American Hospital Association™

Advancing Health in America

KNOWLEDGE EXCHANGE

Navigating Patient Risk and Engagement with Genomic Precision

Delivering personalized, affordable care while prioritizing population health and health equity

Sponsored by: Helix

Introduction

Navigating Patient Risk and Engagement with Genomic Precision

Delivering personalized, affordable care while prioritizing population health and health equity

Understanding what makes each individual unique is key to achieving optimal health and engaging with patients for personalized, high-quality health care outcomes. Health care organizations use population health management and risk stratification to identify and prioritize the major health care risks that threaten communities and individuals for more targeted and efficient care.

In recent years, major health systems have been increasing patients' access to genomics to holistically understand their predisposition to certain diseases, tailor care plans and provide proactive and preventive care rather than treating disease after it manifests. And, in particular, through large-scale screening, organizations are developing the capability of identifying potential health risks that may be disproportionately affecting ethnically diverse individuals in their community to facilitate the development of proactive health initiatives. This knowledge exchange explores innovative strategies and applications of genomics data to enhance the precision of patient-risk stratification for a more preventive and individualized approach to care.

5 steps health system leaders are taking in their genomics strategy to empower patients and health care providers

1

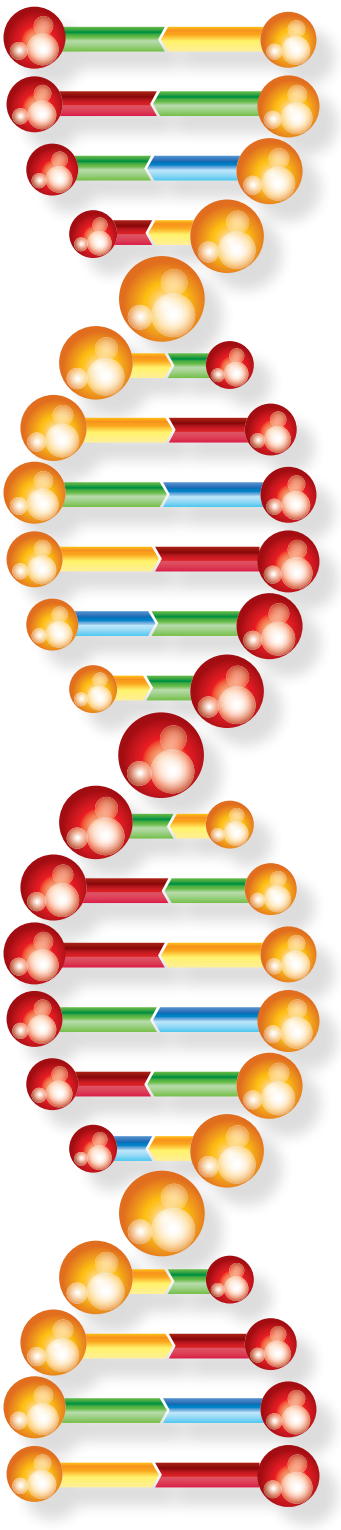
Investigate how to get on the front edge of integrating patients' genomic information seamlessly into the standard of care.

2

Examine health systemwide programs for population health screenings to take preemptive measures aimed at delaying, mitigating or averting life-threatening conditions.

3

Pilot use cases in areas with evidence of actionable benefit: familial hypercholesterolemia, hereditary breast and ovarian cancers, Lynch syndrome [the most common form of hereditary colorectal cancer], pharmacogenomics for anxiety and depression.



4

Explore electronic health record (EHR) tools for data aggregation and reporting to help improve clinical workflows and create data strategies that may allow for opportunity assessments.

5

Engender trust and embed genomics into the health equity team with a community advisory board to build trust, to focus on research and bring novel discovery to Black, Indigenous and people of color. Be explicit with consent that patients own their data, have access to it and it is portable.

Participants

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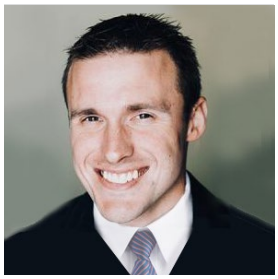
Chief health equity and clinical innovation officer
Providence
Seattle



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MODERATOR
Suzanna Hoppszallern
Senior editor
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MODERATOR SUZANNA HOPPSZALLERN *(American Hospital Association):* **What different patient risk categories are you targeting and how do you see genomics being used to better assess risk?**

NICK BENNETT *(Saint Luke's (West Region), BJC Health System):* I'm an infectious disease pharmacist and I lead our antimicrobial and diagnostic advisement program. We're early in venturing into pharmacogenomics. Over the last year and a half, we've been investigating how we can get on the front edge of integrating patient genomic information as standard of care. We're identifying pilot use cases and best-practice areas because we've discovered a general lack of understanding as to how it will fit into practice and how to integrate it seamlessly into the standard of care. We are exploring oncology and solid organ transplant care areas because we can learn from areas that have more evidence and are easier to integrate (due to established pharmacists within inpatient and outpatient settings). Then, we can build from that experience.

