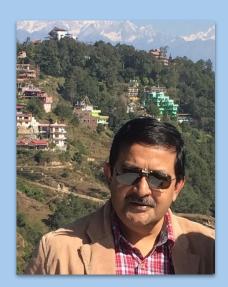
WELCOME

HCE-Linksbridge Webinar:

Missed Campaign Integration Opportunities: Development of an algorithm to identify potential co-delivery opportunities in 7 countries between 2019-2023

March 20, 2024

Presenters



Anindya Bose
Team Lead, VPD
Surveillance and Risk
Assessment, WHO/IVB



Eric Osland

Data Scientist

Linksbridge



Pratima
Raghunathan
Accelerated Disease
Control Branch Chief,
Global Immunization
Division, CDC



Andy Torkelson

Data Scientist

Linksbridge

Housekeeping





- Please use the chat to introduce yourself.
- Please use the **Q&A** function to submit questions to the presenters. Responses may be spoken live during the event, or answered in writing for the Attendees to see.



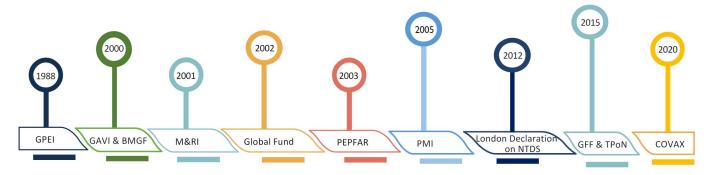
• Captions in English are available. Enable captions in the control panel at the bottom of your Zoom window.



• This webinar is being recorded.

A Fragmented Campaign Ecosystem With An Opportunity For Change

Over the last 25 years, there has been a growth of disease-specific financing, which has driven a proliferation of health campaigns targeting diseases, with little coordination between programs.



- Global health campaigns play a strategic role within the context of a broader health system (e.g., PHC), and one does not always need to be at the cost of the other.
- The long-term aim is to reduce reliance on campaigns by strengthening health systems, but campaigns will continue in the near-term to respond to outbreaks, and support disease elimination and SDG health goals.

The Health Campaign Effectiveness (HCE) Coalition

Founded in 2020, the HCE **Coalition's Program Office** is run by the Task Force for **Global Health (TFGH)**

The Coalition Leadership Team comprises global campaign funders, multiand bi-lateral institutions, and country

Coalition members work around the world and across multiple disease domains (e.g., NTD, polio, **VPDs**, malaria, nutrition)





















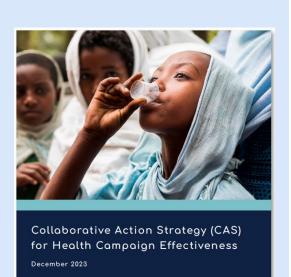
The Coalition seeks to identify best practices, reduce fragmentation, harmonize financing and strengthen collaboration amongst country leaders, funders, and implementers

Vision

Country-led health systems use a strategic balance of targeted health campaigns in concert with regular health services to achieve and sustain health-related development goals for all people

THE TASK

What is the Collaborative Action Strategy for Campaign Effectiveness (CAS)?



Strengthen Systems.

Maximize Impact.

The CAS is meant to <u>shift ways of working amongst global</u>, <u>regional</u>, <u>and country level partners</u> on key actions, roles, and coordinated approaches at the country level. It is designed to add <u>practical but transformative value to countries' existing campaign and health care efforts</u>.

The Collaborative Action Strategy (CAS)¹ for Campaign Effectiveness was **developed in 2023 by ~50 global, regional, and country-level experts** representing major campaign funders, implementers, and country leadership. It has been **approved by the HCE Leadership Team.**

CAS implementation is **starting in 2 focus countries** (Nigeria and Ethiopia) and will be **scaled to other countries in the coming vears**.

