# Optimizing outcomes and value for smarter healthcare

*Transforming the way healthcare providers and health plans make decisions*

## Highlights:

- Drives better patient care and customer service, manages exceptions more effectively and helps protect organizations against risks

- Predicts high-risk populations and begins early interventions for wellness management

- Helps hospitals and physicians work together across locations to deliver personalized care experiences

- Improves patient care and operational efficiency through intelligent decision making integrated into business processes

- Dramatically streamlines analysis, care and development processes

- Provides access to real-time, integrated clinical and business information that helps healthcare organizations monitor performance

A smarter healthcare system uses information to create real-time insight into and holistic views of patient care and organizational performance. It can gather wider-ranging samples of data to discover more medical breakthroughs and support a preventative and proactive model of healthcare. Such achievements require better collaboration, faster and more-detailed analysis and integrated data that centers on the patient—and is quickly and easily accessible by doctors, practitioners and staff. Moreover, a smarter healthcare system leverages advanced case management capabilities to make use of the exploding volumes of data and to improve patient outcomes.

## Opportunities for greater customer service and operational efficiency

The healthcare industry is facing challenges that include growing costs, inconsistent quality, a critical shortage of skilled workers and an increasing demand for value. With many businesses and industries freely leveraging technology to provide around-the-clock services, healthcare consumers now expect 24x7 access to self-service capabilities—such as checking claims, reviewing medical records and paying bills. These consumers are also increasingly being held accountable for their healthcare spending with high-deductible insurance policies. As a result, they are creating a more competitive environment by being more selective with their choices in health plans and healthcare.

Causing further turmoil, new legislation is reforming the way the healthcare industry operates. A greater scope of coverage for the sick and indigent requires healthcare providers and health plans to run much more efficiently in order to remain profitable, while addressing new regulations.

## Information as a strategic asset

To operate effectively in this new environment, healthcare organizations can transform clinical, patient and financial information into strategic assets for better decision making, improved outcomes and a competitive advantage. That means health plans and healthcare providers need to organize, analyze and assimilate information from numerous and varied sources from across their organizations.

All of this content needs to be organized and made accessible, so a doctor, physician, claims agent or other staff member can quickly assess risk and make the right choices for the member, patient and business. To best use the information, staff need appropriate tools and real-time access to expertise, so they can make quick—but, more importantly, right—decisions. As a result, healthcare organizations are increasingly looking to adopt formal case management approaches and solutions to manage patient and member records, predict illnesses and solve business problems.

## Unifying people, processes and information

To meet the challenges of today's healthcare organizations, IBM offers a strategy that extends the concepts of enterprise content management and business process management—by adding capabilities designed to help you optimize patient care and claims handling. The advanced case management strategy from IBM unifies information, processes and people to provide a 360-degree view of the case. It relies on advanced analytics, business rules, content, business processes, collaboration and social computing to help drive more successful outcomes.

Advanced case management from IBM helps healthcare organizations handle increasingly complex decisions and assess risk with fewer resources. It drives better patient care and customer service, manages exceptions more effectively and helps protect organizations against legal and regulatory risks.

---

### The difference between healthcare case management and advanced case management

Traditional case management in healthcare focuses on facilitating treatment plans to ensure that appropriate medical care is provided for medically complex or chronically ill patients. However, advanced case management from IBM defines a case as nearly any event-triggered body of information—from a simple billing inquiry to complex translational research that focuses on iterative feedback from the bedside to the research lab and back again. A case—in the context of advanced case management—contains all of the processes, information, correspondence, tasks, policies, rules and events that are required for resolution.

---

Advanced case management from IBM is designed to help deliver key healthcare improvements:

- **Staff productivity.** Employees are required to accomplish a wide variety of tasks often with fewer resources. Advanced case management capabilities support worker efficiency and effectiveness to help control costs for these activities and to improve decision making.
- **Service efficiency.** Healthcare organizations are seeking to improve patient care as well as member satisfaction and loyalty by handling triage and claims more efficiently. Advanced case management strategies help streamline service by simplifying and automating the input and coordination of paper-based documents—such as letters, faxes and contracts—thereby providing a complete view of the patient.
- **Regulatory compliance.** The need to manage claims and medical records, as well as their associated processes, decisions and other artifacts, for compliance reasons is increasing. Advanced case management capabilities manage the entire life cycle of a record according to enterprise policies defined to manage risk.
- **Business responsiveness.** Healthcare organizations need to rapidly respond to industry changes, threats and opportunities. Advanced case management can help deliver solutions in days instead of months. The solutions can also be scaled out rapidly in response to growth opportunities.
- **Business optimization.** Managers and directors need better tools to track key performance indicators (KPIs) for case handling. Advanced case management can drive optimal case outcomes.

