Healthcare Providers Tackle Complex Challenges by Embracing Consumerism

“Standardizing business processes, centralizing data, and eliminating duplication allowed us to adapt to evolving business needs and establish best-practice human resources (HR) processes. We now use the Oracle system as a benchmark for other enterprise-wide HR e-service departments.” – Shawn Davis, Manager, Human Resources Technology and Analytics, Intermountain Healthcare

Today’s healthcare providers confront monumental challenges at nearly every turn. Costs continue to spiral while reimbursements continue to constrict. At the same time, providers find themselves treating a growing number of uninsured or underinsured patients—a situation that often leads to more complex and expensive-to-treat cases, as well as greater financial risk for providers.

Staffing challenges also persist as healthcare organizations compete for a limited number of qualified professionals, particularly in nursing and clinical specialties. Adding to the mix, regulatory requirements continue to increase in volume and complexity. The industry is also witnessing the emergence of consumerism in healthcare as patients pay a greater share of their healthcare costs and seek more interactive and comprehensive relationships with their healthcare providers.

Providers, understandably, seek solutions and tools to help them surmount these challenges while remaining steadfast in their commitment to continuous improvement in clinical outcomes and overall quality of care. Oracle is at the forefront of such initiatives, helping healthcare organizations gain traction with solutions that support clinical and business decision making, automate and integrate business processes, accelerate hiring and training, reduce supply chain costs, improve financial information, enhance service to consumers, and ensure the security and privacy of patient information.

Oracle delivers scalable, reliable, and secure database software, standards-based middleware, and integrated business applications that provide quality information and transactional efficiency—at a
lower total cost of ownership. It also focuses on leveraging standards-based technology, extending the value of the existing product lines and organizations’ previous IT investments, and providing a clear pathway to next-generation enterprise applications via a service-oriented architecture. Today, 10 of the top 12 Fortune Global 500 healthcare organizations run Oracle applications, and 70% of the top multi-hospital systems in the United States run Oracle technology.

While the scope of challenges facing the industry is broad, this paper highlights two areas in which Oracle solutions can have an immediate and quantifiable impact on a healthcare organization’s operations—workforce management and supply chain optimization. In addition, we look ahead to how Oracle solutions are helping organizations embrace the consumerism movement—which, ultimately, may transform the industry—to drive better care and enhance patient loyalty.

**Improving Effectiveness, Efficiency, and Compliance**

A highly skilled workforce and effective management of clinical teams are essential to the delivery of quality care. Finding qualified clinical staff remains a growing challenge, even in lean economic times. In recent years, annual vacancy rates for skilled clinical positions have hovered at 15%, and turnover rates have ranged from 20% to 25%. The inability to fill clinical positions is a costly proposition for healthcare providers—leading to overtime pay as well as the use of expensive agency workers, which adds new costs and administrative complexity to human resources (HR) management.

Many HR teams also find themselves juggling increased workloads—encompassing expanded and more complex regulatory reporting as well as more intensive recruiting initiatives—with the same number of staff members. Complicating the situation, many HR departments continue to rely on paper-based forms for processes that range from executing HR administrative changes, to completing U.S. Equal Employment Opportunity Commission (EEOC) reports, to tracking and reporting on the complex training and licensing requirements inherent in the healthcare environment.

To achieve economies of scale, consistency in policies and business processes, and address market drivers, over the last 20 years, hospitals have combined to form systems and Integrated Delivery Systems (IDN). In reality, many of these initiatives have
Key Benefits:

- Automate and integrate business processes, including human resources, supply chain, and financial management, to achieve greater operational efficiency and effectiveness
- Accelerate the recruitment and hiring of skilled clinical staff
- Facilitate the development and retention of a highly competent, professional workforce
- Reduce human capital management costs through self-service and process improvement
- Reduce the cost of purchasing and distributing hospital supplies
- Facilitate compliance with healthcare-specific regulations related to the supply chain
- Consolidate multiple systems and pool resources to obtain economies of scale
- Deliver financial and operational business transparency
- Enable providers to meet evolving patient requirements for expanded communication channels and one-stop provider service
- Facilitate greater collaboration between and among providers and patients
- Support the creation and management of personal health records
- Ensure security and privacy while maintaining a regulatory-compliant patient portal

led to a federated model of governance, with each healthcare organization acting autonomously to the central system in all aspects of HR or Human Capital Management (HCM). This was often done for political reasons. This outcome does not allow organizations to achieve cost savings or act as a single unified system. For example, many shared services initiatives have been unable to create the very system-wide vehicles that would eliminate duplication and redundant costs, such as a system-wide learning academy or consistent and centralized payroll and benefits administration. In some instances, the model has even increased competition within the system, itself.