12 Recommendations to Enhance Country-Level Impact and Coordination

The CAS recommendations are intended to be **adaptable** and **flexible**, allowing for country specific decision-making. All recommendations will require **joint effort between countries**, **global funders and implementers**, with specific recommendations targeting funders (e.g., campaign finance), implementers (e.g., 1d), and MOHs (e.g., 1a).



Planning & Implementation

Rec #1a Rec #1b Establish or leverage an existing multi-sectoral, **Identify campaigns and** domains for collaboration cross-campaign National and integration **Coordination Body** Rec #1c Rec #1d Harmonize tools and Develop a multi-year, operations (e.g., logistics, cross-campaign workplan supply chain, and schedule for campaigns microplanning) across campaigns Rec #1e Develop a coordinated and effective approach to enable active community engagement at all levels and phases



M&E/MERLA1

Rec #2a Within countries, develop a coordinated and collaborative cross-campaign MERLA strategy Rec #2b Aligned with the coordinated country MERLA strategy, improve the ability of campaign implementers and partners to identify, measure, utilize, and share data on campaign effectiveness Rec #2c At the global level, develop a Learning Platform and a MERLA framework as a practical quidance to countries and global stakeholders



Campaign Financing

Rec #3a						
Create a com	prehensive vie the cour	ew of campaign ntry level	n financing at			
Rec #3b						
Take increme	ntal steps towa campaign	ird harmonizin financing	g and aligning			
Rec #3c		Rec #3d				
incentive modalities an	e and align payment d rates across aigns	Advance government role campaign financing				



Missed Campaign Integration Opportunities:

Development of an algorithm to identify potential integration opportunities in 7 countries between 2019-2023

Webinar for Health Campaign Effectiveness Coalition 20 March 2024



Agenda

- Context and Rationale
- Purpose and Objectives
- Approach and Methods
- Results
- Key Takeaways
- Limitations
- Requests
- Next Steps and Discussion

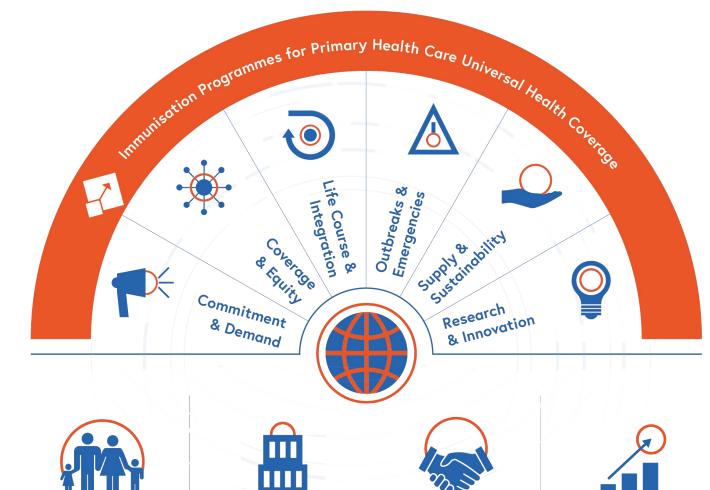
IA2030 proposes a strategic framework



7 Strategic Priorities

informed by

4 Core Principles for action





People Centred



Country Owned



Partnership Based



Data Guided

What is new in IA2030?



Global-level partnership model



Integration into UHC and PHC



Co-developed and co-designed by countries, regions & global partners



Tailored M&E framework adapted to country context



Addresses immunization coverage & equity



Stronger systems focus



Addresses gender-related barriers



Strengthening partnerships beyond immunization and health



Integration of disease-specific initiatives



Ensures self-sustainable programs



Campaign integration concept anchored to IA2030

- Many vaccine-preventable disease (VPD) initiatives have evolved with a targeted focus on the specific pathogen and disease.
- **Disease Specific Initiative (DSI) groups** have expertise and strong focus on disease control/elimination/ eradication.
 - But they have often worked in silos
- Greater operational efficiency and potentially greater sustainability can be achieved through integrating
 - surveillance and immunization response between DSI
 - There are limited (if any) operational guidelines o integration
- Integration of two or more campaigns can range from integrating single components like planning or supply chain to co-delivery of all the services.
- An IA2030 In-depth Review (IDR) on campaign integration is nearly completed to support country programs and DSI groups to take an informed decision regarding integrated campaigns
- In the present work we report on a data-based approach to help program managers and policy makers to decide on integrated campaigns.

