
4	4	INTERSYSTEMS JAPAN	7.54	8.70	7.50	8.45	8.05

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN\*

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	INTERSYSTEMS JAPAN	9.47	9.32	9.36	9.19	9.34
2	2	IQVIA ARCUS AIR HIS	9.21	9.47	9.17	9.26	9.28
3	3	NEC MEGAOAK ASSIST	9.12	9.08	9.30	9.25	9.19
1	4	NTT DOCOMO	9.46	9.36	8.51	8.98	9.08

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	INTERSYSTEMS JAPAN	8.87	9.53	9.30	9.49	9.30
2	2	IQVIA ARCUS AIR HIS	8.95	9.38	9.39	8.99	9.18
3	3	NEC MEGAOAK ASSIST	8.81	8.78	9.04	9.62	9.06
1	4	NTT DOCOMO	9.55	8.41	9.26	8.65	8.97

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	8.56	8.47	9.36	8.59	8.75
2	2	IQVIA ARCUS AIR HIS	8.95	8.42	8.33	9.04	8.69
3	3	NEC MEGAOAK ASSIST	8.10	8.81	8.31	9.12	8.59
4	4	INTERSYSTEMS JAPAN	8.52	7.97	9.34	8.00	8.46

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Vendor staff expertise, compensation and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	NEC MEGAOAK ASSIST	8.70	8.97	7.77	8.92	8.59
2	2	IQVIA ARCUS AIR HIS	8.75	7.88	8.98	8.51	8.53
1	3	NTT DOCOMO	9.04	8.84	7.49	8.31	8.42
4	4	INTERSYSTEMS JAPAN	6.33	6.64	7.27	5.79	6.51

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	9.37	9.01	8.10	8.88	8.84
2	2	IQVIA ARCUS AIR HIS	8.76	8.40	7.92	8.81	8.47
3	3	NEC MEGAOAK ASSIST	7.87	8.61	7.30	7.97	7.94
4	4	INTERSYSTEMS JAPAN	8.63	7.65	8.16	6.80	7.81

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	INTERSYSTEMS JAPAN	9.39	9.49	8.76	9.08	9.18
2	2	IQVIA ARCUS AIR HIS	9.11	9.31	9.64	8.61	9.17
3	3	NEC MEGAOAK ASSIST	9.00	9.01	7.67	9.98	8.92
1	4	NTT DOCOMO	8.58	8.92	8.60	9.59	8.92

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	9.00	7.95	9.44	8.64	8.76
2	2	IQVIA ARCUS AIR HIS	8.74	7.39	8.26	8.31	8.18
3	3	NEC MEGAOAK ASSIST	8.21	7.89	7.12	8.36	7.90
4	4	INTERSYSTEMS JAPAN	6.73	6.00	7.94	7.29	6.85

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	8.60	8.96	9.19	8.35	8.78
4	2	INTERSYSTEMS	8.33	7.76	8.97	7.93	8.25
3	3	NEC MEGAOAK ASSIST	8.87	7.97	7.64	8.48	8.24
2	4	IQVIA ARCUS AIR HIS	6.93	7.28	7.70	6.09	7.00

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor’s service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	9.20	9.27	9.02	9.42	9.23
2	2	IQVIA ARCUS AIR HIS	8.47	9.59	9.19	9.56	9.20
3	3	NEC MEGAOAK ASSIST	9.07	9.49	9.10	8.95	9.15
4	4	INTERSYSTEMS JAPAN	8.22	8.60	9.56	9.34	8.93

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	NTT DOCOMO	9.40	9.43	9.36	9.71	9.45
2	2	IQVIA ARCUS AIR HIS	9.16	9.53	9.37	9.24	9.33
3	3	NEC MEGAOAK ASSIST	9.07	9.06	9.25	9.81	9.30
4	4	INTERSYSTEMS JAPAN	9.35	8.57	9.09	9.42	9.11

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### JAPAN

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	<b>NTT DOCOMO</b>	9.34	9.00	8.73	8.95	<b>9.01</b>
2	2	IQVIA ARCUS AIR HIS	8.78	8.01	8.66	8.54	8.50
3	3	NEC MEGAOAK ASSIST	8.07	7.87	8.38	7.34	7.92
4	4	INTERSYSTEMS JAPAN	7.36	7.67	8.30	8.08	7.85

Source: Black Book™ 2024



# **UNITED KINGDOM**

ENGLAND, IRELAND, SCOTLAND, WALES

In the summer of 2022, the Department of Health and Social Care published a paper outlining the country's plan for a digital revolution that included initiatives of over \$2 billion pounds to support the implementation of electronic health records. This initiative aims to have core, digital capabilities in place by March of 2025. The UK is focusing on digital maturity to implement population health tools and the planning of data platforms and business intelligence tools.

The United Kingdom is complex because of the outlining territories that make up the United Kingdom. Integrated care systems that are planned for the implementation of population and planning data platforms, as well as business intelligence tools are more specific towards Great Britain's health system. Working together with the countries that make up the United Kingdom provide a more significant challenge for the health system as a whole.

# UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

2023 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
2,294 RESPONDENTS

2023 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	10%
Clinic/Practice Name	6%
Public Clinic	37%
Health System Clinic	5%
Academic Hospital and Medical Centers over 250 Beds	25%
Community Hospitals	12%
Small Hospitals under 100 Beds	6%
Ambulatory Surgery Centers	0%
<b>TOTAL</b>	<b>100%</b>

Source: Black Book™ 2024

## 2023 RESULTS: UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

### ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



### HEALTH INFORMATION SYSTEMS

## 2023 TOP OVERALL EHR EMR HIT VENDOR HONORS

UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

### ALTERA DIGITAL HEALTH

#### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**ALTERA DIGITAL HEALTH**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**ORACLE HEALTH**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**ALTERA DIGITAL HEALTH**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**ALTERA DIGITAL HEALTH**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking Dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research



## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.

## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **EHR Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

Summary of criteria outcomes

SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
9	ALTERA DIGITAL HEALTH	1
3	ORACLE HEALTH	2
2	DXC TECHNOLOGY	3
1	TPP	4
1	SYSTEM C GRAPHNET	5
1	EPIC SYSTEMS	7
1	IMS MAXIMUS	8

## OVERALL KPI LEADERS: EHR

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

Top score per individual criteria

TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	ALTERA DIGITAL HEALTH	1
2	Innovation & Optimization	ALTERA DIGITAL HEALTH	1
3	Training	DXC TECHNOLOGY	3
4	Client relationships and cultural fit	TPP	4
5	Trust, Accountability, Transparency, Ethics	ALTERA DIGITAL HEALTH	1
6	Breadth of offerings, client types, delivery excellence	SYSTEM C GRAPHNET	5
7	Deployment and outsourcing implementation	PRACTO	8
8	Customization	DXC TECHNOLOGY	3
9	Integration and interfaces	ALTERA DIGITAL HEALTH	1
10	Scalability, client adaptability, flexible pricing	ALTERA DIGITAL HEALTH	1
11	Compensation and employee performance	ORACLE HEALTH	2
12	Reliability	ALTERA DIGITAL HEALTH	1
13	Brand image and marketing communications	ALTERA DIGITAL HEALTH	1
14	Marginal value adds and modules	ORACLE HEALTH	2
15	Financial & Managerial Viability	EPIC SYSTEMS	7
16	Data security and backup services	ALTERA DIGITAL HEALTH	1
17	Support and customer care	ORACLE HEALTH	2
18	Best of breed technology and process improvement	ALTERA DIGITAL HEALTH	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A = 90% Agree	
B = 75% Agree	
C = 50% Agree	
D = 25% or Less Agree	

RANK	EHR VENDOR UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	ALTERA DIGITAL HEALTH	A	A	A
2	ORACLE HEALTH	A	A	C
3	DXC TECHNOLOGY	A	A	A
4	TPP	B	A	A
5	SYSTEM C GRAPHNET	A	B	A
6	EMIS	A	B	A
7	EPIC SYSTEMS	A	C	D
8	PRACTO	C	C	B
9	NERVECENTRE	B	C	B
10	NOVOCURA	B	C	B

11	INPS	C	C	B
12	DOCENGAGE	B	C	C
13	DRCHRONO	B	C	C
14	GEM3S	D	C	C
15	GE HEALTHCARE	C	D	C
1 6	MEDITECH	D	D	D

## Individual EHR Vendor Key Performance

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client’s Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.45	9.61	9.60	9.52	<b>9.55</b>
2	2	ORACLE HEALTH	9.33	9.34	9.69	9.74	<b>9.53</b>
3	3	DXC TECHNOLOGY	9.08	9.45	9.29	9.16	<b>9.25</b>
8	4	PRACTO	8.99	9.51	9.17	9.20	<b>9.22</b>
6	5	EMIS	9.27	8.49	9.01	9.34	<b>9.03</b>
5	6	SYSTEM C GRAPHNET	9.26	8.92	8.65	8.87	<b>8.93</b>

