Collaborating across boundaries

IBM SOLUTIONS FOR SMARTER CARE

- Foreword and introduction
- Improve citizen services
- Collaborate to improve care and outcomes
- Enhance relationships across the ecosystem
- IBM’s commitment to the public sector
The link between the health and wellness of individuals and the economic and social vitality of the communities in which they live is unmistakable. It’s simple: healthy, active individuals are more likely to be contributing members of their communities.

Equally clear is the necessity for fundamentally transforming systems of care to take advantage of advances in technology that are creating rich opportunities for enhanced collaboration and knowledge sharing across traditional stakeholders and new partnerships among nontraditional players. The transformation is recognized as essential within communities of care. And it’s being embraced globally by governments, health and social care industry players and employers alike, putting the individual at the heart of care.

IBM Smarter Care is a new point of view that expresses a powerful ability to leverage information about individuals and populations and deliver insights that drive individualized care to optimize outcomes and lower costs. It is enabled by innovations in analytics that leverage rich new and existing data sources to drive insights as well as new platforms that facilitate a holistic view of the individual and enable new ways to coordinate care delivery—working together to advance care management.

A key to Smarter Care is ensuring that individuals are not just passive participants but rather active, engaged and well-supported champions of their own wellness. We see stakeholders across government and social services, healthcare and life sciences organizations creating new communities of care by leveraging new sources of information and insights into lifestyle choices, social determinants and clinical factors to help improve outcomes and reduce costs.

We’ve organized our offerings within three imperatives that convene these diverse stakeholders:

- Improve citizen services.
- Collaborate to improve care and outcomes.
- Enhance relationships across the ecosystem.

IBM is committed to bringing capabilities to the marketplace to enable the holistic, individualized care that is being requested by citizens worldwide, with a focus on optimizing outcomes. This is our opportunity together to address quality, costs and outcomes and drive individual wellness and community vitality. Join us on this journey to redefine our systems of care to enable more coordinated and efficient care delivery and advanced care management, driving more consistent and optimized outcomes and lower costs.
Introduction:
Driving individualized care to optimize outcomes and lower costs

Improving health outcomes, controlling costs and reducing disparities across populations have become economic and social imperatives for governments around the world. Countries are faced with difficult choices on budgets and allocations amid the increasing burden of noncommunicable diseases and growing resource constraints.

To promote healthier, more prosperous communities, governments and organizations across the globe are looking for new ways to deliver health services and social programs that address the needs of their population and are informed by the unique needs of the individual, including clinical, social, economic, environmental, lifestyle and behavioral characteristics.

IBM provides a portfolio of solutions that align across the diverse stakeholders of the public sector and that unite public and private organizations toward the same goals—improved outcomes for the individual, for the organizations that serve them and for the communities they live within. We call it Smarter Care. This solutions guide provides a quick overview of some of the key solutions that are enabling organizations on their journey to providing Smarter Care.
The IBM Smarter Care imperatives
Without change, the world’s systems of care are becoming unsustainable. It’s clear that growing and aging populations are driving heightened demand for care-related services. Common objectives across the globe and across the continuum of care include leveraging information insights—coupled with clinical and social care collaboration—to dramatically improve quality of care and outcomes while also improving the cost-effectiveness of care services.

Stakeholders are collaborating across boundaries, and governments are taking a stronger point of view around care. These elements are driving the improved health and well-being of citizens while spurring the development of new partnerships and relationships. Armed with fact-based insights to support effective care options, participants across communities of care can now apply their combined skills and capabilities to deliver the best possible outcomes—for individuals, their families and entire populations.

What it takes to achieve the Smarter Care imperatives

For governments: Improve citizen services. Connect people to programs based on individual needs, and achieve sustainable outcomes while reducing operational costs.

For healthcare organizations: Collaborate to improve care and outcomes. Improve the quality and efficiency of care while cultivating patient centricity through engagement and health and care personalization.

