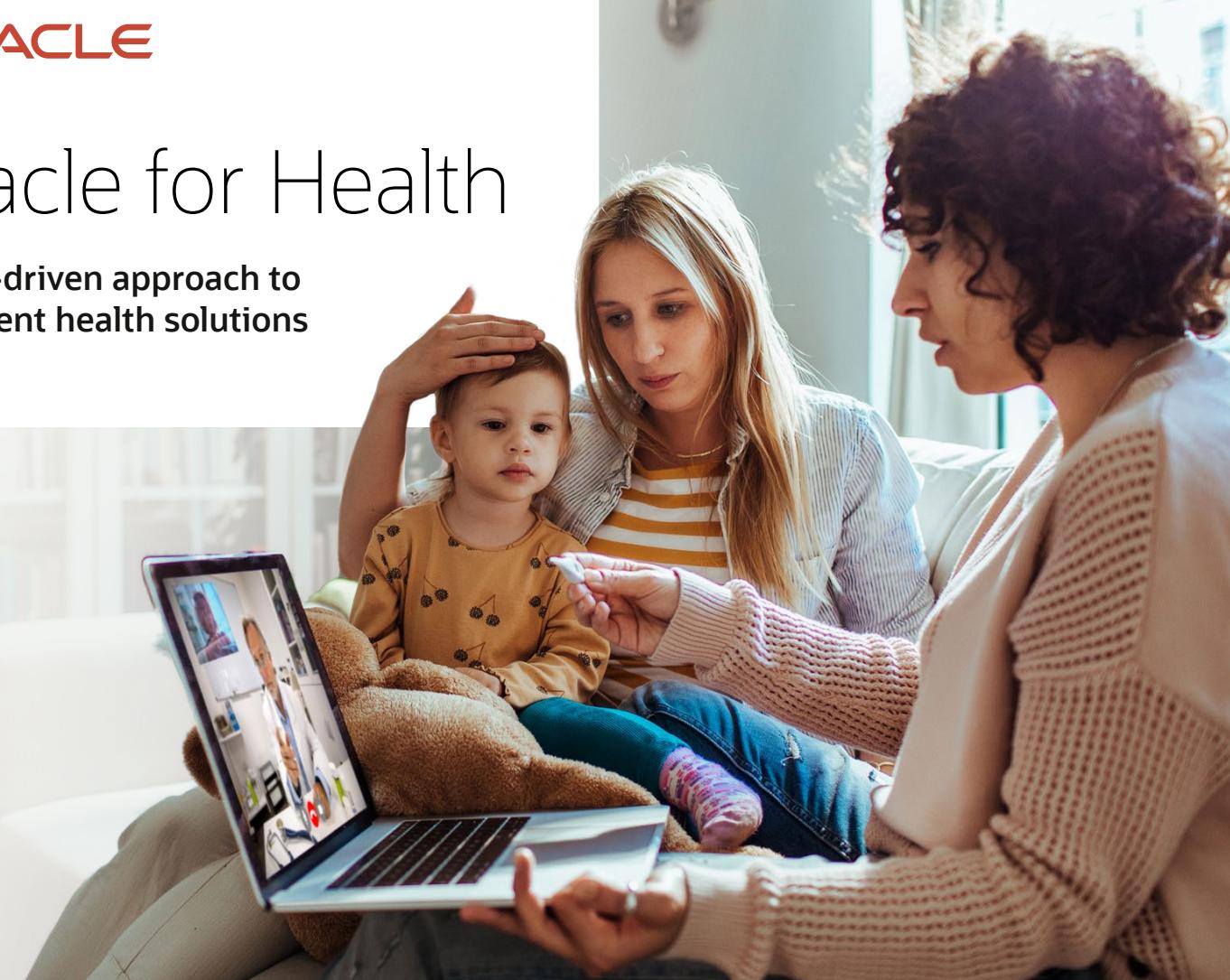**ORACLE**

Oracle for Health

A data-driven approach to intelligent health solutions

The global health industry is transforming rapidly to meet numerous challenges. But for many organizations, this transformation is impeded by key patient, financial, and operational data locked in legacy silos which hinder all efforts to improve. The good news is that solutions are within reach to unify and unleash that data, helping health organizations meet today's challenges and prepare for those to come.

5 key challenges facing
health organizations

The health industry is vast, complex, and highly regulated, and health organizations must adapt to rapidly changing demographics, care expectations, technological innovations, and regulations or risk falling behind competitors—all while delivering safe and equitable care and controlling costs.

Successful health enterprises are focused on overcoming five main challenges: unifying health data, automating health services, becoming more patient-centric, attracting and retaining top talent, and making care more equitable for all.

1 Unify health data

Health services require precise data tracking, logging, analysis, and testing, perhaps more than any other industry, as every piece of data, from population health metrics to information about an individual's daily meals and activities, is valuable.