MANOJA LECAMWASAM *(CommonSpirit Health):* Ours is a large health care organization with care sites across 22 states. Although Dignity Health and Catholic Health Initiatives aligned right before the COVID-19 pandemic to form CommonSpirit Health, for very good reasons, we're still in the process of becoming one CommonSpirit. Before the alignment, our legacy organizations collaborated and set up a precision medicine alliance to specifically focus on providing point-of-care precision medicine support for our community oncologists. Unfortunately, the pandemic slowed down the work, and currently we are in the process of identifying best practices happening in our markets and sharing them with other markets that may also benefit from such practices.

In our system, oncology is where we see most of the genomic sequencing work being done, especially somatic sequencing of thoracic tumors where genetic and biomarker identification can result in targeted therapies and better outcomes. Our physician enterprise has also set up early cancer screening standards for both age- and hereditary risk-related screening and approximately 25% of those screened may also become eligible for genetic testing. The biggest issue health systems face when setting up genetic screening programs is cost and funding, not just for the test, but also for the follow-on services such as genetic counseling, patient assistance programs, navigator support, access to clinical trials, diagnostic imaging and other services that should be made available for people who get a positive screening result. This is where industry-philanthropy-health system-payor partnerships can come to the rescue.

NWANDO ANYAOKU *(Providence):* As the system chief of health equity and clinical innovation for Providence Health Systems, which is across most of the western United States, I would add that we are looking at health care and research across our enterprise with the specific lens of being cognizant of equity, representing different populations. We are being intentional to disaggregate our data by race, ethnicity and language to understand who is reflected in our databases and in our care delivery models, and making sure that we are reaching out to underrepresented communities.

As we think about how the numbers and the models show up for different groups, and if there's sufficient representation, we can make an informed judgment about risk categories for different subgroups and different populations as opposed to taking a broad lens.

CASEY GRANACK *(WakeMed):* WakeMed is a comprehensive health system whose passion is improving the health and well-being of our community. Our mis-

NICK BENNETT | ST. LUKE'S (WEST REGION), BJC HEALTH SYSTEM
"Over the last year and a half, we've been investigating how we can get on the front edge of integrating patient genomic information as standard of care. We're identifying pilot use cases and best-practice areas."

sion is to take care of the more than 1 million people within and surrounding Wake County. We know that social determinants of health are an important part of this work, and we have long used historical data to help in that work; however, we have struggled to close all care gaps. For example, we know that some ZIP codes in our primary market have up to a 10-year life expectancy difference from each other despite the racial demographics being similar. We believe that a community-based genomics program will provide the data to drive the next steps in our journey to make Wake County as healthy as possible.

BALAZS ZSENITS *(Rochester Regional Health):* We're a mid-sized organization — nine hospitals over 14 counties in New York state. We are engaging in value-based care, so risk management is important for us. We are actively engaged in measuring and addressing social determinants of health not just within our health system, but across the region, since New York state is investing billions in a Medicaid waiver program targeting this issue. As for using data from genomics, that is mostly managed case by case, often with third-party vendors and specialty by specialty, for example oncology. Genomics will require more coordinated data aggregation and reporting, though our short-term plan is simply to go along with what our EHR vendor develops in this field.

CASSIE HAJEK *(Helix):* I'm an internist geneticist by training and the medical director at Helix. Helix is a precision medicine company, and we partner directly with health systems to build genomics programs. I came to Helix by way of Sanford Health where I spent close to eight years working through their approach to population genomics and building that program from within.

At Sanford Health, we recognized that genomics is going to have a distinct role in the care of patients, but the question was how we integrate genomics so that it does not disrupt existing workflows, recognizing that it isn't a part of training for many of our providers.

We spent time building the foundation for leveraging our EHR to accept genomic data, and then we worked side by side with the clinicians to figure out how they want to receive that information. Once they have that information, what support do they need to apply it to patient care? For example, if a patient has pharmacogenetic information, Sanford has a large pharmacogenetics initiative that clinicians can leverage at the time they prescribe medications. Sanford set up pharmacy clinics for patients with complex results, and there's a pharmacist clinic available for physician referrals. Patients also can self-refer to that clinic.

The key takeaway from that rollout was that clinician acceptance was pivotal. Knowing that they had a safety net and knowing that they weren't going to be left alone with pharmacogenomic results that they haven't interacted with before was very important to them; there was a support mechanism.

The health system recognized that while their strengths are care delivery and the clinician workflows, it did not need to have the lab on-site. Sanford ultimately ended up partnering with Helix to provide greater access to genomics in the care of patients. It's a population health initiative and is easier to use in a diagnostic setting as well as in a large-scale community screening program.