For life sciences companies: Enhance relationships across the ecosystem. Collaborate with healthcare constituents to drive outcomes, personalized solutions and sustained growth.

IBM is committed to bringing capabilities to the marketplace to enable the holistic, individualized care that citizens worldwide are demanding—with a focus on optimizing outcomes.

IBM solutions:
- Citizen access and insight
- Social program management
- Social program integrity
- Social program consulting and transformation
- Care and Health Management
- Population and Care Insights
- Enterprise Health Analytics
We’re reminded daily through the media and publicly available statistics of the need for innovation in social programs, including health and human services, workforce services, and social program organizations. In our experience working with social program organizations, we’ve seen agencies realize a number of valuable business outcomes that are preparing them to address the challenges they face today.

**Improve the quality of service delivery:** Increase caseworker productivity, improve individual outcomes, enhance collaboration with partners and expand information sharing across agencies.

**Respond faster to citizen needs and requests:** Determine eligibility quicker, speed acceptance into support programs, and provide better access to services and information.

**Reduce fraud and abuse:** Manage limited funds by eliminating fraud.

**Increase payment accuracy:** Counter the public’s perception of improper payments to prevent undermining of your reputation with the public.

To support Smarter Care, governments require an integrated, citizen-centric approach.
Organize information around citizens and their needs
Put the client at the center of the service delivery system by organizing the services offered and the way they’re offered around the needs of the client rather than the organization.

- Focus on identifying services that best meet client needs.
- Provide a 360-degree view of the citizen to help target services more effectively.
- Create a single view of clients and enhance reporting by providing actionable information.
- Strive to deliver citizen-centric services anywhere and anytime, 24x7.

Improve benefits delivery and ensure the proper use of resources
Reduce the costs of successful outcomes by streamlining business processes, automating routine transactions and focusing workers on higher value tasks.

- Implement case management capabilities to improve citizen focus and program delivery.
- Determine citizen program eligibility in a fast and reliable manner.
- Drive process standards to improve decisions, financial efficiency and business insight.

Develop an integrated approach to services that delivers outcomes and optimizes resources
Move away from a transaction-oriented system toward an integrated, ongoing relationship with a client, and focus on achieving sustainable client outcomes.

- Provide integrated service delivery to improve decisions and produce outcomes for citizens.
- Identify existing and new services and build an integrated service delivery strategy.
- Handle challenges related to the organization’s performance evaluation, enhancement and process improvement.

IBM solutions
- Citizen access and insight
- Social program management
- Social program integrity
- Social program consulting and transformation
- Care and Health Management
CASE STUDIES

An urban community
This Canadian community tapped IBM to implement an analytics solution that helps coordinate and manage services and costs for chronically ill seniors.

- Identified risk factors, patterns and relationships from social, demographic and behavioral data
- Coordinated resources responsible for referral management and in-home care delivery and enabled collaboration to quickly support incoming requests

Alameda County Social Services
To better understand its case and program performance, this agency in California looked to IBM to deploy an information system combining identity and relationship resolution with business analytics.

- Achieved average annual benefit of USD11 million
- Realized 631 percent return on investment (ROI) in one year

U.K. Department for Work and Pensions
To coordinate its 800 sites and growing number of applicants, this British government agency implemented IBM enterprise content management (ECM) software to create a single electronic repository for case information and workflows.

- Shortened processing time by four days
- Eliminated the need to sort through 112,000 pages of applications a day

French National Family Allowances Fund
This French agency tapped IBM to deploy a solution with analytic capabilities that provides a single view of citizens, caseworkers and providers across multiple programs.

- Improved productivity by 35 percent
- Integrated data from 123 service branches to create a single view of information
Collaborate to improve care and outcomes

As providers continue to improve care delivery and business operations, they are turning their attention to solving key problems, such as improving quality and outcomes, competing on cost and quality of services, and increasing operational transparency. Integrating clinical, financial and research information to gain insights from applying data analytics can help improve outcomes, lower costs and increase patient value.

