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Meeting of the Advisory Committee on Immunization and Vaccines-related Implementation Research (IVIR-AC)

Microsoft Teams
Hilton Hotel
Geneva, Switzerland
11 to 13 September 2023

Agenda

Chair: Walt Orenstein
Co-Chair: Sheetal Silal

11 September (Monday)				
Duration	**Title**	**Content**	**Purpose**	**Proposed speaker**
09:45 – 09:50 5’	Opening of Meeting	• Update on global strategies and issues of relevance to WHO	For information	K O’Brien, Director, Department of Immunization, Vaccines and Biologicals
09:50 – 10:00 10’	Introduction/ Objectives of the meeting	• Secretary brief and organizational issues • Objectives of IVIR-AC meeting and outline of the 1st day		P Lambach Chair
Session 1: Vaccine Impact Modelling Consortium (VIMC)				
10:00-10:10 10’	Background	• The Vaccine Impact Modelling Consortium (VIMC) is a multinational collaboration of many research groups funded by Gavi, the Vaccine Alliance, the Bill & Melinda Gates Foundation (BMGF), and the Wellcome Trust.	For information	Y Sim

		• The VIMC began its new five-year grant phase in September 2022 with a new focus on responsive policy-driven mathematical modelling to answer priority research questions. WHO IVB has established a new mode of engagement with VIMC across different levels within the department.		
10:10 – 10:25 15’	Technical presentation VIMC updates	• As part of VIMC’s new five-year grant phase, VIMC has new ways of working including newly-introduced modeler-led project working groups. This session will review project working groups to date and look ahead to priority questions on the horizon. • The VIMC will also update on the next round of VIMC full model estimates		K Gaythorpe
10:25 – 10:45 20’	Q&A and Discussion	• IVIR-AC discusses presentation, clarifies on content and acknowledges main issues • IVIR-AC is asked to: o Review and provide feedback on the project working group outputs to date o Identify future priority questions • Highlight any considerations for communicating the VIMC full model estimates in 2024		S Flasche, S Kim, **H Hasan,** J Wu
Tea Break 10:45 – 11:15				
Session 2: IA2030 vaccine impact estimates				
11:15 – 11:25 10’	Background	• The IA2030 vaccine impact estimates project team continues to make progress on 1) improving annual reporting of Impact Goal indicator 1.1 and 2) expanding the scope of pathogens, immunization activities, and impact measures. • The team would like to update on both workstreams and request feedback from IVIR-AC		Y Sim
11:25-11:55 30’	Technical presentation	• **Annual reporting**		A Carter & A Shattock

	IA2030 analytics: Annual reporting, target updates, and scientific communication	○ The team would like to update on progress made for annual progress tracking for IG 1.1 (updated estimated deaths averted compared to targets) based on discussion with IA2030 M&E group. ○ The team will show results with updated target baseline approach • **Target updates** ○ Disability Adjusted Life Years averted from historical and future vaccination activities will be added as an impact measure ○ The team aims to incorporate coverage data for non-routine immunization activities from WHO's Supplementary Immunization Activities datasets. ○ The team aims to add polio impact estimates by directly engaging with a dynamic transmission modeling group. While the immediate use case of this effort is to inform advocacy for the 50th anniversary of EPI, this will have implications for target updates in 2025. The team is currently investigating non-linear impact relationships. • **Science communication** ○ Further, the team has focused on improving scientific communication and documentation. The team is preparing an open-source code library and a freely-available R package with appropriate documentation.	For information	
11:55 – 12:15 20'	Q&A and Discussion	• IVIR-AC discusses presentation, clarifies on content and acknowledges main issues • IVIR-AC is asked to: ○ Review and provide feedback on the project team's updates on annual progress tracking of Impact Goal indicator 1.1 and communication strategies		**S Flasche,** S Kim, S Silal, J Wu

