



**World Health  
Organization**

**Department of Immunization,  
Vaccines and Biologicals (IVB)**

# **SAGE**

## **meeting**

**Strategic Advisory Group of Experts  
on Immunization  
5 – 7 October 2020**

**Virtual meeting, WHO  
Geneva, Switzerland**

This document can be found online after the meeting at the following link:

<https://www.who.int/immunization/sage/meetings/2020/october/en/>

This interactive pdf contains all background documents for the corresponding meeting of the Strategic Advisory Group of Experts (SAGE) on Immunization.

To function correctly, this document should be opened with [Acrobat Reader](#) (please download if necessary).

Navigation is done via the interactive table of content page. Each session landing page contains links to the executive summary and all background documents (tagged as either essential or additional). All session documents open as new tabs in the Adobe reader (pdf attachments).

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#### Notes:

(1) This document functions only in a limited mode on hand-held devices. See “How to Guide”.

(2) Presentations from the meeting will be made available once the meeting has concluded at the above link and through an additional interactive PDF.



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# World Health Organization

## Meeting of the Strategic Advisory Group of Experts (SAGE) on Immunization 05-07 October 2020 Virtual Meeting Draft agenda

Monday, 05 October 2020

Time	Session	Purpose of session, target outcomes and questions for SAGE	Duration
10:00	<b>Closed SAGE meeting</b>	Preparation of the sessions of the day. Other important discussion items.	1h
11:00	<b>Break</b>	<b>Break</b>	<b>15 min</b>
11:15	<b>Opening</b> Opening remarks by Zsuzsanna JAKAB, Deputy Director-General, WHO.  <b>Welcome – introduction of participants</b> A. CRAVIOTO. Chair of SAGE.	<b>Opening of the Plenary Meeting</b>	10 min
11:25	<a href="#">Global Reports - Session 1</a>  Report from the Director of IVB. K. O'BRIEN. WHO. 20 min.  Discussion. 15 min.  Update from Gavi. S. BERKLEY. GAVI. 10 min.  Discussion. 10 min.	<b>FOR INFORMATION</b>	55 min
12:20	<b>Break</b>	<b>Break</b>	<b>15 min.</b>
12:35	<b>Immunization in the context of the COVID-19 pandemic, including regional and country focus – Session 2</b>  <a href="#">Impact of the COVID-19 pandemic on immunization activities – Session 2A</a> Introduction to session. N. MACDONALD. SAGE Member. 5 min.  Impact of COVID-19 on immunization programme implementation: <ul style="list-style-type: none"> <li>Regional situation reports and country highlights (8 min per region), 50 min.</li> <li>Update on global monitoring and activities to support resumption of services. D. CHANG BLANC. WHO. 20 min.</li> </ul> Discussion of revised statement. N. MACDONALD. SAGE Member. 35 min.	<b>FOR DISCUSSION AND DECISION</b>  To update SAGE on the programmatic impact of COVID-19 and request appraisal of a new version of ' <i>Guiding Principles for immunization activities during the COVID-19 pandemic</i> (26 March 2020)'.	1h 50 min
14:25	<a href="#">Briefs to review evidence for COVID-19 co-morbidity and benefit of vaccination in relation to Influenza and Pneumococcus – Session 2B</a>	<b>FOR INFORMATION</b>	30 min

- Influenza. M. FRIEDE. WHO. 10 min.
- Pneumococcal disease. S. DESAI. WHO. 10 min.

Discussion. 10 min.

<b>14:55</b>	<b>Break</b>	<b>BREAK</b>	<b>10 min</b>
15.05	<b><a href="#">COVID-19 vaccination – Session 3</a></b>	<b>FOR DISCUSSION AND DECISION</b>	1h 30 min
	<p>Introduction to session. H. NOHYNEK. SAGE Member. 5 min.</p> <p>Burden of Disease and at-risk populations. A. WILDER-SMITH. WHO. 5 min.</p> <p>Vaccine Impact modelling: preliminary results. N. GRASSLY, Imperial College London &amp; S. PALLAS, US-CDC. 15 min.</p> <p>Discussion. 15 min.</p> <p>Potential use case scenarios. S. OMER. Yale Inst. for Global Health. &amp; R. FADEN. J. Hopkins Univ. 15 min.</p> <p>Discussion. 15 min.</p> <p>Safety appraisal and pharmacovigilance planning. S. KOCHHAR. Univ. Washington. 10 min.</p> <p>Discussion. 10 min.</p>	<p>Discussion session under the assumption that no vaccine is registered by the time of the meeting.</p>	
<b>16:35</b>	<b>End of the day</b>		

