Cervical cancer prevention in non-attendees with self-sampling HPV analyses and cervical cancer survival

**Background:** Cervical cancer is caused by infection of high-risk human papillomavirus (hr-HPV) and is preventable through screening. Sweden introduced a cervical screening program in late 1960. Non-attendance to screening is among the greatest risk factors of cervical cancer. To promote participation among non-attending women, self-samples for detection of hr-HPV is an option.

**Aims/Methods:**
I: The accuracy of the Aptima HPV test as a self-sample from the vagina and urine in comparison with a clinical taken cervical test in a referral population was studied. The sensitivity and specificity to find cervical dysplasia/cancer was analyzed.

II-IV: The response rate of a self-collected vaginal hr-HPV sample sent to long-term non-attendees and the prevalence of cervical dysplasia/cancer among the responders was studied. In study II, long-term non-attendees aged 69-70 years in Lund was offered the self-sample. In study III and IV, 6,023 and 19,766 long-term non-attendees aged 30-70 years in region of Skåne was offered the self-sample.

V: The long-term relative survival and time trends for incidence of cervical cancer in Sweden 1960-2020 using data from the Swedish Cancer Registry was studied.

**Preliminary results:**
I: The sensitivity of the vaginal self-sampled Aptima test in detecting severe cervical dysplasia or cancer was similar to that of routine cytology.

II: HPV self-sampling was accepted among older women, the response rate was 43.3%. The hr-HPV prevalence was 6.2%, no high-grade dysplasia was found.

III: The response to the self-sample was 13.2%, 9.9% were HPV positive. The prevalence of cervical cancer was almost seven times higher compared to regularly screened women.

IV: The response to the self-sample was 18.5%, 11.3% were HPV positive. The prevalence of histologically high-grade cervical dysplasia or cancer was not increased compared to regularly screened women.

V: Study ongoing.

**Significance:** Increased participation among non-attending women in the cervical screening program is important and offering self-sampling device to non-participants enhance prevention of cervical cancer. It is important to obtain knowledge of how cervical cancer incidence and survival has changed since the 1960s.
Papers:


IV: Ernstson A, Forslund O, Borgfeldt C. Promotion of cervical screening among long-term non-attendees by HPV self-sampling. Submitted manuscript.