The dynamic forces acting on the health market have forced organizations to rapidly adopt new technologies to automate data collection, aggregate all health data, regardless of its source, and build unified profiles and models to ensure key data is available whenever and wherever it's needed.
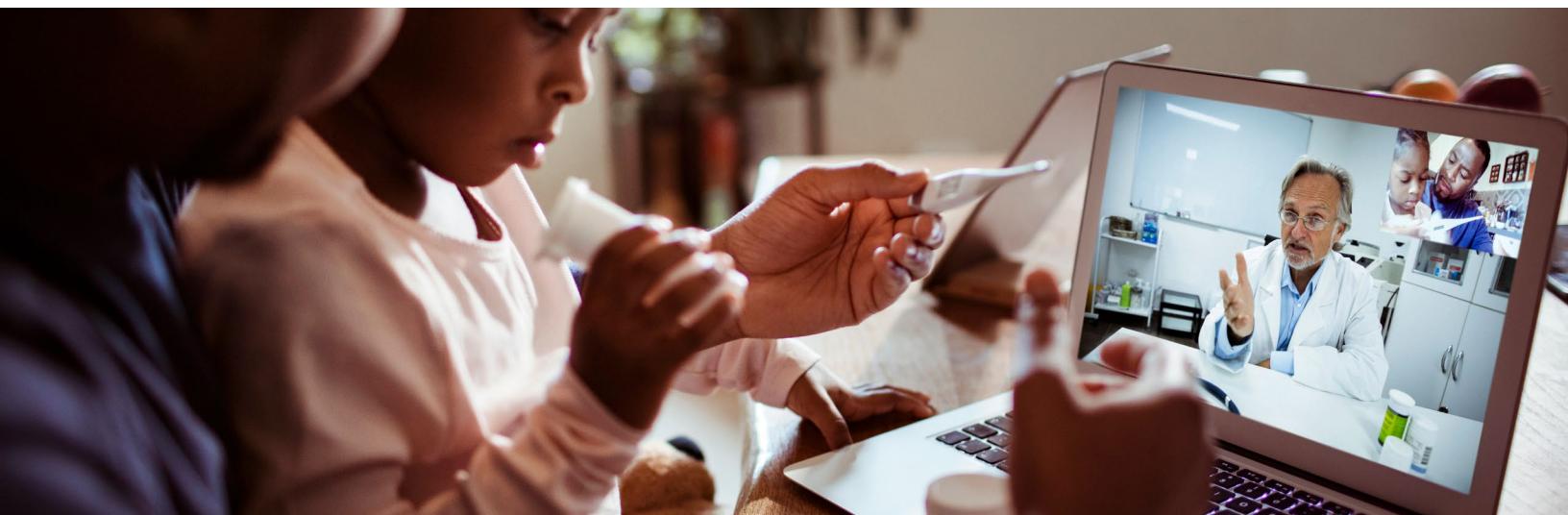
The ability to construct consolidated, comprehensive, current health profiles is critical for organizations aiming to expand care models and improve efficiency. Complete data sets open rich discovery opportunities, support innovation, and enable outcome-driven, equitable care models that can propel beneficial shifts in patient lifecycle management, research, and health service delivery. Innovations in AI, analytics, and the Internet of Medical Things can aid preventive medicine initiatives by enabling clinicians to identify changes in conditions early and perform intelligent, timely interventions.

To reap the benefits of complete data sets, health organizations must not only unify data from research, partner, patient, care, and operations but also make it available in a secure and compliant manner. Only then can care teams, researchers, and staff use it in meaningful ways.

2 Automate health services

Complex challenges require well-constructed, intelligent solutions. Health organizations recognize that reaching their core operating goals and strategic targets requires digital transformation to give them a single source of truth for health data, help them optimize their technology investments, and improve efficiency. Solutions that share common process definitions and a single data model finally allow organizations to effectively connect the many fragmented systems and activities involved in delivering health services.

This unified foundation enables the intelligent automation of common but critical tasks. Automation that not only reduces manual tasks and data collection but also helps improve task selection, timely execution, and the quality of outcomes—all while informing organization wide decision-making processes—is essential to keep pace in a competitive market.

3 Deliver patient-centric care and services

As health organizations pursue opportunities to expand, competition for patient spending is increasing. Today's consumers, whether patients or broader communities, can choose their service programs from a wide variety of options based on their personal preferences and care needs, cost, hospital and provider ratings, and patient experiences shared on social media and other websites.

Providers realize it's no longer sufficient to take a transactional approach to delivering care. Their focus is now on pursuing profitable opportunities to engage patients, staff, and communities both inside and outside care facilities and across the entire continuum of care. By delivering high-value experiences throughout patients' lifelong wellness journeys, organizations can expand their services, deepen relationships with both patients and communities, and promote improved outcomes.