Public health officials may employ similar approaches to collect, share and analyze health information that is critical to managing disease outbreaks and outcomes.

Healthcare organizations need access to specialized knowledge sources to help them with diagnoses, treatment plans and other decisions. Better tools can help organizations sort through massive amounts of data to find relevant insights, visualize solutions, identify viable options and support decision making. With better patient information and clinical knowledge, providers can work with patients to develop and incorporate evidence-based diagnostic and treatment plans into care delivery processes. These advances should also help organizations address efficiency and cost pressures.

Harnessing and leveraging data about the individual from a holistic approach is key in addressing challenges inherent in enhancing care. IBM Smarter Care recognizes the clear link between the health and wellness of individuals and the economic and social vitality of the communities in which they live. Smarter Care leverages new and existing data sources and analytics innovations to uncover valuable insights into lifestyle choices, social determinants and clinical factors to deliver a holistic view of individual and aggregate populations. The result is more coordinated and efficient care delivery and advanced care management as well as the ability to drive a deeper level of engagement for more consistent and optimized outcomes and lower costs.
IBM Smarter Care encompasses software, services, systems and solutions designed to help organizations in care-related industries improve health and wellness outcomes for their constituents while strengthening their own financial performance. Enabled by new technologies, forward-thinking organizations within systems of care are crossing boundaries to share and advance common goals centered on the individual. Rich, new collaborations and partnerships are helping develop insights into the context of individuals and, by extension, that of whole populations. Taking a holistic approach makes it possible to deliver efficient, integrated services and individualized care that can improve outcomes, lower costs and drive wellness and community vitality.

Using this approach can help healthcare organizations:

- Reduce the number of preventable errors
- Deliver improved outcomes at lower costs
- Limit redundant tests and treatments
- Increase physician productivity
- Avoid unnecessary costs

Leveraging IBM solutions, your organization can move toward Smarter Care by:

- Establishing an enterprise foundation for evidence generation, sharing and use
- Synthesizing knowledge and analyzing large, complex care-related data sets to identify those at risk
- Managing information across multiple stakeholders—wellness, health and social care organizations
- Exchanging evidence-based insights to coordinate, innovate and optimize treatments to improve health outcomes
- Delivering proactive and individualized care to:
  - Help eliminate unnecessary inpatient admissions and readmissions
  - Highlight effective evidence-based protocols for greater economic value and reduced waste
- Collaborating across boundaries to drive individual wellness and community vitality
- Providing coordinated care to individuals across citizen, patient and consumer boundaries
- Integrating clinical knowledge, social determinants and lifestyle choices to derive individual-specific insights and personalize health and care support

**IBM solutions:**
- Care and Health Management
- Population and Care Insights
- Enterprise Health Analytics
**CASE STUDIES**

**European care provider**
Serving nearly seven million residents, this health provider in Spain is implementing a new target program for complex chronic disease management leveraging IBM Cúram software to enhance the quality of life and care of its elderly patients, manage consumption of healthcare resources, and control spiraling costs.

- Coordinated care planning and delivery through a comprehensive view of the individual
- Created a unified view of care plans across stakeholders to increase effectiveness and inform adjustments

**Danish regional healthcare system**
Serving patients in a region of southern Denmark, this provider deployed an IBM solution to improve collaboration and clinical data analysis while creating holistic views of diagnoses, prognoses and treatment plans.

- Enabled real-time communication between patients, physicians and specialists with unified access to care plans
- Improved access to patient data to develop a coherent cross-sector treatment plan shared by all stakeholders

**BJC HealthCare**
One of the largest nonprofit healthcare organizations in the United States, BJC HealthCare implemented an IBM Content Analytics solution that integrates unstructured data across boundaries to enhance research capabilities and improve care.

