Revolutionizing total Cost of Care

**A smarter path to savings and
better health outcomes**

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Executive summary

The healthcare industry faces escalating costs of care and stagnant health outcomes despite efforts to reduce total cost of care (TCoC). IBM, in collaboration with ecosystem partners Unite Us and Infor, created a comprehensive solution leveraging artificial intelligence, advanced data aggregation, and predictive analytics to tackle root causes of cost and spending increases, improve member outcomes, and achieve significant financial savings. This partnered approach is collaborating to address behavioral, social, and clinical care gaps, along with referral loops, in one cohesive platform to fully address whole person care.
Delivering summarized data directly within the physician's EMR workflow represents a paradigm shift.

This partnered approach is fundamentally different from current practices used by payers to address total cost of care. By harnessing the power of an interoperability standardization technology, agentic and generative AI, advanced data aggregation, and cutting-edge analytics, we can unlock a comprehensive view of member care that drives meaningful change. Our solution is a game changer— designed to advance whole person care by simultaneously addressing clinical care gaps, social determinants of health (SDoH), and referral loop closures. By uniting these critical components into a single, integrated approach, we're not just improving care—we're transforming how it is delivered.

What sets this solution apart? It is the seamless integration of traditionally siloed approaches—closing clinical care gaps, addressing SDoH, and resolving referral loops, all within a unified framework. This holistic model goes beyond being additive; it's transformative.

Every one of the following seven components is critical to success:

1. Comprehensive member data aggregation, *and*

2. Monitoring gaps in care and open referral loops, *and*

3. Putting actionable key data at the fingertips of whom the patient trusts most, the physician. The payer's care manager will also receive this information, *and*

4. Connecting members directly to community-based social services, *and*

5. Combining SDoH and clinical data into advanced predictive analytics, identifying members either at risk or who may become at risk, *and*

6. Communicating between care managers, the payer, providers, and the member, *and*

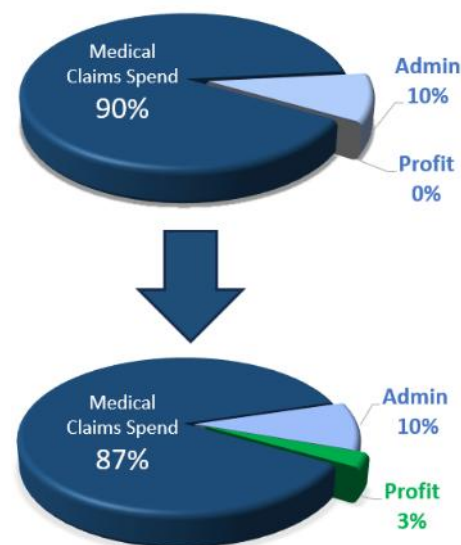7. Incentivizing the provider to take action.

Figure 1: How improved patient outcomes translate to reduced medical spend and increased profit for payers

The results are staggering. On the high end, we anticipate potential quantifiable reductions in medical spend by as much as 3%, as illustrated in figure 1. By implementing these strategies, payers can achieve significant financial impacts, reaching potential annual savings of hundreds of millions of dollars, even billions, depending on the size of the payer. This revolutionary reset provides the potential to return staggering savings over time as illustrated in figure 2.

While there are sophisticated payers who have undertaken certain aspects of this using their own solution to reduce costs, it is important to focus on the 'how' of delivering such a complex solution. Often, the results are low (or no) impact to reducing cost of care. With our partnered solution, we take a proactive approach to empower the provider during a care appointment. By showing the physician where open care gaps exist, where referral loops have not been closed and SDoH needs haven't been met, the provider is enabled to proactively deliver higher quality care to the member, either through immediate action or referrals, resulting in proven lower costs of care.
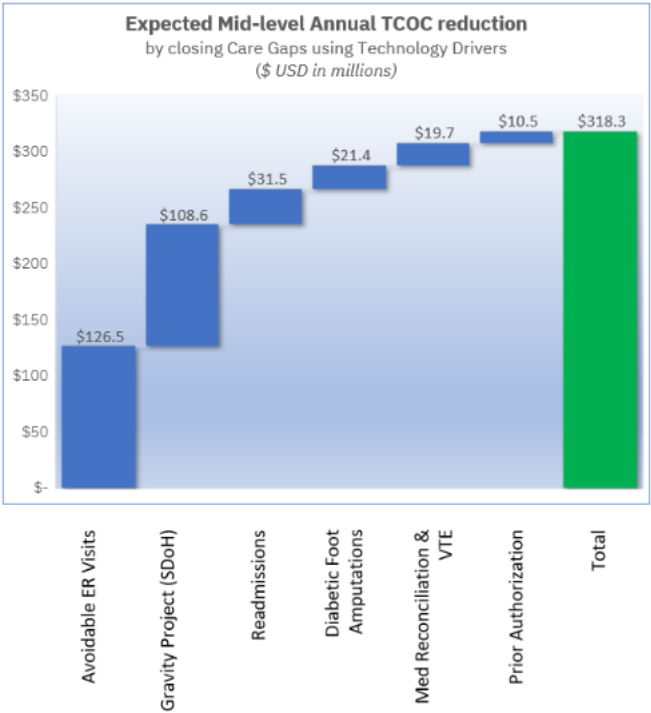

