



Highlights

- Promoting health versus treating illness
 - Moving to coordinated care and outcome-based systems
 - Increasing collaboration to improve citizen health and vitality
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Coordinating health and human services

Controlling costs and improving outcomes in the US healthcare system

Healthcare is one of the largest components of the US economy. According to the Congressional Budget Office, healthcare accounts for more than 16 percent of the US Gross Domestic Product (GDP), and that number is expected to grow. Spending on health accounts for about 27 percent of the US federal budget, and Medicaid programs are the largest component of budgets in many states.¹ Total costs will rise because of aging populations and expanded access to publicly funded health insurance.

Homelessness, behavioral health issues, substance abuse and physical disability are examples of conditions that add massive costs to government programs. A growing number of experts believe that effectively addressing, or at least understanding, the social determinants or factors that influence an individual's wellness offers tremendous potential to contain or reduce total healthcare and social program costs.

In the United States, 12 million people live in long-term care facilities.² That number is projected to more than double by 2050 because over the next 15 years, approximately 10,000 people will turn 65 each day.³



To meet demand, more long-term care facilities are springing up around the country. In many cases, residents will pay for their care from their life savings. In other cases, state Medicaid programs will cover much of the cost. Currently, more than one-third of all seniors live with incomes below 200 percent of the poverty level.⁴ A toxic stew of problems for the elderly, their families, and government budgets is increasingly visible.

Leaders are under increasing pressure to rein in spending, while delivering better outcomes and quality of care. These seemingly contradictory goals can be achieved, but require greater efficiency and stakeholder collaboration. Technology can play a significant role to increase independence, improve quality of life and coordinate services for vulnerable populations.

The federal government is providing critical funding to the states to modernize costly existing technology and enable states and cities to improve program results.

Promoting health versus treating illness

As the population ages, chronic illness becomes more prevalent and associated costs increase. Focusing the delivery of services on the holistic needs of individual and families can yield better results and reduce repeated visits to an emergency room, or readmission to hospitals.

The role of technology

To meet their goals, health and social service providers are delivering care with a person-centered approach that focuses on prevention, improves outcomes, and better integrates fragmented health and social programs.

For example, coordination between the elderly, their families, and health and social programs can help support independent living. It can increase the number of years that seniors are able to safely remain in their homes, which can improve quality of life and reduce long-term care costs and hospital readmissions.

Using technology, providers can enable a single view of an individual or family across programs. Analytics can be used to help identify the most vulnerable people. By identifying those people most at risk, providers can then potentially prevent the onset of disease or crisis and determine the best way to engage and support individuals.

Setting up secure portals can facilitate better care across service providers and enable coordination among individuals, their families and community service organizations. Taking advantage of technology frees case workers to focus their attentions on the people who are most in need. Using technology, workers can more easily determine eligibility, support enrollment, collect documentation and manage cases from plans to outcomes.

Supporting independent living for seniors and disabled individuals by investing in home health and daily living services can reduce the number of high-cost hospital admissions and the need for long-term care and support. Additionally, programs for children and parents can help promote a healthier generation by decreasing the incidence of childhood obesity and childhood illnesses. These programs also can help encourage healthier lifelong habits, which in turn support a more educated and productive community and reduce the cost of care required after the age of 55.

Physicians also recognize the effects a patient's community, mental and social conditions can have on overall health. A 2011 national survey of 1,000 US physicians found that most are "not confident in their capacity to address their patients' social needs," and that they believe this situation impedes their ability to provide quality care.⁵

Leaders increasingly understand that solutions to managing healthcare costs and improving outcomes must be sought beyond the health system. Solutions should include the coordination and integration of social and healthcare programs.

Coordinated care: A smarter approach

Research repeatedly confirms that the vast majority of healthcare costs are associated with a small minority of individuals with chronic conditions. One prominent study found that high-risk, high-need patients make up 20 percent of the US population, yet generate 80 percent of healthcare costs.⁶

For vulnerable populations, state and federal government leaders are looking beyond traditional healthcare boundaries to address the non-health conditions associated with high-need populations. They are considering social determinants such as housing, education, work and early life experience to uncover ways to improve the health of families and individuals and contain healthcare costs.