4 Attract top talent and create an environment for growth

Health organizations face immense staffing challenges at every level. Much has been said about the competition for clinicians and skilled caregivers, but it's just as challenging to hire researchers, facility maintenance staff, IT professionals, and executive management.

Not only do organizations struggle to attract and hire workers, but they also face additional challenges developing and retaining them—understandably so. In an industry where workers operate in continually changing conditions with universally high levels of stress, it's no surprise that burnout is an industrywide problem. And the forces putting pressure on health organizations and their staff, which include mergers, expansions, regulatory and operational changes, and the ongoing impact of COVID-19, are expected to persist for the foreseeable future as our population ages and care demands continue to expand.

5 Support equitable health outcomes

Health services costs correlate not only to age but also a multitude of socioeconomic variables. Income, citizenship status, education level, employment status, gender, location, and other factors all impact service costs, delivery expectations, and health organizations' ability to deliver appropriate care to everyone in a community, regardless of their specific situation.

As the population expands and ages and organizations commit to achieving equitable health outcomes, more services will be needed, more skilled workers will be required, and substantially more money will be spent. What was once recognized as a huge business opportunity is now a major challenge as providers worldwide work to scale their organizations to successfully meet demand. To do so, they will need more-complete data visibility and more-accurate planning tools to optimize their operations, particularly as governments and insurance companies increasingly seek to reduce costs throughout service delivery models.

Unified health data supports health organizations' visions of success

- Equitable, affordable, high-quality care based on fast and accurate operational and financial planning.

- More-engaged skilled clinicians and staff and less burnout.

- Unified data across all systems, providing administrators, clinicians, and patients with one complete view and the ability to share aggregated information safely and securely with authorized research and policy personnel.

- Modern, open, and accessible health management systems with intuitive applications that create a single private, secure lifelong health record for patients.

- Stronger collaboration and intelligent insights to make healthcare more holistic, accessible, and safe.

Oracle solves the most-complex problems in health

Oracle empowers health organizations to innovate faster, improve supply chain resilience, and redefine the care experience. Build a foundation for long-term success with our integrated application suite and Oracle Cloud Infrastructure (OCI), a complete cloud platform for every workload—both built using our security-first approach.

Our applications span every area of the business, including enterprise resource planning (ERP), enterprise performance management (EPM), human capital management (HCM), customer experience (CX), and supply chain management (SCM). Oracle Health applications extend their capabilities to help organizations improve the quality of care and patient and clinician experiences while enhancing clinical, operational, and financial efficiency. Our single, enterprise wide view of clinical information helps clinicians access the right information at the right time, with intelligent insights to help them make better decisions.

Our applications run on a single infrastructure and are modular, so health organizations can use one application at a time or several at once, giving them the flexibility to effectively meet their current business needs and tap into new capabilities as those needs change.

Oracle Fusion Cloud Applications					
	Modern applications to transform business capabilities	Enhance employee engagement through hiring, upskilling, and retention	Support higher expectations for equitable and quality care	Maintain agile operations as demographics drive changing priorities	Accelerate innovation, technology acquisition and AI integration
Supply Chain Management (SCM)					
Oracle Fusion Cloud Supply Planning	x		x		x
Oracle Fusion Cloud Demand Management	x		x	x	x
Oracle Fusion Cloud Sales and Operations Planning	x			x	x
Oracle Fusion Cloud Order Management	x		x	x	x
Oracle Fusion Cloud Inventory Management	x		x	x	x
Oracle Fusion Cloud Product Lifecycle Management	x		x	x	x
Oracle Fusion Cloud Maintenance	x		x	x	x
Oracle Fusion Cloud Manufacturing	x				
Oracle Fusion Cloud IoT Intelligent Applications	x		x	x	x
Oracle Fusion Cloud Quality Management	x			x	x
Oracle Intelligent Track and Trace	x			x	x
Oracle Logistics	x			x	x
Enterprise Resource Planning (ERP)					
Oracle Fusion Cloud Procurement	x		x		x
Oracle Fusion Cloud Financials	x	x	x	x	x
Oracle Fusion Cloud Project Management	x	x		x	x
Oracle Fusion Cloud Subscription Management	x			x	
Enterprise Performance Management (EPM)					
Oracle Fusion Cloud EPM	x	x	x	x	x
ESG Planning & Reporting	x		x	x	x
Human Capital Management (HCM)					
Oracle Core HR	x	x	x	x	x
Oracle Talent Management	x	x	x	x	x
Oracle Payroll	x	x			x
Customer Experience (CX)					
Oracle Sales & CPQ	x			x	x
Oracle Marketing	x	x	x	x	x
Oracle Service & Field Service	x		x	x	x
Oracle Unity	x	x	x	x	x
Fusion Analytics					
Fusion ERP Analytics	x		x	x	x
Fusion SCM Analytics	x			x	x
Fusion HCM Analytics	x	x		x	x
Fusion CX Analytics	x		x	x	x
Oracle Cloud					
Flexible Cloud deployment	x	x	x	x	x
Data Integration	x		x	x	x
AI / ML	x	x	x	x	x
Analytics & BI	x		x	x	x
High Performance Compute	x			x	x

