

SMARTER CARE: BREAKING AWAY FROM THE ONE-SIZE- FITS-ALL MODEL



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like lifestyle choices, social determinants and clinical factors are interconnected and using this information to create a full view of the citizen.



INTRODUCTION

In partnership with IBM®, GovLoop is conducting a four-part guide series. Our reports will emphasize how big data has transformed government agencies and help you set a road map for adopting big data solutions. Here's what to expect in each chapter of our report.

Chapter 1: Leveraging Your Most Critical Asset: Data

In this section, we provided an overview of the current state of big data and the opportunity that big data analysis presents for government. Leveraging insights from the GovLoop community, we explored how agencies could capitalize on their most important asset: data.

Chapter 2: Big Data's Role in Countering Fraud

The second section of this report will explore how agencies can leverage data to improve fraud prevention methods. Growing use of the web for government transactions opens more areas to fraud. But with the proper tools and solutions, agencies can help combat fraud before it happens and be more efficient in service delivery.

Chapter 3: Improving the Safety of Our Communities

Agencies are looking at new ways to combat threats and keep communities safe. This means understanding how data can empower stronger insights and help prevent crime. With the use of analytics and robust data applications, agencies can improve the safety and economic vitality of their communities.

IN THIS GUIDE:

Chapter 4: How Data Analysis Powers Smarter Care

Governments are looking for ways to improve how they deliver services to citizens and take a more holistic view of an individual. This requires a thorough understanding of the role of data. This section will explore how agencies are taking innovative approaches to using data to improve service delivery and support communities of care.

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THE END OF THE ONE-SIZE-FITS-ALL MODEL



In partnership with IBM®, GovLoop is conducting a four-part guide series, *The Journey to Big Data and Analytics Adoption*. This report emphasizes how big data has transformed government agencies.

In [Chapter 1](#), we discussed how organizations could leverage their most critical asset: data. Throughout [Chapter 2](#), we highlighted big data's role to help counter fraud. Chapter 3 provided insights into how data and information has been improving the safety of our communities. In our final chapter, we explore how data is allowing government agencies and social workers to break free from the one-size-fits-all model and deliver more customized health and social care solutions.

Today, there are a variety of issues that come into play when providing social programs to those in need. It's beyond just looking at lifestyle choices, social determinants and clinical factors. Proper care revolves around looking at how these factors are interconnected and using them to create a full view of the citizen.

Picture a citizen, Jane, who receives home health services through Medicare. The healthcare agency coordinating care should have the proper insights about everything related to Jane's care. Although these insights would lead to improved services and more efficient spending, this level of collaboration often does not exist.

This is what IBM's Smarter Care approach seeks to accomplish. At its core, Smarter Care looks to create an ecosystem of care. Jane's caseworker should have the ability to know all the programs, medications, social determinants and any relevant information that will help improve her wellness and provide a tailored care plan. These insights

can only come from removing data silos and increasing collaboration across government agencies and between sectors.

Smarter Care powers a more holistic view of the citizen. By taking the Smarter Care approach, agencies can connect the dots and find value and meaning for various inputs. This will improve the wellness of a citizen and provide data-driven insights to a social worker. Not only does a holistic approach to citizen needs improve services, it also enables productivity gains for employees. In this chapter of our report, we will discuss and examine:

- **The IBM approach to Smarter Care.**
- **Case studies of successful use cases.**
- **Insights from GovLoop and IBM trainings on the Smarter Care approach.**
- **Interviews with IBM subject matter experts.**

The bottom line is that Jane and citizens nationwide deserve better, more tailored care— and IBM's Smarter Care is one way for agencies to move toward such a system. Let's explore how.

THE SMARTER CARE APPROACH



Smarter Care comes at a critical time for healthcare professionals. “It is widely accepted that 80 percent of healthcare and social program spending supports the 20 percent of the population who are high-need, high-cost individuals,” said the IBM [report](#), IBM Cúram Solution for Care Management – Power Systems Edition.

The key to Smarter Care is the ability to manage data and analytics, and use that knowledge to understand how various determinants (clinical, lifestyle, social) impact care.

Possibly the most important component of Smarter Care is its link to a larger trend in social programs: the end of the “one-size-fits-all” model. Many governments are now moving towards more personalized and tailored experiences when providing care for patients.

By taking a customized approach, healthcare programs can intervene earlier and help lower the cost of medical support through preventative care. With more efficient services, healthcare professionals can better meet client needs and create better government experience throughout health related programs.