		○ Review and provide feedback on proposed analytical approach to adding DALYs to the current framework ○ Review progress updates on including non-routine immunization activities and exploring non-linear impact relationships ○ Provide recommendations for sharing R package for public use		
Lunch Break (12:15 to 13:15)				
Session 3: Modelling of Timeliness vs Coverage of Measles Supplementary Immunization Activities (SIAs)				
13:15 – 13:20 5’	Background	• WHO partners and donors have increasingly focused on achieving high quality of campaign implementation in recent years, but the criterion used to define quality has prioritized high coverage at the expense of timeliness. • This has had major impact on measles control in some countries with outbreaks starting before campaigns could be implemented. The work IDMOD at BMGF has examined the relationship between timeliness and coverage in determining campaign quality as measured by the outcome that they are designed to prevent – i.e. measles outbreaks. • Findings indicate that timeliness is a critical element of quality for campaigns and requires greater prioritization in the planning of campaigns. • This has implications for policy and the criteria used by countries, partners and donors to make decisions on campaigns, and for how those decision-making processes are designed and operated to themselves be timely. In that context, this work is a key driver towards policy and practice change and a priority for WHO.	For decision	N Crowcroft/ P O’Connor
13:20 – 13:30 10’	Overview	• General overview of the current measles work around SIAs from multiple groups		M Jit
13:30 – 13:50 20’	Timely immunization versus high coverage interventions – benefits and risks	• Work done to investigate advantages over impact of timely immunization interventions against measles with lower coverage compared to longer interventions with high coverage		K McCarthy, K Rosenfeld

13:50 – 14:15 25’	Q&A and Discussion	Questions to IVIR-AC: • Does IVIR-AC have any feedback on the methodology and how it could be strengthened or adapted? • Does any specific elements of the approach raise concerns about generalizing the findings to any specific contexts? • Could the methodology be reasonably adapted to programmatic decision making that allows decision makers to explicitly trade off timeliness and likely SIA coverage in assessing risk of SIA delays and the urgency of early implementation? • Does IVIR-AC have any feedback on the questions to modellers around the use of SIAs to control measles and rubella?		A Hogan, P Luz. **V Pitzer**, X Wang
Tea Break 14:15 – 14:45				
Session 4: Modelling on measles/rubella elimination in South East Asia				
14:45 – 14:55 10’	Background	• Progress towards measles and rubella regional elimination has stalled over the past couple of years and verification activities were impacted by the COVID19 pandemic. Providing support for developing realistic targets and preconditions will be critical in outlining the requirements needed to support regions and countries to achieving and maintaining elimination goals.	For decision	N Crowcroft/ P O’Connor
14:55 – 15:20 25’	Technical presentation	• Overview of modelling done for eleven countries of the WHO South-East Asia Region for resetting their elimination goal including the goals needed, timeline, summary of outputs, high level impact of the activities and lessons learned • Description of what or how implementation of similar modelling exercise might look in other regions including the need for clear goals and timelines with point person to develop the vaccination scenarios with feedback and finalize report.		M Ferrari/ A Winter
15:20 – 15:40 20’	Q&A and Discussion	• IVIR-AC discusses presentation, clarifies on content and acknowledges main issues • Questions to IVIR-AC:		A Hogan, P Luz, V Pitzer, **X Wang**

		○ Does IVIR-AC have feedback on the methodology and how it could be strengthened or adapted for other regions? ○ Does IVIR-AC recommend similar modelling exercises be conducted in other WHO regions?		
15:40 – 15:55 15’	Wrap Up	• Summarize of day’s findings and request any follow up from WHO Secretariat/IVIR-AC FPs for closed session	For information	Chair
15:55– 17:00	Reception			