Figure 2: Example of modeled annual savings for mid-sized payer with assumed four million members

Unlocking total cost of care: a collaborative approach to sustainable healthcare

To address these systemic challenges, IBM, Unite Us, and Infor have joined forces to promote innovative, data-driven strategies aimed at improving health outcomes while reducing costs. Our analysis identifies three primary levers for reducing TCoC: closing care gaps, addressing SDoH needs, and improving referral management. Each of these strategies has long been recognized for its potential impact, yet their success has often been stymied by technological fragmentation, siloed data, and misaligned incentives.
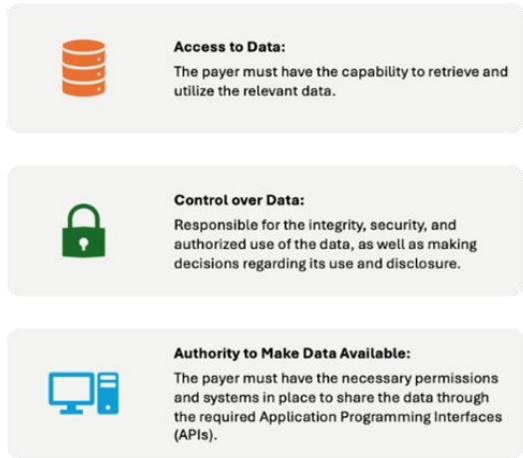

Figure 3: Criteria of when a Payer must provide access to data according to the Center for Medicare & Medicaid Services (CMS)

Closing the gaps in care and coordination

Care gaps comprising missed preventive screenings, inadequate chronic disease management, and fragmented care delivery, among others, are responsible for a substantial portion of avoidable healthcare costs. Estimates suggest that eliminating such gaps could save 15-30% of total U.S. healthcare spending. In addition to cost savings and improving care coordination, this solution leads to better health outcomes, reduces duplicative services, and enhances the member experience.

Unmet social needs also carry heavy consequences. Issues like housing instability, food insecurity, and transportation barriers are strongly linked to poor health outcomes and high utilization of emergency services. Addressing SDoH needs can reduce costs by 10–20%, but traditional health systems lack the infrastructure and partnerships necessary to do so at scale. The outcome of this venture will be the reduction of members' TCoC while improving health outcomes, enhancing care coordination, improving payer Medical Loss Ratios (MLRs), and driving long-term sustainability for providers, payers, and members alike.

Ensuring the members' seamless journey, from primary care to a clinical specialist or community benefit organization (CBO) consultations to address unmet SDoH needs, is vital. Unmet referrals result in missed follow-ups, duplicative testing, and adverse events. A closed-loop system reduces delays, prevents revenue leakage, and strengthens care continuity, ultimately lowering costs and improving safety.

Barriers to implementing cost-effective solutions

Despite the proven impact of these strategies, healthcare organizations face four persistent barriers:

1) *Lack of a standardized technology platform* capable of facilitating seamless data exchange between payers, providers, and members.

2) *Inadequate data aggregation* limits visibility into a member's complete health history, leading to incomplete analysis and potentially costly "false positives."

3) Under fee-for- service reimbursement models, *outcomes aren't sufficiently prioritized over volume* due to lack of meaningful incentives even with many value-based care contracts. And finally,

4) *Operational bottlenecks*—such as the limited bandwidth of clinical teams—prevent meaningful interventions at scale.

