

A better way to deliver comprehensive care

IBM Care Management enables delivery of care plans that extend beyond traditional clinical determinants



Highlights

- Personalize holistic care while minimizing costs
 - Identify new opportunities for intervention and services
 - Support decision-making and optimize care with the full breadth of data
 - Turn health and social care insights into actions
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Healthcare costs continue to be high around the world. For countries that are members of the Organization for Economic Co-operation and Development (OECD), healthcare spending reached 9.3 percent of GDP in 2014. Healthcare spending accounted for almost 17 percent of GDP in the US, close to 12 percent of GDP in the Netherlands, and in the range of 11 percent of GDP in France, Switzerland and Germany.¹ Furthermore, annual social and healthcare program costs combined are USD8 trillion worldwide.²

Various healthcare stakeholders and policymakers have an urgent need to bring costs under control. However, they must also meet the challenges of increasing demand and expenditures, changing expectations, new competition, legislative reform, decreasing reimbursements and reduced funding. To overcome these challenges, they are seeking new, outcome-based service delivery models that can help them lower spending and drive more sustainable outcomes for individuals and families. What is needed is a more personalized approach that is patient centered and can reduce the economic burden of care while delivering quality outcomes.



That health is complex and is influenced by many different factors is widely recognized. Medical care alone accounts for only 20 percent of the variance in health over time. The remaining is shaped by genetic factors, health behavior, social and economic factors and physical environmental factors.³ Of those, environmental and social factors account for the greatest impact and contribute to approximately 55 percent of health quality.⁴

It's clear: a holistic understanding of an individual's needs; the barriers to meeting those needs; and the optimal combination of treatment, services and benefits to address those needs is required. IBM can help service providers achieve this holistic understanding with IBM® Care Management, an offering in the IBM Smarter Care portfolio. Smarter Care is IBM's holistic approach to care management that extends beyond traditional clinical care approaches in today's marketplace. Smarter Care takes into consideration the determinants of health that span biological, social and psychological domains to generate comprehensive care plans that bring unprecedented insight and opportunities for action to communities of care.

A holistic approach to healthcare and social care

Traditionally, care management professionals have not had access to the information and tools capable of providing a coordinated, holistic approach to care. What they require are sophisticated tools and data that enable them to:

- Assess needs, establish goals, implement care plans and track progress.
- Collaborate across organizational boundaries, at all levels of government and in public and private sector systems.
- Coordinate services based on a complete understanding of individual needs.
- Understand the barriers that prevent professionals from meeting those needs.
- Measure and represent outcomes in a clear and concise format.

Their current toolset includes isolated data systems, manual assessments and processes, and time-consuming outcome measurement and reporting capabilities.

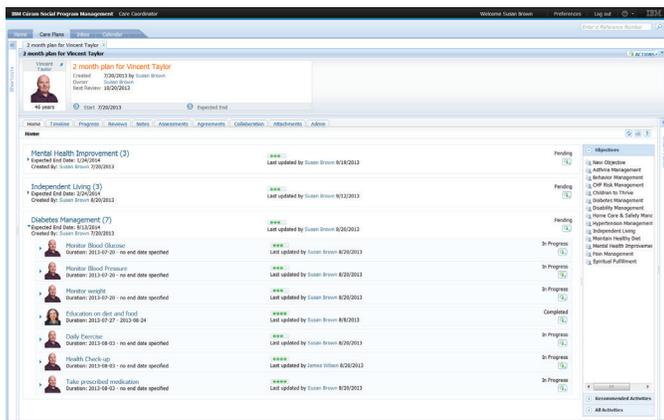


Figure 1: Multi-disciplinary care management workers must coordinate services based on a complete understanding of needs in addition to the barriers that prevent them from meeting those needs.

Analytics, natural language processing and automation capabilities can support professional decision-making to identify high-risk and high-need individuals and populations. They can also expose patterns and “hot spots” that reveal new intervention opportunities that can minimize and even prevent the impact of health problems. Additionally, collaboration tools can support more personalized person-centered responses to client needs.

Professionals can use these tools to gain a complete understanding of individuals and their families. Service providers can access information about an individual’s services history in a single organization or multiple government and non-government providers. Individuals can even use these same tools to manage their own care when appropriate and to interact with professionals when necessary. When people can become more active, self-reliant partners in the administration and delivery of their health services and benefits, the results can be more sustainable with more positive outcomes. Providing a holistic approach capable of enabling sustainable, positive outcomes is the goal of IBM Care Management.

IBM Care Management supports a wide range of healthcare providers, public and private payers, life sciences professionals, and social program providers and enables them to deliver holistic and individualized care. IBM Care Management brings together key capabilities that span data integration, analytics and coordination of care into a single offering. The result is a unique 360-degree view of each individual that facilitates outcome-focused care.

Analyzing different and unconnected data sources to uncover hidden insights at the point of care

Because 80 percent of healthcare data is in an unstructured format, organizations require tools that can incorporate this type of information. To capture unstructured content, content analysis tools must use the same advanced natural language processing technologies as IBM Watson™. These technologies can understand text-based information and present it for analysis.