The industry, however, is now beginning to restructure shared services initiatives to reap their many potential benefits. Technology evolution, growing interest in creating more “systemness,” the challenges of talent management, and today’s economic constraints have created an environment in which the benefits of “true” shared services outweigh any potential political fallout.

Oracle is helping healthcare organizations to effectively recruit, retain, and manage the healthcare workforce with world-class, award-winning HCM solutions for organizations of every size. Only Oracle has global, Web-based, integrated solutions that cover every aspect of the HCM road map—from core HR transactional functionality through service automation and delivery to complete enterprise talent management solutions. With Oracle HCM applications, organizations can reduce recruiting advertising fees as much as 25%; cut printing, copying, and mailing fees over all HR functions by 80% or greater (Source: CedarCrestone); improve employee productivity around recruiting activities such as online job applications by up to 50%, and reduce the amount of time to hire by 5% to 10% (Source: Internal Oracle Experience).

Oracle’s HCM applications also take aim at some of the industry’s unique challenges, such as managing the complexity of agency and per-diem employees as well as volunteers through Oracle’s unique Person of Interest feature and managing the complexity of differential staffing by shifts. Oracle recruitment software, which automates the hiring process, also has extensive competency management and suitability matching functionality to help healthcare organizations meet staffing challenges. It also
helps to ensure that all employees involved in the delivery of healthcare meet various competency and licensing requirements. Oracle also offers a portfolio of self-service applications that enable once-and-done data entry, support shared services environment requirements, as well as improve employee convenience. Oracle’s self-service applications—which span from recruitment, to HR administration to learning management—offer several key benefits, including automating routine processes and eliminating the need to rekey information, which, in turn, reduce the potential for data error and the administrative resources required to complete basic HR tasks. Oracle’s self-service applications also offer new levels of convenience to job candidates and employees, enabling them to make updates and complete processes at their convenience. As important, they facilitate reporting processes by leveraging a single source of data.

**Oracle’s Human Resource Management System in Action**

Intermountain Healthcare, a Salt Lake City-based nonprofit healthcare system, deployed Oracle Human Resources Management System (HRMS) to help the growing organization enhance operational efficiency and agility, and better allocate and manage essential HR resources.

With 21 hospitals across Utah and southeastern Idaho, Intermountain Healthcare deployed Oracle HRMS across its enterprise, helping the healthcare system streamline business processes, reduce administrative costs, and boost employee productivity by providing a single, accurate view for all HR-related information. By automating processes and centralizing administration, the Oracle HR system enables Intermountain Healthcare to better focus on its commitment to providing quality, affordable healthcare.

“Spread among multiple locations across two states, our HR department was primarily structured around manual data entry processes, resulting in delays between employee change requests and when they were entered into the system,” said Shawn Davis, human resources technology and analytics manager at Intermountain Healthcare. “We required a centralized, automated system to help enhance visibility and ensure greater access to information, allowing us to streamline operations and better allocate resources.”
Intermountain Healthcare reduced administrative costs via self-service functionality in Oracle Self-Service Human Resources, providing employees with rules-based access to personalized information and the capability to update employee-specific information online, such as marital status, address changes, direct deposit transactions, and benefit enrollments. The system also enables managers to review and update employee job-related details online—including department transfers and salary adjustments. Further, the online system enabled Intermountain Healthcare to automatically deliver online employee statements of earnings in early 2005. Ninety-nine percent of Intermountain Healthcare employees now access their statement of earnings online, saving more than $300,000 in annual printing and mailing costs.

“Standardizing business processes, centralizing data, and eliminating duplication allowed us to adapt to evolving business needs and establish best-practice HR processes,” Davis said. “We now use the Oracle system as a benchmark for other enterprise-wide HR e-service deployments.”

