Addressing a $17 trillion challenge: the integration of health and social care

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IBM

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Integrating health and social care

In a recent report on public social expenditures, the Pew Research Center reported that, in most of the countries surveyed, people think government social expenditures may have reached or exceeded their limit.[1] When one considers the amount spent worldwide on social expenditures—programs like old-age pensions, health care, unemployment insurance, job-training programs, disability and survivors' benefits, housing assistance, family-support payments, and similar programs—it's easy to see why. According to the Organization for Economic Co-operation and Development (OECD), spending on these programs was just under 22 percent of GDP in 2013,[2] which translates to about $17 trillion annually. The challenges facing health and social programs worldwide go beyond expenditures and the public perception that society is spending too much.

The challenges faced by health and social care programs are many and have been well documented in a variety of ways, including insights and research from IBM.[3] Care providers and policy makers are struggling to meet increasing demand as society ages. They are also faced with changing stakeholder expectations related to outcomes and service quality. Healthcare organizations in particular face challenges from new competition and decreasing reimbursements and profits, and legislative reforms challenge all programs—government and non-government alike. All of this is occurring as budgets, revenue and profits decrease. As a result, health and social program administrators are looking for new, outcome-based service delivery models that can help them lower spending and drive more sustainable outcomes for individuals and families. They are moving away from a "one size fits all" program-centric model of care toward a more personalized approach.

This can reduce the economic burden of care on society while enhancing the quality of living for vulnerable, high-need, high-cost individuals. A comprehensive understanding of the individual's needs, and the barriers to meeting those needs, is critically important.

In their recent paper, *Integrating Health and Social Care: A global perspective of experience, best practices and the way forward*, the Institute for Applied Health Services Research (iNAV) examined the current system of care from a global perspective. In most countries, these systems are fragmented and extremely complex, which leads to a broad array of problems and inefficiency. According to iNAV, "a viable solution is an integration of health and social care into a coordinated system that takes a holistic view of the patient to improve overall outcomes."[4]

iNAV examined the benefits and challenges presented by an integrated care approach; one that is "characterized by a high degree of collaboration and communication among the professionals who provide services and treatments to an individual." According to iNAV, integrated care requires the sharing of patient information among care team members and the establishment of a comprehensive treatment plan that meets the individual's medical, psychological and social needs. The resulting benefits include shorter hospital stays, reduced treatment costs, decreased recidivism, and improved quality of care.

iNAV points out that the key to making integrated care work, to taking a holistic view of the individual that's based on input from both health and social care, is enabling the individual to navigate two complicated and fractured systems that traditionally don't interact with one another. This can be a major obstacle for an individual trying to achieve positive outcomes, as well as the systems trying to assist that individual.

A better way to deliver health and social care

Health and social care professionals have not traditionally had access to the information and tools that would enable a coordinated, holistic approach to care. Their current toolset includes isolated data systems, manual assessments and processes, and time-consuming outcome measurement and reporting capabilities that not only make it difficult to collaborate with professionals within their own systems; they make it virtually impossible to collaborate with professionals in other systems. Sophisticated tools and data are needed that allow professionals to perform a variety of functions critical to providing effective integrated care. Health and social care programs require tools that can help create and manage optimal outcome plans for individuals and their families. They need tools that reduce the burden of administrative paperwork, and help care professionals focus on serving the most vulnerable individuals, such as the elderly, the disabled, multimorbid patients, at-risk youth, and the homeless.

It all starts with information. Health and social care organizations need to be capable of integrating and analyzing a wide breadth of information acquired from multiple systems and care providers. Until recently, this type of information was unavailable to most health and social program workers, particularly those workers who were in the field. Today, this previously hidden information can be used by providers to generate longitudinal, data-driven, evidence-based insights that can guide individualized care management at the point of care or service delivery. It can enable the development of a personalized, holistic approach to health and social care interventions capable of improving outcomes. By using data to uncover hidden risk factors, assess similarities among clients, and pinpoint successful service and program options, providers can integrate health and social care and initiate early interventions that help prevent risk, recidivism, condition deterioration, and hospital readmissions or social program recidivism.

While there may be some disagreement over exactly how much of the world's data is unstructured—80 percent,[5] 85 percent,[6] 90 percent,[7] there is no question that health and social care programs capture vast amounts of unstructured data. Nor is there any doubt that most organizations struggle to access and utilize unstructured data to support decision making. To capture and use unstructured data, content analysis tools must use advanced natural language processing technologies. These technologies can understand text-based information and present it for analysis. With the addition of predictive analytics, health and social care organizations can identify individuals at risk for recidivism, recurring health problems, or people in need of new or additional interventions. Providers can also use predictive modeling, trending, and scoring to anticipate client outcomes and evaluate the potential effects of interventions.