But even with new data-driven approaches, health and social care workers must still operate in a complex environment. With shifting legislative requirements, increased demand, and reduced funding, health professionals need access to data, information and IT solutions to help them improve efficiency and deliver the necessary services to patients. That’s where IBM’s Cúram Solution for Care Management comes into play.

Cúram is a software solution that supports government agencies to manage health and social programs. With Cúram, organizations are empowered to design programs around a citizen and offer more tailored and customized solutions.

“[Cúram] helps care providers to assess individual’s needs across all clinical and social determinants of health, design individualized care plans for desired outcomes, surround the individual with the care providers and services they need, and then manage and monitor progress against the plan,” said the same IBM report. “It enables care organizations to use resources across multiple organizations and levels of government to treat an individual holistically, enhance the quality of care and reduce the cost of care delivery.”

The Cúram solution provides four steps that can lead to effective health and social program management:

1. **Identify high-risk patients and assess their needs holistically.**
2. **Design care plans based on assessment results and engage providers best suited to support them.**
3. **Coordinate the care team to track progress and refine the care plans to achieve outcomes.**
4. **Measure program and stakeholder success based on key performance indicators.**

One example of the Cúram solution comes from the Castlefields Health Centre in Northern England. With Cúram, the center is taking an integrated approach to provide care for the elderly. The IBM [report](#) also explained: “A district nurse works with a social worker to identify and provide supportive care in a program that has reduced hospital admissions of patients aged 65 and older by 14 percent. This program has also significantly lowered the average length of stay for those elderly patients who cannot avoid hospitalization.”

With Cúram, health and social program officers can be sure they are providing the right services, at the right time, helping to reduce costs and provide better health outcomes for communities.

IS OUR HEALTHCARE SYSTEM AT A BREAKING POINT?

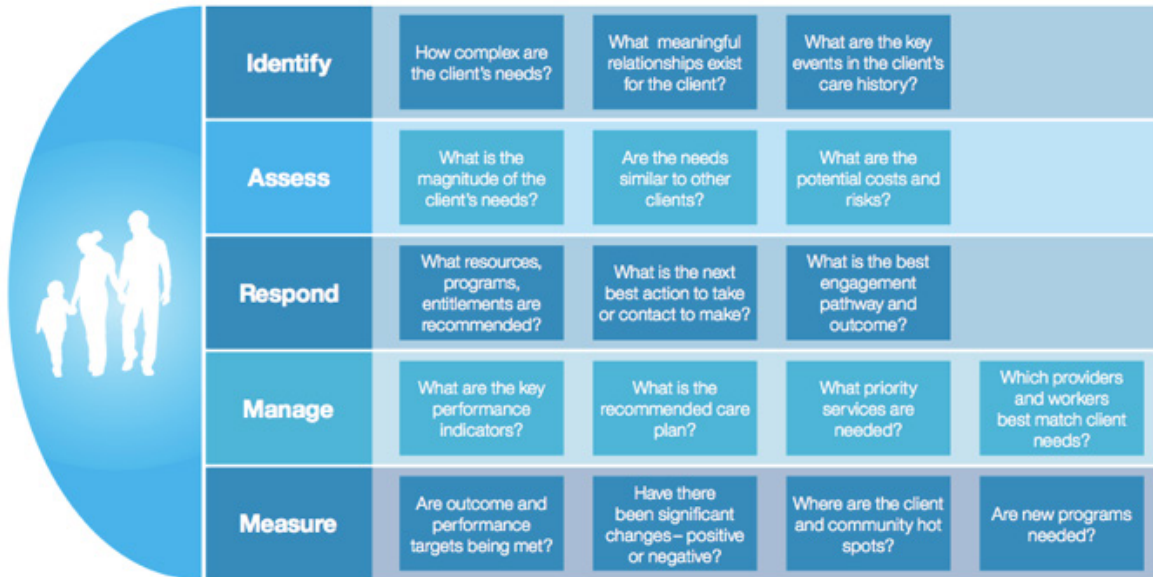


Figure 1: Five activities are fundamental to the work of health care and social program professionals, and form the foundation of Smarter Care.

Is our current healthcare system in crisis? According to a recent IBM infographic and report, [Addressing Social Determinants and Their Impact on Healthcare](#), it appears so. The infographic notes that 17.6 percent of U.S. GDP is consumed by healthcare spending, 9 million deaths are due to preventable risks, and half a trillion in annual costs could be avoided by improving medicine adherence.

