



Targeted Tech, Magnified Effect: Leveraging Digital and Technology Optimizations to Improve Cancer Screening Rates

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In October 2022, AMGA hosted a special panel discussion exploring how various AMGA member groups were leveraging digital and technological optimizations to improve colorectal cancer screening rates. The discussion, titled "Targeted Tech, Magnified Effect," was hosted by Exact Sciences' Associate Chief Medical Officer Durado Brooks, MD, MPH, and highlighted the firsthand expertise of four unique health system leaders: Geisinger Health System's Director of Senior Focused Care Cybele Pacheco, MD, MBA, FAAFP; Prisma Health Medical Group's Executive Director of Ambulatory Optimization & Integration Katie Lawrence, MHA, CMPE; and Yale New Haven Health – Northeast Medical Group's Population Health Supervisor Kaitlyn May, MBA, and Population Health Manager Maggie Shalagan, MAS.

Dr. Brooks initiated the conversation by sharing a series of statistics and data points related to colorectal cancer, specifically pointing out that while significant progress has occurred over the last two decades in colorectal cancer screening throughout the United States, colorectal cancer is still the fourth most prevalent type of cancer diagnosed and the second-leading cause of cancer death, with more than 53,000 individuals expected to die from it by the end of 2022.¹ Despite the fact that \$17 billion was spent treating colorectal cancer in 2020,² national colorectal cancer screening rates remain suboptimal, with the Centers for Disease Control and Prevention finding in 2018 that 67% of individuals ages 50 to 75 were up to date with their screenings.³ Clinical guidelines have lowered the recommended screening age to 45 and with the eligible patient population now including

DESPITE PROGRESS, CRC SCREENING GAPS REMAIN

CRC is the "most preventable yet least prevented" form of cancer.1

CRC remains the 2ND leading cause of cancer mortality in the United States²

~53,000

CRC deaths expected in 2022²

~\$17 billion

direct medical expenditures related to CRC estimated for 2020³

Despite national efforts, screening for CRC is an underused preventive health strategy⁴

As of 2018: -

of adults aged 50 to 75 years report being up to date with CRC screening⁴



~21%

of adults aged 45 to 49 years report being up to date with CRC screening⁴

Health systems can consider HIT investment and utilization as one way to improve CRC screening rates.

References: 1. Itzkowitz SH. Incremental advances in excremental cancer detection tests. *J Natl Cancer Inst.* 2009;101(18):1225-1227. **2.** Siegel, RL, Miller, KD, Fuchs, HE, Jemal, A. Cancer statistics, 2022. *CA Cancer J Clin.* 2022. https://doi.org/10.3322/caac.21708 **3.** Mariotto AB, Robin Yabroff K, Shao Y, Feuer EJ, Brown ML. Projections of the cost of cancer care in the United States: 2010–2020. *J Natl Cancer Inst.* 2011;103(2):117-128. **4.** American Cancer Society. Colorectal cancer facts & figures 2020-2022. 2020. Accessed January 9, 2023 https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/colorectal-cancer-facts-and-figures/colorectal-cancer-facts-and-figures-2020-2022.pdf

adults ages 45- to 49-years-old,⁴ it is estimated that approximately 44 million people who should be screened for colorectal cancer are not up to date with their screening.⁵

"We think that health systems can, by making relatively small investments in their health information technology (HIT), improve colorectal cancer screening rates for the populations that they serve," said Dr. Brooks. "For example, we know that doing something as simple as identifying through the EHR patients who were due/overdue to be screened throughout a two-year period showed over a 24.5% increase in patients completing their recommended

screening per clinical guideline up-to-dates when compared with usual care."⁶

Beginning the Journey

Turning to his panelists, Brooks asked how each of their organizations began their process for improving their respective colorectal cancer screening rates. Shalagan explained that Yale New Haven Health's approach began in 2018 with the creation of a population health service line for its community medical practices, piloting the role of a preventive health coordinator, a non-clinical member who would train staff on how to understand preventive screenings, perform data analytics and mine patient

charts to find gaps in care, and initiate motivational outreach conversations with patients.

Dr. Pacheco and Lawrence stated that both of their health systems focus on one metric in a given month to generate progress, learnings, and momentum. In one month leaders and staff may target an improvement in hypertension. In another, they may target breast cancer screenings, and yet another target colorectal cancer screenings. This way, as Dr. Pacheco explained, each clinic is "swimming in the same direction on the quality metric for the month versus everybody looking at their HEDIS metrics and trying to figure out what to do that month to make an improvement." This methodology Lawrence added, helps keep too much from piling on the staff's plate of responsibilities, while at the same time moving the needle in optimization.

