

Cervical cancer — a preventable (?) disease in Poland

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Dear Editors,

a great majority of cervical cancers (CCs) may potentially be prevented by 1) primary prevention through vaccination against the aetiological factor of this disease — the Human Papillomavirus (HPV), and 2) secondary prevention — identification of precancerous lesions through screening and effective treatment to avoid development of invasive CC. In 2020 World Health Organization (WHO) issued a “Global strategy to accelerate the elimination of cervical cancer as a public health problem” (the threshold of 4 cases/100 000 women-years) [1]. It assumes achieving: 1) 90% of girls fully vaccinated with HPV vaccine by age 15 years; 2) 70% of women screened with a high-performance test by 35 years of age and again by 45 years of age and 3) 90% of women identified with cervical disease receiving treatment (90% of women with precancer treated, and 90% of women with invasive cancer managed). Some countries [2, 3] including Poland [4] elaborated consecutive plans or roadmaps to tackle the burden of CC. However, implementation of required solutions to achieve WHO goals might be a challenge not only for developing but also for some of the more developed countries.

Currently CC ranks as the fourth most common cancer and cancer related cause of death in the world [5]. Both CC incidence and mortality have been gradually decreasing for more than thirty years in Poland [6] but age-standardized incidence and mortality rates are still considerably higher than in European countries with most effective CC prevention programmes. In 2006/2007 an organized population-based cervical cancer screening was implemented in Poland offering free-of-charge Pap test for women aged 25–59 (extended to age of 64 in year 2023) at 3-year intervals and colposcopy with/without biopsy for women when clinically indicated. The programme has never obtained coverage of more than 30% of the target population but between 2004–2019 the declared participation in CC screening rose

markedly [7]. A 20%-point jump in participation was noted between years 2004 and 2009 in age groups 30–69 most evidently in opportunistic screening. This was the result of popularisation of CC prevention through cytology, rise in awareness among women and a wider access to screening, most likely because of the introduction of the programme. In 2016 regional coordination of the programme was stopped as well as postage of the invitations by the decision of the Ministry of Health. The Ministry took over the funds and the responsibility from the Central Coordination Centre for reaching and maintaining of the high level of the programme coverage. Fail-safe-system was however introduced (tracking women with positive results and no consecutive triage/diagnostic procedures) and quality assurance measures including audit of false-negative Pap smears and interval cancers were implemented [8]. Audits of quality assurance have been undertaken and published only for single centres operating in opportunistic screening [9]. Central Coordination Centre has no legal bases to audit performance of opportunistic screening. The quality of opportunistic screening is largely unknown and most likely unsatisfactory since population coverage is considerable, but CC burden is higher than in some countries with similar or worse structure of the self-reported participation in screening [10]. Only screening procedures in the programme are registered and audited since there is no central registry of opportunistic screening. More sensitive than exfoliative cytology, HPV molecular testing is available within both reimbursed and private-based gynaecological services. Advanced works are under way to introduce HPV-based screening into the screening programme [11, 12]. HPV-based screening with the use of self-sampling has been proposed to facilitate access to screening [13] as well as guidance on triage/further diagnostics during COVID pandemic [14]. Measures have been undertaken to standardise colposcopy procedures [15]. Efforts are made to measure

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Received: 27.11.2022 Accepted: 27.11.2023 Early publication date: 14.12.2023

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Table 1. Current availability and reimbursement of HPV prophylactic vaccines in Poland

Vaccine	Gardasil-9	Cervarix
HPV vaccination programme for 12–13-year-old teenagers (both sexes—gender neutral)	Yes	Yes
100% reimbursement (free-of-charge) in prescription for individuals aged 9–18 years	No	Yes
50% reimbursement for individuals aged 18 and above	No	Yes

the quality of healthcare services [16] in Poland however the data on the quality of management of invasive and preinvasive cervical neoplasia are scarce. Considerable regional differences are however noted for CC incidence and mortality in the country [17] which may result from inequalities in access to healthcare services and their differing performance.

