
Accelerating the elimination of cervical cancer as a global public health problem

Report by the Director-General

BACKGROUND

1. As requested by the Executive Board at its 144th session in decision EB144(2) (2019), the Director-General has developed, in consultation with Member States and other relevant stakeholders, a draft global strategy to accelerate cervical cancer elimination,¹ with clear goals and targets for the period 2020–2030, for consideration by the Seventy-third World Health Assembly in 2020, through the Executive Board at its 146th session.² All regional offices held technical consultations on the draft strategy (between March and August 2019) and a public consultation was conducted online (April to July 2019).

2. The draft strategy is designed to harness approaches that have proven to be effective in addressing cervical cancer across the care continuum: vaccination against human papillomavirus, screening for and treatment of pre-cancerous lesions, early detection and treatment of invasive cancers, and palliative care in order to eliminate cervical cancer as a public health problem. This effort will help to secure the health of girls, women and their families. It will also strengthen primary health care, thus providing support to countries as they move towards universal health coverage.

CURRENT STATUS OF PREVENTION AND CONTROL OF CERVICAL CANCER

3. Cervical cancer is the fourth most common cancer among women globally, with an estimated 570 000 new cases and 311 000 deaths in 2018.³

¹ The draft global strategy is available from <https://www.who.int/docs/default-source/cervical-cancer/cerv-cancer-elimn-strategy-16dec-12pm.pdf> (accessed 16 December 2019).

² In line with resolution WHA69.19 (2016) on the global strategy on human resources for health: workforce 2030, a health workforce impact assessment was carried out for the draft global strategy to accelerate cervical cancer elimination (see https://www.who.int/hrh/activities/HealthWorkforceImpactAssessment_CervicalCancer_Oct2019.pdf, accessed 12 November 2019).

³ Based on IARC Global Cancer Observatory GLOBOCAN 2018 data (available from <http://gco.iarc.fr/>, accessed 15 October 2019).

4. Disparities in the burden of cervical cancer, between high- and low-income countries, as well as the disparities within countries, reflect the limited access to health care services for women who are disadvantaged. Without bolder action, these inequalities will only grow.

5. Cervical cancer and HIV co-morbidity is significant: women living with HIV are six times as likely to develop cervical cancer and at a younger age.¹ In some countries with high HIV prevalence, women living with HIV make up over 50% of cervical cancer cases.¹ Up-front investments are especially important to set those countries on the path towards elimination.

TARGETS, TIMELINE AND IMPACT OF THE DRAFT STRATEGY ON THE PATH TO CERVICAL CANCER ELIMINATION

6. Data for 2018 show that age-standardized cervical cancer incidence rates varied from 75 per 100 000 women in the highest-risk countries to less than 10 per 100 000 women in the lowest-risk countries.²

7. To achieve cervical cancer elimination, all countries must reduce cervical cancer incidence below a defined threshold. WHO has established that cervical cancer should no longer be considered a public health problem when the age-standardized incidence rate is less than four per 100 000 women. This threshold was determined based on published evidence,³ consideration of an established definition of rare cancers⁴ and an expert consultative process conducted over the course of 2018–2019. Once elimination is achieved, measures will still be required to maintain incidence below the threshold. Although incidence cannot be reduced to zero with current interventions, elimination is achievable within this century in every country.

8. To achieve elimination this century, the following “90-70-90” targets need to be met by 2030:

- 90% of girls fully vaccinated with a human papillomavirus vaccine by 15 years of age;
- 70% of women screened using a high-performance test by 35 and 45 years of age;

¹ Dominik Stelzle, Technical University of Munich (Germany), unpublished data, 2019.

² IARC Global Cancer Observatory GLOBOCAN 2018 data (available from <http://gco.iarc.fr/>, accessed 15 October 2019).

³ Simms KT, Steinberg J, Caruana M, Smith MA, Lew, JB, Soerjomataram I, et al. Impact of scaled up human papillomavirus vaccination and cervical screening and the potential for global elimination of cervical cancer in 181 countries, 2020–99: a modelling study. *Lancet Oncol.* 2019; 20(3):394-407. doi: 10.1016/S1470-2045(18)30836-2.