Solutions for Engagement

Dr. Brooks next asked about the role tech-based solutions played in improving the panelists' preventive efforts.

May responded by elaborating on the preventive health coordinator's role in directly scheduling preventive appointments. "In the past if someone called and said, 'What can I do for a colorectal cancer screening? What do I need to do?' the best we could do is just give them a phone number to call," she explained. "But now we're trying to decrease referral workload and calls to the office by having that point person at primary care that's going to proactively schedule their gastrointestinal (GI) consultation for any GI provider within our system. That is something that's really helped not only improve workflow in our offices, but create better patient care."

Another solution for Yale New Haven Health,
Shalagan explained, was simply connecting
with patients through their preferred means of
communication, the majority of which is not through

face-to-face discussions, mailers, or phone calls, but instead through text messages and emails. Yale New Haven Health took full advantage of this information on patient preferences, leveraging its bulk outreach capabilities. Within 30 seconds, the system could contact over 2,000 patients and allow them to respond directly back to the staff member who sent the message and coordinate next steps, reducing staff burden in the process.

Prisma uses a similar tactic, relying on a text message-based system, reminding appropriate patients that they are overdue for a screening and providing them with an easy hyperlink to single-page website with instructions and options for their care.

For systems such as Geisinger, whose geography and patient population struggles with internet and Wi-Fi access, and therefore is more difficult to engage with electronically, preventive outreach is assisted through its Behavioral Insights Team, a research team that is using data and analytics to personalize what kind of communication works best for each patient and patient community.

Optimizing Workflows

Turning to the topic of workflows and how the lack of a seamless, comprehensive workflow can lead to gaps in care, more care variation, and less patient engagement, Brooks asked the panelists how their respective health systems have identified and improved elements of their workflow using technology.

Lawrence indicated that perhaps the biggest change that Prisma has made is ensuring that the organization has optimized its health maintenance feed within its electronic health record (EHR) so that providers don't have as many clicks to process.

"We all want to reduce clicks," she said. "We want to make sure that it's efficient to make ordering easy, not just for colorectal cancer screening, but for all the care gaps that we have in our system. We have a really active and engaged primary care advisory group of physicians that has gone through the minutia of what we're clicking on a daily basis. So one of the considerations that they came up with was to pre-check all of the overdue and upcoming orders, meaning that if the patient is overdue for seven things, it's not seven individual clicks. It's one click at the bottom and they're done."

Another element that both Prisma and Geisinger use is visual color cues. An overdue screening or task is colored in red, an upcoming but non-urgent screening or task is colored in gray.

Geisinger has improved their colorectal cancer screening workflow by targeting the health maintenance section within the EHR. Through their EHR, they risk stratify each screening eligible patient so that the EHR flags a non-invasive mt-sDNA screening option as the first option for appropriate patients at the point of care, rather than proposing colonoscopy from the start. While colonoscopies are greenlit when clearly appropriate, Dr. Pacheco said this new approach of offering mt-sDNA for eligible patients has provided a great deal of relief and bandwidth to Geisinger gastroenterologists. Instead of trying to push large numbers of average risk patients to receive a colonoscopy, only those who receive a positive test result from a from a non-invasive test are pursued for a follow-up colonoscopy.

Similar to Geisinger's approach, May shared that Yale New Haven has also made decisions to alter elements of the health maintenance section of patients' charts, teaming up with lead physicians, quality team members, and IT teams to initiate a new colorectal cancer screening dashboard that can be utilized at primary care sites. According to May, "we're also

working on some automation of patient education materials and hope to see some results based on those changes within the calendar year."

Future Strategies

To close the session, Dr. Brooks asked what digital strategies each respective organization would be focusing on in the future. Avenues being considered down the road include placing a greater focus on social determinants of health, an area in which Prisma is already making strides.

"We're sending out questionnaires once a year with a few short, impact questions to our patients so that we know, for example, if they're going to have a transportation issues," said Lawrence. A patient with transportation challenges "might not be the right person to refer to colonoscopy and maybe we need to look at a different [screening] tool because they don't a have a family member who can bring them or they don't have someone who can stay at the visit."

Almost every one of the panelists confirmed that their organization incorporates telemedicine into their practice and workflows. Ultimately for many of the panelists, the goal is to create an environment through digital optimization that makes information clear and understandable for patients, while still being able to maintain that genuine, interpersonal relationship with their physician.

As Lawrence said, "We're leveraging some of the tools and technology around behavioral economics, around choice-making that patients do. How do we encourage an option we really want them to use? How do we simplify their choices such that they can make a clearer decision that's not overwhelming with too much information? And how do we make that [process] electronic and build it into the way that we interact with our patients?"

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