## Tuesday, 06 October 2020

<b>10:00</b>	<b>Closed SAGE meeting</b>	Preparation of the sessions of the day. Recap of day 1. Other important discussion items.	1h
<b>11:00</b>	<b>Break</b>	<b>Break</b>	15 min
<b>11:15</b>	<b><a href="#">Polio - Session 4</a></b>	<b>FOR DECISION</b>	1h 30 min
	<p>Update from the Global Polio Eradication Initiative. M. ZAFFRAN. WHO. 10 min.</p> <p>Observations to global update from polio SAGE WG I JANI. SAGE Member. 5 min.</p> <p>Questions: 5 min.</p> <p>Two-dose IPV routine immunization schedule</p> <ul style="list-style-type: none"> <li>• Immunogenicity data from trials with 2-dose IPV and fIPV O. MACH. WHO. 5 min</li> <li>• Options for 2<sup>nd</sup> dose introduction A. RAMIREZ. WHO. 5 min.</li> </ul>	<p>SAGE will be informed on the current status of the polio eradication program in the context of COVID-19 and on nOPV2 development.</p> <p>SAGE is asked to review the evidence and make recommendations on:</p> <ul style="list-style-type: none"> <li>• Recommendation on 2nd IPV dose in routine immunization</li> <li>• GPEI 'type 2' vaccine use framework</li> <li>• Recommendation on use of IPV for poliovirus outbreak response</li> </ul>	

Suggested recommendations on two-dose IPV schedule from polio SAGE WG I. JANI. SAGE Member. 5 min.

Questions: 5 min.

Update on nOPV2 development

- EUL process C. RODRIGUEZ. WHO. 5 min.
- Proposed 'type 2' vaccine use framework G. MACKLIN. WHO. 5 min.

Suggested recommendations on nOPV from polio SAGE WG. I. JANI. SAGE Member. 5 min.  
Questions: 5 min.

Remaining items to report from SAGE Polio Working Group including considerations for IPV use in poliovirus outbreak response. I. JANI. SAGE Member. WHO. 10 min.

Discussion. 20 min.

<b>12:45</b>	<b>Break</b>	<b>Break</b>	<b>30 min</b>
<b>13:15</b>	<b><a href="#">Ebola vaccines - Session 5</a></b>	<b>FOR DECISION</b>	<b>1h 30 min</b>
<p>Introduction to session and key questions. E. MOHSNI. SAGE Member. 5 min.</p> <p>Epidemiological update. TBC. 10 min.</p> <p>Review of safety, immunogenicity and efficacy of rVSV-ZEBOV GP in children 6 months to 17 years, pregnant women and breastfeeding women. TBC. 15 min.</p> <p>Review of evidence on duration of protection (preclinical and clinical data) of rVSV-ZEBOV-GP. TBC. 10 min.</p> <p>Review of the potential target populations for Ebola vaccines and vaccines availability and demand scenarios for preventive vaccination. TBC. 15 min.</p> <p>Conclusions and proposed recommendations by SAGE Working Group. 5 min.</p> <p>Discussion. 30 min.</p>		<p>Present SAGE with updated evidence on Ebola vaccines on the safety and efficacy in children 6 months to 17 years of age, pregnant women and breastfeeding women; on the duration of protection and the potential supply and demand scenarios and the vaccination strategies.</p> <p>SAGE is requested to address the following questions:</p> <p><i>Question 1: Potential recommendation for off-label use of rVSV ZEBOV GP.</i></p> <p>What does current evidence show on the immunogenicity and efficacy of rVSV-ZEBOV-GP for children 6 months to 17 years of age, pregnant women and breastfeeding women? And what are the limitations of the available evidence?</p> <p><i>Question 2: Potential recommendation on the preventive use of Ebola vaccines</i></p> <p>Is the current evidence on the duration of protection of rVSV-ZEBOV-GP sufficient to inform policy recommendations on the preventive use of this vaccine? And what are the limitations of the available evidence? Recommendations on the use of Ebola Ad26/MVA vaccine.</p> <p><i>Question 3: Potential recommendations on the strategies to ensure equitable and fair access to Ebola vaccines</i></p> <p>What are the potential demand scenarios and supply scenarios for various Ebola vaccines (short and mid-term outlook)? In light of the above conclusions/inputs, how should this Ebola vaccine allocation be prioritized with respect to impact and equity?</p>	
<b>14:45</b>	<b>Break</b>	<b>Break</b>	<b>15 min.</b>