- Enables researchers to recognize trends and patterns to support medical research initiatives and identify intervention opportunities
- Uncovers valuable insights and information about individuals’ social factors, demographics and behaviors
Enhance relationships across the ecosystem

Dynamic marketplace changes affecting life sciences organizations require a new approach to business strategy. Life sciences leaders are redefining their role in the healthcare ecosystem and see transformation as the path to achieving the goal.

Life sciences organizations are facing revenue and profit gaps caused by patent expirations of many branded drugs, low research and development productivity, and increased pricing pressures. Healthcare reforms have heightened the profit crunch. In pursuing different approaches to replace revenue losses and shifting their interests to new business models to redefine and enhance their value in the healthcare ecosystem, life sciences organizations are showing an interest in collaborating with other healthcare organizations.

One way to address some of these challenges is to better harness and leverage relationships across the ecosystem. This requires becoming more patient-centric and collaborating with other major participants (such as providers and payers) that also serve the same consumer. Healthcare organizations need access to specialized knowledge sources to help with diagnoses, treatment plans and other decisions. With better patient information and clinical knowledge, providers can work with their patients to develop and incorporate evidence-based diagnostic and treatment plans into care delivery processes.

Life sciences organizations can deliver real value through enhanced relationships across the ecosystem. But what does this look like? Smarter Care is an opportunity for life sciences organizations to address the decline in growth of their core business by improving patient adherence to current products and adding revenue streams for new solutions and services in the adjacent healthcare space. Smarter Care also enables life sciences organizations to enhance their value beyond products to services and solutions by leveraging insights from data to enable holistic, individualized care. Tools and services that help coordinate care are vital to successful accountable delivery.
HOW WE DELIVER IT

By providing patient-specific data at the point of care and across care venues, life sciences organizations can support clinicians with the information they need to make better clinical decisions, engage care team members and patients, and monitor compliance with treatment regimens in the community. The goal is to drive lower costs and optimized outcomes for the ecosystem.

IBM can be a comprehensive transformational colleague that works across the business, application and infrastructure layers of life sciences organizations to help them provide patient-centered care that is evidence based and outcome driven. We typically work with life sciences clients in a three-phase, iterative and agile approach for Smarter Care from strategy through implementation.

Phase 1: Solution and implementation strategy
- Strategic definition of marketplace needs, business model and customers
- Solution definition for what the solution will solve and solution capabilities
- Business case definition for the value to deliver to ecosystem stakeholders and receive in return
- Proof of concept to understand clients’ receptiveness and assess functionality
- Operating model definition, required organizational capabilities and an implementation road map

Phase 2: Pilot design and execution
This phase focuses on pilot design, build and implementation as well as support for the care model solution components and interventions that will be offered to stakeholders. Predictive signals identified in the data are built into predictive models and embedded into the care solution. Solution training and testing is conducted on historical data, and piloting is done in a prospective setting. We also measure the solution on the business case delivered.

Phase 3: Solution implementation
During the final phase, the solution is built and implemented in the marketplace.

IBM solutions
- Care and Health Management
- Population and Care Insights
- Enterprise Health Analytics

Figure 3: Effectively enhancing relationships across the ecosystem requires linking providers, pharmaceutical companies and health plans.
CASE STUDIES

Pharmaceutical company A
This client worked with IBM to define a vision and an innovative solution for a new revenue-producing business aimed at identifying and intervening with patients on a trajectory toward crisis.

- Prevented crises in chronically ill patients by leveraging advanced analytic capabilities
- Redefined its role in the healthcare ecosystem and emerged as a trusted partner among healthcare stakeholders

Pharmaceutical company B
This client worked with IBM to establish a data integration and management platform that extracted big data from disparate sources to enable advanced analytics and visualization capabilities.

- Identified more than USD80 million in incremental revenue through interventions in improving patient adherence
- Identified high-potential physicians for precision targeting

Pharmaceutical company C
This client worked with IBM to define an overall strategic vision and innovative solution targeted to reduce hospital readmissions through enhanced care coordination.