But structured and unstructured data from a variety of sources, and the capability to analyze that data is only part of the solution for effective integrated care. In order to fully implement integrated care, health and social care professionals need to design personalized care plans, coordinate care delivery across multidisciplinary care teams, and engage individuals directly to improve treatment outcomes.

Managing information to provide integrated care

Based on work in the health and social program fields, IBM has identified five activities that are fundamental to the job of healthcare and social program professionals: identify, assess, respond, manage and measure. These five activities, discussed in the IBM Cúram Research Institute report: *Addressing Social Determinants and their Impact on Healthcare*,[8] can enable health and social programs come together to achieve better outcomes for individuals and society.

To develop a care plan that fully and adequately meets individual needs through an integrated care model, care professionals must, at a minimum, be able to determine the complexity of an individual's needs, access their prior care history, and identify their personal and family supports. Financial resources, housing, education, safety, employment, and nutritional needs are as critical in care plan design as health conditions. These factors all impact the likelihood of successful, sustainable outcomes. Healthcare alone accounts for only 10-25 percent of the variance in health over time. The remaining variance is shaped by genetic factors (up to 30 percent), health behaviors (30-40 percent), social and economic factors (15- 40 percent) and physical environmental factors (5-10 percent).[9] With the recognition of the importance of social determinants in the health and wellbeing of individuals, limiting solutions to healthcare problems to siloed health and social care systems is not very practical.

Integrated care means more than simply warehousing vast amounts of data related to health and social elements. Care professionals need a way to manage and use this data to develop a holistic view of individuals. Data must be organized, interpretable, and available in the office or in the field. A solution that supports goalsetting; integrated service delivery planning and execution; and monitoring for health, government, and non-government organizations is essential.

Once the individual's needs have been identified, they must be quantified in order to determine their magnitude. This involves taking the individual's combined health and social context into consideration, looking at their strengths and needs with evidence-based models and identifying optimal outcomes based on these needs. Based on the priorities, goals and optimal outcomes, outcome plans can be generated. This outcomes-based needs assessment is a crucial step and may be repeated many times in complex cases.

The care coordinator needs to be able to create and manage the care plan by selecting the appropriate mix of activities for the individual. Those activities might include counseling, physical or occupational rehabilitation therapy, follow-up doctor appointments, filling prescriptions, or any combination of services that can help maintain a person in their home. Social care services might include meals on wheels, attendant care, respite care for family members who care for the individual, or cleaning services.

For a treatment plan to succeed, the care coordinator must work with multidisciplinary teams across healthcare, government and non-government social programs, family members, direct-care settings, and community support agencies. 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, reassessments can be undertaken to evaluate progress. If needed, the care plan can also be modified and a new optimal care pathway generated.

An effective care management solution must be able to support various functions that enable collaboration and coordination between all parties who are involved with a client's plan. 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

Outcomes must be measured for individuals, programs, and organizations because outcome evaluations, reports, and performance indicators can help inform decision making at all levels.

Help us succeed in managing our lives

In *Integrating Health and Social Care: A global perspective of experience, best practices and the way forward*, iNAV offers a quotation from National Voices, a national coalition of health and social care charities in England. The quote not only clearly defines what most people are looking for from health and social care, it provides an excellent overview of the context for integrated care:

"[…] We are sick of falling through gaps. We are tired of organisational barriers […] that delay or prevent our access to care. […]We want services to be seamless and care to be continuous. That means primary and community health services, social care services, and services from voluntary organisations should all mesh together to help us succeed in managing our lives and conditions."[10]

It's a worthy goal and not unreasonable; help people succeed in managing their lives by integrating health and social care, yet it's not necessarily simple. It involves looking at health and social care in a way that is quite different from the way that these programs and services are offered in most countries today. The most obvious difference is that it requires the melding of two systems that are typically separate. Changing this, and integrating these systems, has five implications to consider before moving forward.

1) The need for an outcome plan

One consequence of systems integration is that rather than monitoring progress, or lack of progress, across one system of care, you will need to monitor progress across a multidisciplinary team (MDT). You will need to react to that progress with speed and precision, which means you will need an outcome plan. As detailed in the IBM report "Outcomes: A new approach for policy makers and service delivery professionals,"[11] a comprehensive outcomes plan includes a complete assessment of the strengths and weaknesses of the individual and their family. The identification of specific outcomes is based on this assessment. Once the outcomes have been identified, services appropriate to achieve the outcomes are identified. At this point, an outcome plan is developed, which needs to be realistic and measurable so that progress can be monitored. All MDT stakeholders need to be clear on their contribution and must have a securely managed view of the plan. The final step of the service delivery component is to evaluate progress in achieving the desired outcome(s). The MDT will provide input on progress toward the outcome and undertake any correction required. Once the outcome is achieved, the plan can be closed and the learning applied to the evidential base for future assessments.