Digitize the business

Oracle Platform Services							
Data	AI/ML	Redwood UX	Content	Chatbots	IoT	Knowledge	Integrations

Oracle Gen 2 Cloud Infrastructure

Extend SaaS	**Integration**	**Analytics**	**Security**	**Autonomous**	**Cloud Native**
Extend functionality or create new apps for unique business needs	Oracle and non-Oracle apps, robotic process automation	Data integration, reporting visualization, data science	Proactive seurity across apps, users, data, OS and infrastructure	Self-driving, self-securing, self-repairing, data management	Modern application development, devops and deployment

Advance health with better information

Oracle Health supports organizationwide modernization and process improvement. Whether your goal is to increase visibility, improve accuracy, lower process cycle times, enable full regulatory and audit accountability, integrate finance and operations, optimize workforce assignments, or engage your patient and consumer populations, Oracle Health's comprehensive application suite can help.

Oracle Fusion Cloud ERP helps strengthen business resilience with accurate supply chain insights; flexible forecasting tools, including the ability to simulate multiple complex scenarios; and effective partner engagement capabilities. End-to-end forecasting based on established business plans enables even complex organizations to quickly identify threats, adjust operations and inventories in real time, and tune their response to ensure they can continue to deliver high-quality care.

Oracle's external purchase price management solution offers an integrated option for healthcare customers. This integration, combined with a flexible decision-making engine, can determine and present a single cost and source for a given product for each requisitioning business unit, reducing manual labor and pricing inaccuracies.

Oracle Fusion Cloud SCM helps health organizations improve planning, more accurately predict demand, simplify supplier management, optimize inventory flow, and quickly respond to product recalls—all of which are key to helping organizations streamline operations, increase profitability, and reduce risk.

Oracle Channel Revenue Management accelerates order-to-cash cycles by addressing the complexities of group purchase contracts and rebate programs. Today, many health organizations overcome these complexities by relying on costly third-party consulting services. A rebate management program that's preintegrated with your ERP supports timely and accurate strategic purchasing decisions, improves forecasting, and helps strengthen supplier relationships.

Oracle Cloud CX leverages unified health data and the electronic health record (EHR) to support health organizations as they engage populations and patients and deliver high-value, trusted, personalized experiences throughout their lifelong health and wellness journeys.

"The Oracle Cloud Applications suite flows from demand to production, supply, and service—a fantastic improvement for our systems."

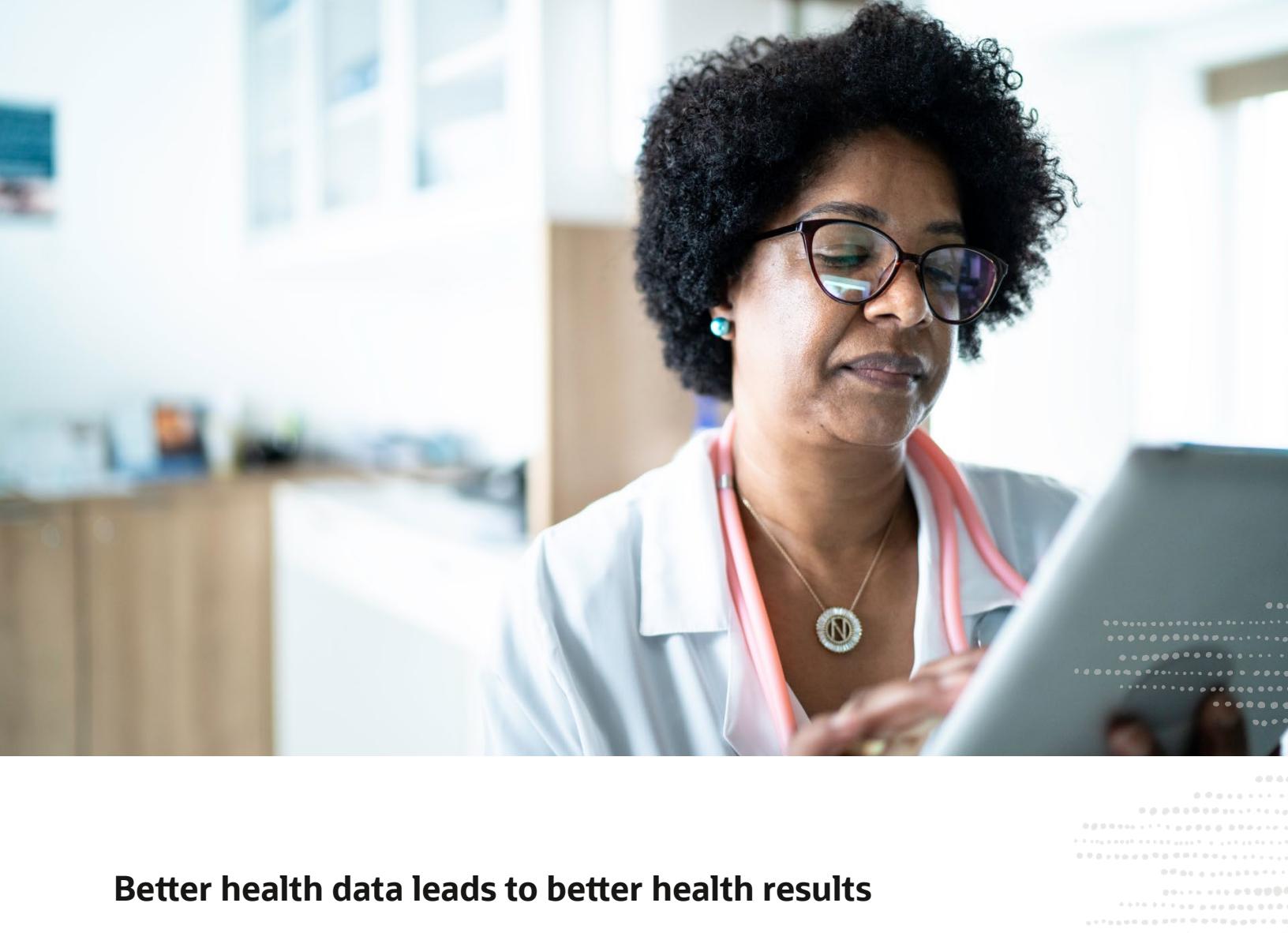**Chris Koeman**
President, Sakura Finetek Europe

