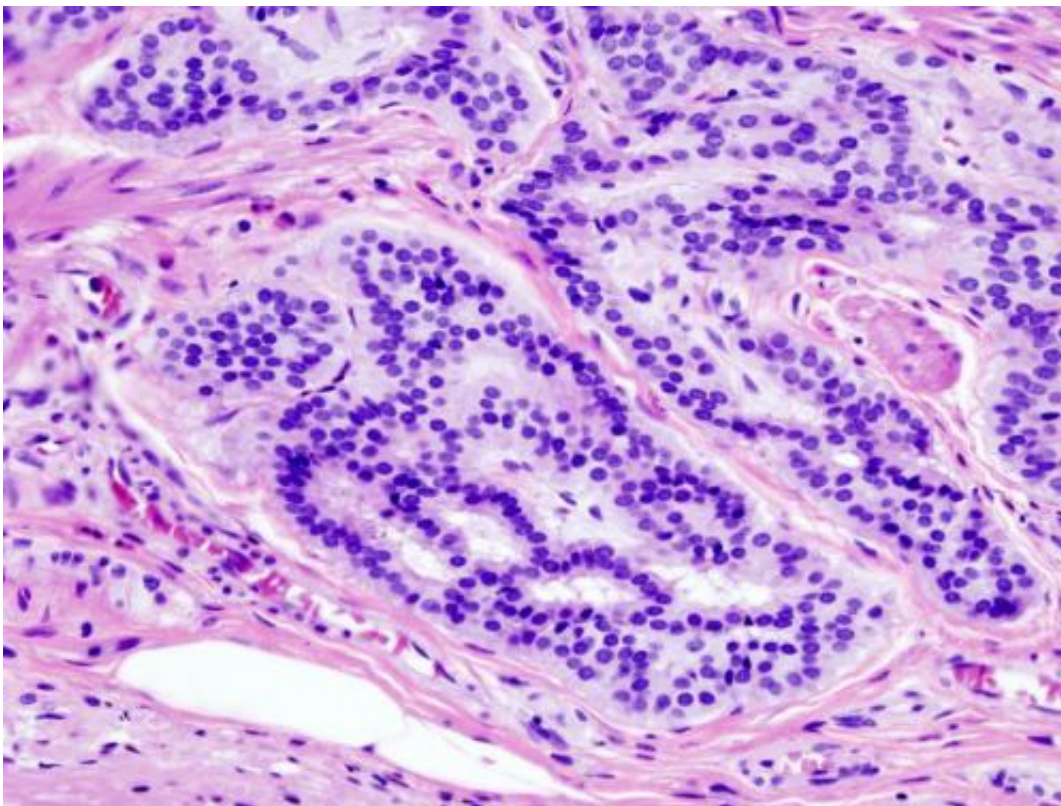


# Take-at-home tests boost colorectal cancer screening tenfold for health center serving minorities

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Cancer—Histopathologic image of colonic carcinoid. Credit: Wikipedia/CC BY-SA 3.0

Colorectal cancer screening rates jumped by more than 1,000 percent when researchers sent take-at-home tests to patients overdue for testing

at a community health center that predominantly serves people of color. Instead of the oft-standard text message that simply reminds a patient that they are overdue for screening, researchers from the Perelman School of Medicine at the University of Pennsylvania made it the default to send a take-at-home test to the patient's home unless they opted out via a text message prompt. The research was published in the *Journal of General Internal Medicine*.

"Colorectal cancer [screening](#) rates remain limited in underserved populations, which includes those in the clinic we partnered with," Shivan Mehta, MD, associate chief innovation officer at Penn Medicine and an assistant professor of Medicine. "We saw that there is an opportunity to use text messaging and new insights from [behavioral science](#) to increase uptake."

Colorectal cancer can be especially deadly if it is not discovered early enough for curative treatment. Across the United States, regular screening rates are relatively low, particularly in community health centers, where less than half of eligible patients are up-to-date. One study, in particular, found that the number of deaths from colorectal cancer among Black people was 40 percent higher than in white people, and 100 percent higher than in Asian/Pacific Islanders.

One method consistently used to boost screenings is the fecal immunochemical test (FIT). These kits just require a stool sample from a patient—which can be provided at home—that are then returned to a laboratory by mail and analyzed for the trace blood associated with colorectal cancer. While a colonoscopy remains the gold standard because it is the most thorough check and only needs to be completed once every 10 years, FIT kits are much easier for patients to handle and likely to be completed, even though they only clear a patient for a year.

Looking to increase low completion rates, the researchers—led by

Mehta and the study's first author, Sarah Huf, MBBS, a former Commonwealth Fund Fellow at Penn and now an Honorary Clinical Lecturer at Imperial College London—decided to focus on completing FIT kits. As such, they randomly split a group of more than 400 patients overdue for screenings into two equal arms: one that just received a single reminder text and another that received FIT kits unless patients sent a response to an introduction text to say that they didn't want them. Almost 90 percent of these patients were Black, and half were Medicaid beneficiaries.

From March to May 2018, these patients were enrolled to either receive the reminder text (the control group) or to receive the FIT kit pending an opt-out (the [intervention group](#)). The latter group also received up to three follow-up texts with messages based on proven behavioral science techniques to nudge them into returning the kits.

By the end of the period studied (12 weeks from when each patient received their first [text message](#)) a little more than 2 percent of the patients in the [control group](#) had completed a FIT kit or had a colonoscopy. But for the intervention arm of the study, nearly 20 percent had done the same.

When looking purely at FIT kit return rates, the intervention arm increased by more than 17 percentage points. In the control, it was less than two. And while screening rates did remain relatively low, the improvement showed great promise for the population served.

"It is important to note that this is a population at a community health center that may not routinely seek out [medical care](#), especially preventive care, so there is a low baseline screening rate," Huf explained. "Future interventions may need to address issues such as reading comprehension and not having a stable place to live."

What was especially important for the type of clinic this study was performed in was the cost to apply it. For the 200 patients in the intervention arm, it only cost about \$150.

"For these types of health clinics, minimizing cost is critical for sustainability since they have many competing health priorities for their patients," Mehta said.

Moving forward, Mehta and his fellow researchers plan to explore how best to offer the choice of colonoscopy or FIT kits to [patients](#) in the populations that receive care at this type of health center.

**More information:** Sarah W. Huf et al. Text Messaging and Opt-out Mailed Outreach in Colorectal Cancer Screening: a Randomized Clinical Trial, *Journal of General Internal Medicine* (2021). [DOI: 10.1007/s11606-020-06415-8](https://doi.org/10.1007/s11606-020-06415-8)

Provided by Perelman School of Medicine at the University of Pennsylvania

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