“Perhaps no factor is driving change in healthcare as much as the increase in the number of elderly people worldwide,” said the same IBM report. “The U.S. Centers for Disease Control and Prevention (CDC) has indicated that the aging population has contributed to an increase in the use of ambulatory medical services because the elderly seek medical attention more frequently than any other population excluding infants. Between 1995 and 2005, hospital emergency room and physician’s office visits increased by 36 percent to 1.2 billion total visits.”

These statistics indicate that to guarantee a sustainable system, we need to find a way to be smarter in how we address healthcare issues. Realizing the complexity of social programs and how they often intersect with each other, policymakers are looking at other factors that impact health.

IBM refers to these factors as “determinants,” which include housing, education, work, income, early life experience, race and ethnicity. As policymakers focus more on the determinants of health, in addition to social programs, they can create more holistic policies.

To help government overcome obstacles in providing community care, IBM has been championing the Smarter Care approach. Smarter Care transitions an organization from thinking about what it delivers to focusing on what an individual needs. Smarter Care also emphasizes collaboration across government and takes a holistic approach to social programs, life sciences, health plans and providers.

“Smarter Care is about the intersection of social programs and healthcare, and how we can promote interoperability and a wider

view of the individual or family. The idea is to help them maximize their productivity and participation in society,” said Nicole Gardner, Vice President, Global Industry Leader, Social Security and Government Healthcare, IBM, in a [report by GovLoop](#), Smarter Care: Holistic Healthcare Solutions from IBM.

But how can agencies get started with Smarter Care? IBM provides five activities that can help achieve better outcomes: identify, assess, respond, manage and measure. Each is described in the graphic below:

Many organizations have already adopted the Smarter Care approach as a new way of thinking about community wellness. The following examples briefly illustrate how communities have put Smarter Care in action, enhancing their ability to meet community needs.

- New York’s Medicaid Health Home Program addresses high-risk, high-need beneficiaries by providing coordinated care where patients’ caregivers all communicate with one another so needs are comprehensively addressed.
- A community enterprise center, Station 20 West, in Saskatchewan, Canada, addresses fundamental social needs in the community that leads to health benefits.
- The Partnerships for Older People Projects (POPPs) in the UK was aimed at promoting healthy living among the elderly. The results are leading to an integrated approach to health and social care with the express purpose of reducing health sector costs.

“Implementing a smarter approach to care is not simple,” warns the IBM report. “Therefore, before you embark on this journey, you must ask some hard questions about how far you are willing to go to address the ever increasing cost of healthcare.”

Although there are obstacles to overcome, the Smarter Care approach positions agencies to be able to meet the demands of citizens.

JUST WHAT THE DOCTOR ORDERED: HOW TO ACHIEVE SMARTER CARE

During a recent [GovLoop training](#), Government Health and Social Care Collaboration to Control Costs and Improve Outcomes, a panel of experts provided some great tips on starting the journey toward smarter care, what obstacles you may face on your way, and how to successfully navigate these barriers.

The panel included:

- **Dr. Nick Yphantides**,
MD, MPH, Chief Medical Officer, Health & Human Services Agency,
San Diego County
- **Daniel Stein**,
Co-Founder and Managing Partner, Stewards of Change
- **Joseph Fiorentino**,
Associate Partner, IBM Global Business Services, State and
Local Government

Fiorentino believes that there are different ideas about what Smarter Care is, but what it really comes down to is changing behavior and providing more personalized care. Dr. Yphantides described Smarter Care as being “proactive and informed.” By having enough meaningful data and being able to assimilate data from a variety of sources, agencies are given the opportunity to enact such pre-emptive measures.

We are wasting a lot of time, energy, and resources with siloed and duplicative efforts Yphantides believes. Current systems have a transaction-based design but being patient-centered is key. It's also critical to “buck the trend of over-specialization and think laterally,” said Stein. We need to “think broadly across the spectrum of needs,” he advised. Data facilitates this, giving medical providers access to better information to understand complex patients. For example, a patient's ailments may involve both health and social care – say, a child with asthma (health) caused by mold in dilapidated housing (social).

So, how can agencies draw value from big data for Smarter Care? There is always attention given to the concept of big data, but putting even basic demographic or programmatic data into the hands of the right people can make a significant difference. Collaboration and getting to the pockets of data that make sense is key, Stein explained. “Access to data requires better responses from the medical community but also shifts the burden of responsibility to everyday people, allowing us to make better decisions about our own health,” said Stein.

