



## Meeting of the Strategic Advisory Group of Experts (SAGE) on Immunization

10-13 March 2025

Hybrid Meeting

WHO HQ (Geneva)

### Agenda

Day 1: Monday, 10 March 2025 (time is Central European Time (CET))			
Time CET	Session	Purpose of session, target outcomes and questions for SAGE	Duration
9:00	<b>Closed SAGE meeting</b>	Preparation of the sessions of the day.	<b>1h 45 min.</b>
10:45	<b>Break</b>	<b>Break</b>	<b>15 min</b>
11:00	<b>Opening and welcome – introduction of participants</b>  R. B. AYLWARD. ADG/UHL. WHO. 5 min.  H. NOHYNEK. SAGE chair. 5 min.  J. HOMBACH. SAGE Secretariat. WHO. 5 min.		<b>15 min.</b>
11:15	<b>Global and regional reports – Session 1</b>  Report from the Director of IVB. K. O'BRIEN. WHO. 20 min.  Update from Gavi. S. NISHTAR. Chief Executive Officer Gavi, the Vaccine Alliance. 10 min.  Discussion. 40 min.	<b>FOR INFORMATION</b>	<b>1h 10 min.</b>
12:25	<b>Lunch Break</b>	<b>Break</b>	<b>1h</b>
13:25	<b>Global and regional reports – Session 1 Continue: Regional reports</b>  Presentations from AFRO, EMRO, EURO. 10 min. each. Discussion. 25 min.  Presentations from PAHO, WPRO, SEARO. 10 min. each.  Discussion. 25 min.	<b>FOR DISCUSSION</b>  Each Regional report focuses one theme of particular importance for the Region	<b>1h 50 min.</b>  <b>(3h 15 min. in total)</b>
15:15	<b>Break</b>	<b>Break</b>	<b>15 min.</b>
15:30	<b>IA2030: Country-led data – Session 2</b>  Session introduction. C. TOSCANO, SAGE member. 5 min.  IA2030 Mid-Term Review and its relevance for SAGE. B. MILLINCHIP, WHO. 5 min.  National Immunization Strategies (NIS) at the heart of IA2030. J. FIHMAN, WHO. 20 min.	<b>FOR DISCUSSION</b>  Purpose of the session is to:  - Review IA2030 Progress & Future Direction: Understand the progress of IA2030 in 2025 based on the Global Progress Report 2024, workplan for 2025, and wider geo-political environment.	<b>2h</b>

Enhancing data-driven decision-making: country-led data approach. N. BAR-ZEEV, WHO. 30 min.	- NIS at the core of immunization work: Update on the development and implementation of NIS since SAGE 2022. Understands priorities, country examples, and key recommendations to reinforce country-driven immunization efforts.
Discussion. 1h	- Enhancing Data-Driven Decision-Making: Discuss the need for stronger national immunization data systems to improve strategic and operational planning, ensuring data-driven decision-making aligns with country needs.
<b>17:30</b>	<b>End of day 1</b>