2) Outcomes don't happen overnight

Focusing on complex social problems, which typically have been neglected by traditional siloed programs, requires time to address. It will almost certainly take time to see the benefits of an integrated approach to health and social care. As detailed in "Outcomes: A new approach for policy makers and service delivery professionals," the timeframe was estimated at between five and twenty years. Short-term positive outcomes may be the result, but when addressing chronic health and social problems it will take time to create the programs and services necessary to address them, and it will take time to see the benefits of these efforts. So it is important to set realistic milestones for your programs, and equally important to set realistic expectations for your stakeholders.

3) New assessment models need to be implemented

With the recognition that health is dependent on biological, social, psychological, environmental, and behavioral factors, comes the reality that the lines between health and social care are becoming increasingly blurred. The solution to healthcare problems may not always reside within the healthcare system. Advanced assessment models and case patterns that incorporate all health and social determinants are critically important to supporting decision making. Just as important is that the information and tools need to be accessible, up to date, adaptable to change, and available to professionals in the office or in the field. Shared assessment models such as InterRAI[12] exist and continue to be developed.

4) Collaboration is key

Just as analytics and assessment tools can't replace sound decision making by well-trained and informed professionals, they cannot replace the benefit that comes from professional collaboration within and between systems of care. But these tools can, and should, support collaboration. In order to integrate health and social care effectively, collaboration between government and non-government entities in all systems of care is a must if the best outcomes for individuals, families and society are to be achieved. This means that formerly siloed systems must be proactive in working with the other sectors that impact health. Collaboration tools can enable a comprehensive, coordinated approach to healthcare that includes cross-system cooperation and data sharing between healthcare and social care in both the public and private sectors.

5) Systems need to scale

There are many examples of health and social care integration that have worked at the local level, primarily due to local linkages and personal connections; however, for the full impact to be realized, integrated care systems need to scale. They need to go beyond the individual doctor and their knowledge network and expand beyond a few patients; to do that, inevitably, IT systems need to be deployed. But IT needs to be deployed outside the traditional systems of care.

New IT systems need to bring together the various care services and enable an outcome plan to be created across the MDT, which is visible to the individual and their family, wherever they may be in the country, or even the world. Scaling also needs to extend the good and best practices to all the participants so the least effective are raised up while continuing to allow best practices to be developed and explored.

It's worth the effort

In many ways, the technology that can support integrated care is the easy part. Recognizing the significance of the social determinants of health, and acknowledging that the whole of government, along with non-government entities, must be involved to achieve care that is truly integrated is a potentially greater challenge. As an administrator, care provider or policy maker you must be willing to not only tear down silos, you must be willing to build new relationships that may result in sharing your data, information and decision making with others. There can be policy, regulatory, legal and funding barriers to doing this, but the potential benefits are significant.

According to the World Health Organization, forty percent of deaths are from preventable risks.[13] But in order to prevent these deaths, a new approach to care is needed. As detailed in the iNAV paper, the siloed approach to care often leads to poor outcomes and increased costs for the health and social care system. Experience shows us that integrated care offers the possibility of lowering mortality rates by using analytics tools and data from multiple health and social care programs to identify individuals at risk. This same data can be used to reduce costs by linking individuals to the combination of programs and services that would address their needs most effectively and efficiently. We know that poverty, poor housing, and homelessness all have a direct link to poor health. Outcomes can be improved through the use of tools that enable integrated care and that help professionals from these programs to collaborate with one another in support of clients. Perhaps most importantly, as envisioned by National Voices, individuals can be empowered to succeed in managing their own lives and conditions.

About the Cúram Research Institute

The IBM Cúram Research Institute is IBM's health and social policy research arm. Its mission is to foster the development of innovative service delivery models to raise the social and economic potential for people and society. The Institute is committed to undertaking and commissioning research with a focus on the cross-over from policy to service delivery. In order to analyze contemporary health and social policy issues and foster the development of innovative new ideas and solutions, the IBM Cúram Research Institute launched the Thought Leadership Series, which involves running industry thought leadership Executive Roundtable events, commissioning research papers with policy experts and researchers, and holding workshops and interview sessions with health and social organizations in order to learn about and share industry best practices. The hope is to help organizations improve outcomes for all.

For more information

To learn more about solutions for health and social care, please contact your IBM representative or IBM Business Partner.

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