2021

THE STATE OF THE GLOBAL SPANISH LANGUAGE ELECTRONIC HEALTH RECORDS & HEALTHCARE IT ADOPTION

MEXICO
CENTRAL AMERICA
SOUTH AMERICA
SPAIN

BLACK BOOK™ MARKET RESEARCH

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About Us

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, pharmaceutics, 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 650,000 healthcare IT users are invited to contribute. Suppliers also encourage their clients to participate to produce 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

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Our Expertise

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

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-

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
- Variety of surveying techniques: 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.

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Black Book's unrivaled objectivity and credibility is perhaps your greatest assurance. We have no incentive to recommend specific EHR software vendors. Our only allegiance is to help you achieve the results you want with the best possible solution.

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Abbreviations Used

CAGR	Compound Annual Growth Rate
EHR	Electronic Health Record
EMR	Electronic Medical Record
GDP	Gross Domestic Product
HIE	Health Information Exchange
HIMSS	Healthcare Information and Management Systems Society
HISN	Healthcare Informatics Society of Nigeria
HIT	Health Information Technology
IT	Information Technology
KPI	Key Performance Indicator
LTC	Long-term Care
NHI	National Health Insurance
PACS	Picture Archiving and Communication System
PHR	Personal Health Record
SUS	Sistema Único de Saúde (Unified Health System)
WHO	World Health Organization

Executive Summary

Global Electronic Health Records

The 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 players profiled in the big data analytics in healthcare market report include Allscripts, Cerner, InterSystems, ChipSoft, Orion Health, Everis, and Neusoft. These players have adopted various strategies such as merger & acquisition or strategic alliance 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 market are rising 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 market. In addition, the regulations and approvals by government imposed on the product can challenge the industrial growth.

Though vendors operating across the big data analytics in healthcare market are concentrating on bringing interoperability and better health information technology through big data analytics to hospitals and health systems, their customers are still focusing mostly on securing the sensitive health data, ensuring patient safety and improving operational efficiencies. Furthermore, growth in awareness about adopting population health management and clinical analytics is boosting the growth of this market.

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 with value chain has been taken into account to help in understanding the competitive environment across the geographies.

- Region-wise and country-wise 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 drive 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 market is provided with key market dynamic factors that 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. We not only engrave the deepest levels of global markets but also sneak through its slimmest details. Black Book™ surveyed 1,809 physicians, health administrators, technology managers and clinical leaders in ambulatory and inpatient settings across thirteen foreign countries to help global stakeholders identify gaps, challenges and successes in healthcare IT adoption and EHR systems connectivity. Our approach helps in building greater market consensus view for size and industry trends within each industry segment.

Twenty-one 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. We carefully factor in industry trends and real developments for identifying key growth factors and forecasted opportunities. Our research process is designed to deliver balanced view of the global markets and allow stakeholders to make informed decisions to attain KPIs. We offer our clients exhaustive research and analysis based on wide variety of factual inputs which largely include interviews with industry participants, reliable statistics and regional intelligence. Our in-house industry experts play instrumental role in collecting data that enhance the accuracy of our recommendations and advice. With a strong methodology we are, therefore, confident that our research and analysis are most reliable and guarantees sound business planning.

Citations

Colleti, Jose, Alice Barone de Andrade, and Werther Brunow de Carvalho. *Evaluation of the use of Electronic Medical Record Systems.* Brazil, 2018. Web. 1 June 2020.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6180478/

VENDOR PERFORMANCE ANALYSIS

BLACK BOOK METHODOLOGY

HOW THE DATA SETS ARE COLLECTED

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 are 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 people. In this way, Black Book's clients can clearly 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 organization, hospital software, services providers, educational providers in e-health, bench markers and advisors. These specific survey areas range from four to 20 questions or criteria each.