Increased coordination between government health and social programs mirrors the transformation occurring within the healthcare industry. Healthcare players are changing their thinking about the services they deliver, focusing on wellness and outcomes rather than capacity for acute care. The rise of accountable care organizations and a sharp increase in the use of managed care programs in Medicaid is driving a shift from volume-based payment models to ones that support risk-sharing and outcome improvements.

San Diego County, California

According to San Diego County leaders, three behaviors lead to the four chronic diseases that account for 57 percent of deaths, and incur USD4 billion in healthcare costs in the county. The Live Well San Diego initiative is addressing those behaviors.⁷ Working with partners across traditional healthcare, public health, social services, business, education and faith organizations, as well as other community leaders, the county has achieved improvements in conditions that negatively impact population health. San Diego is experiencing reductions in heart disease, stroke, cancer rates, childhood obesity, infant mortality and the number of children in foster care.

The next step in the county's journey is to identify high-cost, high-need individuals and improve the coordination of services around those individuals. For example, coordinating mental and behavioral health, substance abuse, housing and employment services for the homeless can reduce taxpayer costs while improving lives and the economic vitality of San Diego.

A five-step program

IBM has worked with healthcare clients in the US and around the world. Based on this experience, we believe that effective coordination requires five fundamental processes.

- **Identify.** The social determinants of health must be identified and factored into an individual's care plan.
- **Assess.** The individual's needs must be quantified to determine similarity to other clients and potential costs and risks.
- **Respond.** A care coordinator must use the assessment to determine eligibility and entitlement to benefits and services, and then create a care plan that addresses the severity of these needs.
- **Manage.** The individual's care plan must be managed by a single care coordinator.
- **Measure.** Outcomes must be measured at the individual, program and organizational levels.

Effective collaboration does not require merging health and social programs. Rather, programs and providers with unique skills and capabilities can share information in accordance with the client's consent and work together toward a common goal. In some cases, care coordinators proactively manage high-risk, high-need individuals, influence healthy behaviors and ultimately reduce healthcare costs while improving vitality. For example, the state of Washington has brought on 300 care coordinators to support its Health Homes program.

New York State Medicaid Health Homes

New York's Medicaid population is approximately 5.8 million people.⁸ Reducing average recipient costs and improving results is critical as program participation increases due to Medicaid expansion and a growing population of dual-eligible citizens.

In 2013, the state of New York received ACA grant funding for a care management program for high-cost, high-risk Medicaid members. The model supports coordination of care across medical, behavioral health, and social needs. Patient and family support services include:

- Comprehensive care management with referrals to community and social support services.
- The use of Health IT to link providers and tools to support provider collaboration and communication.
- Transitional care and followups from inpatient to other care settings.
- Health promotion.

In conjunction with housing, mental health and managed care organizations, the Department of Health defined use cases and supporting workflows for a health homes analytics portal. The portal connects citizens, families, healthcare providers and community services to coordinate care across programs and providers. The portal helps with identification, referrals and outreach, and measures performance and impact. The architecture supports the workflows and processes that enable collaboration, with:

- Consent management
 - Care planning
 - Care coordination
 - Secure access by patients, families and providers
 - Access to data and information to make decisions
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Creating collaboration

Governments that are committed to making citizen health and vitality a cornerstone of their efforts to contain healthcare spending are supporting this goal by:

- Establishing or leveraging tax, grant or funding incentives
- Facilitating data sharing among local, state and federal agencies
- Providing guidance for necessary governance and progress measurement

Effective collaboration requires understanding and supporting cultural and organizational change. To achieve the best outcomes, key public and private stakeholders must be actively engaged early in the process to define and manage a shared plan of care that focuses on an individual's specific needs and abilities. All stakeholders must be able to deliver value that is consistent with their business needs.