Purpose and Objectives

Purpose

• To identify potential missed opportunities for campaign integration from retrospective data in selected countries to inform future decisions regarding implementing integrated campaigns

Objectives

- 1. Use retrospective campaign data and data science methods to identify campaign characteristics that facilitate or inhibit integrated service delivery
- 2. Develop a user-friendly analytic method that can be adapted and applied at global, regional, and country levels to identify campaign combinations in advance for potential integration
- 3. Seek inputs from Regional and Country colleagues about usefulness and willingness to apply these tools in country context.



General Approach

Current Analysis:

Retrospective Analysis of Historic Campaigns

- Analyze all possible combinations of campaigns from 2019-2023 within focus countries to identify which are feasible for integration
- Rank matches based on compatibility
- Use optimization to suggest best combination of matches based on compatibility



Next Steps:

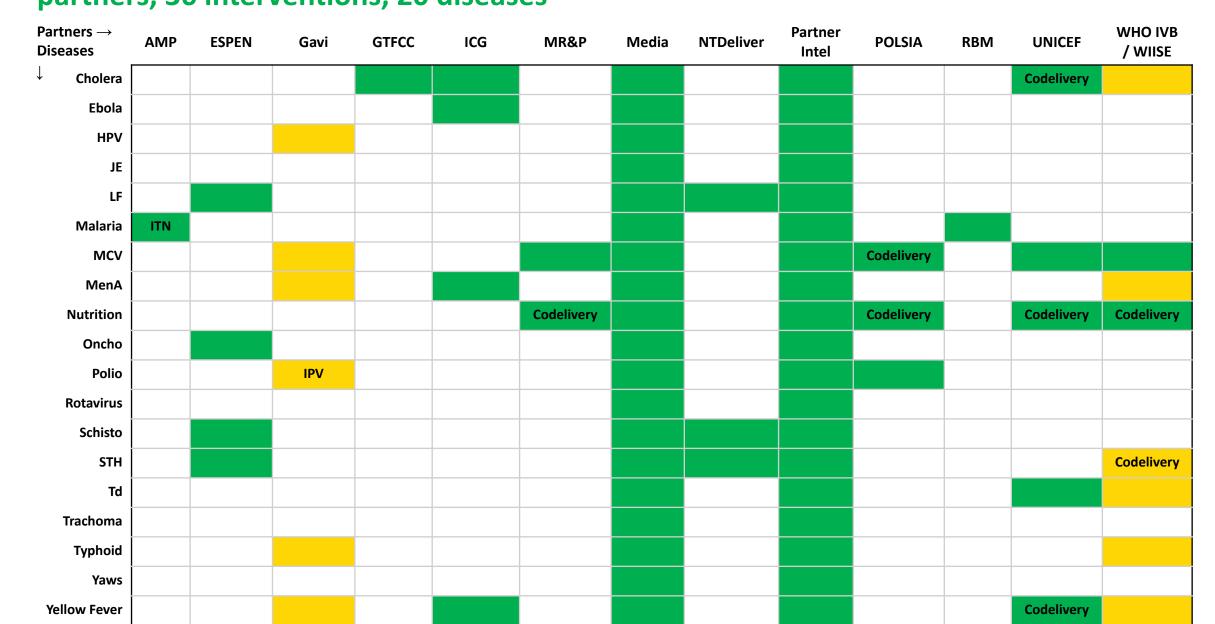
Country Engagement, Refinement, Modeling, Implementation

- Consultative engagement
 with countries/regions to
 better understand why
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 and to validate data inputs
- Additional refinement of algorithm
- Potential for modeling impact of integration (costs, coverage)
- Tailoring algorithm on prospective campaign data