UNDERSTANDING THE STATISTICAL CONFIDENCE OF BLACK BOOK DATA

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 ten unique clients represented. Broad categories require a minimum of 20 unique client ballots. Data that are asterisked (*) represent a sample size below required limits and are intended to be used for tracking purposes only, not ranking purposes. Performance data for an asterisked vendor's services can vary widely until a larger sample size is achieved. The margin of error can be very large, and the reader is responsible for considering the possible current and future variation (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

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 2021 annual Black Book EMR EHR e-Health initiative satisfaction survey. Non-invitation receiving participants must complete a verifiable profile, utilize valid corporate email address and are then included as well.
The Black Book survey web instrument is open to respondents and new participants each year at http://blackbookrankings.com and mobile applications from iTunes and GooglePlay. Only one ballot per corporate or public agency email address is permitted per location and changes of ballots during the open polling period require a formal email request process to ensure integrity.

The members of 18 professional healthcare associations, 9 media outlets and returning participants with previous identification verifications are among those invited to surveys. Nearly 50,000 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 7,000 about-to-be users and those in the replacement phases to a non-original system EHR and HIT answered questions about budgeting, vendor familiarity and vendor selection processes but current non-user ballots are not counted in the vendor ranking process of client satisfaction.

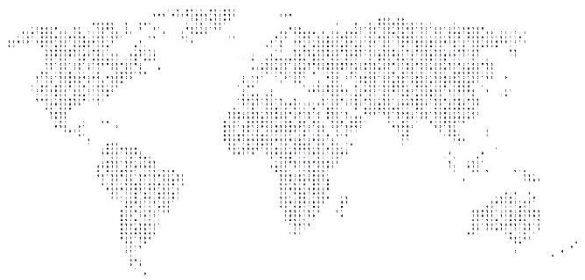
GLOBAL EHR/HIT OVERVIEW

2021

The development of health information technology has been a major project around the globe. Though there has been some recent collaboration among countries and their progress concerning 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. Here we will focus on thirteen countries across six continents and their methods of EHR development thus far and their successes and failures in their attempts to implement this technology. They have made a huge investment in resources and time in order to develop EHR technology because health IT adoption is extremely important for healthcare systems around the globe. Electronic health records offer the promise of system-wide quality improvement, cost containment, and overall improved access to care.

The global big data analytics in healthcare market is projected to witness significant growth, especially in North America and Europe due to increase in adoption of big data analytics and rise in need for business intelligence in the healthcare industry across these regions. The big data analytics in healthcare market is projected to grow at a CAGR of 19.1% from 2018 to 2025, owing to increase in regulatory compliance and rise in need for business intelligence to optimize health administration. Big data analytics in healthcare market in several European and Asia-Pacific countries, including Finland, Sweden, China, Japan, and many others, possess high market potential due to strong government support and increase in cloud adoption among the end users.

The number of EHR vendors has diminished in recent years following numerous mergers and acquisitions dropping from 1,000-plus 10 years ago to approximately 400 now, according to KLAS Research, a Utah-based health IT review firm. They expect more vendor consolidation in the near future. This fact could 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 are sure to cause a loss in productivity. For this reason, physicians must know how to handle and relocate their current data in case their current vendor makes adjustments. The decrease in the number of EHR vendors is not all negative. Consolidation could yield benefits such as increased interoperability among physician office systems as there will be fewer systems with unique integration requirements. We expect to see a lot more innovation as a result and that's good for doctors and, more importantly, it's good for patients.



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 through the use of 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 growing risk in the areas of patient privacy and data security. It's a daunting challenge, but preparation can help ensure success. Below are some areas of disruption that could impact your medical organization.

Some criticisms include 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's 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 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.

We must expand our current expectations for telemedicine and meaningfully embed this tool into our daily practice. 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 acknowledgement of any red flags. Following this structured framework of questioning (which mirrors that 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 is provided, a few clicks generate sufficient documentation to pay directly. Such platforms furnish evaluation and offer efficient 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 complement and expand our daily healthcare delivery.