No effective treatment of HPV infection is available yet worldwide. Despite very common use of intravaginal gels and other products and their promotion even with active engagement of respectable experts in Poland, current scientific

Table 2. Current status of HPV-vaccination programme for 12–13-year-olds in Poland [21]

12–13-year-old teenagers — target cohort		e-Vaccination Cards — n (%)
Girls	418 233	85 193 (20.37%)
Boys	440 602	49 300 (11.19%)
Total — both sexes	858 835	134 493 (15.66%)

Data on target cohort for 31st of December 2022. Data for vaccination for 15th of November 2023

Table 3. Use of products in the HPV-vaccination programme in Poland — data for November 2023 [21]

Vaccine type	Gardasil-9	Cervarix
Number of doses provided (%)	121 870 (89.85%)	13 761 (10.15%)

evidence-based data are insufficient to support any idea of “accelerating spontaneous regression” or treatment of HPV [18]. Therefore, prophylactic immunisation remains the only registered and evidence-based method on pharmaceutical market to impact HPV infection burden.

Table 4. Proposed key steps to increase effectiveness of CC prevention in Poland

Primary prevention — HPV vaccination	Secondary prevention — screening	Tertiary prevention — treatment of invasive CC
<ul style="list-style-type: none"> Multidimensional education of the parents of the teenage target cohort Education of HCP including family nurses, midwives and doctors Analysis of the logistics of the programme and implementation of solutions to decrease administrative work burden and facilitate execution of the programme Inclusion of other than family medicine centres as vaccination providers in the programme Reimbursement of Gardasil-9 for catch-up vaccination in older cohorts and active promotion of catch-up vaccination Analysis of feasible solutions from successful local HPV vaccination programmes and implementation into the national programme [22] 	<ul style="list-style-type: none"> Integration of screening data — implementation of central screening registry of opportunistic screening tests and merging with the programme registry Identification of non-attenders and irregular attenders in the integrated registry Targeted interventions to reach non-attenders e.g., invitation letters, direct contacts by family medicine centres, direct contact by occupational medicine personnel during mandatory health check-ups Provision of widest possible access to screening tests through contracts with existing gynaecological clinics operating within National Health Insurance, private gynaecological offices and clinics, family medicine centres and midwife centres Implementation of molecular HPV-based technologies into the screening programme Implementation of cervico-vaginal self-sampling or sampling by midwives without the use of vaginal speculum in family medicine centres without gynaecological chairs Quality audits and quality assurance at all steps of screening Introduction of fail-safe system for women in opportunistic screening Certification of colposcopy and cytology personnel Further standardisation of screening procedures and evaluation 	<ul style="list-style-type: none"> Coordination of care through National Oncological Network Further training of personnel of gynaecological oncology units Implementation of national guidelines for CC treatment Implementation and reporting of performance indicators of CC treatment by centres Audits of centres providing care of CC

After many years of efforts from medical societies, experts, patient organisations and other stakeholders, population-based, free-of-charge HPV vaccination programme for 12–13-year-old teenagers was implemented in Poland on the 1st of June 2023 because of execution of National Strategy for Oncology [11]. Current availability and reimbursement of HPV vaccines in Poland is presented in Table 1. Despite media campaigns run by the Ministry of Health and various educational activities for Healthcare Professionals (HCP) after almost six months of programme the coverage is insufficient (Tab. 2) and will probably not exceed 35–40% after the first year and Gardasil-9 is most commonly provided (Tab. 3).

Therefore, multilevel and multidirectional actions are required both in primary and secondary prevention for Poland to approach the WHO goals of CC elimination. Proposed key steps and activities are presented in Table 4. Progress in achieving WHO goals for CC elimination should be regularly monitored and reported. On these bases conclusions for future solutions should be formulated. Cervical cancer elimination goals and centres were established in several countries [19, 20] and creation of such a centre should be considered also in Poland. In close collaboration with the Ministry of Health it could take on responsibilities to advance WHO CC elimination goals, coordinate and monitor comprehensive CC prevention in Poland. Reorganisation of CC prevention in Poland will require proper decisions by the ministry decision-makers, consensus and collaboration of stakeholders including professional societies, experts and dedicated organisations. However, the crucial factor will be the education of the society to increase uptake of CC screening and HPV vaccination as an important part of health literacy.

Article information and declarations

Conflict of interest

MSD, GSK — lectures, educational and scientific projects.

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