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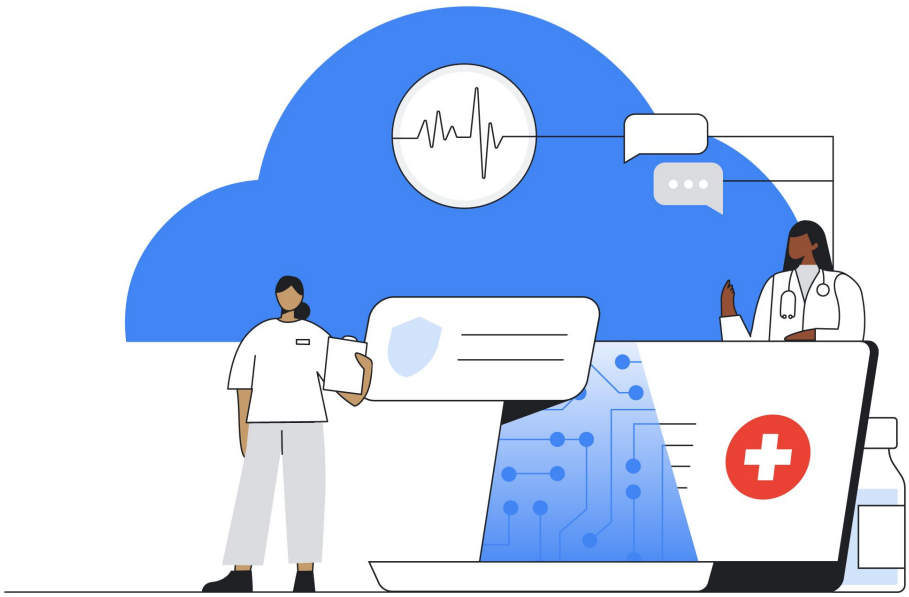
From individual member care to population health, data drives everything

How data interoperability is helping health plans digitally transform operations and redefine experiences



Rashida, a middle-aged woman with type-2 diabetes, just relocated for a new job and is at her first appointment with Dr. Greene. Dr. Greene has a full day packed with patients, and a preference for connecting with his patients versus navigating the ins and outs of what is or isn't available to them through their insurers.

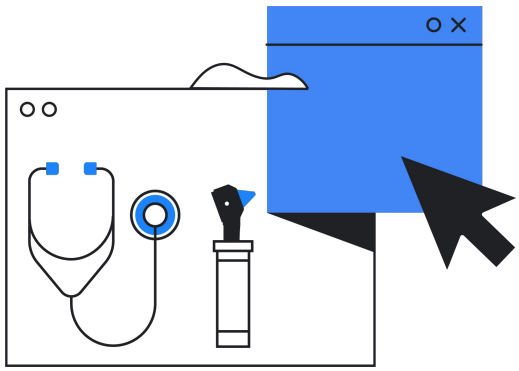
Fortunately, Dr. Greene can take advantage of a partnership with Rashida's insurer, which shares data securely based on healthcare data interoperability standards. During the appointment, he sees an alert in her Electronic Medical Record (EMR) that she's eligible for remote glucose checking through a program included in her new employer's coverage. Not only is this remote program free and convenient for Rashida, it will help increase connectivity and awareness regarding her levels as well as trigger support if and when needed.

This is the future that Highmark Health is embracing through an initiative launched in 2022, says Brian Barrett, the company's vice president of information delivery.

"We created a CDS Hooks to Smart on FHIR application that we publish to the EMR," he explains. "When the doctor pulls up the EMR, it might show, for example, that the person's employer has already paid for Onduo, a program to treat type 2 diabetes." There's no need for a physician's office to scour through paperwork or call and ask what's covered. "The physician can enroll the patient right away through a link in the EMR," says Barrett.

Leading organizations are taking advantage of technology advances not only to comply with the Office of the National Coordinator for Health Information Technology (ONC) and the Centers for Medicare and Medicaid Services (CMS) rules mandating data interoperability and transparency, but also to digitally transform their operations and redefine their experiences.

"Health plans are using Google Cloud technology to streamline their operations and securely integrate data from across the ecosystem to create more meaningful interactions customized to the needs of their members," explains Amy Waldron, Global Health Plan Solutions leader at Google Cloud. "Our interoperability capabilities enable health plan customers to take advantage of cutting edge automation, analytics, and AI/ML. This reduces the cost and effort of administrative tasks, so plans can refocus their resources on connected care delivery and the creation of life-enriching programs."



> "I envision a day where we're actually managing populations, not waiting for the patients to come into the office, but seeking them in advance of any ailment or condition that might apply, based on our AI experience," says Barrett. "That's the vision that we have."

All quotes from Brian Barrett, Tim Tarnowski, and Cris Ross in this whitepaper are sourced from Google Cloud's HIMSS 2022 Webinar, *From operational efficiencies to impacting human lives, data drives everything*, March 2022.