CRAIG NEWMAN *(Helix):* I run the delivery network at Helix. We have partners ranging from large integrated systems to community health systems. We find that organizations normally have a strategy with oncology. Our efforts are focused on an enterprise strategy built on germline data. With germline data, genomics

NWANDO ANYAOKU | PROVIDENCE

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moves from a testing problem to a data problem. If we sequence a patient once, you can return to that information in perpetuity to leverage it for clinical purposes.

From a research and novel discovery perspective, many communities have not found an efficient way to bring clinical trials or translational research to diverse patient sets. Our group at an academic health system is focused on health equity and they embedded this process into their health equity team with a community advisory board to build trust within the community, to focus on research and bring novel discovery to largely Latino and African American patient populations.

MODERATOR: Does your health system have a precision health strategy and what are its goals?

LECAMWASAM: Giving our clinicians access to the necessary information to provide the right care at the right time in the right place to every patient is important to our organization and to any precision health strategy that we design for our organization. Given the operational changes that our organization is going through, our precision health strategy also needs to be flexible and evolve in the coming year.

ANYAOKU: Our health system started a personalized care model pre-COVID-19. Now we're re-engaging and thinking about how to make this model applicable across different populations. Our footprint is seven states, not 22, but we do have various groups of Black, Indigenous and people of color in rural and urban communities with all the different permutations. How do we solve for it?

In health care today, questions are almost as important as answers because if we don't ask the questions, we're not going down that path. Especially when we look through the population health lens and the equity lens, you're absolutely not going to solve for it if you're not thinking about it.

MODERATOR: What are the challenges and opportunities to integrating genomics more broadly at a population level and enterprisewide scale within your health system? How is genomics tied into your data strategy?

LECAMWASAM: The main challenge, as I mentioned before, is funding unreimbursed genomic testing and follow-on services. To get stakeholder buy-in (and funding) to include genomics in population health care, especially in large enterprises, it is best to start with clinically validated, actionable opportunities that have a direct effect on clinical and patient outcomes and integrate those genomics standards into the care paradigm. If this is done, then the greatest opportunity is the ability to provide genomics information at the point of care (especially to community physicians) to reduce costs, improve care and achieve better patient outcomes. With regard to our data strategy, we are actively working with genomic test providers to integrate our patients' genomic data into their health records and our data centers.

BENNETT: Our oncology work in precision medicine provides a lot of value in how it alters the plan of care. Often, we start with academic-based innovation and then it spreads from there. If it's good for academic medicine, it should be good for every community we serve. One of the questions we ask is: 'How do you design a structure or support mechanism that delivers that standard of care across the board so that every-

MANOJA LECAMWASAM | COMMONSPIRIT HEALTH
"Giving our clinicians access to the necessary information to provide the right care at the right time in the right place to every patient is important to our organization and to any precision health strategy that we design for our organization. Given the operational changes that our organization is going through, our precision health strategy also needs to be flexible and evolve in the coming year."

body has access?' Cost is the biggest barrier.

We're trying to leverage existing models that work well for us to integrate new testing into clinical workflows. For example, in our antimicrobial and diagnostic advisement program, we provide the same services through the EHR to all our system hospitals. We review all patients regardless of their physical presence. Now, 33% of the recommendations we provide annually come from clinicians who are calling us for advice. Not only is the care delivery equitable, but we've created a single home for clinicians to call for support. In launching a new model with precision medicine and pharmacogenomics, we'll look to replicate that model for other programmatic initiatives like genomic sequencing and pharmacogenomics.

ZSENITS: Genomic data is one use case of a broader data strategy that we are developing for many other reasons. We need to capture all forms of clinical data better, though one of my biggest concerns is how we engage and support the clinicians. When it comes to using all the data and knowledge that we may capture from genomics and social determinants of health and even traditional clinical data that may be enhanced by AI, the main issue will be how to change clinician behavior to make this data valuable. This will not be simple as clinicians are already burned out from many alerts that are triggered by value-based initiatives: that burden may lead to not using the EHR systems to their fullest potential, which creates a vicious cycle of incomplete EHR data leading to additional cognitive burden and more alters.

HAJEK: Alert fatigue is real. At Sanford, we did a lot of pharmacogenetic testing and we tested many different alerts in different fashions, silent and interruptive. One interruptive alert that stayed had a response rate as high as 70% and that was for CYP2C19 for clopidogrel therapy. The clinician engagement involvement and the clinical utility of the interaction is a key driver in figuring out how to serve up this type of information.

We launched a similar approach recently at an academic health system. Clinicians could derive results directly from genomic data that were already in the chart, so they could see the result within seconds of placing the order and then use it at the point of care with decision support.

