

Summary of the October 2016 meeting of the Strategic Advisory Group of Experts on immunization (SAGE)

The Strategic Advisory Group of Experts (SAGE) on immunization¹ met on 18-20 October 2016 in Geneva, Switzerland.

Global Vaccine Action Plan: 2016 mid-term review of progress and recommendations

At the mid-term of the Decade of Vaccines (DoV), SAGE reviewed the progress made towards the achievement of the Global Vaccine Action Plan (GVAP) goals. SAGE assessment was based on the report prepared by the DoV secretariat on progress against each of the GVAP indicators²; including a section on “Sustainable financing and supply for immunization” to detail the activities initiated in response to the WHA resolution on access to affordable vaccines³ adopted in 2014, progress reports from the regions⁴ and from priority countries⁵.

At the midpoint of the GVAP, SAGE remains very concerned that progress toward the goals to eradicate polio, eliminate measles and rubella, eliminate maternal and neonatal tetanus, and increase equitable access to lifesaving vaccines is too slow.

Global immunization coverage has increased by only 1% since 2010. In 2015, 68 countries fell short of the target to achieve at least 90% national coverage with the third dose of diphtheria-tetanus-pertussis vaccine. Twenty-six of these countries reported no change and 25 reported a net decrease in coverage since 2010.

However, SAGE sees many reasons for hope. Sixteen countries, including some of the countries with the highest numbers of un- or under-vaccinated children, have made measurable progress since 2010. Research and development efforts are accelerating the discovery and testing of an expanded portfolio of vaccine candidates and platform delivery technologies.

SAGE reaffirmed that immunization is one of the world’s most effective and cost-effective tools against both the threat of emerging diseases and anti-microbial resistance and has a powerful impact on social and economic development. Finally, SAGE made several important recommendations to countries, immunization partners and the DoV secretariat.

Among those recommendations, SAGE recommends that countries demonstrate stronger leadership and governance of national immunization systems by:

¹ <http://www.who.int/immunization/sage/en/index.html>

² http://www.who.int/entity/immunization/global_vaccine_action_plan/gvap_secretariat_report_2016.pdf?ua=1

³ http://apps.who.int/gb/ebwha/pdf_files/WHA68-REC1/A68_R1_REC1-en.pdf

⁴ http://www.who.int/entity/immunization/global_vaccine_action_plan/2_Regional_reports_annex_GVAP_secretariat_report_2016.pdf?ua=1

⁵ http://www.who.int/entity/immunization/global_vaccine_action_plan/3_Country_reports_annex_GVAP_secretariat_report_2016.pdf?ua=1

- a) Ensuring ministers at all levels are strong immunization advocates within their countries and regions, conveying the high return on investment, the urgency and the value of investing more in immunization programmes as an integral part of government-supported Universal Health Coverage packages.
- b) Governments are encouraged to enact laws that guarantee access to immunization, establish National Immunization Technical Advisory Groups or equivalent groups, ensure that sufficient budgets are allocated to immunization each year and create mechanisms to monitor and efficiently manage funds at all levels (including those from the private sector).
- c) National leaders must take courageous decisions to initiate necessary upgrades to systems, protocols, and policies that will ensure high immunization coverage that is sustained. Such upgrades might require redesigning supply chains, information systems and procurement policies, and reassessing roles and responsibilities in case the government decides to implement the decentralization of the health system.
- d) National immunization programme managers should report each year to their National Immunization Technical Advisory Group or equivalent groups on progress made, lessons learnt and remaining challenges toward implementing National Immunization Plans and show how these plans are aligned to Regional and Global Vaccine Action Plan goals.

SAGE recommends that countries secure necessary investments to sustain immunization during polio and Gavi transitions.

- a) All countries should mitigate any risk to sustaining effective immunization programmes when polio funding decreases. All Member States with substantial numbers of staff and resources issued from the Global Polio Eradication Initiative are requested to describe, in their polio transition plan, how they propose to maintain and fund critical immunization, laboratory and surveillance activities that are currently supported with polio funding and staff.
- b) In all countries transitioning from Gavi support, all national and global immunization partners must advocate strongly and persistently for increased domestic financing to sustain immunization gains over time.

Yellow fever

Recent outbreaks of yellow fever in Central Africa highlighted the need to revisit and expand the control strategy as well as the vaccine supply, and the need for vaccine supply surge capacity. Therefore, WHO has initiated the development of a new global strategy to Eliminate Yellow Fever Epidemics (EYE strategy) globally by 2026. There are 3 strategic objectives: protect at risk populations, prevent international spread, and rapidly contain outbreaks. The Strategy outlines four key activities: continued access to affordable vaccines through a sustainable vaccine market; political commitment at global, regional and country levels; robust governance and strong partnerships; and research to support better tools and practices. New aspects of the strategy from previous efforts include the revised country risk category, the aim to protect specific risk populations, the

need to address the urban risk, and the establishment of a revolving emergency vaccine stockpile. Following establishment of the EYE strategy, WHO and partners will develop an implementation plan.