200%
growth in operating units this decade

17%
of the global population may benefit from cancer therapies

Spur innovation with modern health applications

- Integrate your EHR, clinical, and enterprise applications, including your HCM, ERP, and SCM apps.

- Get a single source of truth for all data from across the organization with an open, intelligent, cloud-based health platform.

- Deliver engaging patient and community experiences while ensuring records are complete, current, and securely managed across all access points.

- Make sure operations in every area of the business, including supply chain, patient scheduling, staffing, and community outreach, are always in sync by integrating financial plans and operational records on one data platform.

Better health data leads to better health results

Health organizations worldwide know they need dynamic and resilient strategic planning processes. The myriad unexpected challenges and global supply chain disruptions caused by the pandemic highlighted the systemic weaknesses in many providers' management systems. Even those organizations with reasonably strong operating plans in place realized they were insufficient to deal with such large-scale upheaval, leaving them unable to intelligently adjust plans without negatively impacting staff, operating activities, and service delivery.

Rising costs throughout healthcare operations pose yet another challenge, requiring providers to find new opportunities to reduce overhead while improving patient care and the patient experience. The supply chain presents one such opportunity. Because of its strategic position, improving the supply chain has the potential to effect improvement across the entire organization and not only reduce costs but also increase patient safety.

- In the event of a product or medical device recall, most health organizations struggle to identify on-hand inventory, its current location, and the patients impacted. With Oracle's medical device traceability solution, providers can improve patient safety and reduce risk by proactively managing recalls, tracking and tracing the products' exact locations in the supply network or care facilities to immediately identify potential patient impacts.

- Oracle Cloud SCM provides visibility into clinical inventory locations, quantities, and history as well as lot numbers and unique device identifiers.

- Oracle Fusion Cloud Product Hub enables collaboration with and connectivity to device manufacturers and third-party data providers to easily onboard new product information.

- Understand demand with Oracle Fusion Cloud Supply Chain Planning, which uses actual consumption history to forecast demand, automates procurement, and dynamically calculates safety stocks.

- Oracle Digital Assistant allows clinicians to quickly locate supplies while on the go.

- Oracle Fusion Cloud Demand Management is a robust demand planning solution with a simple replenishment planning option that can help improve availability, aggregate purchases, reduce replenishment costs, optimize allocations, and better integrate replenishment into enterprise processes. It offers accurate forecasting tools to track real-time demand, allowing organizations to validate replenishment scenarios before implementing full demand planning across their supply chain.

- Reduce the time spent tracking down supplies and procuring new ones. Actively manage inventory from ordering through delivery and replenishment with Oracle Fusion Cloud Inventory Management.

- Oracle Fusion Cloud Procurement allows you to streamline the procurement of capital assets and medical equipment while simplifying supplier management, enforcing compliant spending, and improving profitability.
Product Recall Management in Healthcare: An Essential Step to Improve Safety and Reduce Risk (PDF)

Northwell Health®

"Oracle Analytics Cloud helps us manage the COVID-19 healthcare crisis by streamlining data management activities. The dashboard helps our clinical leaders interpret the data so they can make informed decisions about where augmented staff should be deployed to optimize patient care."