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.78	9.50	9.52	9.74	<b>9.64</b>
2	2	ORACLE HEALTH	9.10	9.15	9.70	9.61	<b>9.39</b>
3	3	DXC TECHNOLOGY	9.16	9.22	9.37	9.41	<b>9.29</b>
4	4	TPP	9.49	9.39	9.13	9.06	<b>9.27</b>
14	5	GEM3S	9.05	8.92	8.78	9.20	<b>8.99</b>
5	6	SYSTEM C GRAPHNET	9.25	9.19	8.74	8.73	<b>8.98</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DXC TECHNOLOGY	9.49	9.35	9.51	9.33	<b>9.42</b>
1	2	ALTERA DIGITAL HEALTH	9.56	9.41	8.97	9.52	<b>9.36</b>
2	3	ORACLE HEALTH	9.31	9.62	8.99	9.05	<b>9.24</b>
9	4	NERVECENTRE	9.32	9.17	8.92	9.10	<b>9.13</b>
6	5	EMIS	8.34	9.46	9.06	9.43	<b>9.07</b>
16	6	MEDITECH	8.94	9.36	8.97	8.82	<b>9.02</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship's success or client's satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
4	1	TPP	9.16	9.47	9.43	9.78	<b>9.46</b>
6	2	EMIS	9.39	9.35	9.06	9.70	<b>9.38</b>
3	3	DXC TECHNOLOGY	9.34	9.31	9.16	9.09	<b>9.22</b>
10	4	NOVOCURA	9.05	9.17	9.00	8.94	<b>9.04</b>
2	5	ORACLE HEALTH	9.09	9.05	8.98	8.89	<b>9.00</b>
5	6	SYSTEM C GRAPHNET	8.87	9.40	8.83	8.78	<b>8.97</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.77	9.58	9.46	9.86	<b>9.67</b>
2	2	ORACLE HEALTH	9.47	9.23	9.07	9.11	<b>9.22</b>
5	3	SYSTEM C GRAPHNET	9.34	9.44	8.71	9.03	<b>9.13</b>
4	4	TPP	9.06	9.26	9.59	8.56	<b>9.12</b>
3	5	DXC TECHNOLOGY	8.95	8.96	8.62	8.93	<b>8.87</b>
11	6	INPS	8.53	8.87	8.55	9.54	<b>8.87</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendor routinely drives operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client's EHR initiatives. Breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	SYSTEM C GRAPHNET	9.56	9.68	9.56	9.54	<b>9.59</b>
2	2	ORACLE HEALTH	9.57	9.48	9.57	9.61	<b>9.56</b>
8	3	PRACTO	9.44	9.32	9.19	9.13	<b>9.27</b>
1	4	ALTERA DIGITAL HEALTH	9.41	9.36	9.40	8.76	<b>9.23</b>
6	5	EMIS	9.05	9.20	8.72	8.63	<b>8.90</b>
4	6	TPP	8.63	8.61	8.67	9.64	<b>8.89</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
8	1	PRACTO	9.61	9.35	9.75	9.55	<b>9.57</b>
1	2	ALTERA DIGITAL HEALTH	9.46	9.52	9.81	9.73	<b>9.51</b>
6	3	EMIS	9.03	9.38	9.35	9.40	<b>9.29</b>
2	4	ORACLE HEALTH	9.03	9.48	8.45	9.51	<b>9.12</b>
14	5	GEM3S	8.90	9.04	8.55	8.99	<b>8.87</b>
3	6	DXC TECHNOLOGY	8.63	8.94	8.09	9.08	<b>8.69</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
3	1	DXC TECHNOLOGY	9.44	9.06	9.63	9.77	<b>9.48</b>
2	2	ORACLE HEALTH	9.52	9.55	9.07	9.35	<b>9.37</b>
1	3	ALTERA DIGITAL HEALTH	9.41	9.42	9.10	9.41	<b>9.34</b>
9	4	NERVECENTRE	8.58	8.49	8.61	9.38	<b>8.77</b>
5	5	SYSTEM C GRAPHNET	8.97	8.44	8.35	9.06	<b>8.71</b>
15	6	GE HEALTHCARE	8.12	8.83	8.33	9.14	<b>8.61</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.88	9.65	9.74	9.48	<b>9.69</b>
2	2	ORACLE HEALTH	8.68	9.34	9.11	9.30	<b>9.11</b>
4	3	TPP	8.76	9.19	8.80	9.20	<b>8.99</b>
7	4	EPIC SYSTEMS	8.62	8.59	8.85	9.43	<b>8.87</b>
16	5	MEDITECH	9.36	8.22	9.07	8.46	<b>8.78</b>
9	6	NERVECENTRE	8.89	8.50	8.22	9.15	<b>8.69</b>

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.47	9.32	9.36	9.59	<b>9.44</b>
3	2	DXC TECHNOLOGY	9.21	9.47	9.17	9.26	<b>9.28</b>
4	3	TPP	9.12	9.30	9.08	9.25	<b>9.19</b>
5	4	SYSTEM C GRAPHNET	8.51	9.36	9.46	8.98	<b>9.08</b>
2	5	ORACLE HEALTH	8.53	9.11	9.08	9.29	<b>9.00</b>
9	6	NERVECENTRE	8.76	9.04	8.92	8.75	<b>8.87</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Vendor staff expertise, compensation, and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.15	9.50	9.06	9.53	<b>9.31</b>
1	2	ALTERA DIGITAL HEALTH	9.26	9.17	9.25	9.29	<b>9.24</b>
7	3	EPIC SYSTEMS	9.16	9.15	9.05	8.68	<b>9.01</b>
8	4	PRACTO	8.67	9.29	8.69	9.17	<b>8.96</b>
10	5	NOVOCURA	8.76	8.88	8.86	9.25	<b>8.94</b>
5	6	SYSTEM C GRAPHNET	8.78	8.68	8.67	8.86	<b>8.75</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.61	9.50	9.45	9.61	<b>9.54</b>
3	2	DXC TECHNOLOGY	9.09	9.30	8.94	9.50	<b>9.21</b>
7	3	EPIC SYSTEMS	8.15	8.80	8.86	8.93	<b>8.69</b>
2	4	ORACLE HEALTH	8.42	8.63	8.43	9.23	<b>8.68</b>
10	5	NOVOCURA	9.11	8.85	8.45	8.30	<b>8.68</b>
12	6	DOCENGAGE	8.69	8.60	8.02	8.95	<b>8.57</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Brand image and marketing communications