<b>15:00</b>	<b><a href="#">Rotavirus vaccines - Session 6</a></b>	<b>FOR DECISION</b>	1h
	<p>Introduction to session, background, and key questions. K. NEUZIL. SAGE Member. 10 min.</p> <p>Systematic review of evidence on efficacy, effectiveness, and safety. N. HENSCHKE. Cochrane Response. 10 min.</p> <p>Overview of findings and proposals from the SAGE Ad-hoc Working Group. K. NEUZIL. SAGE Member. 10 min.</p> <p>Discussion. 30 min.</p>	<p>Present SAGE with updated evidence on efficacy, effectiveness and safety of rotavirus vaccines and on programmatic experience with using rotavirus vaccines.</p> <p>SAGE is requested to address the following questions:</p> <ul style="list-style-type: none"> <li>• Does the evidence on the safety and efficacy for Rotavac and Rotasiil support a WHO recommendation for global use?</li> <li>• Can recommendations for for the 4 currently prequalified rotavirus vaccines (Rotarix, RotaTaq, Rotavac, and Rotasiil) be generic?</li> <li>• Can recommendations for upcoming similar vaccines be generic? If not, what recommendations need to be specified by product?</li> <li>• In the context of the disruption due to the COVID-19 pandemic or other immunization system disruptions, are there special considerations for rotavirus vaccination catch-up? If yes, what are they?</li> <li>• What are the clinical and programmatic research questions needed to generate data for future policy and program decisions?</li> </ul>	
<b>16:00</b>	<b>End of the day</b>		

### Wednesday, 07 October 2020

<b>10:00</b>	<b>Closed SAGE meeting</b>	Preparation of the sessions of the day. Recap of day 2. Other important discussion items.	1h
<b>11:00</b>	<b>Break</b>	Break	15 min
<b>11:15</b>	<b><a href="#">Measles Rubella Strategic Framework - Session 7</a></b>	<b>FOR DECISION</b>	1h
	<p>Introduction to session and key questions. K. MULHOLLAND. SAGE Member. 5 min.</p> <p>Presentation of the Measles Rubella Strategic Framework. N. CROWCROFT. WHO. 15 min.</p> <p>Discussion. 40 min.</p>	<p>SAGE is requested to appraise the Measles and Rubella Strategic Framework</p>	
<b>12:15</b>	<b><a href="#">IA2030: Development of the IA2030 Monitoring, Evaluation, and Action and Ownership and Accountability Frameworks - Session 8</a></b>	<b>FOR DISCUSSION</b>	1h
	<p>Overview of IA2030 ME&amp;A Framework Development. E. MAST. US CDC. 20 min.</p> <p>Emerging IA2030 Ownership &amp; Accountability mechanism options. A. LINDSTRAND. WHO. 10 min.</p> <p>Discussion. 30 min.</p>	<p>The session will centre on two key objectives:</p> <ol style="list-style-type: none"> <li>1. Share updates from the Immunization Agenda 2030 (IA2030) Monitoring &amp; Evaluation Task Force and IA2030 Core Team of partners, including: <ul style="list-style-type: none"> <li>• Proposed IA2030 Strategic Priority (SP) Objective indicators</li> <li>• Proposed Impact Goal (IG) indicators</li> </ul> </li> </ol>	