Better care for individual plan members

"Healthcare has a really big challenge to make data easily available whenever the person needs it," says Tim Tarnowski, CIO of Indiana University Health (IU Health). The promise of data interoperability is inspiring changes at health plans, which have traditionally taken a more reactive or retrospective stance, according to Barrett.

"Historically, claims was the richest dataset that a payer had to mine," he says. "Now we're saying, let's skip the claims data and go right to the clinical data." By integrating plan and provider systems so they can share data securely, plans can streamline preauthorizations and recommend resources to physicians in real time. "Seeing that evolution in just the last few years has been amazing," Barrett marvels.

"It's actually really important that the cloud is going to enable that type of interoperability," Tarnowski asserts. Not only will data be critical for enabling healthcare, he says, but it will also enable consumer-like experiences. Plans will be able to offer members the consistency and convenience they've come to expect from daily interactions with consumer apps that deliver instant access to information or services, plus personalized recommendations based on past preferences.

With the right data feeding the right algorithms that bring the right integrated apps to life, plan members can stay more informed about their health status and the benefits their health plans provide, more easily find in-network physicians and specialists without calling, and have faster access to claims information and payment options.

The benefits of data interoperability will accrue to larger populations as well. Once plans and providers have identified factors that influence an individual's health and which care strategies are most effective, they can apply that knowledge to large cohorts with similar profiles.

Opportunities for new partnerships

The drive toward data interoperability is creating opportunities for the healthcare ecosystem to form innovative partnerships that will not only improve the patient experience and population health, but also generate efficiencies for the entire industry. "I've had a lot of discussions with organizations that are trying to aggregate data and work with big pharma to sell subsets of the data, de-identified," says Tarnowski. The real challenge to sharing data, he points out, will be the business incentives, not the technology.

For example, for plan members facing critical illnesses, clinical trials may represent their only hope for treatment or cure. Health plans can play a vital role in identifying potential recruits for trial sponsors, which benefits everyone—the trial participant, the trial sponsor, and the plan.

"People are dying because they don't have access to the right therapies and the ability to do a clinical trial that's distributed," laments Cris Ross, CIO of Mayo Clinic. Since data interoperability makes it possible to collect and secure data across multiple physical sites, people should be able to participate in trials without having to travel to a central location such as a specific Mayo Clinic, suggests Ross.

Cloud computing offers the secure and privacy-protecting components necessary to facilitate distributed trials: the ability to collect data streamed from wearable devices; advanced algorithms for analyzing collected data; and collaborative tools for viewing data insights, interviewing patients via video conferencing, and submitting required documentation.

Beyond clinical trials, those who contribute to the healthcare ecosystem can collaborate on public health initiatives, as they did during the COVID-19 pandemic by securely sharing and analyzing data.

> I'm a proponent of sharing data and really think it could have a huge advantage going forward for the consumer and for the healthcare industry," Tarnowski says.

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Making value-based care a reality

In fact, data interoperability lays the groundwork for the more effective and efficient healthcare system that value-based care regulations were designed to foster. "We've not figured out how to do value-based care to raise health," admits Ross. "There's just a whole lot of people who need care and are not receiving care on a timely basis, because we don't know how to find them. We don't know how to engage them. We don't know how to help them."

Applying artificial intelligence (AI) and machine learning (ML) to integrated clinical, claims, and public data sets can illuminate patterns that help identify who's at risk. These algorithms go beyond vital signs to consider social determinants such as housing, food, and transportation. Plans can act on this information by reaching out to members, as well as coordinating with CBO networks, when appropriate, to suggest interventions that strengthen health and prevent medical incidents. They can even create incentive programs, such as rewarding members for losing weight or smoking less.

By sharing data with providers, plans can help drive patients toward better, more cost-effective care options.

Plans and providers can collaboratively analyze rich datasets to:

- Discover illness more quickly and accurately
- Design pre-surgery measures to reduce recovery time
- Pinpoint which treatments will be most effective
- Predict cancer recurrence

Data interoperability: Are we there yet?

Although health plans are at different stages of their data interoperability journeys, most are fully embracing it. "I think data interoperability is going to be required in the future, especially as we pursue the larger topics like precision health, community health, and population health," says Tarnowski. "We just have to—the data is going to be critical to enable healthcare as it's being envisioned."

As plans adopt the Fast Healthcare Interoperability Resources (FHIR) standard that enables data sharing and integration for analysis, protecting member privacy with appropriate security measures is paramount; so is taking time to educate stakeholders—including staff, members, and the public—about what it means to store data in the cloud.

Non-technical audiences may not understand that cloud providers don't own, and can't even access, data their clients store. "It's like putting data in a safe deposit box in a bank vault," says Ross. "You have the key."

Ultimately, demonstrating how data interoperability can be secure and a game changer for healthcare will move opinion.

Trust is the key, says Barrett. "We'll know we succeeded when we get to a point where patients and members are actually looking forward to getting their data there. That's our goal, to have that trust. Once you have the trust, you kind of start sprinting from there."

To learn more about healthcare data interoperability and our industry-leading Healthcare Data Engine—designed to scale digital transformation—go to:

cloud.google.com/healthcare