⁴ Gatta G, Capocaccia R, Botta L, Mallone S, De Angelis R, Ardanaz E, et al. Burden and centralised treatment in Europe of rare tumours: results of RARECAREnet a population-based study. *Lancet Oncol.* 2017;18(8):1022-1039. doi: 10.1016/S1470-2045(17)30445-X.

- 90% of women identified with cervical disease are treated:¹
 - 90% of women screening positive treated for pre-cancerous lesions;
 - 90% of invasive cancer cases managed.

9. Modelling projections estimated that meeting the 90-70-90 targets would reduce the median cervical cancer incidence rate by over 90% in 78 low- and lower-middle-income countries, averting more than 70 million cases over the next century. These interventions would also contribute to a reduction of mortality due to cervical cancer, with a 10% reduction evident by 2030 and a 39% reduction by 2045.²

STRATEGIC ACTIONS TO ACCELERATE ELIMINATION

10. To achieve elimination in the shortest period and with maximum impact, intensive vaccination against human papillomavirus, screening for and treatment of pre-cancerous lesions and management of invasive cervical cancer must be pursued in combination. Social mobilization strategies that are context specific and culturally appropriate are important to ensure that communities are empowered to drive demand for all interventions. Referral pathways and people-centric linkages throughout the continuum of care will be required to provide effective services.

11. Innovations in service delivery, testing, treatment and data systems, together with new and expanded training methods, will be crucial for scaling up interventions and meeting the targets.

12. **Vaccination against human papillomavirus.** Vaccination is an effective long-term intervention for reducing the risk of developing cervical cancer. Introduction of human papillomavirus vaccine into national immunization programmes is imperative. To achieve high coverage, it is necessary to secure a sufficient supply of affordable vaccines, delivered through cost-effective platforms. To be successful, these efforts will require sound communication, social mobilization efforts, and engagement with parents, teachers and health providers in order to disseminate appropriate information and counter misinformation.

13. The current constraints on vaccine supply, coupled with high prices, preclude many lower-middle-income countries and middle-income countries from getting access to the vaccines. WHO and partners need to engage more robustly in initiatives to optimize the price and supply of health products (“market shaping”), and more manufacturers should be encouraged to bring new products to market. Although there are currently only two suppliers of human papillomavirus vaccines, new manufacturers have already brought three new products to advanced stages of clinical development. Countries are encouraged to plan to ensure introduction of the vaccine into the national immunization programme can proceed rapidly once supply constraints are resolved.

14. **Screening for and treatment of pre-cancerous lesions.** Effective screening for and treatment of pre-cancerous lesions can prevent women from developing invasive disease. Affordable, accessible quality screening and treatment services must be put in place. Improving coverage requires: building screening into the basic package of services at the primary health care level, promoting a single-visit approach to reduce loss to follow-up, and generating demand for services. Referral linkages to

¹ Cervical disease identified through screening programmes or other care pathways.

² Marc Brisson, Karen Canfell, Jane Kim. Université Laval (Canada), Cancer Council New South Wales (Australia), Harvard University (United States of America), unpublished data, 2019.

higher-level facilities are critical to ensure timely management of women who require complex treatment of pre-cancerous lesions and those with advanced disease. New innovations, such as artificial-intelligence-based technologies for screening and portable ablative devices, show promise and will increase access significantly, especially in remote and hard-to-reach areas where services are not available.

15. **Diagnosis, treatment and palliative care of invasive cancer.** Early detection of cervical cancer increases the probability of cure. To meet the 90-70-90 targets, investment is needed to improve access to diagnostic services, particularly anatomical pathology. Access to curative treatment can be improved with expanded capacity for surgical oncology, radiotherapy and chemotherapy. Palliative care should commence at the time of diagnosis of invasive cancer and include symptom management and supportive care. Task sharing and building the competencies of health care professionals will help countries to scale up services. Combating cancer stigma is critical for removing social barriers to care. Universal health coverage will ensure that women and their families are protected from financial catastrophe due to out-of-pocket expenditures.

16. **Integration with other health services.** Integration of cervical cancer prevention and care with existing health services will create operational efficiencies. Opportunities exist to reach target populations through integration with sexual and reproductive health services, HIV clinics, other service points and outreach programmes.