		<ul style="list-style-type: none"> <li>Proposed options to set targets for IG and SP Objective indicators</li> <li>Emerging design options for the Ownership &amp; Accountability (O&amp;A) mechanism</li> </ul> <p>2. Receive guidance from SAGE on:</p> <ul style="list-style-type: none"> <li>ME&amp;A Framework architecture and target setting options</li> <li>Emerging O&amp;A mechanism options</li> </ul>	
<b>13:15</b>	<b>Break</b>		<b>30 min</b>
<b>13:45</b>	<a href="#">Pneumococcal Vaccines: Considerations for use in older adults and Use in Outbreak settings– Session 9</a>  <u>Advice to countries on use of pneumococcal vaccines in national programmes to vaccinate older adults.</u>  Introduction to session, background, and key questions. A. POLLARD. SAGE Member. 5 min.  Summary overview of evidence. A. POLLARD. SAGE Member. 20 min.  Proposals from the SAGE Ad-hoc Working Group Recommendations. A. POLLARD. SAGE Member. 5 min.  Discussion. 30 min.  <u>Pneumococcal Outbreaks and Strategies for prevention and response</u>  Summary of Evidence. M. KNOLL. J. Hopkins U. 10 min.  Conclusions and Recommendations. A. POLLARD. SAGE Member. 5 min.  Discussion. 15 min.	<b>FOR DECISION</b>  Present SAGE with a review of pneumococcal disease in older adults (i.e., over 50 years); pneumococcal vaccine efficacy, effectiveness, and safety in older adults; herd effects due to childhood pneumococcal vaccination programmes; and implementation experience of adult pneumococcal vaccination programmes, including coverage, feasibility, and cost.  SAGE is requested to address the following question:  From a public health perspective, what key aspects should be considered by a country when determining whether to include adult pneumococcal vaccination in its national immunization programme?  SAGE is asked to answer the following question:  Is there evidence to support use of pneumococcal conjugate vaccines to prevent or mitigate outbreaks of pneumococcus?	<b>1h 30min</b>
<b>15:15</b>	<a href="#">Vaccine Innovation Prioritization Strategy (VIPS) - Session 10</a>  The Vaccine Innovation Prioritization Strategy: Process, outcomes and next steps. M. MENOZZI-ARNAUD (Gavi) and B. GIERSSING (WHO). 20 min.  Perspective from the VIPS Alliance Steering Committee chair. J ABRAMSON. 5 min.  Discussion. 20 min.	<b>FOR DISCUSSION</b>  Share with SAGE the process and outcomes of VIPS with a decision to prioritise 3 innovations / approaches: i) microarray patches, ii) heat stable and Controlled Temperature Chain qualified vaccines, iii) barcodes on primary packaging, for which the VIPS Alliance will further collaborate to advance development, policy and access.  Seek endorsement from SAGE on: - Innovative vaccine delivery technologies are needed to address immunisation barriers and achieve immunisation coverage and equity goals, including reaching zero-dose children and missed communities.	<b>45 min</b>

	<p>- VIPS must now engage with regional immunisation, regulatory and policy-making fora to ensure validation of the perceived benefits and feasibility of the priority innovations and support to accelerate availability and access.</p> <p>-The VIPS Alliance has identified the key, high level workstreams that will advance vaccine product innovation in a measurable way.</p>
<b>16:00 End of the Plenary Meeting</b>	

**Thursday, 08 October 2020**

<b>12:00 Closed SAGE meeting</b>	Recap of day 3. Other important discussion items.	2h
<b>14:00 End of the meeting</b>		

## SESSION 1: GLOBAL REPORTS

EXECUTIVE SUMMARY	
1.0	Executive summary: global reports

BACKGROUND DOCUMENTS	
1.1	SAGE meeting report, April 2020
1.2	AFRO RITAG meeting report, July 2020
1.3	EMRO RITAG meeting report, April 2020
1.4	Main outcomes from 71 <sup>st</sup> WHO Expert Committee on Biological Standardization (ECBS) meeting, 24-28 August 2020
1.5	GAVI Board meeting. Review of decisions. July 2020
1.6	Global Advisory Committee on Vaccine Safety, 27–28 May 2020



## SESSION 2A: IMPACT OF THE COVID-19 PANDEMIC ON IMMUNIZATION ACTIVITIES

EXECUTIVE SUMMARY	
2A.0	Executive Summary: Impact of the COVID-19 pandemic on immunization activities

BACKGROUND DOCUMENTS (essential)	
2A.1	Publications around immunization in the SARS-CoV-2 context
2A.2	Framework for decision-making: Implementation of mass vaccination campaigns in the context of the COVID-19 pandemic
2A.3	Catch-Up Vaccination

BACKGROUND DOCUMENTS (additional)	
2A.4	Covid-19: WHO's action in countries

## SESSION 2B: BRIEFS TO REVIEW EVIDENCE FOR COVID-19 CO-MORBIDITY AND BENEFIT OF VACCINATION IN RELATION TO INFLUENZA AND PNEUMOCOCCUS

EXECUTIVE SUMMARY	
2B.0	Executive Summary: Covid-19 in relation to influenza and pneumococcus vaccination

BACKGROUND DOCUMENTS (essential)	
2B.1	SAGE influenza vaccination during Covid-19 pandemic - Interim recommendations - DRAFT

BACKGROUND DOCUMENTS (additional)	
-	None

## SESSION 3: COVID-19 VACCINATION

EXECUTIVE SUMMARY	
3.0	Executive Summary: COVID-19 vaccination

BACKGROUND DOCUMENTS (essential)	
3.1	Background paper Covid-19 vaccines session
3.2	Values Framework