- Develop an interactive online decision support tool to prospectively identify most feasible campaign integrations
- Coordinate with IA2030 to integrate tool into the Collaborative Action Strategy (CAS) package of decision-making materials under development by the Health Campaigns Effectiveness Coalition



Retrospective analysis uses Health Campaigns Intelligence Hub database: 13 partners, 36 interventions, 20 diseases





Applying country and campaign selection criteria yields 240 campaigns for analysis

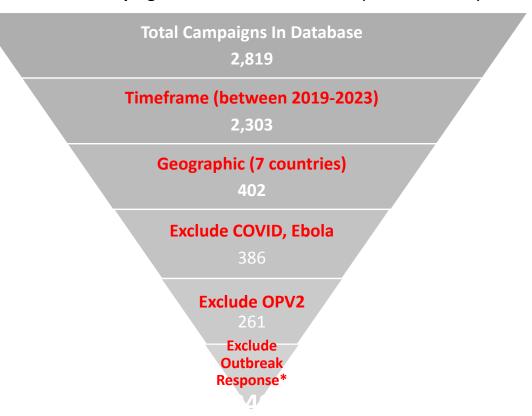
Country selection

The following seven countries prioritized by IA2030 were selected for analysis as they represent certain archetypes and regions:

- **Afghanistan:** Conflict zone, high number of campaigns in database, polio-endemic country, EMR region
- Brazil: Low number of campaigns in database, self-financing, most campaigns integration, strong ownership country, AMR region
- **DRC:** High number of outbreak response campaigns, AFR region
- Guinea: High number of outbreak response campaigns, high number of campaigns, AFR region
- India: Self-financing mechanisms, strong government ownership, SEAR region
- Nigeria: Highest number of campaigns in database, high number of diseases addressed through campaigns, high number of outbreak response campaigns, AFR region
- **Pakistan:** High number of campaigns, high number of diseases addressed through campaigns, high number of outbreak response campaigns, Polio-endemic country, EMR region

Campaign selection criteria

A total of **240 campaigns** were identified as in-scope for this analysis:

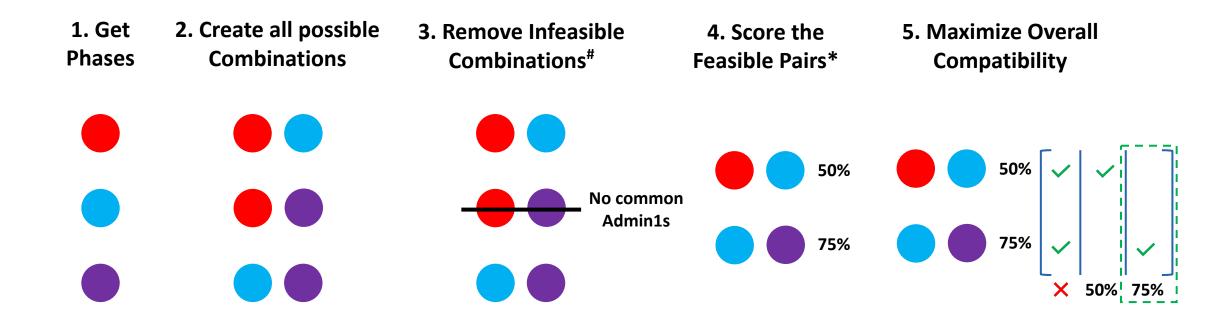


*Excluded: Polio (except in AFG/PAK), OCV, MenA Included: YF, MCV



Analytic Methods: Algorithm





#: Examples of infeasibility include non-overlapping geographies and incompatible start dates

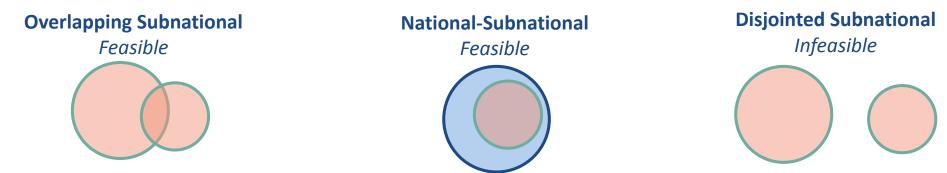
*: Compatibility score based on the summation of weighted scores on (a) target population within geographic scope, (b) time match \pm 4 weeks, and (c) historical precedence of proposed combinations.