An advanced case management strategy can be applied to suit the needs of nearly any organization concerned with optimizing case outcomes. Although healthcare providers and health plans share one ecosystem, one in which information needs to be shared, they have different goals and require different ways to meet them. IBM offers healthcare providers and health plans specific advanced case management solutions to optimize the outcomes of their cases.

## New approaches to becoming smarter healthcare providers

Aging populations. Costly new medical technologies and drugs. Consumer demand for more and better healthcare services. Growing competition from smaller providers, such as ambulatory surgery centers and retail clinics. For these reasons and more, healthcare costs have been rising rapidly. With already thin operating margins and inadequate capital for major investments, providers must operate more efficiently and bill accurately in a timely fashion.

But the need for efficiency runs deeper than rising costs. Many hospitals face critical shortages of nurses and other medical specialists, threatening to affect patient care and satisfaction. And the existing clinicians and physicians demand rapid access to patient information, having zero tolerance for downtime. They and other employees need an integrated view of data from across systems, clinical data, lab data, and financial and billing data. Advanced case management can provide a single view of the information that staff need, when they need it, to improve clinical decision making and reduce errors.

## Transform data into intelligent, high-value information

Healthcare organizations spend tens of millions of dollars acquiring and implementing advanced information systems that generate and capture large amounts of data every day. Although these systems are designed to provide data quickly—one patient at a time—most are not optimized for population-based reporting and analysis. Many healthcare organizations lack the tools, skills and architecture to efficiently collect, aggregate and analyze data from disparate systems. Enterprise health analytics—one of many ways to leverage advanced case management—can help transform these data-rich environments into places for intelligent, high-value information.

Even across disparate systems, healthcare providers can leverage their environments to transform data into intelligence using enterprise health analytics. This means that organizations can yield high-value clinical, business and research information using their existing infrastructures.

Through enterprise health analytics, advanced case management can help healthcare providers achieve the following:

- Predict high-risk populations and begin early interventions for wellness management
- Manage and report the progression and impact of chronic diseases—such as diabetes or congestive heart failure—within a system, region or marketplace
- Prepare for evidence-based medicine, facilitating the practice of personalized medicine
- View and analyze aggregated data sets by specific populations for cohort management, disease registries, clinical guidelines and patient safety
- Efficiently report, trend and analyze key organizational, financial and clinical metrics to improve performance and reporting compliance
- Provide security-rich and quick access to aggregated information and deliver the right information to the right people at the right time

## Deliver comprehensive, interdisciplinary care holistically and proactively

To provide higher-quality patient care at lower costs, health-care providers can migrate from a physician-centric management model to a collaborative, patient-centric care model. A collaborative care approach—another instance of advanced case management—helps deliver comprehensive, coordinated and evidence-based interdisciplinary care holistically and pro-actively—evolving retrospective and prospective approaches to predictive healthcare management.

With real-time access to business and clinical information, hospitals and physicians can work together across care settings to deliver integrated, personalized care experiences; prevent disease; promote wellness; and manage care. Moreover, hospitals and physician practices can obtain better payer reimbursements from health plans and can reduce administrative costs.

Collaborative care components can include health information exchange, electronic health records (EHR), portals, analytics and decision support. They are designed to help physicians and physician practices show meaningful use of EHR in order to qualify for American Recovery and Reinvestment Act of 2009 (ARRA) government stimulus funding.

Evangelical Lutheran Good Samaritan Society (ELGSS) is one of the largest not-for-profit long-term care organizations in the United States, with 240 different locations in 24 states. Being so geographically dispersed, its business processes have become complex over time. They are more regulated, need to capture higher volumes and different kinds of data, and much more.

An advanced case management strategy helps enable ELGSS to leverage those business processes as assets—improving decision making for the organization as well as individual residents. It is taking advantage of capabilities, such as analytics to rethink how it can provide care.

For example, ELGSS uses an advanced case management approach to analyze a resident's structured and unstructured data and identify changes that would indicate that he or she is a high-risk candidate for a fall or collapse. The organization can then appropriately adjust the resident's care to help prevent a fall.

### Improve patient care and operational efficiency

Advanced case management can also enable healthcare providers to use intelligent decision making within their business processes, delivering dramatic improvements in patient care and operational efficiency. Providers are transforming core processes:

- Clinical alert notification
- Patient care and counseling
- Drug utilization and treatment selection
- Staff scheduling
- Clinical trial management
- Compliance reporting
- Claims processing
- Member enrollment
- Billing
- Accounting

For example, a university medical center leverages intelligent decision making to dramatically increase both productivity and reliability in clinical trials, enhancing results for its patients.

### New approaches to becoming smarter health insurance organizations

Worldwide healthcare reform places an intense amount of pressure on health insurance organizations. In order to remain profitable as healthcare costs skyrocket, they need to operate much more efficiently. These organizations must improve decision making, detect and reconcile fraud, accurately bill providers in a timely manner and reduce medical loss ratios—all while complying with new legislative mandates.