But starting a large initiative is no easy task, and the key for organizations is to be sure they are prioritizing their efforts. “It's not really an “either, or” process – many factors must be considered in prioritization,” said Yphantides. A healthcare initiative is a huge deal that takes an enormous amount of energy and leadership, said Stein. Therefore, a thorough assessment needs to be conducted before embarking on this journey:

- What is our current state? Prepare a baseline readiness assessment.
- What are we getting into and why? What's our end-goal? Are we focusing on a current political trend or something that our community specifically needs?
- What are our strengths and our areas that need further development? Be honest!
- Where should we focus our resources to mitigate risk/surprises?

As organizations progress throughout the journey, they will face challenges. Articulating a clear vision and getting buy-in is key. Without a strong leader driving the change and staying on message, it will be very difficult to move forward. “In the move towards smarter care, we really need to be stewards of change,” Yphantides said. This is ultimately about changing a process and there's going to be a lot of legacy and tradition to deal with.

Demonstrated proof is also very useful. In San Diego, Yphantides oversaw a small pilot attempting to reduce hospital readmissions of high-risk residents. With integration of information from “the ivory tower down to folks in the community,” the pilot was extremely successful. Pilot intervention reduced readmission from 13% to 2% (30-day period) and 24% down to 8% (90-day period).

Fiorentino explained how IBM's three layers in approaching smarter care help generate successful outcomes such as those in San Diego and elsewhere:

1. **Foundation**
The “basic plumbing” is key. This means gathering and understanding both structured and unstructured data.
2. **Coordination**
The ability to make data actionable and enable a coordinated care platform. You must manage the process across a full lifecycle of helping a family.
3. **Analytics & Cognitive Services**
Learn from historical data to provide more intelligence to people working with clients or across multidisciplinary teams. Focus on a variety of data sources (lifestyle, health, etc.) for a more holistic and integrated approach.

By taking such factors into consideration and consulting with those who have been through the process, you can confidently start your journey to Smarter Care.

LIVE WELL SAN DIEGO PROGRAM

In 2010, the County of San Diego Board of Supervisors created the [Live Well San Diego initiative](#). This was a long-term plan that sought to advance the health, safety and well-being of the region. Critical to the program is community involvement, and the program was based around three components:

- **Building better health**
Supporting healthier lifestyles and residents.
- **Living safely**
Reducing crime, abuse and keeping neighbors safe and resilient.
- **Thriving**
Creating opportunities to connect and grow social capital in the region.

And to measure the success of the initiative, San Diego took a comprehensive look at metrics, and a holistic view of the community. They have created a framework that allows the County to connect various programs to improve the well being of every citizen. The [10 indicators](#) span across five areas of influence: health, knowledge, standard of living, community and social.

Some indicators include life expectancy, high school graduation rates, crime data and food insecurity. This program shows how the smart approach to improve community wellness is by taking a holistic approach, and understanding the various determinants that impact the well-being and health of citizens.

SMARTER CITIES: TRANSFORMING SOCIAL PROGRAMS THROUGH DATA & ANALYTICS



"Analytics allows us to find and pinpoint the proverbial needle in the haystack," Shelley Mills-Brinkley, Global Business Services Partner and Worldwide Integration Executive for Cúram Software.

During a GovLoop and IBM online training, [Smarter Cities: How to Transform Social Programs Through Data and Analytics](#), Shelley Mills-Brinkley, IBM Global Business Services Partner and Worldwide Integration Executive for Cúram Software, discussed the factors that drove IBM's Smarter Care technology and what the software has already accomplished. First, Mills-Brinkley pointed out that the most important development has been the data revolution. "We have access to unprecedented amounts of data," she said. "Never before have we had data this rich in variety, in velocity and in quality." The impetus to use that data for Smarter Cities is based on three factors: demographics, a new focus on the individual, and economic forces.

Globally, demographic shifts are presenting countries with the challenge of adequately caring for a growing elderly population. Nonetheless, a focus on caring for citizens of all ages is also of vital importance. Today, organizations are looking at healthcare and wellness on an individual basis, often creating incentive systems to encourage individuals to adopt a health lifestyle and seek preventative care. From an economics point-of-view, Mills-Brinkley noted, "The current trend of rising costs that are not tied to quality increases is not sustainable."

Due to demographics, individualization of care, and economic imperatives, software that provides a holistic view of a citizen is essential to improve care. IBM is revolutionizing service delivery through software that makes use of rich and plentiful data by sharing it across sectors and tailoring it to individual needs. "None of this progress could be possible without the right technology," Mills-Brinkley concluded.

CASE STUDY: MINNESOTA DEPARTMENT OF HUMAN SERVICES

Jennifer Trombley, Business Enterprise Architect at the Minnesota Department of Human Services, headed her agency's efforts to deploy an analytics-based, collaborative approach to human services. "The theory is thrilling but there are a lot of rocks in the road to implementation," said Trombley. Some of these challenges include siloed systems, privacy and security rules, hard-to-learn systems, and difficulty in focusing on outcomes.