Table 17: EHR vendor’s marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. Image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. Elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.34	9.28	9.46	9.58	<b>9.42</b>
2	2	ORACLE HEALTH	9.36	8.75	9.21	8.99	<b>9.08</b>
6	3	EMIS	8.50	8.66	8.64	8.33	<b>8.53</b>
13	4	DRCHRONO	8.20	8.90	8.67	8.30	<b>8.52</b>
9	5	NERVECENTRE	8.99	8.86	8.13	7.88	<b>8.47</b>
8	6	PRACTO	7.52	8.82	8.78	8.40	<b>8.38</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or over/underestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.36	9.25	9.13	9.01	<b>9.19</b>
1	2	ALTERA DIGITAL HEALTH	9.49	9.17	8.85	9.18	<b>9.17</b>
3	3	DXC TECHNOLOGY	8.82	9.13	8.67	8.96	<b>8.90</b>
12	4	DOCENGAGE	9.45	8.29	8.56	8.87	<b>8.79</b>
14	5	GEM3S	9.16	8.90	8.46	8.57	<b>8.77</b>
7	6	EPIC SYSTEMS	8.56	9.27	8.41	8.61	<b>8.71</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
7	1	EPIC SYSTEMS	9.14	9.57	9.22	9.11	<b>9.26</b>
1	2	ALTERA DIGITAL HEALTH	9.18	9.16	8.49	9.45	<b>9.07</b>
2	3	ORACLE HEALTH	9.12	8.87	8.60	9.27	<b>8.97</b>
4	4	TPP	9.25	8.52	9.09	8.87	<b>8.93</b>
9	5	NERVECENTRE	8.09	8.57	8.76	8.22	<b>8.41</b>
6	6	EMIS	7.86	8.30	8.23	8.36	<b>8.19</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Data security and backup services

Table 20: In order to provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor’s service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.45	9.59	9.49	9.47	<b>9.50</b>
3	2	DXC TECHNOLOGY	9.35	9.31	9.42	9.26	<b>9.34</b>
6	3	EMIS	8.71	8.77	9.32	9.00	<b>8.95</b>
4	4	TPP	8.84	8.51	8.98	8.98	<b>8.83</b>
2	5	ORACLE HEALTH	9.09	8.30	9.10	8.75	<b>8.81</b>
10	6	NOVOCURA	8.82	8.73	8.83	8.46	<b>8.71</b>

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
2	1	ORACLE HEALTH	9.47	9.40	9.54	9.46	<b>9.47</b>
1	2	ALTERA DIGITAL HEALTH	9.59	9.17	9.38	9.62	<b>9.44</b>
6	3	EMIS	8.92	9.48	9.23	9.56	<b>9.30</b>
10	4	NOVOCURA	9.41	9.19	8.70	9.18	<b>9.12</b>
15	5	GE HEALTHCARE	8.74	8.56	9.13	8.63	<b>8.76</b>
9	6	NERVECENTRE	8.40	8.41	8.98	8.88	<b>8.67</b>

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### UNITED KINGDOM: ENGLAND, IRELAND, SCOTLAND, WALES

#### Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ALTERA DIGITAL HEALTH	9.31	9.58	9.24	9.29	<b>9.36</b>
2	2	ORACLE HEALTH	8.92	9.32	9.04	9.35	<b>9.16</b>
3	3	DXC TECHNOLOGY	9.15	9.04	8.33	9.40	<b>8.98</b>
5	4	SYSTEM C GRAPHNET	8.90	8.66	8.47	9.09	<b>8.78</b>
9	5	NERVECENTRE	9.04	8.53	8.32	9.08	<b>8.74</b>
4	6	TPP	8.27	9.11	8.24	8.81	<b>8.61</b>

Source: Black Book™ 2024



# **MIDDLE EAST**

# MIDDLE EAST

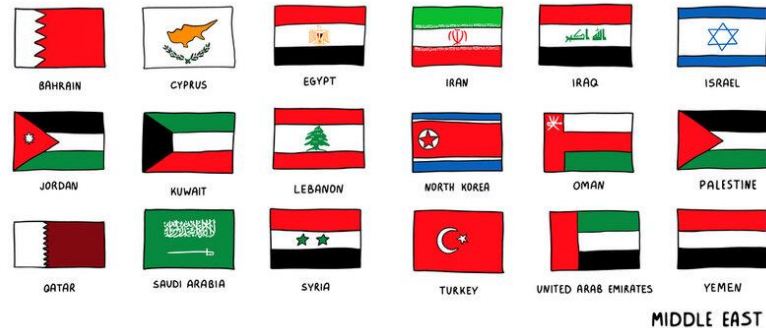
2024 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS  
803 RESPONDENTS

2024 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	10%
Clinic/Practice Name	5%
Public Clinic	3%
Health System Clinic	1%
Academic Hospital and Medical Centers over 250 Beds	79%
Community Hospitals	2%
Small Hospitals under 100 Beds	0%
Ambulatory Surgery Centers	0%
TOTAL	100%

Source: Black Book™ 2024

## 2024 RESULTS: MIDDLE EAST

SAUDI ARABIA, JORDAN, ISRAEL, TURKEY, UNITED ARAB  
EMIRATES, QATAR, IRAN, IRAQ, LIBYA, KUWAIT  
ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY



## HEALTH INFORMATION SYSTEMS

## 2024 TOP OVERALL EHR EMR HIT VENDOR HONORS

MIDDLE EAST

**ORACLE HEALTH**

### FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR MIDDLE EAST

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

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**ORACLE HEALTH**

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

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**ORACLE HEALTH**

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

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**ORACLE HEALTH**

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

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**ORACLE HEALTH**

## STOP LIGHT SCORING KEY

FIGURE 1: COMPREHENSIVE END-TO-END EMR VENDORS ARE DEFINED AS BEING COMPRISED OF FOUR SURVEYED FUNCTIONS			
PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & INTEROPERABILITY, CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/MANAGEMENT

Source: Black Book Research

FIGURE 2: KEY TO RAW SCORES			
0.00 – 5.79 ▶	◀ 5.80 – 7.32 ▶	◀ 7.33 – 8.70 ▶	◀ 8.71 – 10.00
Deal breaking Dissatisfaction	Neutral	Satisfactory performance	Overwhelming satisfaction
Does not meet expectations	Meets/does not meet expectations consistently	Meets expectations	Exceeds expectations
CANNOT RECOMMEND VENDOR	WOULD NOT LIKELY RECOMMEND VENDOR	RECOMMENDS VENDOR	HIGHLY RECOMMENDED VENDOR

Source: Black Book Research

## STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY

<b>Green</b> <b>8.71 +</b>	(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.
<b>Clear</b>	(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.
<b>Yellow</b> <b>5.80 to 7.32</b>	Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.
<b>Red</b> <b>Less than 5.79</b>	Scores worse than 66% of EHR vendors. Poor performances reported potential cause for contract cancellations.