Effective governance structures underpin success. Although the benefits of integration are easy to understand, attention must be paid to cultural change and organizational change management for success. Coordination, collaboration and data sharing between health and social care providers can bridge the boundaries between programs provided by government, employers, payers and providers. Technology can now enable access to information while complying with consent and privacy regulations, which historically has been an obstacle.

Why IBM?

Government-funded healthcare is being reshaped. New technologies, new practices, and new payment and delivery models are real. An increasing number of states and cities are moving toward collaborative health and social care. Approaches vary based on individual goals, priorities and resources, creating opportunities and challenges for states and localities.

Coordinated care in action

The Camden Coalition of Healthcare Providers is an example of coordinated health and social care that has shown promising preliminary results in one of the poorest cities in the US. Founded by Dr. Jeffrey Brenner, the coalition uses big data to pinpoint "hot spots." These are areas where a high population density has complex medical, social and behavioral needs.

By analyzing claims data from all three Camden, New Jersey health systems (Cooper University Hospital, Our Lady of Lourdes Medical Center and Virtua Health), Brenner discovered that 80 percent of the costs were spent on only 13 percent of the patients. The initial 36 "super-utilizers" were patients with various combinations of health problems including asthma, cancer, diabetes, drug addiction, emphysema, heart disease, mental illness and obesity. These super utilizers averaged 62 hospital and emergency room visits per month before joining the comprehensive collaborative care program. The treatment program reduced their hospital visits by 40 percent; cutting their hospital bills, which previously averaged USD1.2 million per month, by 56 percent to just over USD500,000 monthly.⁹

The coalition now dispatches caseworkers to the homes of the most troubled patients to encourage them to stay on their medications and offer other strategies to prevent trips to the emergency room.

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IBM has deep experience in healthcare, government and life sciences. IBM expertise includes managing and integrating complex systems. IBM brings this depth to clients as they embark on creating transformational health and social programs that last.

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⁷ Nick Macchione, Director, County of San Diego, Health and Human Services Agency. "Virginia Secretaries Summit on Analytics," Slides 7 and 8: https://ehhr.virginia.gov/media/3264/nick-macchione_slides.pdf

⁸ Dr. Lynn Hohmann, New York State Department of Health: Presentation to IBM Health and Social Programs Summit, October 22, 2014. Pages 23 – 48: <http://www.slideshare.net/curaroundtable/sc1-lessons-learned-the-govt-healthcare>

⁹ Dr. Atul Gawande, "The Hot Spotters — Can we lower medical costs by giving the neediest patients better care?" *The New Yorker*, January 17, 2011: http://www.newyorker.com/reporting/2011/01/24/110124fa_fact_gawande

¹ "Congressional Budget Office." The 2013 Long – Term Budget Outlook. Congressional Budget Office, 17 Sept. 2013: <http://www.cbo.gov/publication/44521>.

² Kaye H, Harrington C, LaPlante M. "Long-Term Care: Who Gets It, Who Provides It, Who Pays, And How Much?" *Health Affairs*. January 2010; 29(1):11-21.

³ PEW Research Center. "10,000 - Baby Boomers Retire." <http://pewresearch.org/databank/dailynumber/?NumberID=1150>.

⁴ United States Census Bureau, "The Research Supplemental Poverty Measure: 2011," November 2012: http://www.census.gov/hhes/povmeas/methodology/supplemental/research/Short_ResearchSPM2011.pdf.

⁵ Robert Wood Johnson Foundation. "Health Care's Blind Side: The Overlooked Connection between Social Needs and Good Health (executive summary)." December 2011: http://www.rwjf.org/content/dam/farm/reports/surveys_and_polls/2011/rwjf71795 (Accessed 8 March 2013)

⁶ U.S. Department of Health and Human Services. "The High Concentration of U.S. Health Care Expenditures, 2012:." <http://www.ahrq.gov/research/ria19/expriach1.htm>



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