- Mitigated a USD460,000 average penalty risk for a low-performing hospital
- Provided physicians, providers, patients and patient care teams with a 360-degree patient view across the continuum of care
HOW WE DEFINE IT

Obtaining a single view of the citizen is a key capability focus for organizations seeking to achieve new business outcomes and is the core of a citizen-centric approach. Caseworkers need integrated information about their clients, including family members and associated relevant programs in which they are enrolled. To develop more-effective service plans, caseworkers also need a longitudinal view of the client over time. Through a single view, organizations can:

- Provide self-service capabilities to clients for enrollment and case management activities and greatly enhance customer satisfaction
- Understand who is eligible for services to prevent unnecessary spending
- Analyze historical information to anticipate future service demands
- Achieve identity insight to provide identity and relationship resolutions
- Gain systemwide access to client data through master data management capabilities

Citizen access and insight brings together tools and technologies to allow for citizen identification, verification and analysis across various social programs to help prevent fraud and support predictions. The solution also enables clients to interact online directly with government agencies.
HOW YOU BENEFIT

Citizen access and insight provides a holistic view of clients across relevant programs from relevant organizations.

- Gain a rapid understanding of citizens, applicants and providers across multiple programs and cases.
- Provide the right service to eligible citizens with improved access.
- Improve service and client satisfaction.
- Analyze historical information routinely to better project future service demands.
- Address regulatory requirements.

HOW WE DELIVER IT

IBM guides organizations in defining and adopting new business models. Using the IBM Social Industry Model, we help you identify and create social component business models, social process models, social functional models, social performance models, social reference architecture and social data models to address current and emerging service delivery challenges.

Figure 4: Creating a holistic view of citizens requires integrating internal and external data across touchpoints.
Social services agencies are charged with managing the delivery of programs to ensure the overall well-being of the community. Agencies need to respond to inquiries and requests for services in a timely manner to ensure citizen satisfaction while simultaneously complying with policy requirements. Delivering these programs is complex; often involves multiple parties, including citizens; and requires complicated case management to determine eligibility, resolve permissions and coordinate services.

Social program management is the organizing principle for providing these services to citizens and providing case managers with the means to do their jobs efficiently. Achieving these goals requires a number of key elements:

- An outcome-based approach that addresses the individual and the family holistically through integrated service delivery
- The ability to manage documents with ready-to-use workflow and process capabilities that incorporate structured (electronic forms and files) and unstructured (phone messages and emails) data
- A system that brings all this information together and coordinates it throughout the case management process
- A business process management system to coordinate workflow among people and across systems
HOW YOU BENEFIT

Leveraging the capabilities of social program management, you can:

- Empower caseworkers as they handle increasingly complex decisions and larger caseloads
- Gain a comprehensive view of citizens’ needs, services history and current benefits
- Manage service delivery and incidents more quickly and effectively
- Help protect your organization against legal and regulatory risks

HOW WE DELIVER IT

The IBM Cúram Social Program Management Solution supports assessing client needs, developing client goals, tracking client progress and analyzing the effectiveness of prescribed services. It changes the focus from getting an individual efficiently enrolled into a program to providing a structured and collaborative approach for helping individuals achieve positive outcomes. The IBM Cúram solution is built specifically for health and social program organizations. It incorporates more than 3,000 best practice business processes and rules that promote flexible and comprehensive support throughout the client life-cycle—from initial contact and registration through service delivery and outcome evaluation. By helping meet program requirements in a configurable and reusable package built on a single data model, the IBM Cúram Social Program Management Solution helps organizations quickly address changing needs and speed the introduction of new services—all while reducing technology risk and costs. IBM’s substantial experience and robust technology combine to create a solution that can meet your unique needs, offer lower risk of engagement and implementation, and result in better outcomes for your clients.