Meanwhile, healthcare members and citizens demand more value from their coverage. To help retain membership and attract new and well members, health organizations need to quickly develop and deliver high-value services and offering to the marketplace. Moreover, they must maintain a high level of provider satisfaction to help ensure the acceptance of their plans.

To help improve operational efficiency and grow marketplace share, health insurance organizations need a 360-degree view of wellness care for members. Accomplishing such a view requires business intelligence, meaning health organizations must better manage the increasing volume of both structured and unstructured content—such as handwritten notes that need to be put into electronic form. They also need an integrated view of clinical, financial and claims data to make quick and, more importantly, good decisions.

## Streamline analysis, care and development processes

To remain competitive, healthcare organizations need to understand members at an individual level and be positioned to consult members based on their specific needs. To achieve this, they must develop a single but comprehensive view of their members and their clinical, utilization, behavior and wellness goals.

Advanced case management can create a single view of the truth across disparate systems, so you can dramatically streamline analysis, care and development processes. A unified view of members can help you achieve the following:

- Make better and timelier decisions with a single, enterprisewide view of member information
- Improve retention, grow membership and increase revenue
- Increase operational effectiveness
- Reduce costs and risk using strong reporting tools for analytics and metrics
- Accelerate claims processing

Moreover, a unified view of members is critical to providing personal care and achieving better value and outcomes. It delivers a consistent, trusted view that combines internal content with external, value-added information for the purpose of transforming the customer experience, while helping lower total healthcare costs. For example, a unified view can help identify whether a member is taking medications to manage the side effects of other medications. The health plan can recommend to the prescribing physician that the member try a different medication that doesn't cause the side effects. It can also show signs that a member's blood pressure may increase based on variables, and it can highlight where members are getting tests that aren't necessary.

With a unified view of members, you can aggregate information and leverage analytics capabilities to help health organizations yield clearer insights, better decisions and optimized operations. You also can deliver insight into member health and provider performance and can answer questions such as these:

- Which members and benefit recipients are at risk of developing chronic disease?
- Which members and recipients may have unmanaged chronic disease based on episodes of acute care?
- Which disease management approach is most effective?
- Are there claims consistent with patterns of fraud?

Advanced case management can provide a holistic view of the member community, enabling health plans to provide a better quality of life for members and boost the bottom line.

---

### A health insurance organization in the United States establishes a unified view to improve outcomes

Having built an award-winning structured database, a health organization in the US is using IBM technology and advanced case management approaches to create a congruent unstructured database. By using both databases, the health plan gains a holistic view of individual members as well as groups of members. This view can improve case outcomes and support predictive analytics by supplying business intelligence applications and case management staff with comprehensive member data. For example, with a unified view of unstructured information, the organization can identify when a member is prescribed two different, counteracting medications from two physicians. It can alert the member to prevent dangerous side effects and unnecessary expenditures.

---

Health organizations can also leverage advanced case management to establish a provider performance analytics system that can give them access to real-time, integrated clinical and business information. These tools monitor providers' KPIs to benchmark their performance. Provider performance analytics helps health organizations answer questions such as these:

- Are there unnecessary or wasteful variations in provider practice? Are there effective variations that we want to encourage?
- Are our improvement initiatives engaging physicians and driving more effective and efficient delivery of care?
- Which providers comply with our requirements for value-based purchasing?

## Why IBM?

IBM created the advanced case management approach in response to healthcare providers and health organizations that need a smarter, more integrated way to handle their growing, increasingly complex caseloads and shrinking resources. IBM is in a unique position in the marketplace to unite the capabilities of information, processes and people with a comprehensive platform to solve the problems the healthcare industry is facing.

Because software is helping make the planet smarter, organizations have more opportunities to realize their potential. To do so, they need software that is fueled by expertise, built for change and ready for work. IBM can help. Its advanced case management strategy includes a combination of IBM software for content management, business rules management, analytics, business process management, collaboration, social software, enterprise rules, agile application development and comprehensive information life-cycle governance.

Advanced case management from IBM unifies information, processes and people to provide a 360 degree view of the case—through the use of integrated analytics, business rules, collaboration and social computing—helping optimize case outcomes. To enable you to work smarter with more flexibility, we offer a comprehensive portfolio of leading solutions and services, including industry solutions from IBM Business Partners. Our deep domain expertise and capabilities can support your company's information agenda, allowing you to use information as a strategic asset through better business and IT alignment. IBM has provided enterprise content management solutions to thousands of companies, organizations and governments around the world, helping them remain competitive through intelligent innovation. We can do the same for you.

## For more information

For more information on how advanced case management strategy and solutions from IBM can help your healthcare organization close cases faster, with better results, please contact your IBM representative or IBM Business Partner, or visit: **ibm.com**/software/data/advanced-case-management

**ibm.com**/smarterplanet/healthcare

Join the conversation at: **ibm.com**/blogs/acm