A deeper issue in U.S. and most global government healthcare is the absence of a central data aggregator. Although recent Centers for Medicare & Medicaid Services (CMS) mandates in the U. S. market aim to expand access, no single entity is charged with compiling the members' full medical record. This results in fragmented data scattered across various EMRs and payer systems, leaving stakeholders to decide independently what to share and how much. Many payers interpret legal language such as "maintain" narrowly and have missed opportunities to maximize data utility—even when doing so could reduce their MLRs by 1–3%.

By pulling clinical data from provider EMRs and other sources such as health information exchanges (HIE), Internet of Things (IoT) devices, and claims data, payers can expose previously hidden insights. For instance, if a primary care physician/ provider (PCP) had access to the payer's claims data, that PCP could discover that a member has missed a critical mammogram because that information resides in another provider's EMR to which the PCP does not have access. These insights not only close care gaps but also correct member misunderstandings and miscommunications that often occur in fast-paced clinical environments.

> To truly manage TCoC, healthcare needs a unified view of a member's history.
>
> A SMART on FHIR application embedded directly into EMR workflows makes this vision practical.

The role of longitudinal patient records and FHIR

To truly manage TCoC, healthcare needs a unified view of a members' history. The payer is in the best position to aggregate the data, as they have a wide view of data not even the PCP has. Also, given the difficulty of sometimes writing outside data into an EMR, it makes sense to aggregate that data outside of any EMR. The Longitudinal Patient Record (LPR) serves this purpose by aggregating clinical, behavioral, social, and administrative data into a single, actionable format. The LPR allows providers and payers to see a 360-degree view of a member's journey enabling better decisions, earlier interventions, and more personalized care. Built on the Fast Healthcare Interoperability Resources (FHIR) standard, the LPR allows real-time, on-demand generation of member data without requiring long-term data storage.

A SMART on FHIR application embedded directly into EMR workflows makes this vision practical. It allows clinicians to access the LPR without leaving their EMR systems, offering summarized views of relevant health information into the patient summary viewer during the brief time they spend with members. This frictionless integration enhances clinical decision-making and enables providers to treat the whole person, not just the condition that prompted a visit.

For more information on the FHIR-based LPR and FHIR on the Wire topics, please reference IBM Consulting's white papers on these topics [here](#).

Surfacing and acting on care gaps and SDoH

Identifying gaps is the first step toward closing them. We see three key methodologies to make this possible:

1. Quality measures, e.g., CMS MIPS, HEDIS, etc.,

2. Predictive analytics, and

3. Personalized questionnaires.

There are several industry recognized quality measures for tracking performance, while predictive analytics leverage historical and real-time data to forecast emerging risks. DaVinci's Data Exchange of Quality Measures (DEQM) enables the secure and standardized exchange of quality measure data between different healthcare stakeholders using FHIR. Health Risk Assessments (HRA) are standardized questionnaires that have been around for years and add depth by collecting detailed information on behaviors, risk factors, and social challenges. Despite the value of HRAs, participation currently remains limited due to concerns about privacy, time, and effectiveness.

However, Generative AI and the application of agentic AI to acquire data from multiple data sources can mitigate these concerns by creating personalized, context-sensitive assessments. For example, a member living in a ZIP code with high food insecurity might be prompted with a customized questionnaire that uncovers whether they need help accessing healthy food. AI can also identify risk for conditions like diabetes or heart disease that might have been missed during intake. When these insights are then operationalized for the physicians, they can then be translated into specific, time-sensitive interventions while the physician is with the patient *during* a clinical visit.

It is recognized that many payers are already surfacing data to identify care gaps. Our solution, the intelligent care manager, takes this a step further by making the data actionable for the provider. By incentivizing them to take action, this helps ensure each gap is closed. This is especially critical for members who are not yet in a high-risk category, as these are the ones who typically fall through the cracks in today's model. Figure 4 represents the vision of the flow of how our solution will encapsulate the surfacing of data from multiple sources and putting that data at each provider's fingertips.

