# The trek to save many women from cervical cancer

March 1 2024, by Vittoria D'Alessio


Credit: Anna Tarazevich from Pexels

Home-test kits and mobile labs for detecting a tumor in tissue near the uterus are improving health care in remote or marginalized communities.

Magdalena Rothova is on the frontline of a fight in the EU to reduce deaths from cervical cancer, which tens of thousands of women in Europe develop each year.

She heads a Slovakian non-governmental organization that sends female health care workers to the mostly Roma communities in eastern Slovakia to persuade women that screening is a good idea.

## Barrier battle

"Less educated people in the communities we focus on have always been suspicious about the motives of doctors and worried about testing for cancer," said Rothova, director of the Association for Culture, Education and Communication, or ACEC. "One of their unfounded worries is that taking the test for cervical cancer will mean they can't have babies."

Early screening is one of the most important ways of reducing deaths from cervical cancer, which killed more than 13,000 women in the EU in 2020. That same year in the EU, more than 30,000 new cases of the disease occurred, representing 2.5% of all new cancer cases for women.

Globally, the illness in 2020 was the fourth most common cancer in women with more than 600,000 cases and 340,000 deaths, mainly in low- and middle-income countries.

This type of cancer occurs in the cells of the cervix, which is the tissue that links the uterus to the vagina.

When detected early, cervical cancer can be cured through surgery. Screening also reveals cell changes that suggest the disease will develop at a later stage. Removing these cells means a woman's cervix can be restored to a healthy state with minimal disruption or expense.

Physical and cultural obstacles to early screening hinder it from being more widespread. Some parts of the EU population live in remote places and/or distrust such preventive health steps.

ACEC teamed up with a research project that received EU funding to explore the effectiveness of self-testing for cervical cancer in hard-to-reach areas in Slovakia and three non-EU countries: Bangladesh, India and Uganda.

## Successful sampling

Called PRESCRIP-TEC, the three-year project ended in January 2024.

Over three months in mid-2023, ACEC collected samples for cervical cancer self-testing from 2,027 women. The organization deployed 21 health care workers for the task.

Rothova chalks up the success of the program to two factors: the ability of the workers to gain the trust of the Roma women one by one and the availability of a do-it-yourself test that avoided the need for a visit to a clinic.

The women did the test at home with a swab and then handed it over to a health care worker, who sent the sample to a laboratory for analysis.

"For many of these women, there are big obstacles to going to the doctor: time, the cost of travel and—of course—fear," said Rothova. "Home-testing makes most of these go away."

## Virus threat

The swab used in the test flags up the presence of Human Papilloma

Virus—or HPV—infections, which are by far the biggest risk factor for cervical cancer.

Most HPV infections are eventually cleared naturally by the immune system. The PRESCRIP-TEC team sought to catch women with persistent infections that go on to become cancer.

In all four countries covered by the project, women who tested positive for the virus were referred to a clinic for further diagnostic examination.

Pre-cancerous cells could then be painlessly burned from the cervix, often resulting in complete elimination of affected cells. Cancerous tumors usually require more invasive surgery such as a hysterectomy.

In total, 35,000 samples were collected by health care workers under PRESCRIPT-TEC and analyzed in laboratories.

Big differences in the prevalence of HPV infections were found among the countries. The share of women affected was around 21% in Uganda, 11% in Slovakia and 2% in rural India and Bangladesh.

Women in areas covered by the project were taught about the risks of cancer and the importance of screening through a combination of social media campaigns and information from trusted community health workers.

"It's very important to reach women in poor, rural areas as this is one of the few cancers that can be eliminated by early identification of the virus," said Dr. Jaap Koot, who led the project and is a specialist in public health management at the University Medical Center of Groningen in the Netherlands.

## Global vaccination campaign

Since 2006, a vaccine has been available to prevent HPV infection taking root in the first place.

But the vaccine, usually given only to girls, is still unavailable in many less affluent countries.

The World Health Organization has set a goal to eliminate cervical cancer within the next century by vaccinating 90% of girls, screening 70% of women and treating 90% of those with the disease.

"By expanding screening as well as vaccination, we can achieve these results a lot faster," said Koop. "The aim is to reduce it by 50% by 2040 and eliminate it entirely in the next 60 years."

## Portable lab

Another EU-funded project is going a step further than PRESCRIP-TEC to increase cervical screening in hard-to-reach communities: swabs from home-testing kits will be evaluated on the spot rather being sent to a lab.

Called ELEVATE, the six-year project runs until the end of 2024 and has focused on remote populations in Belgium, Brazil, Ecuador and Portugal. It is led by Professor Olivier Degomme, director of the International Center for Reproductive Health at Ghent University in Belgium.

"Our engineers are developing a portable lab that allows very quick identification of an HPV infection, with a turnaround time of one hour," said Degomme. "When we go to these communities where women, for various reasons, aren't being screened, we can take our lab facilities with us."

All the equipment needed for the portable lab has been developed and a prototype built. The final elements are now being checked.

The whole package is designed to be compact enough to fit into a backpack that health care workers can carry from village to village. The equipment will both identify HPV infections and test for proteins that show if cancer is developing.

"We want the test to be nuanced—a woman may have an infection but no cancer," said Degomme.

Like Rothova in Slovakia, he stresses the importance of health care workers in the whole endeavor.

"It means the woman can be given immediate information about what needs to happen next and a referral for treatment can happen there and then," Degomme said. "We want screening to be available in all hard-to-reach populations around the world, with no woman left behind."

**More information:**

- PRESCRIP-TEC
- ELEVATE

Provided by Horizon: The EU Research & Innovation Magazine

Citation: The trek to save many women from cervical cancer (2024, March 1) retrieved 27 April 2024 from https://medicalxpress.com/news/2024-03-trek-women-cervical-cancer.html

provided for information purposes only.