MODERATOR: What specific strategies in genomics are being employed to improve patient health outcomes and population health?

ANYAOKU: In rolling a genomics program out, how have you dealt with the issue of trust in communities that historically have reason to distrust the health care system?

HAJEK: One of the health systems with which we work has addressed the issue of trust by creating a community advisory board. It's a strong and diverse group of individuals from advocacy groups, the community and churches who meet quarterly. They use several different mechanisms to approach patients and meet them where they are to help address that very issue. They created a toolkit for the other member systems to use. The approach is highly dependent on the system and the populations they serve, but it has been a key component of our programs. There's no one right way of doing this. You have to do what's right for the community you're in.

CASSIE HAJEK | HELIX

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NEWMAN: The Helix network has a governing body of subcommittees, but one of the health systems wanted to form a health-equity subcommittee, realizing that genomics is not a silver bullet for solving health equity, but it's a piece of the puzzle.

Trust is one of the pivotal parts, which is why it has to be integrated into the system. Part of the reason this works is that patients own their data. There's an explicit consent on the front end confirming that patients own their data, they have access to it and we make it portable as part of the project. Patients also have the ability to remove their data if they wish, which also gives them a sense of comfort.

MODERATOR: What are the organizational drivers for leveraging genomics more broadly for risk stratification?

GRANACK: The advantages of implementing a genomics program are going to be recognized within five to 10 years. Coming out of the pandemic, financial issues remain at the forefront. Precision medicine will be foundational in the future new models of care; however, right now those models are in an early stage, and the pathways are not perfectly clear. Our senior leaders, like health systems across the country, know there are both risks of being too early and of waiting too long.

For example, from a population health standpoint, we can use the community genomics information to give our payers a better sense of the future. If we know that a certain percentage of our population has the genetics to develop early breast cancer, we can build the financial models to show how supporting earlier and more aggressive screening for high-risk individuals not only provides improved clinical outcomes but value as well.

LECAMWASAM: Providing equitable access to health care is a driver for our organization. We are the largest, nonprofit, mission-based hospital system in the country, and I believe we have a responsibility to provide access to life sciences innovations, such as genomics, to stratify risk and increase access to comprehensive care for our patients close to home. I keep thinking, if we don't do this hard work, then who will? For example, we know that African Americans have the highest rate of mortality from colon cancer, compared with other ethnic groups. Can we leverage our community outreach programs and the relationships we have built with trusted community sources to provide education and outreach about the importance of early screening and testing to these communities in which we serve? If someone's cancer is identified early and by genetic or biomarker testing, they can receive targeted therapy and can live longer to see a child graduate or celebrate an anniversary: these are the real human experiences that give purpose to the hard work that we are all doing right now.

NEWMAN: Many health systems say genomics is going to be part of our operating system, but how do we make it easy? How do we make it affordable? And how do we make it equitable? On the economic side, there's growth and total cost-of-care savings.

On the growth side in the short term, hospitals and health systems are thinking about organizational strategy differentiation in a competitive market. When you analyze an individual's genome and identify the risk of certain diseases, you have more holistic strategies available and you can personalize the approach. At the end of the day, it's how we do right by our patients.

One of the risk-based populations you all have is your employees. It's a huge population to start with, and an area where preventive care yields big savings.

CRAIG NEWMAN | HELIX

"Many health systems say genomics is going to be part of our operating system, but how do we make it easy? How do we make it affordable? And how do we make it equitable? On the economic side, there's growth and total cost-of-care savings."

For risk-based models, Helix worked with an actuarial firm, built a model and validated it. We looked at total cost-of-care savings from population-based screenings and savings from pharmacogenetics when it is integrated into the process.

ZSENITS: Our organization's purpose and values drive us for treating every person to their unique needs while caring for our community. Genomics should be one facet of achieving this goal. There is also significant interest in managing the health of our own employees, and using novel health maintenance and individualized wellness tools for them.

HAJEK: At Sanford, we offered pharmacogenetic testing for any patient with an anxiety depression diagnosis and it was covered. We saw a significant improvement in depression scores on Patient Health Questionnaire–9 and reduction in follow-up visits.

At Helix, among the patients who participate in our programs within a health system, we're seeing the overall benefits with Lynch syndrome, hereditary breast and ovarian cancer syndrome and familial hypercholesterolemia. Whether they have positive or negative findings, those patients have more ongoing engagement with the health system after they participate in the program. They're more consistent and compliant with their annual wellness visits, lipid screening, colon cancer screening, etc. There's stickiness and engagement with patients because they're reaching out for involvement in the program and their genomic data are available for future use.

Sponsor

Helix is the leading population genomics and precision health organization. Helix enables health systems, life sciences companies and payers to accelerate the integration of genomic data into patient care and public health decision-making.

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