Home Test Kits Boost Screening for Cervical Cancer

Women who used at-home test kits were more than twice as likely to complete screening than those who received only telephone reminders.

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Cervical cancer is usually slow-growing. It's almost always caused by infection with the human papilloma virus (HPV). It seldom has symptoms. But screening tests can detect HPV infections even in precancerous stages. Screening traditionally occurs during a pelvic exam, when a clinician collects sample cells for testing. Early detection, follow-up, and treatment of HPV infection can often prevent cervical cancer and related deaths.

Despite the proven effectiveness of cervical cancer screening, many women have never been screened or are behind in their screening. Screening rates tend to be lower in rural areas and among women who are uninsured or publicly insured. Obstacles to screening can include cost, distance to a clinic, language barriers, discomfort with a pelvic exam, and mistrust of the healthcare system.

A research team led by Dr. Jane R. Montealegre of the University of Texas MD Anderson Cancer Center aimed to assess whether at-home collection of samples using mailed self-collection kits could increase participation in cervical cancer screening among at-risk groups. They launched a clinical trial that enrolled nearly 2,500 participants, ages 30 to 65, from the Houston, Texas area.

Most participants (94%) were from racial or ethnic minority groups. All were overdue for cervical cancer screening. More than half (56%) were covered by a publicly funded financial assistance program. The study ran from February 20, 2020, to August 31, 2023.

Participants were randomly divided into three groups, with a little more than 800 people in each. One group received a call from a patient navigator to explain the importance of cervical cancer screening and invite them to get clinic-based screening. Patient navigators are trained to support and educate patients and help guide them through the health care system. Another group received a similar phone call and were also told they would be sent a self-collection kit for cervical cancer screening in the mail. The third group received a phone call, a self-collection kit in the mail, and a follow-up call to encourage them to return the kit. Study results appeared in JAMA Internal Medicine on June 6, 2025.

The researchers found that, by six months after enrollment, 17% of participants who had only received a phone call had been screened for cervical cancer in a clinic. In contrast, 41% of those who received a self-collection kit had been screened for cervical cancer. That screening rate is about 2.4 times higher than in the phone call only group. Screening rates were even higher, about 47%, among those who received the mail-in kit and follow-up contact from a patient navigator.

The scientists found that more than 80% of participants in the self-collection groups who were screened used their kits for screening. This hints that self-collection may be well-accepted by under-screened populations.

“Too many women—especially those who are uninsured, live in rural areas, or come from marginalized and underserved communities—aren’t getting screened for cervical cancer,” Montealegre says. ”These results show that self-collection testing could be a solution to increasing access to screening and, in turn, reducing the burden of cervical cancer in the U.S.”

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