Extending its HR system, Intermountain Healthcare improved employee benefits support and reduced costs with the help of Oracle Advanced Benefits, which allowed Intermountain Healthcare to create an online-only open enrollment for all employees. Centralized administration and rules-based processes enabled Intermountain Healthcare to reduce employee benefit status inquiries by 70%. It also enabled the HR department to reduce overall data entry by 85%, freeing the department to devote more time to improving the employee experience, including providing increased access to training and education.

**Significant Cost Savings through Human Resource Automation**

Alegent Health is the largest, non-profit, faith-based healthcare system in Nebraska and southwestern Iowa. It implemented Oracle’s PeopleSoft Enterprise Human Capital Management to streamline its HR system, automate processes, and ease regulatory compliance. Alegent implemented a more customer service and employee-focused HR process that improved service satisfaction by automating communications processes and redirected HR resources to value-added activities.

Alegent enhanced visibility across functional activities from recruiting and onboarding to benefits and training—resulting in
“Oracle’s PeopleSoft Enterprise Learning Management allows Northwestern Memorial to launch material and manage training on a much broader scale.”

Sue Lopardo
Director
Information Services
Northwestern Memorial Hospital

significant annual savings despite an increase of more than 1,500 employees. Online benefits enrollment yielded significant savings by reducing the time required to prepare annual open enrollment packets from 2,000 hours to eight hours. In addition, Alegent implemented a streamlined process to onboard new employees. Employee recruitment is a core business challenge for healthcare providers. Alegent Health embraced the challenge by replacing its time-consuming, manual recruiting system with Oracle’s PeopleSoft Enterprise eRecruit and PeopleSoft Enterprise Position Management, integrating recruiting and onboarding and reducing the time necessary to post openings. This change simplified the job application process, prompting a 40% increase in applicants and a significant improvement in the quality of applicants.

A Learned Approach

At Northwestern Memorial Hospital in Chicago, the organization relies on Oracle’s PeopleSoft Enterprise Learning Management to provide the flexibility that it considers crucial for its around-the-clock workforce by providing training online.

Having a searchable catalog of courses and self-service enrollment adds to convenience and training accessibility to ensure that Northwestern Memorial meets requirements for internal certifications and corporate compliance. For example, the tool helped the staff prepare for the move to Northwestern Memorial’s new Prentice Women’s Hospital in October 2007, when PeopleSoft Enterprise Learning Management delivered and tracked more than 120,000 hours of training for 7,120 participants over a six-week period.

“Oracle’s PeopleSoft Enterprise Learning Management allows Northwestern Memorial to launch material and manage training on a much broader scale,” said Sue Lopardo, director of Information Services at Northwestern Memorial Hospital.

She added that bringing employees on board is easier, too, because the system immediately enrolls new employees in the classes they need to take. The system tracks learning histories so that employees and their managers can see, at a glance, what classes the employee has completed during each performance review period.

PeopleSoft Enterprise Learning Management was also very supportive in Northwestern’s Nurse Magnet journey. Magnet status, which Northwestern Memorial achieved in 2006, is the
gold standard for nursing excellence and an award that recognizes an organizational commitment to the best in patient care. Magnet status is only awarded to about 3% of the nation’s 5,700 hospitals and healthcare organizations.

“Achieving Magnet status called for a lot of information on the internal and external training our nurses had completed, including certifications, licensing, and nursing ratios for various specialties of care,” Lopardo said. “Oracle’s PeopleSoft Enterprise applications helps us produce the quality of reporting we needed to become a Magnet status hospital.”

**Streamlined Effective Supply Chain**

Supply chain automation in the modern healthcare organization represents a huge target for cost savings. The industry, however, has been a late adopter of enterprise resource planning systems (ERP) and supply chain automation. Many processes remain paper-based and non-integrated. Hospitals often have a fragmented supplier network that results in the generation and maintenance of hundreds of supplier contracts, many with complex tiered pricing arrangements. Many healthcare providers also are challenged by a lack of a standardized item master and the inability to consolidate orders, making them unable to identify preferred suppliers and take advantage of quantity discounts and rebate opportunities. This leaves requisitioners and managers unable to effectively control expenditures. As important, supply chain issues can impact quality of care if the right supplies are not in the right place at the right time.