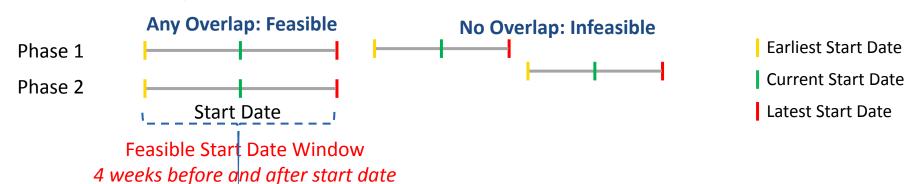
Main Reasons for Infeasibility

The 240 campaigns included a total of 325 phases. Feasible combinations were identified at the phase level based on 10 rules. The most important two rules were as follows:

1. Geographic overlap: Campaign geographies must overlap in at least one Admin1 level



2. Close start dates: Campaign start dates must be within 8 weeks of each other

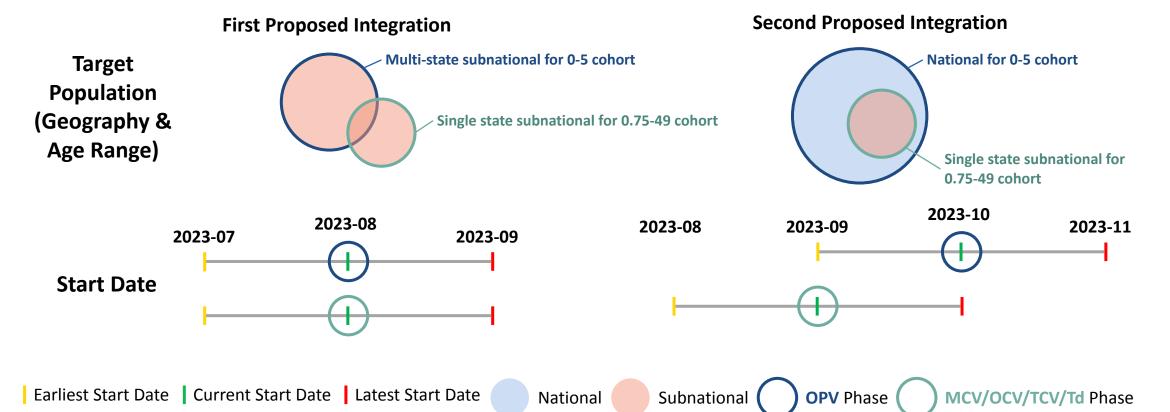




Example of two potential missed immunization integration opportunities in Pakistan: OPV + MCV/OCV/TCV/Td

Within a country there are specific suggested integration combinations that are repeatedly missed