IBM Care Management provides content analytics capabilities to enrich the data brought into the care management solution by accurately identifying healthcare facts in the unstructured component of that data and normalizing it to standard codes with built-in accelerators. In addition, IBM Care Management incorporates more than 100 dictionaries and 800 parsing rules to help extract and map to diagnoses, procedures, labs and medications by using industry standards such as ICD-10, CPT, SNOMED, and RXNORM. Traditionally, this type of information was too resource-intensive to incorporate into day-to-day operations. With these capabilities, care management providers can have insights from structured and unstructured data sources at the point of care.

IBM Care Management can help healthcare organizations integrate and analyze a breadth of information acquired from multiple systems and care providers. Supported data sources include electronic medical records (EMRs), care records, social worker case notes, doctor's notes, permanency plans, consultation reports, faxes and more. This previously fragmented information can be used by providers to get longitudinal, data-driven, evidence-based insights that can guide individualized care management at the point of care or service delivery.

IBM Care Management has been developed to meet the standards of health and social care, which allows for efficient implementation, but more importantly, smooth integration with the systems professionals use today. This integration includes the medical applications, clinical repositories, enterprise master patient index, older interface engines, medical insurers, pharmacy and remote patient monitoring that multidisciplinary care teams, case workers, social workers, mental health professionals, medical professionals and analysts are using. IBM Care Management supports bidirectional integration with EMRs and other source systems. It also unifies fragmented clinical, social, and behavioral health information to create a personalized care plan that takes advantage of existing connectors, nodes and schemas.

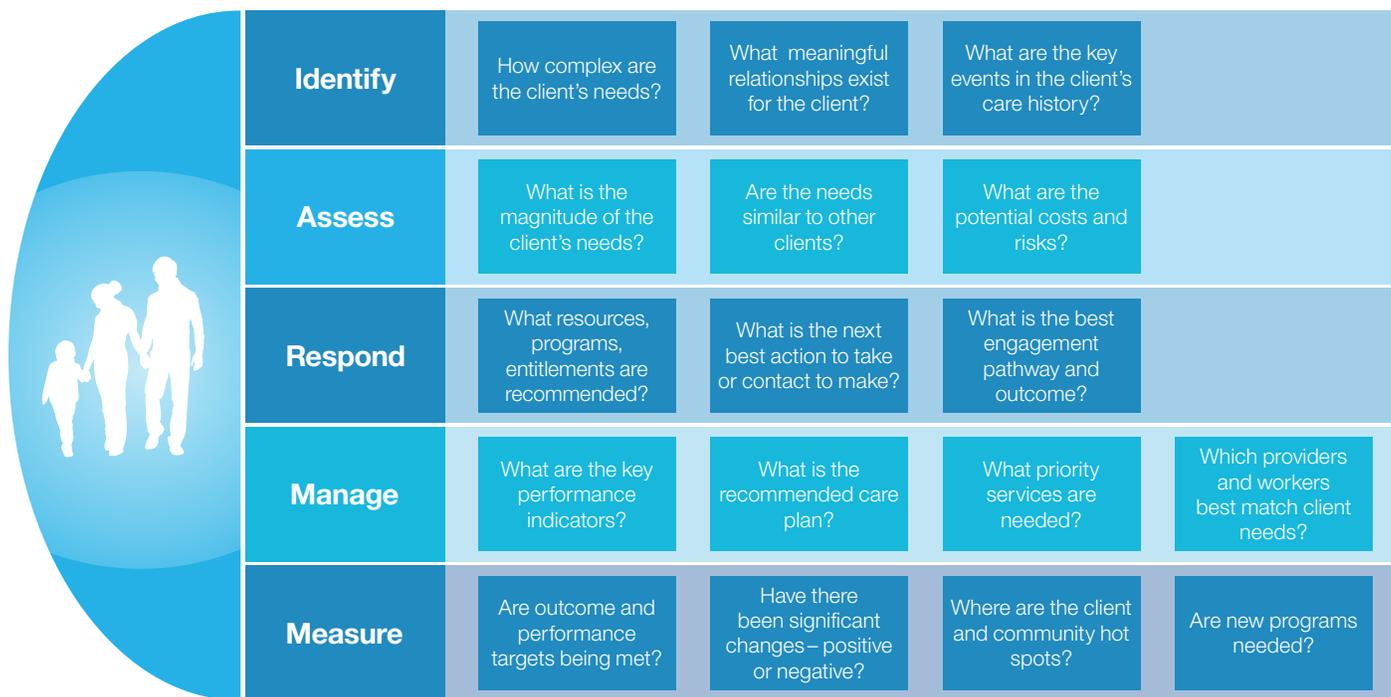


Figure 2: These five activities are fundamental to the work of care management professionals.

Providing patient-centered team-based care

IBM Care Management enables care management professionals to create and administer optimal outcome plans for individuals and their families. By reducing the burden of administrative paperwork, this solution enables care professionals to focus on serving the individual and ascertaining the most appropriate care plan for their individual and specific needs.

