

# World Health Organization call for action to eliminate cervical cancer globally

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Cervical cancer is the fourth most common cancer among women globally, with an estimated 570 000 new cases and 311 000 deaths worldwide in 2018.<sup>1–3</sup>

The highest regional incidence and mortality rates are seen in Africa, where the rates are 7–10 times higher than in the western world.<sup>1 2</sup> Today, nearly 90% of deaths occur in low- and middle-income countries. Cervical cancer is a disease which reflects inequities among different populations depending on the availability of a national vaccination program and population-based cervical cancer screening, and access to quality treatment.<sup>4</sup>

In May 2018, the Director General of the World Health Organization (WHO), Dr Tedros Ghebreyesus, called for action towards the elimination of cervical cancer as a public health problem. In January 2019, the Executive Board of the WHO requested the Director General “to develop, in consultation with Member States and other relevant stakeholders, a draft global strategy to accelerate cervical cancer elimination, with clear goals and targets for the period 2020–2030.” This strategy will be considered at the World Health Assembly in 2020.<sup>2</sup> In 2019, several key societies, including the European Society of Gynaecologic Oncology (ESGO) and the International Gynecologic Cancer Society (IGCS), have supported the WHO mission in several ways, including participation with key stakeholder consultations.<sup>5–7</sup>

“Elimination as a public health problem” is a term defined by achievement of measurable global goals and targets set by the WHO, in relation to specific diseases. When elimination is reached, control measures are still required to maintain the targets. Namely, to make cervical cancer elimination a reality, countries will need to continue vaccination, screening, and treatment programs once they have reached the elimination threshold agreed. The current draft of the *Global Strategy Towards the Elimination of Cervical Cancer as a Public Health Problem*, which will be presented to Member States, establishes that the threshold under which cervical cancer should no longer be considered a public health problem is an age-adjusted incidence rate <4 per 100 000 women-years.<sup>2</sup> This global goal should be achievable by most countries by the end of the century. At present, age-standardized incidence rates vary from

80 per 100 000 in the highest-risk countries to <4 per 100 000 in the lowest-risk countries.<sup>1</sup>

In order to put us on this path towards elimination and to reach the goal by the end of the century, the WHO triple-intervention strategy established global targets that should be reached by the year 2030:

- ▶ 90% of girls fully vaccinated with the human papillomavirus (HPV) vaccine by 15 years of age
- ▶ 70% of women screened with a high-performance test two times per life by 35 and 45 years of age
- ▶ 90% of women identified with cervical disease receive treatment and care.

In some high-income countries with long established cervical cancer screening and widespread early adoption of HPV vaccination, elimination of cervical cancer as a public health problem is likely to be achieved relatively rapidly.<sup>8</sup> Countries starting with weaker health systems and a cervical cancer incidence >20 per 100 000 women-years are expected to progress more slowly towards complete elimination. However, by implementing the strategic actions recommended by the draft global strategy towards elimination of cervical cancer—the vaccination, screening and treatment targets—those countries will make substantial gains in the near future, in terms of cases prevented and lives saved from invasive cervical cancer.

To examine whether elimination can be achieved and what the impact of the elimination strategy might be beyond the year 2030, WHO established and led the Cervical Cancer Elimination Modeling Consortium (CCEMC). The findings show close concordance in predictions from three independently developed mathematical models, and highlight the very substantial gains that could be achieved if the WHO triple-intervention strategy can be implemented successfully.<sup>9 10</sup>

A recent study by Brisson *et al* focused on whether and by when it might be feasible to eliminate cervical cancer cases in low- and middle-income countries according to different scenarios and different definitions of elimination.<sup>9</sup> The scenarios modeled were HPV vaccination of girls, vaccination combined with screening of women aged 35, and vaccination combined with screening twice in a woman's lifetime. The results predict that vaccination alone could

## Editorial

reduce the number of cervical cancer cases by 89% over the next century, averting 60 million cases in low- and middle-income countries. However, countries with a current incidence of >25 cases per 100 000 women could not eliminate the disease with HPV vaccination alone, using WHO's proposed threshold of cervical cancer elimination ( $\leq 4$  cases per 100 000 women). For example, in sub-Saharan Africa, elimination would only be possible in 27% of countries.<sup>9</sup> If twice-lifetime screening is scaled-up in addition to HPV vaccination, then 100% of countries could reach elimination, reducing cervical cancer cases by 97% and averting 74 million cases by the year 2120. Such a strategy would also accelerate elimination by 11–31 years.<sup>9</sup>

In a study by Canfell et al, the authors analyzed the impact of all three elements of the WHO triple-intervention strategy on deaths from cervical cancer, modeling the impact of scaling up cancer treatment as well as vaccination and screening.<sup>10</sup> In 2020, there will be an estimated 13 deaths from cervical cancer per 100 000 women in low- and middle-income countries. By 2030, the triple-intervention strategy could avert approximately 300 000 deaths, a reduction of 34%. By 2070, it could avert 14.6 million deaths, reducing mortality by 92%, compared with a reduction of 62% (4.8 million deaths) with vaccination alone. By 2120, the triple-intervention strategy could avert 62 million deaths, reducing mortality by 99%, compared with 90% (45.8 million deaths) with vaccination alone.

The findings emphasize the importance of acting immediately to combat cervical cancer through the WHO triple-intervention strategy. In just 10 years, it is feasible to reduce deaths from cervical cancer by a third, and over the next century >60 million women's lives could be saved, contributing to the target of 3.4 of the UN Sustainable Development Goals (SDGs)—a one-third reduction in premature mortality from non-communicable diseases by year 2030.<sup>11</sup>

There are several challenges to reach the elimination targets set out in the draft global strategy. A public health approach, an integrated primary healthcare system, and a strong financing mechanism are essential to the sustainability of the program for the future. In addition, in order to have a sufficient and affordable supply, strengthening of the regulatory authority and procurement systems in countries will be needed to ensure that collaborative work with industry can happen, and that both the vaccine supplies and the high-performance screening tests are available and affordable.

Moreover, creating a demand from the public, together with full awareness and advocacy programs, cancer registry systems to assure robust and accurate data collection, the development of appropriate referral pathways and cancer treatment services, as well as palliative care for women diagnosed with cervical cancer, are all key aspects of the program.

In summary, we have aimed to inform our readers about the upcoming WHO *Global Strategy Towards the Elimination of Cervical Cancer as a Public Health Problem*. We encourage all who are

interested in participating in this important initiative to contact the leadership of the IGCS and ESGO to help bring this vision and goal and support countries, and the work of the WHO, to make it a reality. This includes awareness events, rallying support through regional and national groups and communities, as well as at the governmental level, advocacy and volunteering to join WHO initiatives.

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