ISRCTN90155919 https://doi.org/10.1186/ISRCTN90155919

Evaluation of cervical cancer screening implementation among vulnerable women in real-life settings in Estonia, Portugal, and Romania

Submission date
06/04/2022

Recruitment status
No longer recruiting

Registration date
21/06/2022

Overall study status
Completed

Last Edited
06/08/2026

Condition category
Cancer

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Cervical cancer is the third most common gynaecological cancer and the second most common in women under 45 years. In Europe, over 61,000 women are diagnosed with cervical cancer each year; almost 26,000 women of them will die of it. These deaths can be largely attributed to low HPV vaccination coverage and low cervical cancer screening (CCS) rates among vulnerable women. In many countries, vulnerable women need community care services to prevent illness, but cannot care for themselves or protect themselves against significant harm and are less likely to be screened than the general population.

As part of the Global strategy towards the elimination of cervical cancer as a public health problem, one of the targets the World Health Organisation (WHO) proposed was to reach the coverage of 70% of women screened with a high-precision test (e.g., HPV testing) by the ages of 35 and 45 years.

The CBIG-SCREEN project objective is to attract vulnerable women to CCS programmes, and retain them from initial test to treatment. To do this, the research will work in collaboration with these women to identify and develop strategies to meet their varied and specific needs, convincing policymakers to adopt these strategies, and ensuring that programmes reach out promote these interventions to communities of underserved women.

The project will assess the standard-of-care system of CCS on participation of the vulnerable women to HPV detection-based CCS services (project phase I), and later compare these results with those from the implementation of strategies developed together with stakeholders, including vulnerable women (project phase II).

Who can participate?
Females from vulnerable groups in Estonia (aged 30-65 yrs), Portugal (25-64 yrs), and Romania (30-64 yrs) not having being screened for cervical cancer in the last 3 years with cytology or 5 years with HPV test.

What does the study involve?
Women will be offered to get screened using an HPV test. The sample will be collected by women themselves (self-sampling) or a health provider. HPV test is now widely recommended as a cervical cancer screening test because it is better than Pap smear, the test commonly used till now.

If women collect it themselves, they will receive an HPV kit according to what is recommended in their country: directly at home, after request through the website, at a mobile unit, in health facilities involved in cancer screening, within mobile units or at a dedicated clinic. Explanations regarding how to perform the self-sampling will be given with the kit.

The sample will be sent to a laboratory for analysis, and women will receive the results through an online portal/letter. If the test is negative, women will receive guidance from health providers regarding their next screening in 3/5 years. If the test is positive, women may need further examination.

What are the possible benefits and risks of participating?
Being in this study may or may not help participants, but may help other vulnerable women not regularly screened for cervical cancer to have this screening.

By participating in this study, women will receive screening with a test that may detect cervical lesions that can be easily removed and prevent the development of cervical cancer from that lesion.

There is no health risk associated to participating in the study.
Doing an HPV test is quite simple and safe. Yet, few women may experience some discomfort and very rarely spotting after collecting the sample themselves. Women may opt for the sample to be collected by a nurse, general practitioner, or gynaecologist in their area. If they are tested negative, they need not get any test done for cervical cancer screening in the next 3/5 years.

If the test is positive, women will be advised to undergo further tests like colposcopy. Most women will have minimal and short-term symptoms from colposcopy and biopsy. They may have pain and discomfort in the vagina for 1 or 2 days. Simple oral pain medications can be helpful. Women may have some vaginal bleeding.

In the case of being detected to have cervical precancer or rarely cervical cancer, women will be appropriately advised for treatment. The treatment for precancer is a simple out-patient technique in most cases. The treating doctor or nurse will explain such procedures and the associate risks in further details in case such treatment is needed.

Where is the study run from?
The International Agency for Research on Cancer (IARC) is coordinating the study, and the local research teams are based at Tartu University (Estonia), Institute of Public Health of University of Porto (ISPUP, Portugal) and Institute of Oncology Cluj-Napoca (IOCN, Romania).