<b>Day 2: Tuesday, 11 March 2025</b>			
<b>Time CET</b>	<b>Session</b>	<b>Purpose of session, target outcomes and questions for SAGE</b>	<b>Duration</b>
<b>9:00</b>	<b>Closed SAGE meeting</b>	Development of recommendations of day 1. Preparation of the sessions of the day. Other important discussion items.	<b>1h 45 min.</b>
<b>10:45</b>	<b>Break</b>	<b>Break</b>	<b>15 min.</b>
<b>11:00</b>	<b>Pneumococcus vaccination – Session 3</b>  Introduction. A. SCOTT, SAGE member and pneumococcal vaccines (PCV) working group (WG) chair. 5 min.  Global Status Overview. D. FEIKIN, WHO. 5 min.  <b>3-dose PCV schedules (40 min.)</b>  Topic introduction. A. SCOTT. 5 min.  PCV Impact SLR, Pneumonia outcome. F. RUSSELL, U. Melbourne, Australia. 10 min.  Additional evidence overview. D. FEIKIN. 5 min.  Discussion. 20 min.  <b>Reduced dosing schedules (1+1) (1h 20 min.)</b>  Topic introduction. A. SCOTT. 5 min.  Systematic review / meta-analysis. E. NEAL. U. Melbourne, Australia. 10 min.  Gambia 1+1 RCT. G. MACKENZIE, LSHTM, UK. 15 min.  UK post-switch effectiveness data. S. LADHANI, Health Security Agency, UK. 10 min.	<b>FOR RECOMMENDATION</b>  The SAGE PCV WG was established in 2017 to provide updated guidance on PCV schedules in childhood and then to review data on the use of PCV in adults, resulting in a position paper published 2019, and a for consideration paper published in 2021, respectively. New data related to schedule optimization, PCV multi-age cohort campaigns and fractional dose use have been generated and warrant expert review and policy updates in order to best guide countries on optimization of PCV strategies in childhood. Many newer higher-valency PCV products are also becoming licensed or in the development pipeline for which policy guidance is lacking. Recommendations made by SAGE will be used to develop an updated vaccine position paper for pneumococcus paediatric vaccination.  SAGE will asked for policy guidance on the following topics: <ul style="list-style-type: none"> <li>- Three-dose PCV schedules comparison</li> <li>- Reduced PCV dosing schedules</li> <li>- Fractional PCV dose</li> <li>- PCV use in Multi-age cohorts</li> <li>- Higher valency PCV product use</li> </ul>	<b>1h 30 min.</b>  <b>(5h 30 min. total)</b>
<b>12:30</b>	<b>Lunch Break</b>	<b>Break</b>	<b>1h</b>
<b>13:30</b>	<b>Pneumococcus vaccination – Session 3 (continued)</b>  <b>Reduced dosing schedules (continues)</b>  Modelling assessments. S. FLASCHE, SAGE PCV WG member. 15 min.	<b>FOR RECOMMENDATION</b>	<b>2h</b>

Discussion: 20 min.

### **Multi-age cohort campaigns (50 min.)**

Topic introduction and overview of settings with reduced population immunity where MAC campaigns might be considered. A. SCOTT, SAGE member. 5 min.

Niger MAC study. R GRAIS, SAGE member. 15 min.

Somaliland campaign study and modelling. K. VAN ZANDVOORT, LSHTM, UK. 15 min.

Discussion. 20 min.

### **Fractional dose (1h 30 min.)**

Topic introduction. C. TOSCANO, SAGE PCV WG member and SAGE member. 5 min.

Kenya fractional dose trial results. K. GALLAGHER. LSHTM, UK and KEMRI-Wellcome Trust Research Programme, Kenya. 15 min.

Discussion. 20 min.

<b>15:40</b>	<b>Break</b>	<b>Break</b>	<b>15 min</b>
<b>15:55</b>	<b>Pneumococcus vaccination – Session 3 (continued)</b>	<b>FOR RECOMMENDATION</b>	<b>2h</b>
	Working Group's draft Recommendations. A. SCOTT, SAGE member. 15 min.		
	<ul style="list-style-type: none"> <li>- 3 dose schedules</li> <li>- Reduced dosing (1+1) schedule</li> <li>- Fractional dose</li> <li>- Multi-age cohort campaigns</li> <li>- Surveillance</li> </ul>		
	Discussion. 45 min.		
	<b>Newer higher valency PCV Products (40 min.)</b>		
	Newer PCV product pipeline and characteristics. Global serotype distribution, immunobridging data, PCV 15 and PCV 20. D. GOLDBLATT, SAGE PCV WG member. 15 min.		
	Working Group's draft recommendation/considerations on newer higher valency products. A. SCOTT, SAGE member. 20 min.		
	Discussion.		
<b>17:35</b>	<b>End of day 2</b>		

