

OVERVIEW OF 2021

OVERVIEW OF MR 5-DOSE PROJECT

The goal of this project was to develop the fact-base on MR 5-dose that enables debate and policy change. We aimed to achieve this through the following workstream:

Research Collation

- Summarized the latest research on MR 5-dose demand, its impact on coverage, wastage, and cold chain, and incorporated partner intel



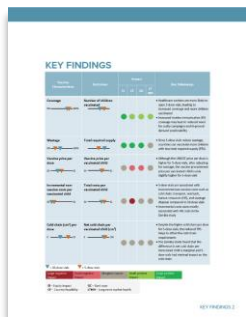
Partner interviews

- Interviewed 36 key stakeholders to identify MR 5-dose strategy, challenges, and next steps



Total System Effectiveness analyses

- Conducted healthy demand and cost-effectiveness analyses to estimate the trade-offs between programmatic benefits and costs to UNICEF and countries



Workshops

- Hosted two workshops to present key findings from the interviews, present the healthy demand analysis, and align on objectives, goals, and key actions



Action Plan

- Created an action plan with a clear MR 5-dose market strategy with actionable items and an implementation plan

Item name	Key actions	Status	Responsible	Timeline
Review and update market strategy	Review and update market strategy	High priority	UNICEF	Q1 2021
Conduct a market assessment	Conduct a market assessment	High priority	UNICEF	Q1 2021
Develop a market strategy	Develop a market strategy	High priority	UNICEF	Q1 2021
Implement a market strategy	Implement a market strategy	High priority	UNICEF	Q1 2021
Monitor and evaluate market strategy	Monitor and evaluate market strategy	High priority	UNICEF	Q1 2021
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Monitor and evaluate market strategy	Monitor and evaluate market strategy	High priority	UNICEF	Q1 2021

INTERVIEW FINDINGS

PROBLEM STATEMENTS AND OPPORTUNITIES

“Strong alignment but
lack of prioritization”

“No champion or agreed-
upon global strategy”

“Technical assistance and
financial support are
needed to enable the
switch”

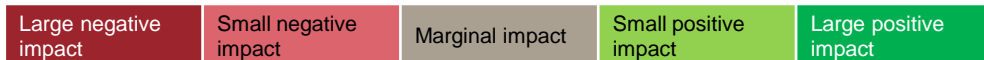
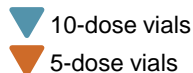
“Inadequate information
sharing and
communications”

“Operational research and
early adopter feedback
would be helpful”

“Covid-19 response
presents an opportunity
for MR 5-dose
introduction”

TOTAL SYSTEM EFFECTIVENES ANALYSES

KEY FINDINGS



Vaccine Characteristics	Outcomes	Impact				Key Takeaways
		Equity impact	Country feasibility	Gavi costs	Long-term market health	
Coverage 	Number of children vaccinated 					<ul style="list-style-type: none"> HCWs are more likely to open 5-dose vials, leading to increased coverage and more children vaccinated Increased RI coverage may lead to reduced need for costly campaigns and improved demand predictability
Wastage 	Total required supply 					<ul style="list-style-type: none"> Since 5-dose vials reduce wastage, countries can vaccinate more children with less TRS
Vaccine price per dose 	Vaccine price per vaccinated child 					<ul style="list-style-type: none"> Although the UNICEF price per dose is higher for 5-dose vials, after adjusting for wastage, the vaccine procurement price per vaccinated child is only slightly higher for 5-dose vials
Incremental non-vaccine costs per vaccinated child 	Total costs per vaccinated child 					<ul style="list-style-type: none"> 5-dose vials are associated with incremental non-vaccine costs such as cold chain, transport, outreach, HR, and wastage disposal compared to 10-dose vials Incremental costs were mostly associated with HR costs in the Zambia study
Cold chain (cm³) per dose 	Net cold chain per vaccinated child (cm³) 					<ul style="list-style-type: none"> Despite the higher cold chain per dose for 5-dose vials, the reduced TRS helps to offset the cold chain requirements The Zambia study found that the difference in net cold chain per immunized child is marginal and 5-dose vials had minimal impact on the cold chain