Source: Black Book Research

## STOP LIGHT SCORING KEY

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FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE

### Black Book raw score scales

**1 = Deal breaking dissatisfaction** ◀ ▶ **10 = Exceeds all expectations**

Source: Black Book Research

Individual vendors can be examined by specific indicators on each of the main functions of EHR vendors as well as grouped and summarized subsets. Details of each subset are contained so that each vendor may be analyzed by function and end-to-end EHR services collectively.



## STOP LIGHT SCORING KEY

FIGURE 5: SCORING KEY

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATION S& CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
5	1	EHR NAME	8.49	8.63	8.50	8.01	8.66

Source: Black Book Research

- **Overall rank** – this rank references the final position of all 18 criteria averaged by the mean score collectively. This vendor ranked fifth of the 20 competitors.
- **Criteria rank** – refers to the number of the question or criteria surveyed. This is the sixth question of the 18 criteria of which this vendor ranked first of the 20 vendors analyzed positioned only on this particular criteria or question. Each vendor required ten unique client ballots validated to be included in the top ten ranks.
- **EHR Company** – name of the EHR vendor.
- **Subsections** – each subset comprises one-fourth of the total EHR vendor mean at the end of this row and includes all buyers and users who indicate that they contract each respective EMR functional subsection with the supplier, specific to their physician enterprise.
- **Mean** – congruent with the criteria rank, the mean is a calculation of all three subsets of EHR functions surveyed. As a final ranking reference, it includes all market sizes, specialties, delivery sites and geographies.

OVERALL KPI LEADERS

MIDDLE EAST

Summary of criteria outcomes

SUMMARY OF CRITERIA OUTCOMES		
Total number one criteria ranks	Vendor	Overall rank
18	ORACLE HEALTH	1

Source: Black Book Research \*

## OVERALL KPI LEADERS: EHR

### MIDDLE EAST

Top score per individual criteria

TOP SCORE PER INDIVIDUAL CRITERIA			
Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	<b>ORACLE HEALTH</b>	1
2	Innovation & Optimization	<b>ORACLE HEALTH</b>	1
3	Training	<b>ORACLE HEALTH</b>	1
4	Client relationships and cultural fit	<b>ORACLE HEALTH</b>	1
5	Trust, Accountability, Transparency, Ethics	<b>ORACLE HEALTH</b>	1
6	Breadth of offerings, client types, delivery excellence	<b>ORACLE HEALTH</b>	1
7	Deployment and outsourcing implementation	<b>ORACLE HEALTH</b>	1
8	Customization	<b>ORACLE HEALTH</b>	1
9	Integration and interfaces	<b>ORACLE HEALTH</b>	1
10	Scalability, client adaptability, flexible pricing	<b>ORACLE HEALTH</b>	1
11	Compensation and employee performance	<b>ORACLE HEALTH</b>	1
12	Reliability	<b>ORACLE HEALTH</b>	1
13	Brand image and marketing communications	<b>ORACLE HEALTH</b>	1
14	Marginal value adds and modules	<b>ORACLE HEALTH</b>	1
15	Financial & Managerial Viability	<b>ORACLE HEALTH</b>	1
16	Data security and backup services	<b>ORACLE HEALTH</b>	1
17	Support and customer care	<b>ORACLE HEALTH</b>	1
18	Best of breed technology and process improvement	<b>ORACLE HEALTH</b>	1

INDIVIDUAL EHR VENDOR KEY PERFORMANCE INDIVIDUAL EHR VENDOR KEY PERFORMANCE

KEY	
A	A = 90% Agree
B	B = 75% Agree
C	C = 50% Agree
D	D = 25% or Less Agree

RANK	EHR VENDOR MIDDLE EAST	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	ORACLE HEALTH	A	A	A
2	NAPIER	B	C	B
3	ADAPTIVE TECH SOFT CAREWARE	B	B	C
4	CLOUD SOLUTIONS VIDA	C	B	C
5	INTERSYSTEMS	B	C	C
6	DEDALUS	C	C	C
7	EPIC SYSTEMS	C	C	D

## Individual EHR Vendor Key Performance

### MIDDLE EAST

#### Strategic Alignment of Vendor Offerings to Physician Practice Goals & Client's Mission

Table 5: Organizational structure meets the needs of stakeholders or customers, and stakeholder satisfaction is the most important priority. EHR client is likely to recommend the vendor to similar sized physician groups, physicians within the same specialty or delivery setting.