SAGE confirmed the need for new strategic thinking and supported the general approach of the EYE strategy. SAGE emphasized the importance to link the EYE strategy to existing programmes/initiatives, e.g. measles-rubella strategy, integrated disease surveillance, and also vector control. It was noted that EYE can serve as a driver to raise awareness and preparedness in urban settings for other outbreak prone diseases.

Considering the global spread of *Aedes* mosquitos, rapid urbanization, and increased international travel, it is critical to have surge capacity in the event of an outbreak. SAGE previously reviewed the evidence for the minimum effective dose (also called fractional dose) in June 2016 in the context of the outbreak in Central Africa and supported its use in this type of situation. The minimum effective dose, administered as a fraction of the volume of the normal dose, should induce a protective immune response equivalent to a full dose. SAGE was updated on the evidence for minimum effective dose, for which most evidence is limited to one of the yellow fever vaccine products. Available studies suggest that a reduced volume dose was equivalent to the standard dose with respect to all measured immunological and virological parameters as long as the dose contained at least 3000 International Units.

SAGE was also updated on the experience of the minimum effective dose campaign in Kinshasa in August 2016. Logistically and operationally, the use of a minimum effective dose was shown to be feasible and a promising approach to protect at-risk populations that would otherwise be left unprotected.

Based on the available evidence, SAGE reaffirmed that a minimum effective dose can be used as part of an exceptional response in a time when there is a large outbreak and a shortage of vaccine.

Measles and rubella elimination

SAGE reviewed the findings and the recommendations outlined in the mid-term review of the Measles and Rubella Strategic Plan 2012-2022. SAGE commended the MTR team on their work and endorsed the report and its recommendations.

SAGE stressed the critical role of high quality measles and rubella case-based surveillance for achieving the goals of the measles and rubella strategic plans and that countries should move towards weekly reporting to regions. SAGE stressed the importance of achieving and maintaining high population immunity in order to achieve the regional and global measles and rubella goals.

SAGE recommended that a routine second dose of measles containing vaccine (MCV) should be added to national immunization schedules in all countries regardless of MCV1 coverage. In countries meeting the criteria for rubella containing vaccine introduction into

national immunization programmes⁶, measles and rubella containing vaccines (MRCV) should be used in place of single-antigen MCV.

Maternal and neonatal tetanus elimination (MNTE) and broader tetanus prevention

SAGE noted that while there was progress with MNTE, the goal to achieve global elimination by 2015 was missed once again. The failure to achieve this goal is a reminder of the persisting health inequities and the inability of some countries to provide basic health services to the most marginalized and vulnerable populations.

Countries yet to achieve MNTE should establish/update and implement their operational plans to achieve the required action within the timelines stated in the report from the Working Group on MNTE and broader tetanus prevention. Achievement of MNTE by 2020 is feasible with timely availability of financial resources and compact single-dose pre-filled auto-disable injection devices (CPAD) to reach the most marginalized populations.

UNICEF, UNFPA (United Nations Populations Fund) and WHO should work with countries to generate and sustain political interest in the continuing elimination of MNT to guard against complacency once a country has been declared to have eliminated the disease.

All immunization programmes should review and adjust their routine immunization schedules to ensure tetanus protection over the life course (3 priming doses in infancy and 3 booster doses in childhood/adolescence). All countries should also scale up and sustain the coverage of clean delivery and improve clean cord care practices. The 3 booster doses schedule intended to achieve protection throughout adulthood (reproductive age for women), and probably providing lifelong protection should preferably be given during the second year of life, between 4-7 years of age, and between 9-15 years of age.

Hepatitis B vaccination

SAGE reemphasized the importance of introduction of the birth dose and urged all countries to introduce universal birth dose without further delays.

All infants should receive their first dose of hepatitis B vaccine as soon as possible after birth, preferably within 24 hours. However, if this is not feasible the birth dose will still be beneficial in preventing perinatal transmission if given within 7 days, although somewhat less than if given within 24 hours. After 7 days, a late birth dose is effective in preventing horizontal transmission and therefore remains beneficial. Therefore, SAGE recommends that all infants receive the birth dose during the first contact with health facilities any time up to the time of the first primary dose.

Schedules and strategies for human papillomavirus immunization

Noting the high effectiveness and safety of the human papillomavirus (HPV) vaccine, SAGE recommends that it is promptly introduced for adolescent girls as part of a coordinated and comprehensive strategy to prevent cervical cancer and other diseases caused by HPV. The

⁶ Rubella Vaccines: WHO Position Paper. WER No. 29, 2011, 86, Pp. 301-316.

immunization of multiple cohorts of girls aged 9–14 years is recommended when the vaccine is first introduced. If resources are available, the age range could be expanded up to 18 years.

SAGE also discussed polio eradication. It was updated on the tOPV to bOPV switch and the progress with polio eradication and started an initial discussion on post eradication.

The full meeting report will be published in the WHO Weekly Epidemiological Record on 2 December 2016. The meeting documents — including presentations and background readings — can be found at

<http://www.who.int/immunization/sage/meetings/2016/October/en/>