Elina Petrillo
Assistant Vice President, HR Technology, Northwell Health

21
NY hospitals and 890 outpatient facilities

>85,000
number of employees, including >19,000 nurses

0
manual input and task tracking after Oracle implementation

Improve health outcomes with intelligent health applications

- Unify your data to help ensure your entire workforce always has a complete, current, and accurate view of the information they need—provided securely, privately, and with appropriate access controls.

- Oracle's common data architecture makes optimizing operations possible from finance and planning to human resources, supply chain, and even serialized inventory tracking. Free up your staff to spend more time on patient care by enabling them to quickly locate supplies on the go.

- Prioritize patient safety with complete process visibility and tools to help you track medical devices, manage recalls, and identify in-use instances with precision and speed.

- Engage patients, staff, and communities with accurate, relevant information that meets their personal needs, informs them of critical developments, and supports positive health decisions.

- Oracle's modern technologies, including autonomous databases, high performance computing, and AI/ML-based intelligent tools, can help with unifying your health data and delivering improved insights to help your organization successfully drive health transformation.

Elevate the employee experience to attract and nurture talent

To meet a growing need for skilled labor that's also tech savvy, health organizations need strong recruiting tools and applications that support flexible scheduling, career management, reskilling, and rich employee engagement opportunities.

With Oracle Fusion Cloud HCM, health organizations worldwide can find new ways to optimize the employee experience throughout the hire-to retire lifecycle and use AI and automation to help ensure employees have the support they need, regardless of their skill level, location, or the device they're using.

EmblemHealth

"Oracle is a very powerful tool, and we're only scratching the surface now. I'm excited to give my team the tools they need to be successful."

Valentino Daloisio
Vice President of Finance, EmblemHealth

>80
year history serving their community

3.2
million members

96%
reduction in data processing delays after Oracle implementation

Deliver exceptional employee and patient experiences through innovation

- Integrate finance, supply chain, HR, and clinical systems and processes on a single platform to boost efficiency.

- Create a human-centric health experience with unified health data.

- Expand access to care through telehealth and community sites to provide quality, cost-effective patient experiences from any device.

- Rely on a highly secure database infrastructure to protect patient health information.

- Use AI technology to help improve health outcomes and enrich patient interactions.

Agile health services require an agile health platform

Our expertise in database and cloud technology means our solutions can be applied quickly and easily across existing technology landscapes. Our modern data platform and unified data architecture provide your entire health ecosystem with access to the transformational tools you need to overcome current challenges and future-proof your organization as technology and health needs continue to evolve.

Unimed

"The main reasons we migrated our databases and, most important, our patients' medical records to Oracle Cloud Infrastructure were the efficiency, scalability, and security provided through cloud technology….So it was the correct and logical decision to bring all of our technology operations to [Oracle]."

Leandro Schmitz
IT Manager, Unimed

17M
people served by Unimed
through 2,500 hospitals in Brazil

150
Unimed locations
using OCI

344
branches implemented
EHRs in under 15 days

Unified data can help dramatically improve outcomes

• Optimize medical staff workloads and case management.

• Support advanced research, whether it's focused on analyzing the human genome or predicting current and future population health needs, with high performance computing.

• Get built-in support for value-based care and performance monitoring.

• Unify health data, regardless of the source, to securely increase visibility and access and get intelligent insights.

• Promote seamless health experiences with unified health data on a unified health platform.

The power of intelligent health infrastructure

Effective health outcomes are easier to obtain when health organizations can collaborate and get insights from data across systems and applications. OCI is built to run every health workload, including legacy application systems and data science–driven and machine learning–enabled services, to support more-informed care choices, predict patient risk factors, and deliver better health experiences.

OCI offers a complete range of innovative features and services to meet health industry needs, including the following:

Flexible cloud environments: OCI supports public cloud, multicloud, hybrid cloud, dedicated cloud, and government regions, all with a common data architecture, flexible integrations, agile analytical tools, and intelligent system management workflows. Additionally, Oracle EU Sovereign Cloud allows health organizations within the EU to place sensitive data and applications in the cloud while complying with EU data privacy and sovereignty requirements. OCI's flexible cloud environments make enterprisewide data available to all departments across the organization, including those performing complex research, to deliver faster, more-useful insights and inform intelligent decisions.

Data consolidation: Create a single source of truth by consolidating data into a data warehouse or data lakehouse that offers near real-time access. OCI's underlying architecture unifies data from any health source or system, so health enterprises have a single source of truth that's private, secure, scalable, and available to intelligently power any health process.

Security and compliance: OCI minimizes risk with security that's automated, always on, and built in. These security policies not only protect the data within the system but also control access and distribution to help ensure compliance, even as regulations change. OCI participates in leading compliance and audit programs, including HITRUST, HIPAA, GDPR, SOC, and more.