When dealing with personal information, medical professionals should consider mandatory business asset protection and risk management. This level of security should be ruled out to devices that combine hardware and software for a specific medical or administrative function and electronic data storage devices and backups. As healthcare becomes more wired and interconnected, cybersecurity has become a primary concern of hospitals. Healthcare facilities have been the target of many high-profile attacks that have cost millions and can cause a major disruption in patient care since its systems are shut down or data is blocked by hackers. For this reason, many vendors highlighted their security software for ancillary devices that are connected to the EMR, PACS or hospital information systems. The vendors whom they partnered with must select top-notch professional IT support that includes security software and online security training for their staff.

On the topic of safety, some medical practitioners are considering accepting online payments. According to 2018 data compiled by MedData, 83% of physician practices with fewer than five practitioners reported that their top collection challenge was slow payment among high-deductible plan patients. Physicians should take advantage of some form of online payment service, whether an app or a patient portal. Patients use smartphones for so many purchases it only makes sense that they want to pay for their healthcare that way. When we offer more convenience to a patient, the more likely the patient will participate. PayPal or a bank's basic shopping cart function may be of assistance in this case. It is recommended to have a tight integration between your payment app and your practice management system. Such an

execution must be carefully assessed as they may cause violations; such as those covered under 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 should be focused on single medical facilities and hospitals. In order to successfully optimize this complex technology and eventually address the difficult task of interoperability across a country, individual systems must be fully operational, and all medical professionals need to have a firm understanding of how this technology works. While hospitals and health care providers are focusing on fully optimizing this technology internally, the government and state officials should begin collaborating on how to make interoperability successful and allow this technology to abide by all state privacy laws.

Citations

Castillo, Anabel, Marvin Sirbu, and Alexander L. Davis. *Vendor of Choice and the Effectiveness of Policies to Promote Health Information Exchange.* USA, 2018. Web. 1 June 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5987601/

LATIN AMERICA

2021

Are Electronic health record systems more likely to be implemented today in Latina 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 Latina American countries such as Mexico. Continuous technology 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.

EHR Status

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.[1]

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 mainly benefits patients. There were important 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 in order 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.[1]

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

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 is primarily urban: 79% of the population lives in urban areas. Mexico’s rapid urbanization coupled with increased population dispersion of rural communities’ compound challenges related to healthcare access for small isolated communities. Mexico also has a large indigenous population, approximately 10% of the total population, which is concentrated in the 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.[2]

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 by 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 increased care provision.

Government spending on healthcare in Mexico is low 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 2013, 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.[3]

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.

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

Constraints

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.

Our 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 whom 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.[2]

Opportunities

Supportive ecosystem factors encompass a number of healthcare innovators in Mexico that are using technology to increase reach to patients in a more efficient manner via telemedicine and enhance access to provider information. An example is MedicalHome, 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. MedicallHome is a subscription model, and users also receive access to a national network of clinics, labs, and hospitals at substantial discounts. The MedicallHome 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]

Citations

[1] Hernandez-Avila, Juan, et al. *Assessing the process of designing and implementing electronic health records: Mexico.* USA, 2012. Web. 19 May 2021. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3638180/

[2] ManattJones Global Strategies. *Mexican Healthcare System Challenges and Opportunities.* 2015. Web. 19 May 2021. https://www.wilsoncenter.org/sites/default/files/mexican_healthcare_system_challenges_and_opportunities.pdf

[3] Tafel, Rich. *Mexico's Businesses Cooperation: a Global Model for Health Care Innovation.* USA, 2011. Web. 19 May 2021. https://ssir.org/articles/entry/mexicos_businesses_cooperation_a_global_model_for_health_care_innovation

MEXICO & LATIN AMERICA VENDOR PERFORMANCE RATINGS 2021

2021 EHR SURVEY RESPONSE RATES BY PRACTICE/ORGANIZATION TYPE, VALIDATED SYSTEM USERS
159 RESPONDENTS, 138 FACILITIES REPRESENTED