<b>Day 3: Wednesday, 12 March 2025</b>			
<b>Time CET</b>	<b>Session</b>	<b>Purpose of session, target outcomes and questions for SAGE</b>	<b>Duration</b>
<b>9:00</b>	<b>Closed SAGE meeting</b>	Development of recommendations of day 2. Preparation of the sessions of the day. Other important discussion items.	<b>1h 45 min.</b>
<b>10:45</b>	<b>Break</b>	<b>Break</b>	<b>15 min.</b>
<b>11:00</b>	<b>Mpox – Session 4</b>  <b>Update on mpox and mpox vaccination</b>  Introduction to the session, including updates on vaccine effectiveness and safety, and ongoing vaccine research in the African region, K.NEUZIL. SAGE member and SAGE mpox WG chair. 10 min.  Mpox epidemiology/transmission/risk factors for (severe) disease. A. HOXHA. WHO. 15 min.  Update on regulatory status, vaccination strategies, MVA-BN and LC16m8 doses allocated and administered in the African region, acceptance and uptake of the vaccines. S. NDIAYE, WHO. 15 min.  Questions and discussion. 20 min.  <b>Future directions</b>  Mpox vaccination impact modelling. R. McCABE & L. WHITTLES, Imperial College, UK. 10 min.  Discussion. 20 min.	<b>FOR DISCUSSION</b>  The objective is: <ul style="list-style-type: none"> <li>• Provide an update on the current status of the mpox epidemiology, vaccination strategies and vaccine roll-out in the African region, as well as on mpox vaccine effectiveness and safety.</li> <li>• Discuss data needs for updates on mpox vaccine recommendations for outbreak response and the development of a preventive vaccination recommendation.</li> <li>• Discuss options to advance the research agenda globally and regionally.</li> </ul>	<b>1h 30 min.</b>
<b>12:30</b>	<b>Lunch Break</b>	<b>Break</b>	<b>1h</b>
<b>13:30</b>	<b>Varicella Herpes Zoster vaccination – Session 5</b>  Introduction of the session. Dr. G. LEUNG, SAGE member. 5 min.  <b>Varicella</b>  Varicella epidemiology, burden of diseases and vaccine protection and safety. K. MACARTNEY. University of Sydney. 15 min.  Questions and answers. 5 min.  <b>Herpes zoster</b>  Herpes zoster epidemiology, burden of diseases and zoster vaccine protection and safety. E. AMPONSAH-DACOSTA, University of Cape Town. 20 min.  Questions and answers. 5 min.  Global varicella and herpes zoster vaccine market analysis. G. STATHOPOULOS, WHO. 10 min.  Draft recommendations and discussion. G. LEUNG. 1h	<b>FOR RECOMMENDATION</b>  The purpose of this session is to present SAGE with the latest evidence on the global prevalence and burden of disease caused by varicella and herpes zoster and new evidence on safety, effectiveness and public health benefits of varicella vaccine and a new herpes zoster vaccine to update the 2014 WHO recommendation on varicella and herpes zoster vaccines.	<b>2h</b>
<b>15:30</b>	<b>Break</b>	<b>Break</b>	<b>15 min</b>
<b>15:45</b>	<b>Global progress in National Immunization Technical Advisory Group (NITAG) strengthening – Session 6</b>  Session introduction. Y. BERHANE, SAGE member. 3 min.	<b>FOR DISCUSSION</b>  To update SAGE on: <ul style="list-style-type: none"> <li>Progress achieved in the establishment and strengthening of NITAGs (as per the Joint Reporting Form indicators and results from the</li> </ul>	<b>1h 30 min.</b>

<p>Global overview of NITAG progress. L. HENAFF, WHO. 15 min.</p> <p>NITAG country presentations:</p> <ul style="list-style-type: none"> <li>LIC supported from beginning with Gavi funding. C. NALWADDA, Uganda. 10 min.</li> <li>MIC with no dedicated secretariat. M. MELGAR, NITAG chair Guatemala), 10 min.</li> <li>HIC to show innovation and expansion of mandate. M. TUNIS, NITAG secretariat Canada (NACI). 10 min.</li> </ul> <p>Looking ahead: new and old challenges and innovative strategies for support. Y. BERHANE. 10 min.</p> <p>Discussion and conclusions. 32 min.</p>		<p>NITAG Maturity assessment tool (NMAT), and collaborative work by technical partners.</p> <p>Successes, challenges, and opportunities that countries are facing in strengthening their NITAGs, sustaining their functionality, expanding their mandates, and addressing new areas of work.</p> <p>To discuss:</p> <p>Emerging policy challenges, along with innovative strategies for upcoming support.</p> <p>Role of NITAGs in providing guidance on immunization programme priorities and programme optimization.</p>
<b>17:15</b>	<p><b>Prioritization of new vaccine introductions – Session 7</b></p> <p>Session introduction. S. OMER, SAGE member. 3 min.</p> <p>Presentation. J. FIHMAN, WHO. 20 min.</p> <ul style="list-style-type: none"> <li>Overview of Prioritization of New Vaccine Introductions reflected in countries' National Immunization Strategies (learnings to date)</li> <li>The case for prioritization of new vaccine introduction (NVI) and portfolio optimization</li> <li>Findings from countries' experiences to date</li> <li>Perspectives on NITAGs' engagement in NIS to support prioritization efforts</li> <li>Enablers to support countries in NVI prioritization and portfolio optimization</li> </ul> <p>Discussion. 22 min.</p>	<p><b>FOR DISCUSSION</b></p> <p><b>45 min</b></p> <p>The purpose of the session is to update SAGE on current countries' prioritization efforts on new vaccine introductions as well as vaccine portfolio optimization.</p> <p>To discuss:</p> <p>Opportunities to further support countries anticipating future vaccine introductions in an evolving and multifaceted environment,</p> <p>The role of NITAGs in the prioritization of new vaccine introductions and optimization of existing programmes.</p> <p>The role of SAGE in promoting these country-led prioritization approaches.</p>
<b>18:00</b>	<b>End of day 3</b>	