SELECTED IBM OFFERINGS

Software solutions
- Cúram Social Program Management Platform

Process improvement and implementation services
- Social program consulting and transformation

Managed services
- Application management services
- Managed security services

Technology platforms
- IT strategy
- PureSystems family
- Power Systems solutions

Figure 5: Social program management helps optimize the service delivery process by uniting content, monitoring and analytics, case flows, and workflow.
HOW WE DEFINE IT

Your agency needs to detect fraudulent claims as well as measure and manage its budget and program performance. Social programs worldwide need to lower operational costs while facing bigger caseloads and increasing demands to deliver better, more-effective services. One significant way to reduce costs is to mitigate fraud, abuse and error. With the huge sums involved—billions each year, even in smaller countries—modest improvements can have a dramatic effect.

The IBM Social Program Integrity Framework uses a variety of analytics tools and technologies, analytical models, and techniques to help you manage improper payments associated with ambiguous identities and suspicious relationships as well as those that are the result of inaccurate information used to calculate a payment. The framework can help you examine individual cases in addition to aggregate caseloads; leverage a growing mountain of data to make better, fact-based decisions; and address fraud and error through a comprehensive lifecycle view—detection, investigation, resolution and recovery, deterrence, and prevention. Social program integrity supports analytics independently or through integration with other social program management elements, shifting your capabilities from simply detecting integrity issues to preventing them.
**HOW YOU BENEFIT**

Social program integrity can improve benefits delivery and services while helping ensure the proper use of resources.

- Reduce overpayments by better matching eligibility information to individuals.
- Gain insight into familial relationships.
- Enhance intake and eligibility determination.
- Reduce fraudulent claims through identity resolution.
- Improve efficiency and outcomes through enhanced performance tracking.
- Improve regulatory compliance.

*Figure 6: Social program integrity can help you better detect fraud, take advantage of reporting and monitoring, and improve identification management.*

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**SELECTED IBM OFFERINGS**

**Software solutions**
- Smarter Analytics Signature Solution: Anti-Fraud, Waste and Abuse
- IBM SPSS®
- Smarter social services analytics

**Process improvement and implementation services**
- Social Program Integrity Framework
- Social program consulting and transformation

**Managed services**
- Application management services

**Technology platforms**
- IT strategy
Social program consulting and transformation helps guide social program organizations in defining and adopting new business models. We can help you identify existing and new services while building an integrated service delivery strategy for your organization.

**HOW YOU BENEFIT**

Address current and emerging service delivery challenges with this comprehensive solution.

- Gain new insights into business challenges using models and strategic goals from the IBM Social Industry Model.
- Follow a road map that reflects organizational priorities.
- Prioritize resources and strategic goals by creating an organizationwide component business model and heat map.
- Understand the ROI for existing and planned strategic outcomes.
Figure 7: Social program consulting and transformation helps guide social organizations in defining and adopting new business models.
HOW WE DEFINE IT

To improve healthcare and patient outcomes, it’s critical for organizations to treat individuals holistically by incorporating clinical, wellness and social factors. Solutions supporting these objectives need to unite care providers around a common approach and enable a collaborative system that facilitates a multifaceted assessment of an individual’s needs across all dimensions of care. These solutions must also allow multidisciplinary teams to collaborate on care plans; receive regular alerts based on anomalies in care; and gain access to timely, relevant information to make knowledgeable decisions.

Care and Health Management solutions provide a configurable, content-rich platform that distinctively integrates health and social care delivery. Leveraging these solutions’ critical enabling capabilities for information exchange, master data management and business analytics can help organizations achieve better outcomes while lowering costs.

HOW YOU BENEFIT

With IBM solutions, you can enable a shared, holistic view of individuals and coordinated care plans designed to create sustainable outcomes.