When is the study starting and how long is it expected to run for?
March 2021 to February 2026

Who is funding the study?
The study is funded by EU Horizon 2020 Research and Innovation Programme

Who is the main contact?
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Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
IEC 20-40

Study information

Scientific Title
Working collaboratively with vulnerable women to identify the best implementation gains by screening cervical cancer more effectively in European countries

Acronym
CBIG-SCREEN

Study objectives
Current study objectives as of 08/10/2025:

The project aims to assess the baseline performance of the existing standard-of-care system of cervical cancer screening (CCS) on participation of the vulnerable women to HPV detection-based CCS care cascade (project phase I).
The key outputs and outcomes of the baseline study will act as comparators for the study evaluating the implementation of strategies developed together with stakeholders, including vulnerable women (project phase II). Phase II also includes a randomised evaluation of whether invitation letters with a deadline for at home self-sampling increase screening completion in 2 countries

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Previous study objectives:

The project aims to assess the baseline performance of the existing standard-of-care system of cervical cancer screening (CCS) on participation of the vulnerable women to HPV detection-based CCS care cascade (project phase I).
The key outputs and outcomes of the baseline study will act as comparators for the study evaluating the implementation of strategies developed together with stakeholders, including vulnerable women (project phase II).

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 27/11/2020, IARC Ethics Committee (IARC Ethics Committee, 25 avenue Tony Garnier, 69007 Lyon, France; +33 (0)4 72 73 83 41; iec-secretariat@iarc.fr), ref: IEC 20-40

Primary study design
Interventional

Study design
12 month cross-sectional non-randomized multi-centre single-arm unblinded study (phase I)
Prospective 12-month study with an embedded randomised trial of invitation letter deadlines in 2 out of 3 countries (phase II)

Study type(s)
Screening

Health condition(s) or problem(s) studied
Cervical cancer screening

Interventions
Current interventions as of 08/10/2025:

All recruited participants will be screened with a validated HPV test to be performed on either a self-collected or provider-collected sample. The kits for self-collection will be either mailed to the women (in Estonia), or the women will be requested to order the kit through a website (Estonia), or the kit will be made available at the clinics for women with special needs (Estonia) or at the mobile clinics (Romania) or in person (Romania) or from general practitioners, health mediators or in pharmacies (Romania). In Portugal, HPV testing will be performed by the health provider as self-collection is not yet the standard of care. The kits sent to the women for self-collection will be accompanied by detailed instructions with a pictorial depiction of how to self-collect the vaginal samples.
In phase II women will receive an HPV self-sampling kit through different distribution methods. In Estonia and Portugal, women participating in the study will receive the kit at home. In both countries women will be randomised to receive the invitation letters in either of two formats - half with a deadline for returning the self-sample and half without a deadline - to evaluate whether the inclusion of a deadline could increase cervical cancer screening completion. In Romania, HPV based screening will be offered at IOCN and HPV self-sampling kits will be offered directly to women through Napofarm Pharmacies in Cluj county, without randomisation.
HPV positive women will be referred for further examination and be treated if needed.
Recruited women will be followed until:
• if tested negative, they receive negative result,
• if tested positive, they complete assessment and, when necessary, treatment

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Previous interventions:

All recruited participants will be screened with a validated HPV test to be performed on either a self-collected or provider-collected sample. The kits for self-collection will be either mailed to the women (in Estonia), or the women will be requested to order the kit through a website (Estonia), or the kit will be made available at the clinics for women with special needs (Estonia) or at the mobile clinics (Romania) or in person (Romania) or from general practitioners, health mediators or in pharmacies (Romania). In Portugal, HPV testing will be performed by the health provider as self-collection is not yet the standard of care. The kits sent to the women for self-collection will be accompanied by detailed instructions with a pictorial depiction of how to self-collect the vaginal samples.

HPV positive women will be referred for further examination and be treated if needed.

