

Cervical cancer screening doubles when under-screened women are mailed at-home testing kits

May 11 2023



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Researchers at the UNC Gillings School of Global Public Health and UNC Lineberger Comprehensive Cancer Center have found that mailing human papillomavirus (HPV) self-collection tests and offering assistance to book in-clinic screening appointments to under-screened, low-income women improved cervical cancer screening nearly two-fold compared to scheduling assistance alone. Scheduling assistance primarily consisted of helping to book an appointment for in-person screening at a clinic, regardless of whether an at-home test was offered or returned, or whether the HPV test was negative or positive.

The findings from the randomized trial appeared May 11, 2023, in *The Lancet Public Health*.

"My hope going into this study was that mailing kits for home-based collection might increase [cervical cancer screening](#), but we were thrilled to find a nearly two-fold increase in screening uptake," said UNC Lineberger's Jennifer S. Smith, Ph.D., MPH, professor of epidemiology at UNC's Gillings and corresponding author of this study. "Many hadn't engaged in the screening system for a while and getting the kit to their homes helped break down a fundamental barrier."

An estimated 14,000 women will be diagnosed with cervical cancer in the United States this year, according to the National Cancer Institute, and the cancer will lead to more than 4,300 deaths. Cervical cancer disproportionately affects Black and Hispanic women, with Hispanic women having the highest incidence rates, and Black women having the highest mortality rates for the disease in North Carolina and in the

United States. Most cervical cancers occur among under-screened women. The Centers for Disease Control and Prevention estimate 22% of eligible adults in the U.S. are overdue for screening.

The [My Body, My Test-3 study](#) recruited 665 women, ages 25 to 64, who were uninsured or enrolled in Medicaid or Medicare, from 22 counties across North Carolina. The women had low incomes and most of them lived in urban areas. None had a pap test in four years or a high-risk HPV test in six years, making them overdue for screening.

Two-thirds of the women received mailed HPV self-collection kits followed by assistance with scheduling a screening appointment at a clinic. The other third received screening scheduling assistance alone. The primary outcome was attending an in-clinic screening appointment or testing HPV-negative with self-collected samples within six months of enrollment in the trial.

Screening uptake was 72% among women who received mailed HPV kits compared to 37% for the other group of women. The investigators found that the effect of self-collection outreach on screening uptake didn't vary across age, race/ethnicity, time since last screening, Medicaid or Medicare insurance coverage, or education.

"Home screening for cervical cancer puts women in control. Most can avoid having to go to a doctor's appointment. These at-home kits can better reach people without access to screening, who are embarrassed by a cervical exam, or whose [religious beliefs](#) include modesty," said study co-author Noel T. Brewer, Ph.D., Gillings Distinguished Professor in Public Health and UNC Lineberger member.

"We believe our results are applicable to low-income, under-screened women across the United States," Smith said. "We're now working with clinical partners to identify women who might be overdue for screening

through electronic medical records. We hope to provide the option of either mailing them a self-collection kit to use at-home to mail back to us or hand a kit directly to them when they come into clinics for other services with the vision to eventually make self-collection a regular clinical provision."

The UNC researchers also hope their findings, together with previous research findings, will spur the Food and Drug Administration to consider approving HPV self-collection as a primary screening test for [cervical cancer](#) in the U.S.

More information: Effect of HPV self-collection kits on cervical cancer screening uptake among under-screened women from low-income US backgrounds (MBMT-3): a phase 3, open-label, randomised controlled trial, *The Lancet Public Health* (2023).

[www.thelancet.com/journals/lan ... \(23\)00076-2/fulltext](http://www.thelancet.com/journals/lan... (23)00076-2/fulltext)

Provided by UNC Lineberger Comprehensive Cancer Center

Citation: Cervical cancer screening doubles when under-screened women are mailed at-home testing kits (2023, May 11) retrieved 13 May 2023 from <https://medicalxpress.com/news/2023-05-cervical-cancer-screening-under-screened-women.html>

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