Oracle’s supply chain solutions not only help to ensure that the right supplies are available at the point of care when needed, they also enable healthcare organizations to squeeze costs out of their supply chain. Oracle provides integrated supply chain solutions that deliver value in five critical operational areas—planning, procurement, sourcing, order fulfillment, and supplier relations—enabling providers to cut costs and improve control and efficiency throughout the entire process of procuring medical supplies and services. Its solutions enable self-service for internal procurement from either the stores warehouse or external sources and offer a more controlled contracting and catalog process. Oracle’s portal capabilities support greater collaboration with vendors and enable them to check orders and invoices online, reducing inquiries to healthcare organizations. Oracle solutions for supply chain management also enable more effective and efficient reporting
around controlled supplies to facilitate compliance. As important, organizations using Oracle have extensive master data management capabilities to support the evolution of shared services in healthcare.

**Boosting Supply Chain Performance to Lower Costs and Improve Care**

Erlanger Health System has a complex supply chain, as it delivers a broad spectrum of health services to a large community. More than a quarter-million people each year seek treatment at its five Tennessee-based medical campuses. In addition Erlanger is a major provider of tertiary care services for citizens in a four-state area. Erlanger realized that strengthening its supply chain performance was an opportunity to lower supply costs and ensure better healthcare delivery.

Until 2006, keeping Erlanger’s facilities well supplied required the participation of clinicians, whose time could be better spent with patients. The process involved paper-based counts and manual data entry, as information passed from nurse managers on the hospital floors to materials staff. To ensure new efficiency, Erlanger automated its replenishment processes using Oracle’s PeopleSoft Enterprise Supply Chain Management Suite. As a result, the system’s efficiency has freed clinicians from replenishment tasks and reduced procurement headcount by three full-time employees.

Erlanger gained the ability to measure and improve its supply chain productivity by extending to its supply chain the same flexible PeopleSoft Enterprise reporting system included in Erlanger’s earlier deployment of PeopleSoft Enterprise Financial Management Suite. Furthermore, integrated data and reporting has bolstered the entire institution’s back-office performance.

Today, Erlanger’s daily supply replenishment, which previously required several hours, is completed in barely one hour. It is now Materials Management staff, rather than nurses, who are responsible for performing inventory counts, and the staff uses hand-held devices to transmit the counts directly into the PeopleSoft Enterprise Supply Chain Management system. The scans eliminate paper records and manual data entry. No time is wasted, as the system simultaneously generates a requisition with the scan, so that by the time staff completes the scans, the warehouse staff has picked part or all of the orders and they are
We can now manage inventory based on historical spend—something we couldn’t do before because our previous system prevented us from seeing patterns of usage.”

Bernadette Dorris
Financial Systems Manager
Erlanger Health System

ready for delivery. By taking the responsibility for inventory management off its clinicians’ plates, Erlanger has provided more time for direct patient care.

Erlanger’s automated supply chain allows it to project future needs by analyzing the system’s reports. “We can now manage inventory based on historical spend—something we couldn’t do before because our previous system prevented us from seeing patterns of usage,” said Bernadette Dorris, financial systems manager at Erlanger Health System.

In addition, with ready access to electronic reports and visibility into the approval workflow, PeopleSoft Enterprise Supply Chain Management has standardized Erlanger’s purchasing practices so that it can easily monitor budget variances.

**Driving Excellence through the Supply Chain**

A supply chain without cost controls can affect a healthcare provider’s financial stability, so Northwestern Memorial Hospital uses a materials management system to support its fiscal health. As a result of this factor and its overall excellence, the academic medical center is one of just five U.S. healthcare institutions to earn the highest AA+ bond rating from Standard & Poor’s credit rating service.

Carefully selected information systems have contributed to Northwestern Memorial’s recent success. Several years ago when the hospital realized its back-office functionality had become an obstacle to its growth and progress, it looked to replace an assortment of legacy applications with an integrated system. It chose Oracle’s PeopleSoft Enterprise—including PeopleSoft Supply Chain Management Suite and PeopleSoft Enterprise Financial Management System Suite—after evaluating other solutions.

Northwestern Memorial achieved return on investment (ROI) for both its PeopleSoft Supply Chain Management and PeopleSoft Financial Management deployment within the first three years. The hospital largely attributed its savings to the system’s inherent controls that manage and ensure that only approved suppliers made purchases.