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12 September (Tuesday)				
9:55 – 10:00 5’	Introduction	• Recap of previous day and objectives for the day	For information	Chair
Session 5: Translating vaccine impact modelling into immunization strategy, policy and program decisions				
10:00 – 10:05 05’	Background	• To support use of modelling evidence in countries, WHO secretariat and IVIR-AC have established a sub-group (as documented in WER from the previous IVIR-AC meeting) that will review the development of a guidance on translating vaccine impact modelling to inform strategy, policy and program decisions for immunization. • This guidance will be tailored to the needs of NITAGs and national immunization decision makers in the form of training modules, tools or other desired formats which will be delivered by 2025.	For information	Y Sim, P Lambach
10:05 – 10:25 20’	IVIR-AC Subgroup activities update and qualitative study methods	• At this session, the IVIR-AC Subgroup chair will describe the ToR of the subgroup with objectives, desired outcomes, and target outputs. • The chair will also present key discussion points from the meeting with WHO Regional Offices that took place in May 2023. • The University of Sydney will present the objectives and methods of their qualitative study to understand the needs and challenges of end-users in relation to the use of modelled evidence.		S Silal / J Leask

10:25 – 11:00
35’
	Q&A and Discussion	• IVIR-AC discusses presentation, clarifies on content and acknowledges main issues
		• Questions for IVIR-AC:
		  • Are the scope and content of the initiative and planned activities sufficient to achieve the aims of the subgroup?
		  • Does IVIR-AC have any feedback on how we best define modelling for interviewees?
		  • From a modelers’ perspective, what are the most important elements of the guidance from slide 8?
				R Aggarwal,
				H Farooqui,
				S Silal,
				J Leask,
				W Orenstein

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11:00 – 12:30	**Closed session to allow for discussion/finalization of recommendations among IVIR-AC focal points**			
Lunch Break (12:30 to 13:30)				
Session 6: Benefit-risk assessment - Dengue vaccine				

13:30 – 13:35 5’	Emerging information needs towards Dengue vaccine development	• A SAGE Working Group (WG) was established to develop policy guidance for the use of TAK-003. In this context, the SAGE has developed the following three questions for modellers to address:
		  ○ What are the estimates of population-level and individual-level benefit/risk over 10 and 20 years, stratified by age of recipient, serostatus of recipient and by average transmission intensity in a setting?
		  ○ What is the cost-benefit of vaccination programmes without pre-vaccination screening, or by pre-vaccination screening dependent upon seroprevalence in a specific age group (e.g. pre-vaccination screening in low seroprevalence settings, and no pre-vaccination screening in high seroprevalence settings).
		  ○ What is the threshold seroprevalence for pre-vaccination screening by when such an effort becomes either cost-effective or has the most favorable benefit-risk ratio.
		• IVIR-AC is expected to review emerging evidence and inform SAGE discussions at the SAGE meeting in September 2023
			For discussion	A Wilder-Smith / M Koh

13:35 – 13:55 20’	Modelling population vs individual risk for Dengue Vaccine TAK 003	• Background and objectives • Results from vaccine impact modelling • Policy implications from modelling findings on how best to use TAK-003		I Dorigatti
13:55 – 14:10 15’	Projected population-level impact of TAK-003 on hospitalized dengue	• This presentation will describe mathematical modelling of the potential benefit versus individual risk of the TAK-003 vaccine to support questions posed by the SAGE WG		A Perkins

	cases across the world's cities			

14:10 – 14:35 25’	Q&A and Discussion	• IVIR-AC is expected to:
		  ○ Discuss how the modelling findings can guide policy with regards to maximizing public health impact of TAK-003
		  ○ Assess the appropriateness of the model approaches/methods and assumptions used by the two modelling groups
		  ○ Assess the robustness of results presented
				S Kim, **P Luz,** V Pitzer, J Wu