AI/ML and custom app capabilities: With low-code and no-code capabilities and a suite of intelligent AI/ML tools, health organizations can quickly tailor custom data integrations, workflows, and analytical solutions whether the data source is a legacy system or part of Oracle's modern health suite.

SEJONG HOSPITAL GROUP

"We built our foundation on Oracle Autonomous Data Warehouse for easy access to data, but also for safety and security of the data. And we use Oracle Analytics Cloud to help our staff make informed decisions in a very swift manner."

Park Jinsik
Chairman, Sejong Hospital Group

12,000+
free surgeries provided to children with congenital heart conditions

15+
days eliminated from prior data collection cycle

Transform health operations with data-driven decisions

- Integrate all data sources to improve data quality and access in a modern data platform that's open and modular.

- Enrich data with easy-to-use AI services with prebuilt models for developers, data scientists, and business users.

- Eliminate complex administration for any size organization with AI embedded in he industry's only autonomous database.

- Simplify lakehouse architecture with MySQL HeatWave, which combines transactional and analytical data processing with built-in ML for performance querying of object storage.

- Shorten analytics workflows with integrated data preparation and visualization for greater IT efficiency and self-service.

- Deploy in a distributed cloud to meet data residency, sovereignty, and connectivity requirements and regulations.

Designing intuitive health solutions

Help improve the quality of care and patient and clinician experiences while enhancing clinical and operational efficiency. Oracle Health's clinical applications help care teams document and access critical patient data, refine workflows, and support patient safety initiatives.

Improve decision-making and enhance outcomes
Oracle Health's approach to consolidating and safely sharing health data breaks down data silos and helps ensure clinicians stay informed and take the full patient perspective into account so they're prepared to provide the right care at the right time.

Navigate the complexity of health services
Oracle Health's portfolio of solutions for service lines and departments helps you organize care delivery around your service lines to promote clinician efficiency and knowledge-driven care—informed by a unified EHR—across service lines and departments and throughout the care continuum.

Securely share data to enable patient-centric care

Oracle Health can help your organization securely exchange information across the healthcare ecosystem to provide positive patient experiences and support clinical workflows. Benefit from our open business approach and interoperable technologies that help strengthen care delivery services across the continuum. Facilitate the flow of patient data across provider, partner, geographical, and technological boundaries with interoperable systems. Help caregivers focus on the patient during visits, rather than spending their time gathering data, with a unified view of each patient's health. Fulfill your organization's needs by using our open APIs to integrate apps directly into clinical workflows. Our open systems, open technologies, and open business approach enable innovation and collaboration.

Accelerate the journey to wellness

Enhance care quality and delivery by moving your organization's focus beyond individual care. With our population health solutions, you can magnify your efforts across entire populations and emphasize condition management and prevention. In addition, our solutions allow clinicians and care managers to tap into a single source of truth to make well-informed decisions.

Increase patient engagement with consumer-centric experiences

When we meet consumer expectations, we place each person at the center of their lifelong wellness journey. Oracle Health's consumer experience solutions provide an engaging digital front door, virtual care capabilities, and many more tools to support your efforts to treat each consumer as a person—individually, intelligently, and respectfully. Our suite of applications helps ease access, clearly explain coverage complexities, offer wellness knowledge, and support financial engagement.

Emirates Health Services is improving outcomes with a unified EHR

EHS and Oracle Health worked together to make the flow of data from patient medical devices to their electronic health records more efficient, achieving improved outcomes across the entire spectrum of care.

مؤسسة الإمارات للخدمات الصحية
Emirates Health Services

"The partnership between Emirates Health Services and Oracle Health is a powerful example of how collaboration can drive innovation and improve healthcare outcomes."