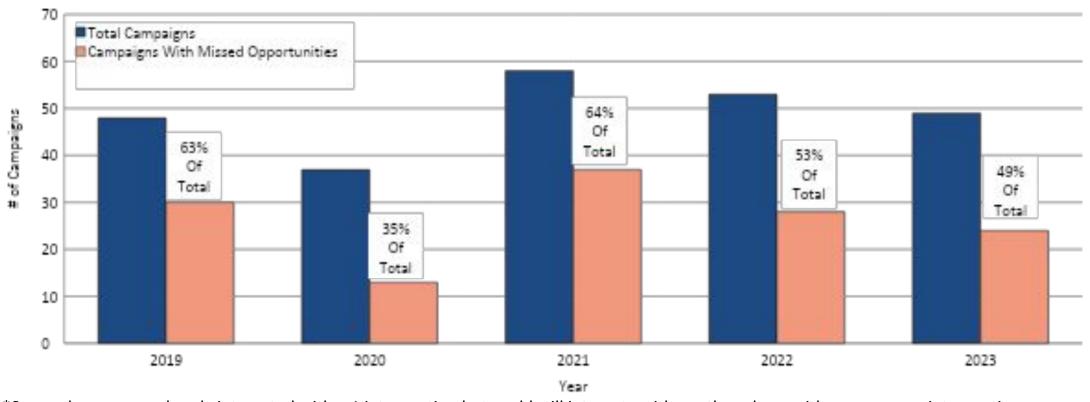
- In Pakistan, the same intervention combination was possible on two distinct occasions (OPV + MCV/OCV/TCV/Td)
- Some overlap in geography (subnational/subnational and national/subnational) and age range (0-5 vs. 0.75-49 cohorts)
- Same start month for first proposed integration and one month apart for second proposed integration
- See Appendix for more details on these specific integrations





This analysis identified 35-64% of campaigns from 7 countries had potential integration opportunities in 2019-2023

Analysis by year below; overall, 126 of the 240 campaigns (53%) had at least one integration opportunity*

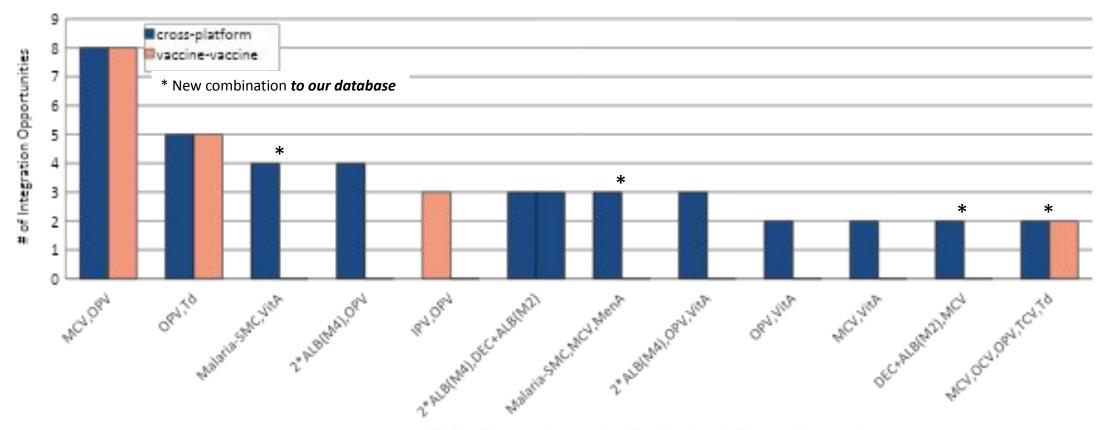


^{*}Some phases were already integrated with > 1 intervention but could still integrate with another phase with one or more interventions



Missed integration opportunities include commonly known (MCV+OPV) and unusual (MCV+OCV/OPV/TCV/Td)