For more information on using DaVinci's Data Exchange of Quality Measures (DEQM) and how it is used, please reference IBM Consulting's white papers here.
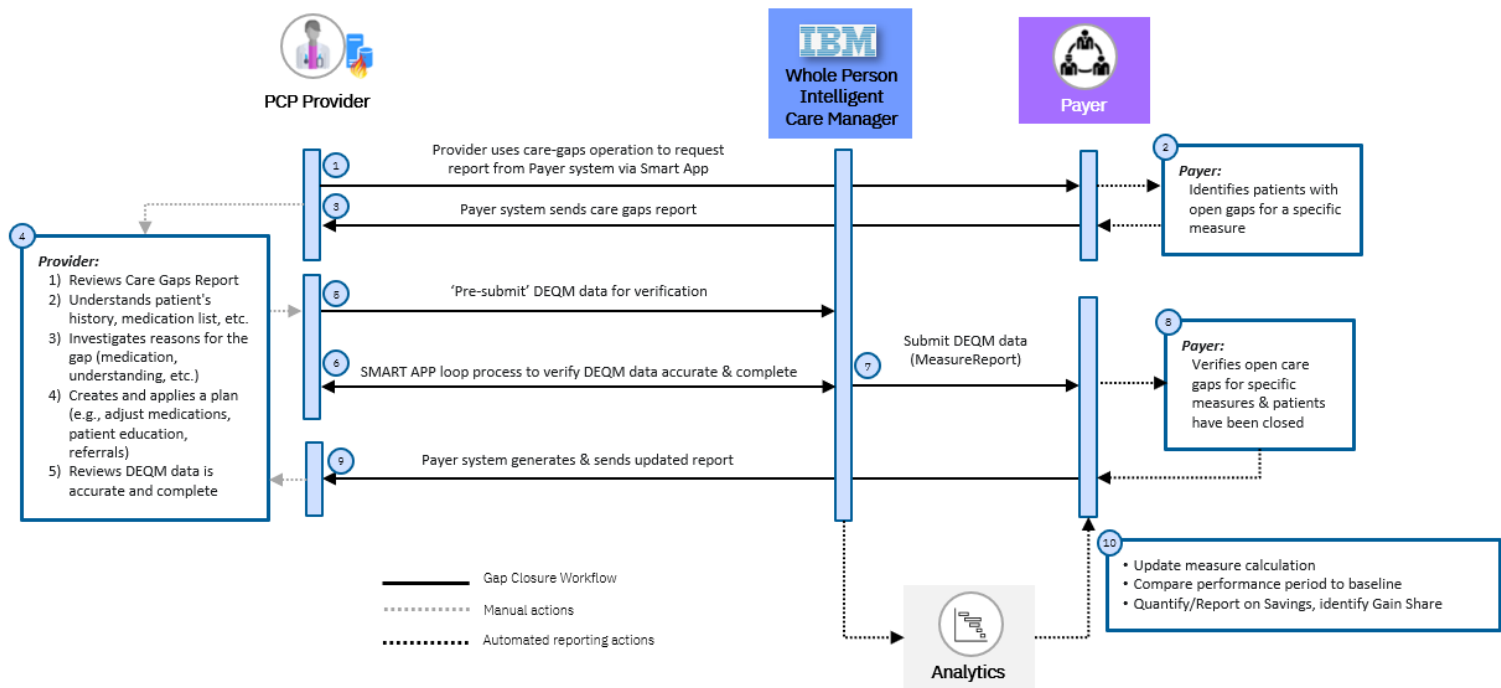

Figure 4: View of the closing care gaps flow solution

Reimagining the referral process

Closed-loop referral systems are essential to efficient and effective care. Without proper follow-through, members fall through the cracks, resulting in worsening health conditions, unnecessary emergency visits, and higher costs. Automating referrals and embedding communication within EMRs ensures that care teams remain informed and members stay within network. It also enables providers to connect members to social service platforms like Unite Us, which route individuals to the appropriate CBO.

This level of coordination improves care continuity and reduces administrative burdens, while ensuring outcomes are tracked and communicated back to the care team. The North Carolina Healthy Opportunities Pilot (HOP) illustrates this well: a FHIR-enabled referral network delivered 288,000 services to 20,000 members, reducing medical spending by over 10% per member per month by cutting emergency visits and hospitalizations.

Automating and streamlining aspects of the referral process and streamlining communication can save time and resources for healthcare providers and staff. Effectively closing the referral loop helps ensure referred members are seen within the network, capturing revenue that might otherwise be lost.

Figure 5 illustrates the collective view of the solution to effectively close referral loops, thus enhancing care outcomes.

But we're already doing this...