OVERALL RANK	Q1 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.32	9.12	8.82	9.02	9.07
2	2	NAPIER	8.29	8.25	8.17	7.92	8.16
3	3	ADAPTIVE CAREWARE	8.22	7.29	8.15	7.94	7.90
4	4	CLOUD SOLUTIONS VIDA	7.23	7.04	7.53	8.42	7.56
5	5	INTERSYSTEMS	7.24	6.35	6.69	7.22	6.88
6	6	PHILIPS	6.52	7.24	6.23	6.32	6.58

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Innovation and Optimization

Table 6: Customers are also continuing to push the envelope for further enhancements to which the EHR vendor is responsive. EHR clients also believe that their vendors' technology is helping them manage practices more effectively, generate accurate records and reimbursement billings and cut their overhead in ways that were difficult or impossible to accomplish before electronic medical records were implemented. Vendor is responsive to make client recommendations with cutting edge improvements.

OVERALL RANK	Q2 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.23	9.45	9.50	9.26	9.36
2	2	NAPIER	9.10	8.80	9.14	9.21	9.06
3	3	ADAPTIVE CAREWARE	8.04	8.15	8.22	7.55	7.99
4	4	CLOUD SOLUTIONS VIDA	7.24	7.52	7.06	7.77	7.40
5	5	INTERSYSTEMS	6.14	6.74	6.55	6.28	6.43
6	6	PHILIPS	5.94	5.53	6.03	5.77	5.82

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Training

Table 7: Electronic medical and health record vendor leadership provides significant and meaningful training opportunities for internal employees and client staff. Leadership strives to develop technology staff, EMR/EHR client service and customer servicing consultant employees. Training modules are effective and practical so that minimal post-implementation training is required on or off site. Regular updates are timely and require minimal additional training to implement.

OVERALL RANK	Q3 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.77	9.54	9.35	9.52	9.55
2	2	NAPIER	8.27	8.53	8.23	8.55	8.40
3	3	ADAPTIVE CAREWARE	8.09	7.54	8.15	7.88	7.92
4	4	CLOUD SOLUTIONS VIDA	7.82	7.53	6.48	6.15	7.00
5	5	INTERSYSTEMS	8.03	7.28	6.22	6.32	6.96
6	6	PHILIPS	7.75	7.25	6.14	6.52	6.92

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Client relationships and cultural fit

Table 8: EHR vendor leadership honors customer relationships highly. The relationship with the EHR elevates the customer’s reputation. Improving physician practice and healthcare delivery efficiency and effectiveness is a priority of the supplier. Governance of engagement is neither complex for buyer nor does it require vendor management attention regularly. There is no regular transparency or quality issue. There are no culture clashes or misfits that threaten relationship’s success or client’s satisfaction.

OVERALL RANK	Q4 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.09	9.24	8.92	9.75	9.25
2	2	NAPIER	7.49	7.22	7.09	8.14	7.49
3	3	ADAPTIVE CAREWARE	7.99	7.24	6.24	6.59	7.02
4	4	CLOUD SOLUTIONS VIDA	7.02	6.11	7.43	7.25	6.95
5	5	INTERSYSTEMS	7.19	6.54	6.15	6.87	6.69
6	6	PHILIPS	5.64	6.24	7.14	5.75	6.19

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Trust, Accountability, Ethics and Transparency

Table 9: Trust in enterprise reputation is important to EHR clients as well as prospects. Client possesses an understanding that its EHR organization has the people, processes, and resources to effectively deliver the desired business and clinical results, based on its industry reputation and past performance. There are no disconnects between promises and delivery.

OVERALL RANK	Q5 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.03	9.43	9.83	9.53	9.46
2	2	NAPIER	8.99	9.04	8.84	9.56	9.11
3	3	ADAPTIVE CAREWARE	8.21	8.07	7.77	7.91	7.99
4	4	CLOUD SOLUTIONS VIDA	7.65	8.31	8.66	7.02	7.91
5	5	INTERSYSTEMS	7.59	7.09	6.45	7.05	7.05
6	6	PHILIPS	6.02	6.53	5.47	5.29	5.83

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

Breadth of offerings, varied client settings, delivery excellence across all user types

Table 10: EMR/EHR vendor offers industry recognized horizontal functionality and vertical industry applications and manage bundled EMR services such as ePrescribing and developing new e-Health initiatives. Vendors routinely drive operational performance improvements and results in the areas they affect. Comprehensive offerings are constructed to meet the unique needs of the client's EHR initiatives. The breadth of vendor modules offers comprehensive system services and broad modules.

OVERALL RANK	Q6 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.24	9.17	9.25	9.77	9.36
2	2	NAPIER	8.94	9.24	9.64	9.03	9.21
3	3	ADAPTIVE CAREWARE	8.82	8.53	8.02	9.22	8.65
4	4	CLOUD SOLUTIONS VIDA	8.87	8.51	9.06	7.77	8.55
5	5	INTERSYSTEMS	8.15	7.84	6.95	7.64	7.65
6	6	PHILIPS	7.23	6.83	7.47	7.03	7.14

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Deployment and EHR implementation

Table 11: EHR client deploys at a pace acceptable to the client. EHR solutions eliminate excessive supervision over vendor implementations. Vendor overcomes client implementation obstacles and challenges effectively. Technical, organizational and cultural implementation obstacles are handled professionally and punctually. EHR implementation time meets standard expectations. Implementations are efficient and sensitive to users' specific situations which may cause delays.