2021 SURVEY RESPONDENT IDENTIFICATION	PERCENT OF TOTAL RESPONSES
Physician/Clinician Name	7%
Clinic/Practice Name	23%
Public Clinic	16%
Health System Clinic	24%
Academic Hospital and Medical Centers over 250 Beds	16%
Community Hospitals	7%
Small Hospitals under 100 Beds	0%
Ambulatory Surgery Centers	7%
TOTAL	100%

Source: Black Book™ 2021

2021 RESULTS

ELECTRONIC HEALTH RECORDS & PRACTICE TECHNOLOGY

HEALTH INFORMATION SYSTEMS

STOP LIGHT SCORING KEY

2021 TOP OVERALL AMBULATORY EHR EMR HIT VENDOR HONORS

MEXICO & SPANISH SPEAKING LATIN AMERICA

HARMONI MD MEDWAVE

FUNCTIONAL SUBSET HONORS: TOP VENDORS FOR MEXICO

TOP VENDOR: PATIENT HEALTH DATA MANAGEMENT & ADMINISTRATIVE PROCESSING

HARMONI MD MEDWAVE

TOP VENDOR: INTEROPERABILITY, COMMUNICATIONS AND CONNECTIVITY

MV SOUL

TOP VENDOR: ORDER ENTRY AND MANAGEMENT

HARMONI MD MEDWAVE

TOP VENDOR: RESULTS REVIEW/MANAGEMENT AND DECISION SUPPORT

EVERIS

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

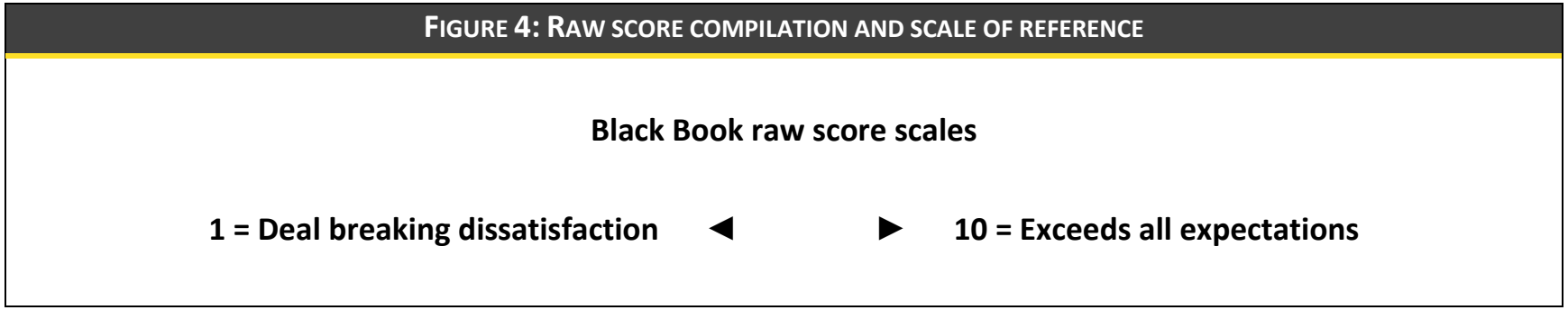
STOP LIGHT SCORING KEY

FIGURE 3: COLOR-CODED STOP LIGHT DASHBOARD SCORING KEY	
Green **8.71 +**	**(Top 10%) scores better than 90% of EHR vendors. Green coded vendors have received constantly highest client satisfaction scores.**
Clear	**(Top 33%) scores better than 67% of EHR vendors. Well-scored vendor which have middle of the pack results.**
Yellow **5.80 to 7.32**	**Scores better than half of EHR vendors. Cautionary performance scores, areas of improvement required.**
Red **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