This is a response we often hear from payers until they understand *why* this is different. Turning data into action requires more than dashboards. It requires that the information be summarized and put at the fingertips of the person the patient trusts the most, the physician. McKinsey research indicates that "payers frequently fail to engage a vast majority of targeted members, leaving 90% or more of potential value 'on the table.'"[2] In the past, the only person to have access to data and resources to identify potential gaps at a population level and coordinate care was the care manager on the payer's team. Now, the physician can not only use their clinical expertise and established patient's trust to drive adherence and engagement, but by possessing the longitudinal view of the patient, including claims data, they can see what until now has been the domain of the payer's care manager. By combining the best of both worlds, this data becomes not only actionable but has the ability to close care gaps at scale.

Care teams need real-time visibility into care gaps and the ability to route members to appropriate interventions— whether it's a follow-up screening, a referral to a social service, or updated care documentation. This information must be fed back into care plans and shared with all stakeholders, including the members.

Given that the average primary care visit lasts under 20 minutes, clinicians cannot be expected to search for insights across multiple platforms. A centralized, EMR-integrated summary viewer that has access to more than just clinical data in the physician's EMR, and also aggregates all clinical, claims, and social data is essential.
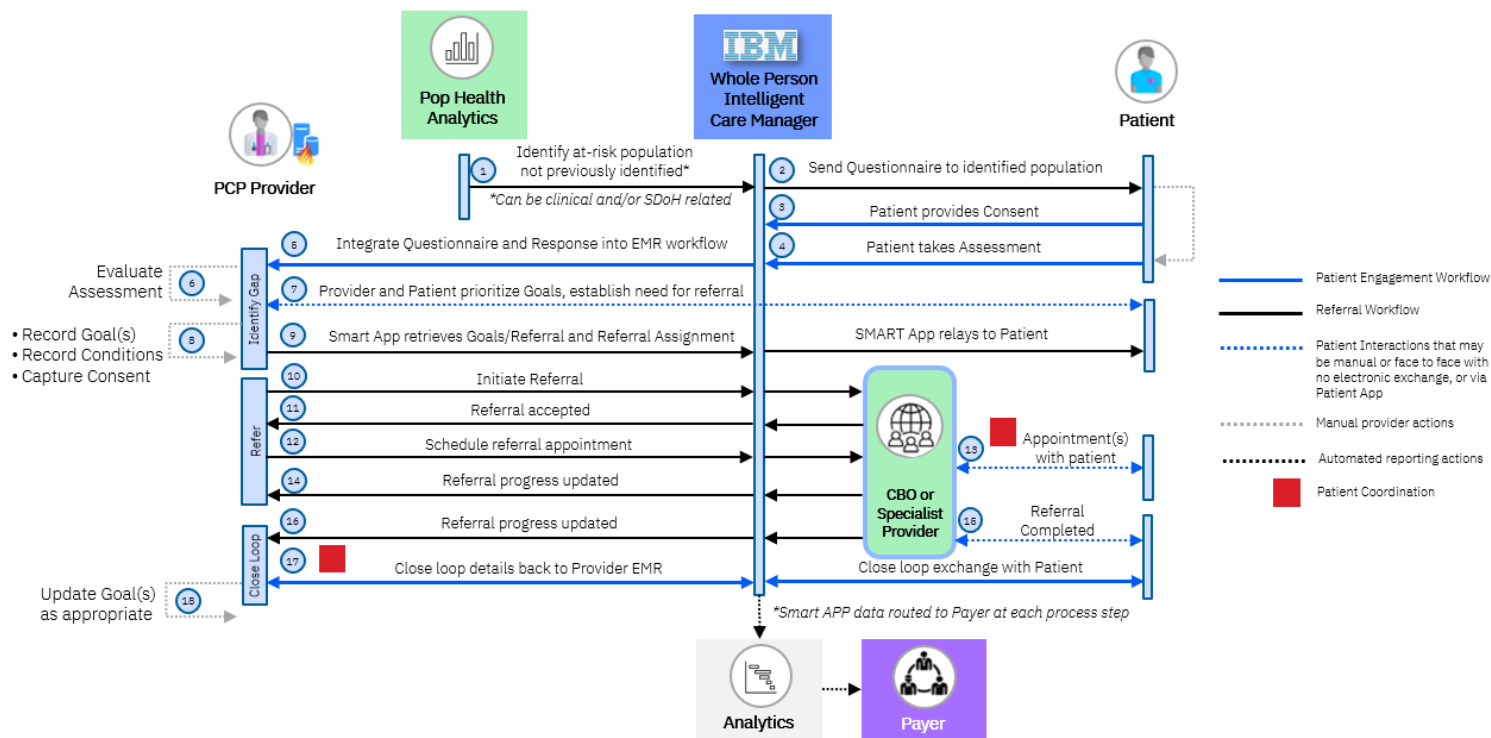

Figure 5: View of the closing referral loops process flow solution

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This tool must prioritize and summarize the most relevant information and surface it automatically when the physician opens the patient's record.

