

# Human papillomavirus high-risk infection in women in Wrocław, Poland

*Patrycja Marciniak, Aleksandra Ilnicka, Łukasz Fuławka*

Molecular Pathology Centre Cellgen, Wrocław, Poland



## Abstract

Human papilloma virus (HPV) cause nearly 100% of high-grade cervical dysplasia and cervical cancer. To date, approximately 200 types of HPV have been identified and at least 14 has been classified as oncogenic (HPV- HR, HPV high-risk). Among them, types 16 and 18 have the highest oncogenic potential. Over half of sexually active women are exposed to HPV.

In 2018, Cellgen Laboratory performed screening diagnostic tests as a part of a social campaign “Wyzwanie100” (“Challenge100”). The aim was to examine women from Wrocław and its environs for HR-HPV infection. Material for the test were cervical swabs, obtained by self-sampling device Evalyn Brush (Rovers). The campaign involved 726 voluntarily applying women aged 25-60 years. Cervical specimens were tested by real-time PCR, using AmpliSens® HPV HCR-screen-titre-FRT PCR kit, which detects 14 HPV- HR types (16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68) with genotyping 16, 18 and 45.

HPV- HR infection prevalence was 17% in the examined population, notably among women aged 25–30 years (23%). The frequency of HPV types was as follows: HPV16 - 2.34%, HPV18 - 1.65% and HPV45 – 1.79%,

The results showed that the frequency of high-risk HPV infection among participants of Wyzwanie100 does not differ from published research results for the Polish and European populations.