- Coordinate care services deployment for more-effective treatment of vulnerable individuals.
- Improve results by leveraging data from registration, consent, referral, treatment and analysis of individuals and care received.
- Capture a holistic view of the individual through clinical analysis combined with a broader assessment of the individual’s nutrition, safety, shelter and income needs.
- Analyze elements across case and treatment plans to improve outcomes.
- Support improved health outcomes through better care plans that address the individual’s complete context while actively engaging his or her caregivers.
HOW WE DELIVER IT

The IBM Cúram Solution for Care Management supports assessing client needs, developing client goals, tracking client progress and analyzing the effectiveness of prescribed services. It changes the focus from getting an individual efficiently enrolled into a program to providing a structured and collaborative approach for helping individuals achieve positive outcomes. The IBM Cúram solution is built specifically for health and social program organizations. It incorporates more than 3,000 best practice business processes and rules that promote flexible and comprehensive support throughout the client lifecycle—from initial contact and registration through service delivery and outcome evaluation. By helping meet program requirements in a configurable and reusable package built on a single data model, the IBM Cúram Solution for Care Management helps organizations quickly address changing needs and speed the introduction of new services—all while reducing technology risk and costs. IBM’s substantial experience and robust technology combine to create a solution that can meet your unique needs, offer lower risk of engagement and implementation, and result in better outcomes for your clients.

Figure 8: IBM Cúram solutions supporting outcome management for social and healthcare coordination enables a holistic understanding of an individual’s determinants of health.
HOW WE DEFINE IT

The rising incidence of chronic disease has made patient care more complex and costly. Globally, poor care coordination is a universal problem, and healthcare organizations are looking for ways to:

- Build longitudinal, data-driven, evidence-based population insights
- Uncover hidden intervention opportunities
- Proactively deliver accountable and personalized care
- Collaborate across caregivers to focus on high-cost, high-need patients
- Prevent at-risk patients from progressing to high-cost, high-need status

Population and Care Insights provides content and predictive analytics for analyzing patient information from structured and unstructured content and enables individualized analytics to support data-driven and patient-centered care delivery systems while leveraging advanced case management technology to manage care delivery across multiple care settings. Unlocking insights into patient data can help healthcare professionals more effectively care for high-risk populations, provide safer patient care through early interventions and comply with new reimbursement models for quality care.

A comprehensive healthcare solution, Population and Care Insights provides advanced analytics and care management to support patient-centered care processes. Healthcare organizations can increase the quality of care, improve clinical outcomes and reduce costs by:

- Creating a comprehensive view of patient information that leverages a range of data, including vital health metrics, test results, doctors’ notes and diagnostic imaging reports acquired from multiple providers
- Using advanced analytics to surface new insights and identify earlier, more effective targeted intervention opportunities
- Turning those insights into action with coordinated, automated, accountable and patient-centered care management
HOW YOU BENEFIT

The Population and Care Insights solution provides data-driven population analysis to support patient-centered care processes.

- Interact more securely with patients, caregivers, healthcare providers and payers.
- Analyze structured and unstructured data from various types of documents, patient records and claims information.
- Predict health risks such as the onset of disease or readmission.
- Provide insightful information to healthcare providers based on patient similarity analytics.
- Support coordinated, integrated, comprehensive care delivery models required to optimize care, improve health and lower operational costs.

HOW WE DELIVER IT

Population and Care Insights helps healthcare organizations take key steps toward transforming patient care by leveraging the breadth of their patient information across multiple departments and groups; uncovering new, more effective and earlier intervention opportunities; and turning insights into action with coordinated, patient-centered care management.

- Aggregate, enrich and analyze longitudinal patient data along with operational and social data (structured and unstructured) to enable new insights.
- Leverage content analytics to extract and normalize terminology and concepts while identifying new trends, patterns, anomalies, deviations and relationships to medical outcomes.
- Use predictive analytics to predict better outcomes, including surgical-caused infections, condition deterioration, readmissions and disease onset prior to diagnosis.
- Leverage similarity analytics to identify hidden intervention opportunities based on risk stratification, gaps in care, utilization management, resource matching and treatment efficacy.
- Focus care on high-cost, high-need clients and deliver an outcome-driven approach.