Recruited women will be followed until:
• if tested negative, they receive negative result,
• if tested positive, they complete assessment and, when necessary, treatment

Intervention Type
Other

Primary outcome(s)
Current primary outcome measure as of 08/10/2025:

Estimate the proportion of recruited women 'well-managed for CCS', which is defined as those women who have been screened with HPV test and -
• either tested negative and advised of negative result,
• or tested positive, completed assessment and, where necessary, treatment pathway
Measured at month 12.
• for the trial screening completion (defined as the return of the at-home HPV self-sampling kit)

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Previous primary outcome measure:

Estimate the proportion of recruited women 'well-managed for CCS', which is defined as those women who have been screened with HPV test and -
• either tested negative and advised of negative result,
• or tested positive, completed assessment and, where necessary, treatment pathway
Measured at month 12.

Key secondary outcome(s)

Evaluation will be conducted at month 12 and follow RE-AIM dimensions:
1. Reach:
1.1. % of women invited for CCS who got screened in 12 months
1.2. % of screened women delivered with HPV test report within 1 month of testing
1.3. % of HPV-positive women undergoing further assessment (as per local protocol)
1.4. % of women who were advised treatment underwent treatment
2. Efficacy/effectiveness:
2.1. % of recruited women well managed (% of women screened and completing full pathway of HPV screening and treatment over 12 months) (primary objective)
2.2. Detection rate of CIN 2+ in the screened cohort
2.3. Health economic assessment measured by disability adjusted life years saved using the new implementation strategies compared to current standard of care cervical screening
3. Adoption:
3.1. Acceptability of HPV self-sampling when applicable (% of women providing samples successfully)
3.2. Acceptability of the invitation services (% of women undergoing HPV testing out of those invited)
3.3. Acceptability of reminder services (% of women responding positively to a reminder for screening/diagnosis/treatment)
3.4. Questionnaires/focus groups targeting the health professionals and assessing the dimensions of the Theoretical Framework of Acceptability
4. Implementation: Structural and dynamic fidelity of implementation, utilising data collected through the implementation experience from health services and participants.
4.1. Proportion of clinics that implemented the interventions
4.2. Number of health professionals providing HPV self-sampling guidance when applicable
4.3. Extent protocol delivered as intended (Proportion of healthcare providers delivering services as per protocol)
4.4. Stakeholder perceptions of implementation (qualitative study)
4.5. Facilitators and barriers (qualitative study)
5. Maintenance: Intervention Scalability Assessment Tool (ISAT) (Milat 2020) will be applied with relevant policy makers and health services in a structured process informed by intervention implementation experience.

Completion date

28/02/2026

Eligibility

Key inclusion criteria
1. Included in the vulnerable group of women as defined by other working groups of the project (which may include women of low socioeconomic status, women living with HIV or other sexually transmitted diseases, sex workers, Roma population and migrants)
2. Age within that specified in the guideline for CCS in the country/programme (Estonia: 30-65 years; Portugal: 25-64 years; Romania: 30-64 years)
3. Provides voluntary informed consent

Participant type(s)
Healthy volunteer

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
25 Years

Upper age limit
65 Years

Sex
Female

Total final enrolment
1998

Key exclusion criteria
1. Screened with cytology in last 3 years or with HPV test in last 5 years
2. Those who had hysterectomy
3. Those who have been detected cervical precancer or cancer and undergoing treatment for that
4. Those suffering a debilitating illness that will prevent her from providing informed consent

Date of first enrolment
01/01/2023

Date of final enrolment
31/01/2026

Locations

Countries of recruitment
Estonia

Portugal

Romania

Study participating centre
Tartu University
Teatri väljak 3
Tallinn
Estonia
10143

Study participating centre
Institute of Public Health of University of Porto (ISPUP)
Rua das Taipas 135
Porto
Portugal
4050-091

Study participating centre
Institute of Oncology Cluj-Napoca (IOCN)
Strada Republicii 34-36
Cluj-Napoca
Romania
400015

Sponsor information

Organisation
Clinical Investigation Center INSERM 1432

Funder(s)

Funder type
Government

Funder Name
European Union 2020 research and innovation programme

Results and Publications

Individual participant data (IPD) sharing plan

Deidentified data will be made available to a researcher with a valid justification of use of the data and having a valid approval from ethics committee to use the data.
mosquerai@iarc.who.int

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Study website	Study website	11/11/2025	11/11/2025	No	Yes