FIGURE 4: RAW SCORE COMPILATION AND SCALE OF REFERENCE



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

MEXICO & LATIN AMERICA

Summary of criteria outcomes

TABLE 1: SUMMARY OF CRITERIA OUTCOMES

Total number one criteria ranks	Vendor	Overall rank
10	HARMONI MD MEDWAVE	1
5	MV SOUL	2
3	EVERIS	3

Source: Black Book Research

OVERALL KPI LEADERS: AMBULATORY EHR

MEXICO & LATIN AMERICA

Top score per individual criteria

TABLE 3: TOP SCORE PER INDIVIDUAL CRITERIA

Questions	Criteria	EHR Vendor	Overall
1	Strategic Alignment of Client Goals	HARMONI MD MEDWAVE	1
2	Innovation & Optimization	HARMONI MD MEDWAVE	1
3	Training	EVERIS	3
4	Client relationships and cultural fit	MV SOUL	2
5	Trust, Accountability, Transparency, Ethics	HARMONI MD MEDWAVE	1
6	Breadth of offerings, client types, delivery excellence	MVC SOUL	2
7	Deployment and outsourcing implementation	HARMONI MD MEDWAVE	1
8	Customization	EVERIS	3
9	Integration and interfaces	HARMONI MD MEDWAVE	1
10	Scalability, client adaptability, flexible pricing	EVERIS	3
11	Compensation and employee performance	HARMONI MD MEDWAVE	1
12	Reliability	MV SOUL	2
13	Brand image and marketing communications	MV SOUL	2
14	Marginal value adds and modules	HARMONI MD MEDWAVE	1
15	Financial & Managerial Viability	HARMONI MD MEDWAVE	1
16	Data security and backup services	MV SOUL	2
17	Support and customer care	HARMONI MD MEDWAVE	1
18	Best of breed technology and process improvement	HARMONI MD MEDWAVE	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 & LATIN AMERICA	DELIVERED ON EXPECTATIONS	IMPLEMENTATION ON TIME	TOTAL COST OF OWNERSHIP ON BUDGET
1	HARMONI MD MEDWAVE	A	B	B
2	MV SOUL	B	A	B
3	EVERIS	A	C	D
4	INTERSYSTEMS	C	B	B
5	PHILIPS	C	C	C
6	IBM	C	B	D
7	CERNER	D	C	D

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	HARMONI MD MEDWAVE	9.65	9.49	9.83	9.83	9.70
3	2	EVERIS	9.53	9.80	9.55	8.24	9.28
2	3	MV SOUL	9.24	9.39	9.87	8.33	9.21

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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 MEDWAVE	9.22	9.73	8.54	9.03	9.13
2	2	MV SOUL	9.41	9.24	7.10	7.82	8.38
3	3	EVERIS	8.42	8.78	6.90	8.05	8.04

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	EVERIS	8.01	8.83	9.59	8.04	8.62
2	2	MV SOUL	8.39	8.70	9.10	7.45	8.39
1	3	HARMONI MD MEDWAVE	8.39	8.22	8.49	8.09	8.30

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	MV SOUL	9.53	9.15	9.62	9.40	9.43
1	2	HARMONI MD MEDWAVE	8.99	9.19	8.72	8.35	8.81
3	3	EVERIS	9.28	9.34	8.21	8.10	8.73

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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 MEDWAVE	9.82	9.66	9.22	9.42	9.53
2	2	MV SOUL	8.79	8.72	7.79	9.24	8.64
3	3	EVERIS	8.09	8.98	7.48	9.61	8.54

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	MV SOUL	9.28	9.83	9.42	9.44	9.49
1	2	HARMONI MD MEDWAVE	8.87	8.88	8.59	9.13	8.87
3	3	EVERIS	8.45	8.06	8.10	9.65	8.57

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	HARMONI MD MEDWAVE	9.51	9.61	9.33	9.55	9.50
3	2	MV SOUL	8.64	8.75	7.84	8.42	8.41
2	3	EVERIS	8.88	8.51	8.64	6.91	8.24