Amna Al Hammadi
Acting Head of Health Information Systems, EHS

17
EHS hospitals and >70 primary healthcare centers with integrated medical devices
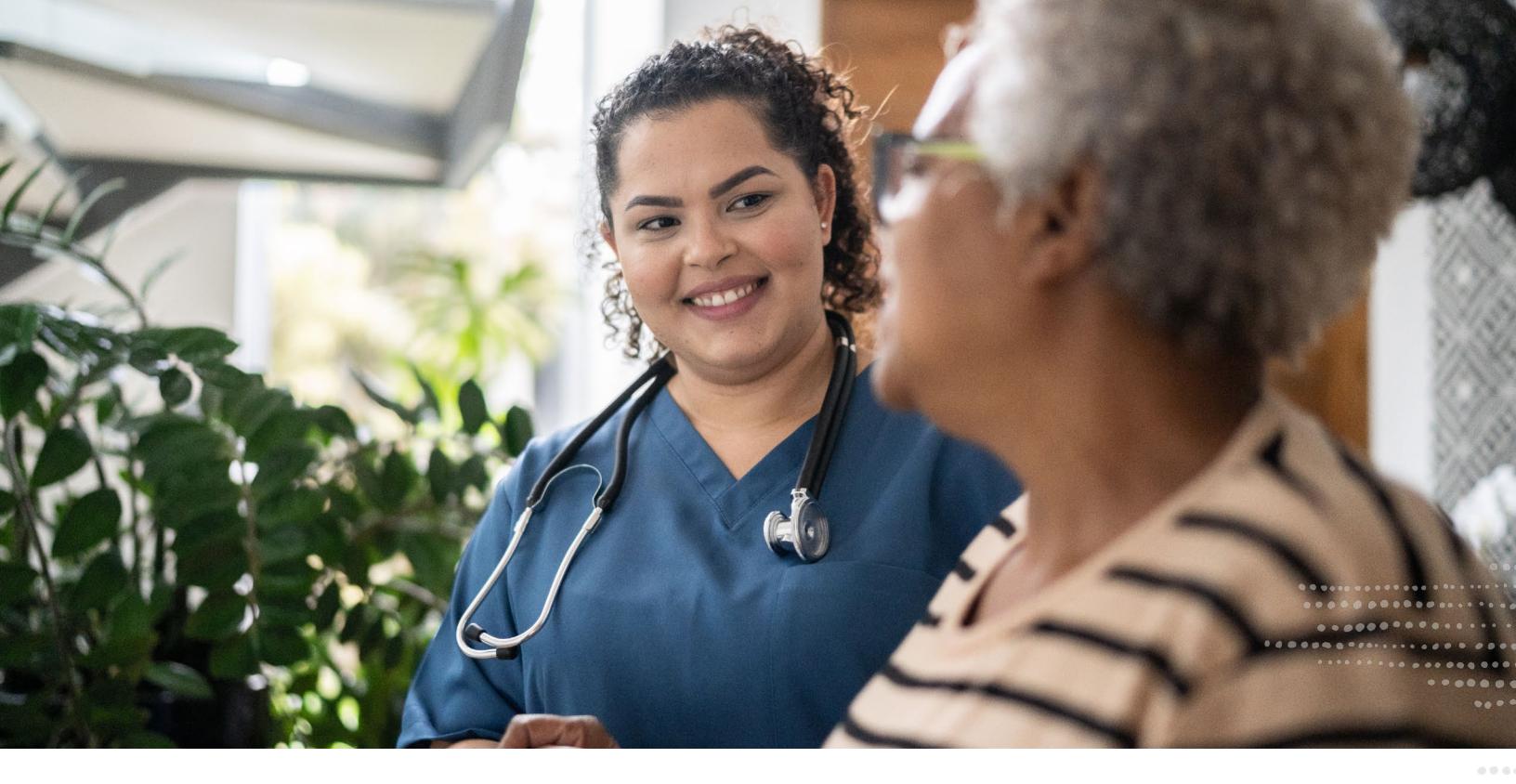
30M
human transcription errors prevented (estimated)

67
full-time-equivalent employees saved by reducing manual transcription

Improve health outcomes faster

• Oracle Health streamlines data collection and clinical workflows with intelligent insights and built-in best practices.

• Unified data presents a single view of health information to promote informed decisions.

• An integrated application platform accelerates research, fuels innovation, and supports equitable health outcomes.

• Connected talent and resource management processes help enhance health worker experiences.

• A unified data platform fosters planning efficiency, better cost management, and agile decision-making, even in challenging times.

Oracle Health is your transformation partner

- We take a modern, integrated, end-to-end approach to building agile health systems.

- Our integrated solution suite is designed based on the belief that unifying health data across all the disparate processes and systems that make up an operating environment is the key to improving how the world experiences healthcare.

- Unified clinical and enterprise applications can improve cost, care, and clinical efficiencies, accelerate clinical trials, and advance treatment discovery and equitable access.

- True health transformation begins with delivering data agility to bridge the gap between high volumes of health data and meaningful decision-making.

- Our health platform supports new operating models, empowers people across your ecosystem, and unlocks improved outcomes for patients and entire populations.

Take the next step to move health forward

Oracle is committed to improving global health outcomes. Our innovation-based approach to unifying health data is the foundation for transforming planning, operations, research, and performance across the health industry.

Oracle Health, created following our strategic acquisition of Cerner Corporation, a leader in global electronic health record systems, embodies our commitment to proactively improving global health by leading in health platform technology, innovation, and helping our customers do the same.

Many health organizations have already invested in digitizing health records with an EHR system, but that doesn't mean the work is done. Countless opportunities remain to modernize legacy systems and siloed data to improve equity, outcomes, and experiences. Oracle Health can help you take advantage of these opportunities, unify your data and digital infrastructure, and build on an EHR investment that is truly transformational for your health outcomes, patients, communities, and beyond.

Learn more

Explore Oracle Health
Request a demo

Connect with us

Call +1.800.ORACLE1 or visit oracle.com/health
Outside North America, find your local office at oracle.com/contact

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