BACKGROUND DOCUMENTS (additional)	
-	None

## SESSION 4: POLIO

EXECUTIVE SUMMARY	
4.0	Executive Summary: Polio

BACKGROUND DOCUMENTS (essential)	
4.1	Report from polio SAGE WG meeting

BACKGROUND DOCUMENTS (additional)	
-	None

## SESSION 5: EBOLA VACCINES

EXECUTIVE SUMMARY	
-	None

BACKGROUND DOCUMENTS (essential)	
-	None

BACKGROUND DOCUMENTS (additional)	
-	None

## SESSION 6: ROTAVIRUS VACCINES

EXECUTIVE SUMMARY	
6.0	Executive Summary: Rotavirus vaccines

BACKGROUND DOCUMENTS (essential)	
6.1	Background document on rotavirus epidemiology and rotavirus vaccines, including economic evidence for use and programmatic considerations for vaccine implementation
6.2	Systematic review and meta-analysis of the safety, effectiveness and efficacy of childhood schedules using Rotavirus Vaccines – Cochrane Response
6.3	Report of the Global Advisory Committee on Vaccine Safety, 4-5 December 2019
6.4	WHO Guidance Note: Use of more than one rotavirus vaccine product to complete the vaccination series. November, 2019.

BACKGROUND DOCUMENTS (additional)	
6.5	Burnett E, Parashar UD, Tate JE. Global impact of rotavirus vaccination on diarrhea hospitalizations and deaths among children <5 years old: 2006–2019. J Infect Dis. 2017 Jun 1;215(11):1666-1672.
6.6	Burnett E, Parashar UD, Tate JE. Real-world effectiveness of rotavirus vaccines, 2006-19: a literature review and meta-analysis. Lancet Glob Health 2020; 8: e1195-202.
6.7	Aliabadi N, Antoni S, Mwenda JM, et al. Global impact of rotavirus vaccine introduction on rotavirus hospitalisations among children under 5 years of age, 2008–16: findings from the Global Rotavirus Surveillance Network. Lancet Glob Health 2019; 7: e893–903.
6.8	WHO Global Invasive Bacterial Vaccine-Preventable Disease and Rotavirus and Pediatric Diarrhea Surveillance Networks Bulletin. February 2020.

## SESSION 7: MEASLES RUBELLA STRATEGIC FRAMEWORK

EXECUTIVE SUMMARY	
7.0	Executive Summary: Measles Rubella Strategic Framework

BACKGROUND DOCUMENTS (essential)	
7.1	Measles & Rubella Strategic Framework 2021-2030

BACKGROUND DOCUMENTS (additional)	
7.2	Immunization Agenda 2030

## SESSION 8: IA2030: DEVELOPMENT OF THE IA2030 MONITORING, EVALUATION, AND ACTION AND OWNERSHIP AND ACCOUNTABILITY FRAMEWORKS

EXECUTIVE SUMMARY	
8.0	Executive Summary: IA2030: Development of the IA2030 Monitoring, Evaluation, and Action and Ownership and Accountability Frameworks

BACKGROUND DOCUMENTS (essential)	
8.1	IA2030 Monitoring, Evaluation, and Action Framework

BACKGROUND DOCUMENTS (additional)	
8.2	2020 GVAP Secretariat Report
8.3	2020 Regional GVAP-RVAP progress reports



## SESSION 9: PNEUMOCOCCAL VACCINES: CONSIDERATIONS FOR USE IN OLDER ADULTS AND USE IN OUTBREAK SETTINGS

EXECUTIVE SUMMARY	
9.0	Executive Summary: Pneumococcal Vaccines: Considerations for use in older adults and Use in Outbreak settings

BACKGROUND DOCUMENTS (essential)	
9.1	SAGE Pneumococcal Working Group Report on Pneumococcal vaccination of older adults: Executive Summary
9.2	SAGE Pneumococcal Working Group Report on Outbreaks

BACKGROUND DOCUMENTS (additional)	
9.3	SAGE Pneumococcal WG Report on Pneumococcal vaccination of older adults: Full background document

## SESSION 10: VACCINE INNOVATION PRIORITIZATION STRATEGY (VIPS)

EXECUTIVE SUMMARY	
10.0	Executive Summary: Vaccine Innovation Prioritization Strategy (VIPS)

BACKGROUND DOCUMENTS (essential)	
10.1	The VIPS Prioritisation Process: Methodology and Outcomes

BACKGROUND DOCUMENTS (additional)	
10.2	VIPS Vaccine Product Innovations and Comparators' list