Tea Break 14:35 to 15:05				
Session 7: Mathematical modelling of the COVID-19 pandemic according to different vaccination scenarios in Burkina Faso and Cameroon				
15:05 – 15:20 15’	*Background*	• Mathematical modelling remains an important tool that allows comparison of projected outcomes of different epidemiolocal and vaccination scenarios and informs country decisions and planning for COVID-19 vaccination. • WHO AFRO has initiated a collaboration with Centre de recherche du CHU de Québec (Université Laval, Canada) aiming at supporting Member States to predict the evolution of vaccination coverage based on current uptake levels for various scenarios to guide future public health responses. • Two countries have participated to the pilot phase of this project: Burkina Faso and Cameroon.	For information	F. Mboussou (WHO AFRO)
15:20 – 15:40 20’	*Mathematical modelling of the COVID-19 pandemic according to different vaccination scenarios in Burkina Faso and Cameroon*	• The modelling group from Université Laval will present the project objectives, country identification and recruitment, methods, and proposed next steps including an in-person simulation workshop with country stakeholders.		M Brisson
15:40 – 16:05 25’	Q&A and Discussion	• IVIR-AC discusses presentation, clarifies on content and acknowledges main issues. • Questions to IVIR-AC: • Provide an independent review of the modelling methods		S Flasche, **A Hogan,** D Lyimo, S Silal

		• Provide feedback for engaging with country collaborators, researchers , and decision makers for the upcoming simulation workshop		
16:05 – 16:15 10’	Wrap Up	• Summarize day’s findings and request any follow up from WHO Secretariat/IVIR-AC FPs for closed session	For information	Chair
16:15 – 17:00	**Closed session to allow for discussion/finalization or recommendations among IVIR-AC focal points**			

13 September (Wednesday)

9:55 – 10:00 5’	Introduction	Recap of previous day and objectives for the day	For information	Chair
Session 8: Therapeutic HPV vaccine impact modelling				
10:00 – 10:15 15’	Background: therapeutic HPV vaccines	• Global scale up of prophylactic HPV vaccination and cervical cancer screening and treatment as part of the Global Cervical Cancer Elimination Strategy lags far behind Strategy targets • Therapeutic HPV vaccines, which clear infection and/or treat cervical precancers, are in early clinical development and might enhance existing efforts or address specific gaps • WHO is undertaking work to understand the potential value and define preferred product characteristics (PPCs) of therapeutic HPV vaccines • Modelling can help define the potential added value of therapeutic HPV vaccines relative to existing interventions and clarify their optimal characteristics:	For information	S Gottlieb/H Prudden

		• for vaccines that primarily clear high-risk infection and/or cause regression of cervical precancers, and • when therapeutic HPV vaccines are delivered in different ways within the health system		

10:15 – 10:35
20’
	Modelling results: impact and cost-effectiveness of therapeutic HPV vaccines	• Modelling results on predicted impact of therapeutic HPV vaccines on cervical cancer incidence/mortality in LMICs
		  • using vaccines with different characteristics
		  • under different use cases
		• Sensitivity analyses to explore preferred vaccine characteristics
		• Cost-effectiveness modelling results
				K Canfell

10:35 – 11:00
25’
	Q&A and Discussion	• IVIR-AC discusses presentation, clarifies on content and acknowledges main issues
		• Questions to IVIR-AC:
		  • Does the modelling provide adequate information to inform decision making on the potential value of therapeutic HPV vaccines and the PPCs?
		  • How do the modelling findings influence the presentation of the proposed use cases and PPCs in the WHO PPC document?
		  • Are there additional key modelling needs in the future that would further our understanding of the value of HPV therapeutic vaccines?
				S Silal, X Wang, H Farooqui, W Moss

11:00 – 11:15 15’	Wrap Up	• Summarize day’s findings and request any follow up from WHO Secretariat/IVIR-AC FPs for closed session • Closure of public part of meeting and next steps		Chair P Lambach
11:15 – 12:00	**Closed session to allow for discussion/finalization or recommendations among IVIR-AC focal points**			
Lunch Break (12:00 to 13:00)				

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13:00 - 17:00	**Closed session: IVIR-AC members only** **Deliberation among IVIR-AC members on reporting/recommendations**