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	EVERIS	8.89	8.92	8.83	9.72	9.09
1	2	HARMONI MD MEDWAVE	9.22	9.33	8.91	8.22	8.92
2	3	MV SOUL	8.26	9.10	8.16	8.59	8.53

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	HARMONI MD MEDWAVE	8.88	9.51	8.71	9.14	9.06
2	2	MV SOUL	9.17	9.15	8.75	9.10	9.04
3	3	EVERIS	8.73	8.86	7.66	8.40	8.41

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	EVERIS	9.72	9.87	9.18	9.29	9.52
1	2	HARMONI MD MEDWAVE	9.32	9.37	8.37	9.77	9.21
2	3	MV SOUL	7.91	9.50	9.85	8.68	8.99

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	HARMONI MD MEDWAVE	9.47	9.12	8.22	8.94	8.94
3	2	EVERIS	9.14	9.36	8.46	8.41	8.84
2	3	MV SOUL	8.93	9.09	8.28	8.02	8.58

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	MV SOUL	9.80	9.79	9.85	8.17	9.40
1	2	HARMONI MD MEDWAVE	9.68	9.38	8.92	9.58	9.39
3	3	EVERIS	9.05	8.86	6.90	9.77	8.65

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	9.09	9.72	9.65	9.67	9.53
1	2	HARMONI MD MEDWAVE	9.33	9.88	9.05	9.64	9.48
3	3	EVERIS	9.04	9.05	8.63	9.46	9.05

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	HARMONI MD MEDWAVE	9.71	9.64	9.43	9.66	9.61
3	2	EVERIS	8.36	7.26	9.54	8.58	8.44
2	3	MV SOUL	7.31	7.87	6.33	6.94	7.11

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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 principals 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	HARMONI MD MEDWAVE	9.70	9.60	9.42	9.69	9.60
3	2	EVERIS	9.43	9.19	8.89	9.07	9.15
2	3	MV SOUL	9.30	9.64	9.67	7.99	9.15

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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	MV SOUL	8.62	8.63	8.24	9.23	8.68
1	2	HARMONI MD MEDWAVE	9.26	8.99	7.66	8.00	8.48
3	3	EVERIS	8.14	8.91	7.94	8.05	8.26

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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 MEDWAVE	9.16	9.59	9.43	9.34	9.40
3	2	EVERIS	9.92	9.14	9.12	9.06	9.31
2	3	MV SOUL	8.93	9.48	9.13	9.01	9.14

Source: Black Book™ 2021

INDIVIDUAL EHR VENDOR KEY PERFORMANCE

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 MEDWAVE	8.82	8.87	8.08	8.97	8.69
3	2	EVERIS	8.83	8.02	7.83	9.42	8.50
2	3	MV SOUL	8.01	8.07	6.41	6.67	7.29

Source: Black Book™ 2021

Black Book market research surveys & IT user polling

We hope that the data and analysis in this report will help you make informed and imaginative EMR/EHR business decisions. If you have further requirements, the Black Book research team may be able to help you. For more information about Black Book's custom survey capabilities, please contact us directly at info@blackbookmarketresearch.com

Universally sourced throughout this document:

- The Commonwealth Fund
- United States Central Intelligence Agency World Fact Book 2021

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Black Book Rankings, a division of Black Book Market Research LLC, provides healthcare IT users, media, investors, analysts, quality minded vendors, and prospective software system buyers, pharmaceutical manufacturers, and other interested sectors of the clinical technology industry with comprehensive comparison data of the industry's top respected and competitively performing technology vendors. The largest user opinion poll of its kind in healthcare IT, Black Book™ collects over 650,000 viewpoints on information technology and outsourced services vendor performance annually. Black Book was founded in 2003, is internationally recognized for over 15 years of customer satisfaction polling, particularly in technology, services, outsourcing and offshoring industries.

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