The system has continued to keep pace with Northwestern Memorial’s growth. The academic medical center has more than 1,200 authorized requestors and approvers, and its onsite warehouses manage a combined 1,659 unique items valued just
under $800,000. In addition, Northwestern Memorial’s supply volume increased by 96% in recent years, so that it now stocks 46,402 items in 609 par locations.

“We also saw an increase of 3,000 purchase orders (POs) per month,” said Chris Ryzewski, system administrator of patient support and logistics at Northwestern Memorial Hospital. “Yet, little to no additional staffing was needed because PeopleSoft Enterprise Supply Chain Management gave us the capacity to grow.”

By eliminating labor-intensive paper requisitions and purchase orders, 89% of Northwestern Memorial’s requisitions complete the request-to-receipt process in less than 10 days, up by 39% compared to pre-deployment, when only 50% of requisitions completed the process within 10 days.

“We’re leaps and bounds ahead of where we were when we used pads of paper and had to hand-count items,” Lopardo said. “Stocking is now a seamless process achieved using bar codes and hand-scanners. As a result, our clinicians are more efficient because they have direct access to the supplies they need where they need them.”

User visibility into the procure-to-pay cycle means fewer phone calls to the procurement office, while 100% online requisitioning has eliminated paper requisitions. The system ensures goods are ordered from a catalog at a price that has been negotiated for the hospital, which lowers costs and speeds up the ordering process.

“Ninety percent of our non-capital requests are turned around within two days and some supplies arrive the same day they are ordered,” said Michael Manalo, manager of Purchasing Services, Northwestern Memorial Hospital. “With our inventory management process and linkage to suppliers through electronic data interchange (EDI), we are definitely a just-in-time shop.”

**Improving Management of Chronic Diseases**

Both providers and consumers want post-discharge access to the same tools and support provided during inpatient stays, especially when treating chronic diseases. Indeed, online healthcare delivery systems are now essential, as consumers today expect more access to their healthcare information, along with care delivery that enables them to lead their lives as normally as possible, irrespective of the conditions that affect them or their loved ones.
Healthcare providers that have achieved successful collaborative patient-caregiver relationships find that they not only reduce the cost of care, thus increasing revenues and margins, but also improve satisfaction for patients, families, employees, and medical staff. Providers can leverage Web-based tools that can reach into patients’ homes to identify and track various conditions through online self assessments based on clinical indicators. For example, diabetes patients can communicate morning glucose readings with a contact center’s workflow, which drives triage when needed. These systems can deliver classes on diet and medication to patients and care givers. Patients and caregivers can order meals and medications and other support tools online, while the same technology is also capable of delivering community health screening and administering population surveys.

Sharing healthcare information and patient records is even more critical for patients with chronic diseases. Almost half of the U.S. population—133 million people—lives with at least one chronic condition, diseases like asthma, diabetes, and congestive heart failure, that require long-term management and maintenance. In 2005, almost 70% of all U.S. medical care costs were for patients with chronic diseases, with this population running up more than 75% of the nation’s $2 trillion medical bill. Admission and readmission rates were high for those patients who lacked home monitoring and support. If readmission occurred less than 28 days post-discharge, Medicare could question payment for the hospital stay. As a result, more healthcare providers are deploying collaborative, interactive technology to help manage patient care outside of the inpatient setting.

Providers find such interactive systems tend to reduce readmission rates through more effective chronic disease management that enable patients to interact directly for support from the providers. Thus, providers reduce the cost of care through streamlined delivery. As hospitals and other providers now can directly deliver medications and supplies to patients through online retail applications, providers can capture revenue previously going to commercial retailers.
Keeping Healthcare Delivery with the Provider

Today’s healthcare marketplace presents consumers with a bewildering array of choices, including traditional drug stores, such as Walgreen’s and CVS that have extended their offerings into the provider arena, and payors that dispense medications and provide disease management services.