ACTION PLAN

ACTION PLAN

Based on the interviews, TSE analyses, and workshop discussions, it is apparent that measles experts see MR 5-dose as an opportunity to increase immunization coverage and equity

- There is an abundance of evidence that healthcare worker hesitancy to open vials is an issue
- The Zambia study suggests that healthcare workers are more likely to open 5-dose vials since it results in less wastage, which ultimately increases coverage and the number of children vaccinated
- The potential disadvantages are increased costs and cold chain needs, which the Zambia study and the TSE showed are relatively minimal and manageable
- Stakeholders are aligned that countries should introduce MR 5-dose vials based on local context and country needs

Action Plan

- stakeholder highest priority
- stakeholder medium-high priority
- stakeholder lower priority

Next step	Key actions	Time-sensitive	Responsible (proposed)	Timeline
Refine and share evidence base	Share research and pre-reads with key stakeholders at HQ, regional, and country levels		BMGF	Q3 2021
	Conduct operational research study in Laos (as well as other countries who have switched to 5-dose)		WHO Laos	Q3 2022
	Share operational and implementation partner perspectives with global-level stakeholders		WHO, Gavi, BMGF	Q1 2022
	Share Ethiopia study results with measles stakeholders and technical agencies		CDC	Q1 2022
	Document lessons learned, successes, challenges, impact, etc. from countries who have introduced 5-dose (e.g., Eswatini, Lesotho, Sao Tome, Seychelles, Zanzibar, Timor-Leste, Laos, India, and DRG)		WHO & UNICEF	Q3 2022
	Disaggregate missed opportunity for vaccination (MOV) studies by vaccine		WHO	Q2 2022
Global advocacy	Conduct analysis to determine countries with high interest and greatest opportunity (e.g., coverage, population size, session size, etc.)		WHO & UNICEF	Q1 2022
	Key partners use MR 5-dose adoption as example of health equity and the human right to be protected against measles		All	Q2 2022
	Achieve high-level inter-agency commitment to implement MR 5-dose action plan		All	Q1 2022
	Technical agencies to publish statement supporting the introduction of MR 5-dose to improve equity and coverage (e.g., Strategic Advisory Group of Experts on Immunization [SAGE], Immunization Practices Advisory Committee [IPAC], and National Immunization Strategy [NIS] guidance)		WHO & UNICEF	Q2 2022

MR 5-dose Action Plan
September 2021

ACTION PLAN – KEY AREAS

The action plan includes 5 sections with 3-9 actions associated with each. Every action is categorized based on time-sensitivity, timeline, and (proposed) responsible partner. Please refer to action plan for additional detail

1. Refine and share evidence base

(e.g., share research, conduct operational research study, document lessons learned)

2. Global advocacy

(e.g., technical agencies publish statement supporting MR 5-dose, update and distribute UNICEF & WHO fact sheet)

3. Country-level engagement and technical assistance

(e.g., EPI manager meeting agenda, RITAG and NITAG endorsement, engage MOH)

4. Address financial barriers

(e.g., Gavi vaccine intro and switch grants, investigate mechanisms to make 5-d cost-equivalent to 10-d)

5. MR 5-dose market shaping

(e.g., ensure supply meets demand, narrow price difference)

INTERVIEW FINDINGS (ADD'L DETAIL)