The department was able to overcome some of these challenges by aligning system modernization goals with business goals. This alignment ensured that Trombley was able to secure a separate grant for the process. Trombley facilitated collaboration between agencies by keeping agencies in the loop on all budget and funding proposals before they were adopted. In addition, the department worked with a vendor to work on comprehensive modernization – something Trombley recommends as a best practice. "Don't start from scratch. You don't have to. We used Cúram software to begin the process and found it very helpful," said Trombley.

The Minnesota Department of Human Services faced challenges when adopting an analytics-based approach to their mission. However, Trombley was able to address these challenges by emphasizing the cost-saving aspects of the process to secure funding. Trombley recommends working with a vendor and purchasing "off the shelf" software to make the process easier. Also, to avoid territorial disputes that are inherent in collaboration, make sure each agency has a voice in decision-making.

PROVIDE SMARTER HEALTH & SOCIAL CARE WITH DATA ANALYTICS

What if social care providers knew their client needs just like Pandora knows our music preferences? By taking a holistic health and social care approach, case managers can create a personalized health plan to match individual needs – just as Pandora matches your favorite tunes. Through data and analytics, IBM's Smarter Care approach paves the way to make this possible.

IBM's approach comes at an important time. Healthcare costs are skyrocketing and our measures of health and well-being are falling short, especially when compared to other wealthy, industrialized nations. There are many factors feeding into this dilemma, one being that our health and social care systems are interdependent, yet often siloed and competing.

One example comes from the Camden Coalition of Healthcare Providers – an initiative to improve the quality, capacity, and accessibility of the healthcare system for vulnerable populations in the city. The Coalition uses big data to pinpoint “hot spots:” places with a high density of people with complex social-behavioral and medical needs. After analyzing data from three major hospitals, the Coalition found that 20 percent of the

patients were responsible for 90 percent of the emergency department costs. By providing and coordinating the medical care and social services these patients needed, the coalition reduced the cost of their care by almost half in some cases.

“Being able to capture, manage and use all forms of data from all relevant sources,” IBM explains in a report, “is what enables the types of personalized insights and care that can make a difference.” The idea is to create a “system of systems” where private and public stakeholders come together to coordinate care at unprecedented levels.

This personalized insight depends on the segment of population and their respective risk profile. Healthy, low-risk patients, for example, would focus on prevention, education, and engagement, while those with early clinical symptoms or active disease would emphasize care management and the delivery of the right services, programs, and treatments.

A whole host of stakeholders – governments, social program agencies, medical practitioners, healthcare insurers, and more – can benefit from the integrated and individualized services of Smarter Care.

CONCLUSION

Our guide has illustrated that data is transforming government and how agencies approach health and social care. Through various case studies, interviews with subject matter experts and highlights of IBM solutions, it's clear that data is the most essential tool your agency has. By taking a strategic approach to your data, you can unlock insights, promote collaboration, and drive improved performance.

- [How to Enable Holistic Care for Individuals- The Smarter Care Approach](#)
- [Alameda County- Business Values to Social Services](#)
- [The Role of Technology in Delivering Modern Services](#)

ABOUT GOVLOOP

GovLoop's mission is to "connect government to improve government." We aim to inspire public-sector professionals by serving as the knowledge network for government. GovLoop connects more than 140,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to connect and improve government.

For more information about this report, please reach out to info@govloop.com.

GovLoop
1101 15th St NW, Suite 900
Washington, DC 20005

Phone: (202) 407-7421 Fax: (202) 407-7501

www.govloop.com

Twitter: [@GovLoop](https://twitter.com/GovLoop)

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Authors:

Patrick Fiorenza, Govloop's Senior Research Analyst
Mallory Thayer, Govloop's Research Fellow
Matthew Garlipp, Govloop's Research Fellow

Designers:

Jeff Ribeira, Govloop's Senior Interactive Designer
Tommy Bowen, Govloop's Junior Designer

Editor:

Catherine Andrews, GovLoop's Director of Content



ABOUT IBM

The world isn't just getting smaller and flatter, it is also becoming more instrumented, inter-connected and intelligent. As we move toward a globally integrated economy, all types of governments are also getting smarter.

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GOVLOOP
1101 15TH ST NW, SUITE 900
WASHINGTON, DC 20005
PHONE: (202) 407-7421 | FAX: (202) 407-7501
WWW.GOVLOOP.COM