Providers will find everything required for comprehensive healthcare delivery in Oracle Healthcare Consumer Solutions (OHCS). Already utilized by healthcare’s largest payors, OHCS is soundly based on Oracle Database and Oracle Fusion Middleware technology, along with Oracle’s Siebel healthcare e-commerce solutions, including contact center, marketing, and Web center applications; Oracle E-Business Suite order management and billing applications; and Oracle Retail functionality for order-to-cash flow that tracks items as diverse as inpatient discharges to prescription refills. Thus, OHCS allows users to fulfill and bill orders within the healthcare provider’s system to keep the revenue within the provider organization.

Oracle has refined OHCS over the past several years, extending the footprint and honing it to industry needs. As a result, OHCS has matured far beyond its humble beginning as a solution for the mail order pharmacy industry. Today, North American, as well as global providers, use OHCS to manage colorectal and diabetes screening, conduct community health surveillance, and manage oncology protocols.

Oracle, for example, is working with a Canadian province to provide comprehensive, patient-focused solutions that improve health and health care management in the province to achieve the following goals:

- Increase the number of patients that receive evidence-based interventions
- Improve clinical outcomes and care experience for patients
- Reduce disease complications
- Minimize health system utilization (including in-patient days and stays and unanticipated out-patient, emergency and physician office visits)

Recently published Oracle Insight studies assessed the effectiveness of OHCS for three of the major providers that currently use the solution. The Insight studies found that, with all costs factored in, OHCS produced a significant revenue and incremental margin increase of 30% for these providers.
Call Center Supports Cost Reduction and Improved Communication

Texas-based Horizon Health, a leading provider of mental health and rehabilitation services, recently embarked on a growth strategy that included acquiring independent behavioral health facilities around the country. Each facility, however, possessed its own call center software. As a result, Horizon had six primary call centers and a dozen smaller satellite call centers. This disparate environment was difficult to maintain and cumbersome—with member advocates having to flip through many screens just to input or find the most basic client information.

As important, the software limited the types of products and services Horizon could offer. Software change requests for the disparate system continued to grow and would take weeks or longer to complete. “We were spending $1 million a year just to keep up with the change requests,” said Cindy Sheriff, vice president of employee assistance program services at Horizon Health.

While call center inefficiencies are unacceptable for any company, they are especially troublesome for call centers that often serve as the first point of contact for those reaching for help. “People calling us are often under a lot of stress,” Sheriff said. While the old system often required member advocates to walk callers through specific questions, Horizon wanted the new system to be flexible enough to allow distressed callers to freely explain their situations.

Horizon Health chose Oracle’s Siebel Call center because the application is functionally rich and very flexible—leading to valuable time-savings and cost reductions. Siebel Call Center enables Horizon Health member advocates to do a better job answering questions from customers, and it streamlined the management of appointments.

Horizon also realized that call center software, alone, would not bring all of the efficiencies it desired in a new application. A comprehensive solution would require integrating the call center with the other parts of the business.

Management determined that the fastest route to Horizon’s goal was the implementation of Siebel Healthcare, including Siebel Call Center and Siebel Service. The integrated healthcare management suite could improve member advocates’ ability to
answer questions about plan coverage, streamline the identification and management of the provider appointments, and smooth the claims process.

While the previous system could validate only 5% of claims on the first pass, the Siebel system sustains a 90% validation rate. The streamlined database means that the number of provider records has dropped from 240,000 to 14,000—a huge reduction that Horizon attributes to the elimination of a great deal of redundancy within the system.

**Why Oracle?**

Oracle software and services are at the forefront of helping healthcare organizations ensure quality of care and patient safety; effectively attract, retain, and manage the healthcare workforce; mitigate costs and improve service levels; facilitate compliance; and support the movement toward consumerism in healthcare. Oracle has a strong commitment and involvement in the healthcare continuum of care and will continue to work closely with its customers and the industry to offer solutions that add value and promote the industry’s mission.

Oracle unites the world’s best enterprise applications in an open platform architecture. It combines business process and technology strength with the larger ecosystem of Oracle partners to provide the most robust enterprise solution tailored to the healthcare industry. No other vendor offers as broad a solution footprint or as many best-in-class offerings as Oracle delivers to the healthcare industry. Additionally, Oracle’s focus on leveraging standards-based technology and service-oriented architecture extends healthcare organizations’ existing IT investments while preserving flexibility in the path ahead. Oracle is a trusted IT partner for healthcare organizations in the United States and around the globe.