PROBLEM STATEMENTS AND OPPORTUNITIES

	Key findings
1. Strong alignment but lack of prioritization	<ul style="list-style-type: none">Strong alignment that MR 5-dose is an important tool for improving coverage and equityMR 5-dose has not been a priority for partners historically or currently (especially so now with focus on COVID-19 response)
2. No champion or agreed-upon global strategy	<ul style="list-style-type: none">No partner has a clear strategy, position, or objective for MR 5-dose demand generationThere is a need to develop milestones, ensure accountability, and measure progress
3. Technical assistance and financial support are needed to enable the switch	<ul style="list-style-type: none">Country-specific guidance and technical support are needed to enable the introduction (e.g., estimating costs, cold chain impact, and demand forecasting)Financial support to enable the switch will be helpful
4. Inadequate information sharing and communications	<ul style="list-style-type: none">There is a need for a concerted effort to disseminate information and a stronger approach to advocacy and communications, including policy guidance from technical agenciesEssential forums include EPI manager's meeting, ICC, NITAG, RITAG, regional working groups between WHO and UNICEF, and WHO IST
5. Operational research and early adopter feedback would be helpful	<ul style="list-style-type: none">Country-specific evidence generation will help drive this work forwardObservational studies and lessons learned from early adopters would be powerful
6. COVID-19 response presents an opportunity for MR 5-dose introduction	<ul style="list-style-type: none">COVID-19 response investments and activities will help minimize barriers to MR 5-dose introduction. For example: using multiple vaccine presentations, improving cold chain capacity, and implementing technological solutionsMR 5-dose can be a part of the solution to improve public's trust in immunization

IDENTIFIED POTENTIAL NEXT STEPS

Interviews identified eight clear areas of potential next steps



Learn from early adopters

Operational research and documentation of lessons learned in countries that have switched (e.g., Laos)

Increase awareness and advocate for MR 5-dose

BMGF could use its voice; ensure MR5 is on the agenda for key meetings

Minimize financial barriers

Gavi subsidize intro year; purchase MR5 at same price as MR10; cover operational costs

Provide technical assistance

Country-specific support to estimate impact on cost, cold-chain, wastage, coverage, forecasting, etc.

Interview and/or survey NITAGs

Better understand gaps, challenges, preferences

Provide formal guidance from technical agencies

Clear recommendations and guidance; policy push from technical agencies

Only offer MR 5-dose for routine immunization

Stop providing MR10 as an option for routine immunization

Disaggregate MOV studies by vaccine

Promote the idea that MOV studies be disaggregated by vaccine

ACTION PLAN

ACTION PLAN

The action plan aligns with the following key principles

- Country-led asynchronous adoption of MR 5-dose per local context and needs (rather than global adoption)
- A strong advocacy, communications, and information-sharing campaign
- Stakeholders are committed to improving immunization coverage and equity, and this is one innovation (of many) to help move the needle
- The risk-benefit analysis to-date supports that ongoing work on adoption is appropriate in parallel with additional evidence generation**




Action Plan







- stakeholder highest priority
- stakeholder medium-high priority
- stakeholder lower priority

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	Document lessons learned, successes, challenges, impact, etc. from countries who have introduced 5-dose (e.g., Eswatini, Lesotho, Sao Tome, Seychelles, Zanzibar, Timor-Leste, Laos, India, and DRC)		WHO & UNICEF	Q3 2022
	Disaggregate missed opportunity for vaccination (MOV) studies by vaccine		WHO	Q2 2022
Global advocacy	Conduct analysis to determine countries with high interest and greatest opportunity (e.g., coverage, population size, session size, etc.)		WHO & UNICEF	Q1 2022
	Key partners use MR 5-dose adoption as example of health equity and the human right to be protected against measles		All	Q2 2022
	Achieve high-level inter-agency commitment to implement MR 5-dose action plan		All	Q1 2022
	Technical agencies to publish statement supporting the introduction of MR 5-dose to improve equity and coverage (e.g., Strategic Advisory Group of Experts on Immunization [SAGE], Immunization Practices Advisory Committee [IPAC], and National Immunization Strategy [NIS] guidance)		WHO & UNICEF	Q2 2022




MR 5-dose Action Plan
September 2021







REFINE EVIDENCE BASE

	Stakeholder highest priority
	Stakeholder medium-high priority
	Stakeholder lower priority