The patient summary viewer is a key part of this partnered core solution. It leverages the aggregated view of the patient's medical history in real-time, including current clinical, claims, encounters, labs, allergies, medications, and social needs data. Using watsonx, we can analyze this information and identify key care gaps, then surface this information to the physician in a summarized manner that prompts the physician to converse with the patient *during* the encounter. Once actions are reviewed and selected, the solution leverages FHIR and agentic AI to automatically process service requests such as referrals, patient scheduling, and care plan creation, thus removing the administrative burden of these functions that often lead to failed care gap closures. This frictionless integration enhances clinical decision-making and enables providers to treat the whole person, not just the condition that prompted the visit. This process of surfacing the identified open clinical care gaps, open social needs gaps and open referral loops, in the provider summary viewer puts the important data at the fingertips of the provider.

Aligning incentives with value

None of these interventions will reach full potential without aligning to innovative provider incentives. Under fee-for-service, providers are rewarded for volume, not value. Closing care gaps, following up on referrals, or addressing social needs adds an administrative burden without clear financial reward. To change this, payers must offer targeted incentives that align with the provider's existing workflows and motivations. Monetary incentives for closing the gaps can be displayed to the provider via the patient summary viewer, if desired. This then becomes a differentiated incentivization program that directly ties the closing of the care gaps and referral loops to patient outcomes. This process focuses on the quality of care, provider performance, and the patient experience, simultaneously.

This can include pay-for-performance bonuses, shared savings arrangements, flat fees for closing care gaps or completing referrals, or incentive payments tied to Medicare Advantage Star Ratings. Even modest incentive models can generate substantial behavior change if properly structured and communicated.

Improving Member Experience

Let's not forget about the member in all this. When these issues are solved, the member's experience will be significantly enhanced through more seamless, coordinated, and personalized care. Care gaps would be addressed without the member needing to take extra steps, ensuring they stay on top of their health without even realizing it. With closed referral loops they would no longer need to manage communications between specialists and their primary care provider resulting in a more accurate, unified care plan. By having unmet social needs met through referrals to the right community resources, the member would experience fewer barriers to care, greater stability, and improved overall well-being. Altogether, the member would feel truly supported medically, personally, and logistically leading to better outcomes and a stronger sense of trust in their healthcare journey.

Conclusion: a path toward sustainable healthcare

By aligning technology, data, operations, and incentives under a unified TCoC strategy, payers and providers can achieve meaningful financial and clinical outcomes while ensuring the member experience becomes seamlessly coordinated . For a health plan covering four million non-Medicaid members, a coordinated approach could conservatively generate over $300 million in annual savings. It's not enough to simply have the data available. What's needed, and what this solution does, is ensure the data is actionable. Only when the data is transformed to information, put in front of the right person at the right time, in an easily accessible way, will care gaps and referral loops get closed. Only then will you begin to bend the cost curve. This is what our solution does.

To truly bend the cost curve for payers requires a new approach. This isn't about making marginal improvements to back-office operations, it's about unlocking high-impact opportunities embedded in medical spending. As cost pressures intensify, the imperative is clear: act now to address care gaps, reduce emergency utilization, and support whole-person care. The payoff is not only financial, but also healthier populations, more efficient systems, and a healthcare experience that finally centers around the person, not the process. IBM studied the solutions in the market and determined there is no silver bullet to address this challenge. The solution, often referred to as silver buckshot, is a collection of numerous, smaller solutions applied to a large, complex problem instead of a single, magical silver bullet. Looking at data, member engagement, care coordinators as facilitators, and AI as the intelligence, we identified a fresh holistic solution to tackle the challenge the country has struggled with for decades. This is a one plus one equals three opportunity, and the time has come to deploy it.

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Footnotes

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