OVERALL RANK	Q7 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.42	9.44	9.52	9.14	9.38
2	2	NAPIER	8.23	8.28	9.11	7.87	8.37
3	3	ADAPTIVE CAREWARE	7.82	9.09	8.53	8.02	8.37
4	4	CLOUD SOLUTIONS VIDA	6.55	7.21	7.11	7.14	7.00
5	5	INTERSYSTEMS	5.37	5.34	5.93	6.45	5.77
6	6	PHILIPS	4.94	6.38	4.46	5.64	5.36

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Customization

Table 12: EHR products and process services are customized to meet the unique needs of specific practice client purpose, processes, and physician models. Little resistance is encountered when changing performance measurements as clients' needs vary. Extraordinary efforts are made to adapt and convert client special needs into workable solutions with efficient cost and time considerations. EMR software allows for modifications that are not costly or complex.

OVERALL RANK	Q8 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.02	8.93	8.52	9.23	8.93
2	2	NAPIER	7.48	7.91	8.43	7.95	7.94
3	3	ADAPTIVE CAREWARE	8.84	8.05	7.64	6.11	7.66
4	4	CLOUD SOLUTIONS VIDA	6.35	7.03	8.14	6.03	6.89
5	5	INTERSYSTEMS	6.56	6.78	6.73	6.86	6.73
6	6	PHILIPS	5.99	6.47	5.24	5.39	5.77

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Integration and interfaces

Table 13: EHR vendor supports interfaces so information can be shared between necessary applications. Solutions are easily integrated to existing backend systems as needed and HIE feasible. Seamless interfaces to legacy applications are performed as required for optimal functioning. Human integration and interface activities are administered precisely. Systems communicate effectively among provider groups and ancillaries. True interoperability with other healthcare organizations is factored into implementation.

OVERALL RANK	Q9 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.24	9.39	9.22	9.05	9.23
2	2	NAPIER	8.88	9.15	8.78	8.25	8.77
3	3	ADAPTIVE CAREWARE	9.11	9.13	8.07	7.6	8.48
4	4	CLOUD SOLUTIONS VIDA	8.31	7.29	9.07	8.77	8.36
5	5	INTERSYSTEMS	7.02	7.44	8.13	7.67	7.57
6	6	PHILIPS	6.75	7.37	6.48	6.12	6.68

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

Scalability, client adaptability, flexible pricing

Table 14: EHR services and solutions vendor provides flexible pricing allowing the client to choose and pay for the precise functionality and services needed. Vendor invests in significant infrastructure and has the ability to provide services to enterprise organizations. IT products and services meet the changing and varied needs of the EHR customer. Pricing is not rigid or shifting and meets needs of client.

OVERALL RANK	Q10 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.45	9.23	9.77	9.65	9.53
2	2	NAPIER	9.03	9.01	8.75	8.95	8.94
3	3	ADAPTIVE CAREWARE	8.94	8.93	7.94	8.55	8.59
4	4	CLOUD SOLUTIONS VIDA	8.36	8.35	8.84	8.15	8.43
5	5	INTERSYSTEMS	8.05	8.04	7.38	7.73	7.80
6	6	PHILIPS	6.04	6.24	6.54	6.04	6.22

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Vendor staff expertise, compensation, and employee performance

Table 15: EHR vendor team of employees is considered top in industry for professionalism and skill. Vendor attracts and retains high performing staff. Vendor is focused on building and developing a strong employee team of producers. Employees act like owners/leaders. Company is moving towards leveraged pay at all levels. Vendor is using effective tools to tie performance metrics to compensation policy and compensating top leaders. Human resources-related criteria are scored from the client perspective on this indicator.

OVERALL RANK	Q11 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.34	9.21	7.98	8.95	8.87
2	2	NAPIER	8.65	8.62	8.42	8.93	8.66
3	3	ADAPTIVE CAREWARE	7.45	7.89	7.54	7.36	7.56
4	4	CLOUD SOLUTIONS VIDA	8.11	7.22	8.03	6.62	7.50
5	5	INTERSYSTEMS	6.95	7.32	7.15	7.04	7.12
6	6	PHILIPS	5.77	6.13	5.92	7.44	6.32

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Reliability

Table 16: EHR supplier meets agreed terms as evidenced by routine, acceptable service level reporting and industry expectations. Depth and breadth of applications/solutions are acceptable in meeting client needs. Online reliability meets expectations and outages/downtimes are minimized. Solid product and service capacities are demonstrated consistently. Service levels are consistently met as agreed. Services and support response is expedient, and resources are appropriately provided by vendor team.

OVERALL RANK	Q12 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.25	9.15	9.02	8.87	9.07
2	2	NAPIER	8.91	9.05	9.16	9.04	9.04
3	3	ADAPTIVE CAREWARE	9.16	9.29	8.76	8.02	8.81
4	4	CLOUD SOLUTIONS VIDA	7.05	7.82	6.99	7.96	7.46
5	5	INTERSYSTEMS	8.24	7.02	7.24	7.16	7.42
6	6	PHILIPS	6.67	7.34	6.74	6.48	6.81

Source: Black Book™ 2024



## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Brand image and marketing communications

Table 17: EHR vendor's marketing and sales statements/pitches are accurately and appropriately represented by actual EMR product and service deliverables. The image is consistent with top EHR rankings. Sales presentations and proposals are delivered upon and corporate integrity/honesty in marketing and business development are highly valued. Company image and integrity are values upheld top-down consistently. The elevated level of relevant client communications enhances the EHR vendor – EHR user relationship.