SELECTED IBM OFFERINGS

Software solutions
- Advanced Care Insights
- IBM Cúram Solution for Care Management

Managed application services
- Application management services
- Managed security services

Technology platforms
- Population and Care Insights Infrastructure Solution (Power Systems and IBM System x®)
- Health analytics reference architectures (Power Systems, IBM System z® and System x)

Figure 9: Enabling patient-centered care requires a coordinated view of various population health elements.
Hospital organizations spend millions of dollars acquiring and implementing advanced information systems that collect incredible amounts of data every day. Yet accessing that data and using it to meet regulatory mandates—such as to demonstrate and publish evidence that the organization is providing high-quality care to populations at reasonable costs—remains a challenge. Many organizations lack the tools, skills and architecture to efficiently collect, aggregate and analyze data from their disparate systems. Additionally, hospitals struggle to:

- Integrate a heterogeneous and complex data environment
- Access historical data and apply it to past, present and future views
- Mine data for insights yet keep clinical information private and secure

Enterprise Health Analytics provides capabilities to aggregate and analyze information from disparate systems and sources and transform data-rich environments into intelligent, high-value information assets that help speed medical research, diagnoses, treatment and outcomes. The solution enables actionable insight for operational analysis and performance improvement; advances clinical analysis and quality reporting to improve care and outcomes; and provides security-rich, continuous, reliable access to the information that healthcare providers need—with low operational overhead.

Capabilities include:

- Proven and preexisting clinical data models, clinical content packages and integration software
- Semantic interoperability to simplify information governance
- An enterprise-caliber patient identification engine
- Architecture to use and extend existing analytics platforms
- Electronic medical records (EMR) systems and ancillary vendor platform–agnostic features
- Support for self-service analytics
HOW YOU BENEFIT

By enabling you to derive value and intelligence from clinical and business data, Enterprise Health Analytics helps you improve care quality and outcomes and curb costs.

- Unlock and integrate clinical, financial and operational information to drive actionable insights.
- Support decision making within and across clinical, business and research domains.
- Use retrospective and predictive analytics to measure, monitor and improve performance.
- Improve patient safety and care quality.
- Increase operational efficiency and clinician productivity.

HOW WE DELIVER IT

Through an integrated, high-performance portfolio of software, services and solutions, IBM enables you to build flexible, powerful information solutions and apply business analytics to optimize business outcomes. Our integrated portfolio has the breadth and depth to turn data into insight to fuel better business outcomes.

SELECTED IBM OFFERINGS

**Software solutions**
- Enterprise health analytics
- Single view of patient and provider

**Process improvement and implementation services**
- Advanced analytics

**Managed services**
- Managed security services

**Technology platforms**
- Health analytics quick start solution
- Provider master data management and business intelligence reference architecture with workload optimization

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Figure 10: IBM transformational analytics can help organizations derive more value out of structured and unstructured clinical and business data.
IBM’s commitment to the public sector

Leaders across industries, all around the world, are looking for help transforming systems of care. These leaders are under pressure, sense the change that is happening and recognize the need to collaborate to seize the opportunity. But sometimes it’s hard to know where to start, what actions to take and how to crystallize a plan. IBM has proven success in meeting the challenges of a “system of systems.” We have the ability to inspire, galvanize and drive informed action. We have solutions that transform, and we’re ready to help.

IBM is bringing groundbreaking Smarter Care solutions to the marketplace from IBM Research — the genesis for repeatable, proven solutions:

• Designed by health and social care professionals and delivered with deep implementation experience in care delivery systems
• More than USD16 billion in analytics acquisitions driving game-changing innovation; 12 Analytics Solution Centers
• IBM Watson™ cognitive computing that works how people do—reasoning, learning, generating hypotheses and evaluating

For more than 100 years, IBM has been helping public sector leaders achieve business objectives through our distinctive ability to convene leaders, collaborate across boundaries and address tomorrow’s challenges through relentless innovation.

For more information
For more information on any of the solutions described in this solution guide, contact your local IBM representative or visit: ibm.com/smarterplanet/us/en/smarter_care/overview