Key actions	Important & time-sensitive	Responsible (proposed)	Timeline
Share research and pre-reads with key stakeholders at HQ, regional, and country levels		BMGF	Q3 2021
Conduct operational research and/or document lessons learned from countries who have introduced 5-dose (e.g., Laos)		WHO Laos	Q3 2022
Share operational and implementation partner perspectives with global-level stakeholders		WHO, Gavi, BMGF	Q1 2022
Share Ethiopia study results with measles stakeholders and technical agencies		CDC	Q1 2022
Document lessons learned, successes, challenges, impact, etc. from countries who have introduced 5-dose (e.g., Eswatini, Lesotho, Sao Tome, Seychelles, Zanzibar, Timor-Leste, Laos, India, and DRC)		WHO & UNICEF	Q3 2022
Disaggregate missed opportunity for vaccination (MOV) studies by vaccine		WHO	Q2 2022









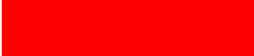
GLOBAL ADVOCACY

	Stakeholder highest priority
	Stakeholder medium-high priority
	Stakeholder lower priority




Key actions	Important & time-sensitive	Responsible (proposed)	Timeline
Conduct analysis to determine countries with high interest and greatest opportunity (e.g., coverage, population size, session size, etc.)		WHO & UNICEF	Q1 2022
Key partners use MR 5-dose adoption as example of access to health as human right		All	Q2 2022
Achieve high-level inter-agency commitment to implement MR 5-dose action plan		All	Q1 2022
Technical agencies to publish statement supporting the introduction of MR 5-dose to improve equity and coverage (e.g., Strategic Advisory Group of Experts on Immunization [SAGE], Immunization Practices Advisory Committee [IPAC], and National Immunization Strategy [NIS] guidance)		WHO & UNICEF	Q2 2022
Measles and Rubella Initiative (MRI) to publish statement supporting the introduction of MR 5-dose to improve equity and coverage		MRI	Q2 2022
Update and distribute the WHO & UNICEF fact sheet		WHO & UNICEF	Q4 2021




COUNTRY-LEVEL ENGAGEMENT AND TECHNICAL ASSISTANCE

	Stakeholder highest priority
	Stakeholder medium-high priority
	Stakeholder lower priority




Key actions	Important & time-sensitive	Responsible (proposed)	Timeline
Survey WHO regions to ensure this issue is on the agenda for upcoming EPI manager's meetings		WHO	Q4 2021
Gain support and approval from RITAGs and NITAGs (e.g., share programmatic evidence with TAGs so that they can issue recommendations for national immunization programs)		WHO	Q1 2022
Provide opportunity for early adopters to share MR 5-dose introduction experience with partners and countries		WHO	Q4 2021
Conduct survey and/or interview NITAGs to better understand current gaps, challenges, and country perspectives		WHO	Continuous
Consult countries who requested MR 5-dose in 2019/2020 but have not yet introduced (e.g., Comoros, Eritrea, Maldives, and Myanmar)		WHO	Q1 2022
Engage ministries of health in the discussion on MR 5-dose		WHO & UNICEF	Continuous
Help countries estimate the impact of 5-dose on coverage, wastage, costs, and cold chain based on country context		JHU & WHO	Continuous
CHOICES to schedule meeting with country stakeholders and partners to share project overview and identify opportunities to provide technical guidance		JHU & BMGF	Q4 2021
Host learning session for Gavi senior country managers		Gavi	Q4 2021




ADDRESS FINANCIAL BARRIERS

-  Stakeholder highest priority
-  Stakeholder medium-high priority
-  Stakeholder lower priority

Key actions	Important & time-sensitive	Responsible (proposed)	Timeline
Share Gavi vaccine introduction and switch grant options with countries and provide clear guidance on grant application processes		Gavi	Q1 2022
Investigate mechanisms to make 5-dose and 10-dose cost equivalent for first three years of introduction		Gavi	Q3 2022
Share total systems effectiveness cost findings with stakeholders		BMGF	Q4 2021

MR 5-DOSE MARKET SHAPING

-  Stakeholder highest priority
-  Stakeholder medium-high priority
-  Stakeholder lower priority

Key actions	Important & time-sensitive	Responsible (proposed)	Timeline
Ensure 5-dose supply meets demand		Gavi & UNICEF SD	Done
Narrow price difference between 5-dose and 10-dose vials		Gavi & UNICEF SD	Q3 2022
Ensure long-term healthy markets		Gavi & UNICEF SD	Q2 2022