OVERALL RANK	Q13 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN-
1	1	ORACLE HEALTH	9.34	9.82	9.84	9.15	9.54
2	2	NAPIER	8.64	9.17	9.54	8.16	8.88
3	3	ADAPTIVE CAREWARE	9.02	8.47	8.25	9.28	8.76
4	4	CLOUD SOLUTIONS VIDA	7.94	9.54	8.17	7.88	8.38
5	5	INTERSYSTEMS	7.02	7.95	9.15	7.93	8.01
6	6	PHILIPS	7.29	7.78	7.34	7.07	7.37

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Marginal value adds

Table 18: Beyond stimulus achievement, EHR vendors' cost savings are realized as generally estimated and not over-positioned or overestimated in ways that effect major client satisfaction or costs. Vendor offers value-adds as a practice management partner in cost savings and avoidance initiatives and creative programs through bundled EMR product design. Provides true business transformation opportunities to physician practices and other medical settings utilizing EHR.

OVERALL RANK	Q14 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.05	9.24	9.65	9.62	9.39
2	2	NAPIER	9.45	9.17	9.11	9.06	9.20
3	3	ADAPTIVE CAREWARE	8.98	9.54	8.28	9.56	9.09
4	4	CLOUD SOLUTIONS VIDA	9.15	8.84	8.02	8.54	8.64
5	5	INTERSYSTEMS	8.95	9.15	8.25	8.02	8.59
6	6	PHILIPS	8.09	7.77	8.18	7.21	7.81

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Viability and managerial stability

Table 19: Vendor’s viability, employee turnover, financial stability and/or cultural mismatches do not threaten relationship. Senior management and the board exemplify strong leadership principles to steward appropriate resources that impact EHR buyers. Client is confident of long-term industry viability for this vendor based on investments, client adoption, exceptional outcomes and service levels. Field management is notably competent, stable, and supportive of clients. EHR vendor demonstrates and provides evidence of competent fiscal management and leadership.

OVERALL RANK	Q15 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.91	9.74	9.98	9.72	9.84
2	2	NAPIER	9.57	9.25	9.41	9.92	9.54
3	3	ADAPTIVE CAREWARE	9.24	9.56	9.64	9.22	9.42
4	4	CLOUD SOLUTIONS VIDA	8.88	8.56	8.24	8.11	8.45
5	5	INTERSYSTEMS	8.18	7.83	7.03	8.78	7.96
6	6	PHILIPS	5.78	6.34	6.81	6.39	6.33

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Data security and backup services

Table 20: To provide secure and constantly dependable EMR service offerings for physician and hospital/IDN affiliate practices and entities, an EHR vendor has to provide the highest level of security and data back-up services. EHR vendor's service in these two areas is superior to the security and back-up system of past internal systems of the physician practice.

OVERALL RANK	Q16 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.02	9.25	8.29	8.92	8.87
2	2	NAPIER	8.98	9.18	7.98	8.66	8.70
3	3	ADAPTIVE CAREWARE	7.35	7.74	8.03	7.69	7.70
4	4	CLOUD SOLUTIONS VIDA	6.89	7.27	7.76	7.34	7.32
5	5	INTERSYSTEMS	7.43	7.84	5.43	7.93	7.16
6	6	PHILIPS	5.53	7.45	6.41	5.98	6.34

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

#### Support and customer care

Table 21: Account management provides an adequate amount of onsite administration and support to clients. There exists a formal EHR account management program that meets client needs. Media and clients reference this vendor as an EMHR services leader and top vendor correctly. Customer services and relationship satisfaction is manifested through significant flagship clients as well as smaller and newest customers similarly. Vendor provides appropriate number of accessible support and customer care personnel.

OVERALL RANK	Q17 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.03	9.65	9.55	9.92	9.54
2	2	NAPIER	9.26	9.28	7.93	8.24	8.68
3	3	ADAPTIVE CAREWARE	8.15	7.02	8.32	8.14	7.91
4	4	CLOUD SOLUTIONS VIDA	6.46	7.44	6.83	7.46	7.05
5	5	INTERSYSTEMS	7.11	6.35	6.76	6.54	6.69
6	6	PHILIPS	7.42	6.63	5.77	6.13	6.49

Source: Black Book™ 2024

## INDIVIDUAL EHR VENDOR KEY PERFORMANCE

### MIDDLE EAST

Best of breed technology and process improvement developments

Table 22: EHR management and related technology services are considered best of breed. EHR Vendor technology elevates customers via capabilities, equipment, processes, deliverables, professional staff, leadership, quality assurance and innovative initiatives. EHR services are delivered at or above current/former in-house service levels. Technology is current and relevant to exchanging health information among providers, as well as sufficiently offering patient access.

OVERALL RANK	Q18 CRITERIA RANK	EHR COMPANY	PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING	COMMUNICATIONS & CONNECTIVITY	ORDER ENTRY & MANAGEMENT	DECISION SUPPORT & RESULTS REVIEW/ MANAGEMENT	MEAN
1	1	ORACLE HEALTH	9.85	9.28	9.43	9.28	9.46
2	2	NAPIER	7.96	7.92	8.34	8.02	8.06
3	3	ADAPTIVE CAREWARE	6.77	7.27	6.74	7.34	7.03
4	4	CLOUD SOLUTIONS VIDA	7.42	7.78	6.66	5.76	6.91
5	5	INTERSYSTEMS	7.21	7.06	6.14	6.87	6.82
6	6	PHILIPS	6.05	5.76	5.36	5.46	5.66

Source: Black Book™ 2024

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