With IBM Care Management, care providers can design personalized care plans, coordinate care delivery that spans multidisciplinary teams, and engage individuals directly to improve treatment outcomes. IBM Care Management is designed to support the five activities that are critical to care management.

1. Identify

To develop a care plan that fully and adequately meets individual needs, care professionals must determine the complexity of a patient's needs, his or her prior care history, and his or her personal and family support. Financial means, housing, education, safety, employment and nutritional needs are as critical in care plan design as health conditions. These factors all affect the likelihood of successful, sustainable outcomes. IBM Care Management enables professionals to develop a holistic view of individuals by providing access to a synchronized view of data from multiple existing systems that includes insights from unstructured data. It supports goal-setting, integrated service delivery planning, execution and monitoring for health outcomes.

2. Assess

When identified, an individual's needs must be quantified for severity to ensure an appropriate response. An individual's health, social and psychological context, strength, and needs are all considered in evidence-based methods. This outcomes-based assessment is crucial and can be repeated many times in complex cases. IBM Care Management integrates these assessments into the planning process. After priorities and goals are set, outcome plans with recommended activities can be generated.

3. Respond

A series of planning activities are generated by the initial evidence-based assessment. In contrast to a one-size-fits-all approach, care management workers can use an individual's situation, history and current needs to determine priority for benefits and services to create a unique engagement pathway. IBM Care Management helps support effective decision-making through a dynamic assessment and decision-making framework. This framework features various functions:

- Intelligent information capture and client evaluations
- Rules-based, assessment-driven recommendations for service plans and key client metrics
- Flexible tools for constant monitoring of client progress toward goals

A care coordinator creates and manages the care plan by selecting the appropriate activities. Those activities might include counseling, physical or occupational rehabilitation therapy, follow-up doctor appointments, filling prescriptions, education, training, or any combination of services.

4. Manage

For a comprehensive care plan to succeed, the care plan should extend beyond a single organization and take into consideration a team of multidisciplinary care workers that span distinct and unique organizations. Together, they promote the delivery of the right services, at the right time, by the right provider, in the right setting to achieve the preferred outcome. Additionally, needed, the care plan can also be modified for a new optimal care pathway.

IBM Care Management supports various functions that enable collaboration and coordination between virtually all parties who are involved with the care process. These functions allow for effective, team-based planning and decision-making with an emphasis on role-based security:

- Simple services selection and scheduling
- Robust service registry and provider information management
- Comprehensive administration of contract and licensing information
- Automated, timely and accurate processing of provider payments and invoices
- Role-based portals that multidisciplinary team members can use to view and update care plans and participate meaningfully in the care process through online discussions and meetings

5. Measure

Outcomes must be measured for individuals, programs and organizations. Outcome evaluations, reports and performance indicators can help inform decision-making at all levels. And, when analytics are applied to them, future needs can be predicted and preventive measures identified. As a result, the development and implementation of care pathways can become an iterative process based on evidence, experience and proven methods. IBM Care Management provides a role-based ability to view and manage case information, activities, documentation and communications. With this solution, care management providers can schedule and run assessments and reassessments to identify if individual circumstances have improved or worsened. The graphic visualization features of this solution can also track individual progress and help resolve issues throughout the treatment process.

Conclusion

IBM Care Management is an insight-driven care management solution that provides a social platform for care givers that can help them to collaborate on how to help their clients avoid the need for emergency care and to otherwise help keep their clients healthy. It is a packaged software application that can help health and social care stakeholders manage care throughout the care continuum. They can identify clients in need of care, assess their needs, establish the appropriate plan to support their needs, manage the care, and monitor results and outcomes. It brings together key capabilities that span data integration, analytics and coordination of care. The result is a business solution that provides a 360-degree view of each person and enables delivery of comprehensive care plans that are person-centric not disease centric.

IBM Care Management: Features and benefits

- Builds longitudinal, data-driven, evidence-based care records
 - Uses patient information that spans systems and providers to create a complete picture of health information beyond clinical elements
 - Helps all care givers collaborate to focus on high-cost, high-need patients and proactively deliver accountable and personalized care
 - Supports adaptive, patient-centered care delivery while automating tasks, reducing redundancy and repetitive paperwork and driving efficiency
 - Generates data-driven insights that can help decision-making at the point of care
 - Improves operational effectiveness by building flexibility and resilience into operations to support cost reduction and excellence in clinical and outcome performance and practices
 - Establishes a central record and memory, which can reduce the amount of time and effort individuals need to manage their own care—especially valuable in some instances of elder care and mental illness
 - Helps identify new, personalized care management opportunities that move beyond one-size-fits-all medicine
 - Enables care providers to spend more time or interact with more people
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Why IBM?

Care organizations choose IBM for its technology, experience and people. IBM starts by understanding what must be accomplished, develops processes to support those needs, and then uses technology to achieve the preferred outcomes.

For more information

For more information about the IBM Smarter Care point of view or the IBM Care Management product, contact your local IBM representative or visit ibm.com/smartercare.



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Produced in the United States of America
December 2014

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