<b>Day 4: Thursday, 13 March 2025</b>			
<b>Time CET</b>	<b>Session</b>	<b>Purpose of session, target outcomes and questions for SAGE</b>	<b>Duration</b>
<b>8:30</b>	<b>Closed SAGE meeting (part 1)</b>	Development of recommendations of day 3. Preparation of the sessions of the day. Other important discussion items.	<b>1h 45 min.</b>
<b>10:15</b>	<b>Break</b>	<b>Break</b>	<b>15 min.</b>
<b>10:30</b>	<p><b>Polio – Session 8</b></p> <p>Session overview by S. MADHI, SAGE member and SAGE polio WG chair. 5 min.</p> <p>Update from the Global Polio Eradication Initiative. J. AHMED, WHO. 15 min.</p> <p>Questions: 15 min.</p> <p>Update on bOPV Cessation Planning and proposed guidance for countries considering moving to IPV-only schedules, O. MACH, R. LOPEZ WHO, I. BLAKE, Imperial College, UK. 20 min.</p>	<p><b>FOR RECOMMENDATION</b></p> <p>SAGE will be informed on the current status of the polio eradication programme and of the implementation of the new polio eradication strategy.</p> <p>SAGE will be informed about current status of bOPV Cessation planning</p> <p>SAGE will be asked to review and consider for endorsement:</p>	<b>2h 30 min.</b>

<p>Immunogenicity data of wP Hexa vaccine, A. BANDYOPADHYAY, Gates Foundation. (intro O. MACH) 10 min.</p> <p>Programmatic implications of wP Hexa booster, A. RAMIREZ, WHO. 5 min.</p> <p>Questions: 30 min.</p> <p>Report from the SAGE Polio WG including update on nOPV development and proposed recommendations. S. MADHI. 15 min.</p> <p>Discussion: 35 min.</p>		<ul style="list-style-type: none"> <li>Proposed guidance for countries considering moving to IPV-only polio routine immunization schedules</li> <li>Proposed revision of the prior SAGE recommendation on RI schedules with wP Hexa vaccine</li> </ul>
<b>13:00</b>	<b>CLOSING</b>	<b>5 min.</b>
<b>13:05</b>	<b>END OF THE PLENARY MEETING</b>	
<b>13:05</b>	<b>Lunch Break</b>	<b>Break 55 min.</b>
<b>14:00</b>	<b>Closed SAGE meeting (part 2)</b>	Any outstanding closed session items not covered previously. <b>1h</b>
<b>15:00</b>	<b>Break</b>	<b>Break 15 min.</b>
<b>15:15</b>	<p><b>Closed SAGE members only meeting</b></p> <p><b>Closed meeting (RITAG Chairs, Regional advisors and SAGE secretariat)</b></p>	<p><b>Both meetings in parallel</b></p> <p><b>1h 30</b></p>
<b>16:45</b>	<b>Closing (SAGE members and SAGE secretariat)</b>	<b>30 min.</b>
<b>17:15</b>	<b>END OF THE SAGE MEETING</b>	