

Title: Implementation of a self-sampling into the cervical cancer screening program in Pirkanmaa region in 2024**Authors:**

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Abstract**Introduction**

HPV primary testing is the preferred method for cervical cancer (CC) screening worldwide. HPV-based screening enables vaginal self-sampling at home. Self-sampling has shown comparable performance to clinician-collected samples and can improve participation in CC screening, especially among non-attenders. In Finland, self-sampling has so far only been tested in research setting in the Helsinki region. The aim of this study was to implement self-sampling into the current CC screening program and to determine whether offering a self-sampling option increases screening coverage among non-attendees. We also evaluated the opinions and preferences regarding self-sampling among the women who participated in the study.

Study design

The FALCON study targeted women living in Pirkanmaa who did not respond to the initial cervical cancer screening invitation. In the reminder letter, they were offered participation via self-sampling using an opt-in model. Participants ordered a self-sampling kit and completed a brief questionnaire online. Samples were analyzed using Roche HPV testing at Fimlab Laboratories. HPV-positive women were referred for follow-up testing according to national guidelines. Sixty days after ordering self-sample package, participants were invited to complete a feedback survey on their self-sampling experience.

Results

A total of 16,289 reminder letters were sent, resulting in 329 kit orders. 304 returned the self-samples. Participants (mean age 48) were mostly well-educated and they had prior screening history. HPV was detected in 6.9% of samples; one case of histological HSIL was identified. Most participants found self-sampling easy and comfortable, and 93.8% would recommend it to others.

Conclusions

Participation in the self-sampling study was low in Pirkanmaa. This may be because we offered self-sampling as a secondary option. Nevertheless, the study confirmed that self-sampling is highly acceptable among women living in Pirkanmaa. Time-saving, reduced discomfort, and lower embarrassment were the main reasons for choosing home-sampling. However, concerns about self-samples reliability remain, and more information should be provided to women regarding the accuracy of HPV self-sampling. To increase screening coverage, it is essential to offer self-sampling as an option in future cervical cancer screening programs.

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