CONSIDERATIONS FOR IMPLEMENTATION OF THE STRATEGY

17. The draft strategy is based on a public health approach that focuses on: health promotion; primary and secondary prevention through vaccination, screening for and treatment of pre-cancerous lesions; and prolonging life through timely management of early cancer. Meeting the 90-70-90 targets will require robust primary health care systems that adopt an integrated disease management approach. The current focus of the global health community on universal health coverage will support the implementation of services as countries expand their health system infrastructure and enhance the skills of their health care professionals. This, coupled with innovative sustainable approaches to securing affordable medicines, will accelerate the treatment of cervical cancer and ensure appropriate access to palliative care. Leaving no one behind means ensuring that the most vulnerable do not face catastrophic out-of-pocket expenditures.

18. Data across the three pillars of the strategy (vaccination, screening and treatment, and cancer management and palliative care) are critical to track progress made towards meeting the targets. Primary prevention programmes need to be able to track young girls (aged 9–14 years) who have been vaccinated. Integrating vaccination and school health services where possible may simplify follow-up. To ensure links between different health services, patient information must be captured and transferable for follow-up and referral to treatment, to ensure continuity of care. The health system must be able to identify novel ways of ensuring that women return for the most appropriate care. Monitoring and surveillance will need to be able to capture longitudinal services that are delivered over the life course. Data systems to track patients will improve clinical care and facilitate the multisectoral response that is required. They will provide information on programme performance, assess the effectiveness of prevention and treatment measures, and offer opportunities to adjust the strategy at the country level where necessary. Data are crucial for ensuring accountability and provide the foundation for advocacy, coordinated action and reinforced political commitment towards cervical cancer elimination.

19. By making these investments in cervical cancer programmes, the world can expect to see over 250 000 lives saved and avoid over 100 000 cases of cervical cancer in low- and lower-middle-income

countries by 2030. By 2050, it is projected that over 4.5 million deaths and 4.1 million cases of cervical cancer will have been averted in these countries.¹

20. In the low-income countries, an average of US\$ 0.40 per person per year is needed to finance elimination activities. In lower-middle-income countries, US\$ 0.20 per person per year is needed. In total, to achieve elimination, US\$ 10.50 billion need to be mobilized by 2030 to implement the cervical cancer prevention and care strategies across all the 78 low- and lower- middle-income countries modelled.

21. The interventions required to meet the 90-70-90 targets would not only lead to elimination but would also be cost-effective in a clear majority of the 78 low- and lower-middle-income countries.¹ For every US dollar invested in the cervical cancer elimination strategy, US\$ 3.20 will be returned to the economy. In addition, the benefits to the lives of girls, women and society are incalculable.

22. **Multisectoral partnerships at the global, regional and national levels.** Partnerships need to extend beyond the health sector to encompass non-traditional sectors. At the global level, coordination, coherence and alignment are key components of a sustainable approach. The global action plan for healthy lives and well-being for all² provides a strategic platform to help to support country-led implementation. Regional-level partnerships can support strategies such as pooled procurement, market shaping and innovative programmes to improve access to health services. North–South and South–South partnerships can build capacity to develop core competency in policy, planning and management of human resources for health. At the national level, a whole-of-government and whole-of-society approach – including public–private partnerships – will be crucial for successful implementation of the strategy. Communities must remain at the centre of all efforts to disseminate information, and women themselves must be at the centre of community mobilization efforts, to ensure that their experiences inform local strategies.

23. The draft strategy allows for regional adaptation. Each region will be able to tailor the strategy to suit its implementation framework. As countries will have differing incidences, co-morbidities and mortality rates, they will need to customize approaches for their settings.

24. Cervical cancer elimination is feasible, the interventions are cost-effective and the strategy, once implemented, will save millions of lives.

ACTION BY THE EXECUTIVE BOARD

25. The Board is invited to note the report. It is also invited to consider the draft strategy and provide further guidance regarding the next steps to be taken to accelerate cervical cancer elimination.

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¹ Marc Brisson, Karen Canfell, Jane Kim. Université Laval (Canada), Cancer Council New South Wales (Australia), Harvard University (United States of America), unpublished data, 2019.

² Stronger collaboration, better health: global action plan for healthy lives and well-being for all. Strengthening collaboration among multilateral organizations to accelerate country progress on the health-related Sustainable Development Goals. Geneva: World Health Organization; 2019 (<https://apps.who.int/iris/handle/10665/327841>, accessed 14 October 2019).