Executive Summary: Human papilloma virus

Background

In the meeting of SAGE in October 2018, SAGE affirmed that HPV vaccination is the most critical intervention for eliminating cervical cancer. Introduction of HPV vaccine should be prioritized in all countries but especially in countries with the highest cervical cancer rates. The SAGE Working Group on HPV immunization held a meeting in Menthon-Saint-Bernard, France on 6-7 June 2019. The Terms of Reference for the Working Group, list of participants with Working Group membership and meeting agenda are provided in Appendices.

All three licensed HPV vaccines – bivalent (HPV genotypes 16/18), quadrivalent (HPV 6/11/16/18) and nonavalent (HPV 6/11/16/18/31/33/45/52/58) – have excellent safety, efficacy, immunogenicity and effectiveness profiles. The risk attribution of HPV 16/18 in women with cervical cancer is approximately 70%.

The (draft) Global Strategy Towards the Elimination of Cervical Cancer as a Public Health Problem calls for a comprehensive, population-based approach to put all countries on the path to the elimination of cervical cancer as a public health problem within the century. The strategy proposes an approach that will enable countries to reach 2030 global targets for key interventions that, in turn, will lead to elimination of cervical cancer as a public health problem. The proposed targets for 2030 are: (i) 90% of girls being fully vaccinated with HPV vaccine by 15 years of age; (ii) 70% of women being screened with a high-precision test at 35 and 45 years of age; and; (iii) 90% of women identified with precancer lesions or invasive cervical cancer receive treatment.

As of June 2019, 96 countries (49%) have introduced HPV vaccines in the national immunization programmes or in part of the countries. Currently, an estimated 30% of girls aged 9-14 years globally live in countries that have introduced the HPV vaccine. However, preliminary data on WHO estimates of the HPV vaccine coverage show that the average HPV coverage in countries with available data is 64% for the first dose and 52% for the second dose. Since 2018, limited number of doses in supply has affected HPV introductions and introduction plans across the global. In 2019, all planned Gavi-supported HPV introductions are going ahead for the routine recommended cohorts. However, the multiple age-cohorts vaccination (MACs) have been postponed to later dates in the majority of these countries. Introductions in non-Gavi Middle Income Countries are constrained including by limited vaccine supply. Concerned by constrained HPV vaccine supply, in October 2018 SAGE called for a

2 https://www.who.int/cancer/cervical-cancer/cervical-cancer-elimination-strategy
3 A WHO recommended high-precision test which would have performance characteristics similar to or better than a clinically approved HPV DNA test. In the future, however, new technologies may be available.
4 WHO IVB database, preliminary results, as of May 2019
comprehensive evaluation of options for the best use and allocation of the limited vaccine supply\(^5\). In response to this recommendation, the SAGE Working Group on HPV Immunization reviewed the data on vaccination barriers and immunization schedules, reviewed modelling results on vaccination strategies and assessed options to achieve more equitable allocation of HPV vaccines in the context of supply constraint.

**Purpose of the session and summary**

This session will consist of seven presentations: (1) introduction and key questions, (2) update on access to HPV vaccines, (3) systematic review of the evidence on different HPV immunization strategies, (4) summary of ongoing-trials on single-dose HPV vaccine schedule, (5) global analysis of HPV vaccine supply and demand, (6) impact of different HPV immunization strategies in the context of supply constraint, and (7) conclusions and proposed recommendations.

For this SAGE meeting, members are requested to provide recommendations in the context of HPV vaccine supply constraint, on the barriers and strategies to overcome obstacles to achieving introduction of HPV vaccines, on the HPV supply allocation and how HPV vaccine introduction be prioritized. In addition, the SAGE members will be invited to consider the evidence on the immunogenicity and efficacy of a single-dose of HPV vaccine, the different intervals between doses and the number of doses in the older age group (i.e. 15 to 18 years old).

**Background documents in the yellow book**

- None

**Background documents on the web**

- Report from meeting of SAGE WG on HPV vaccines (held on June 6-7, 2019)
  - This report provides summary of the deliberations and recommendations of the SAGE Working Group
- Off-label HPV vaccine recommendations: a survey of NITAGs and EPI program managers
- Final one dose HPV vaccine report v4.
- Final longer interval versus shorter interval of HPV vaccines v3.1
- Final Two doses of HPV vaccine in 15-18 year old v2.0
- Global HPV Vaccine Market Study - Demand Methodology

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