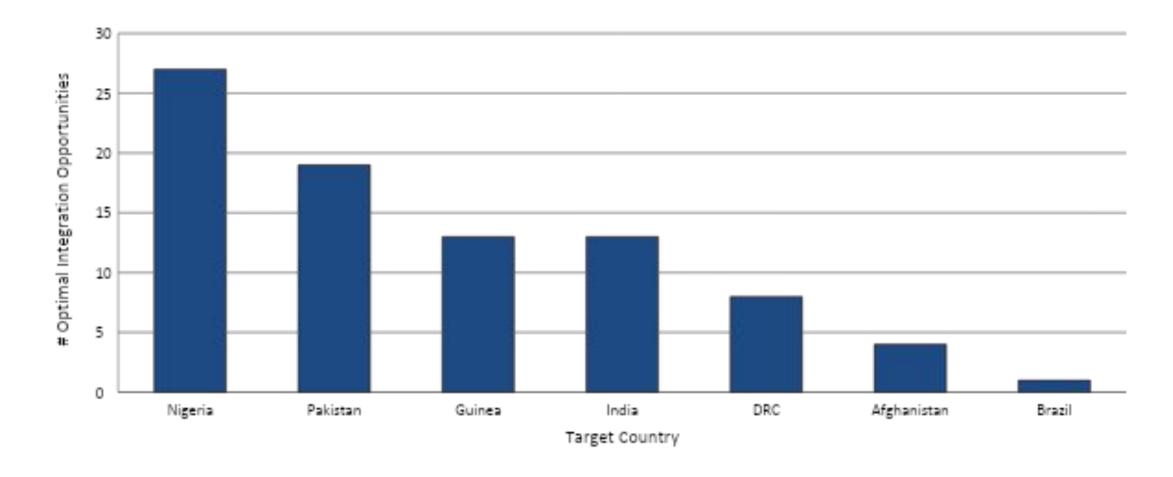
Analysis returned 85 missed integration opportunities for 7 target countries between 2019-2023 There were 56 unique intervention combinations, with 33 being new **to our database**





Total Integration Opportunities by Country

Nigeria (27) and Pakistan (19) had the most integration opportunities between 2019-2023



MCV+OPV were the most commonly missed potential campaign integrations

	Country								
12 Most Common Intervention Combinations	Pakistan	Nigeria	India	Guinea	Afghanistan	DRC	Brazil	Total <i>≡</i>	
Measles-containing vaccines, OPV	3	1	2		1	1		8	
OPV,Td	4	1						5	
Malaria-SMC, VitA		2		2				4	
2*ALB(M4),OPV	2				2			4	
Malaria-SMC, Measles-containing vaccines, MenA		1		2				3	
IPV,OPV	1	1			1			3	
2*ALB(M4),OPV,VitA	1					2		3	
2*ALB(M4),DEC+ALB(M2)			3					3	
OPV, VitA		1		1				2	
Measles-containing vaccines, VitA		2						2	
Measles-containing vaccines, OCV, OPV, TCV, Td	2							2	
DEC+ALB(M2), Measles-containing vaccines			1			1		2	
Grand Total	13	9	6	5	4	4	0	41	

Key Takeaways

- 1. Algorithm analyzed optimal integrations amongst 240 campaigns from 7 target countries occurring 2019-2023
 - 85 integrations were returned after optimizing for compatibility
 - 126 of the 240 campaigns (53%) had at least one integration opportunity
- 2. Algorithm identified familiar intervention combinations (Measles + Oral Polio vaccines, Oral Polio + Tetanus-Diphtheria vaccines), along with a diverse set of combinations (56 total)
 - Measles + Oral Polio vaccines were common missed integrations
 - 33 potential intervention combinations were not previously observed in the database
 - The 4 most common new integrations were Malaria-SMC + VitA (4), Malaria-SMC + MCV/MenA (3), DEC/ALB(M2) + MCV (2), and OPV + MCV/OCV/TCV/Td (2)
- 3. This analysis used retrospective data. This methodology can be used with prospective campaign data:
 - Identify if integrations are feasible,
 - Apply compatibility scores and
 - Explore other programmatic considerations to inform decisions for integration perhaps in collaboration with Health Campaign Effectiveness Coalition Collaborative Action Strategy

Limitations

- 1. Scope: We are only looking at quantifiable characteristics of campaigns, but we recognize that many additional factors (e.g. donor restrictions) impact decision-making at the country level
- 2. External Validity: The findings require validation by experts from selected countries and DSI groups and may not be generalizable to all country contexts
- **3. Data:** The analysis is only as good as the data in the campaign database.
 - Completeness and timely availability of planned and completed campaign reports could be improved
 - Some campaigns lacked data on dates and subnational locations

Requests

 Commitment to continue to share prospective campaign data routinely with Campaign Hub

 Request to IA2030 to encourage DSIs to proactively seek appropriate campaign integration opportunities at global, regional, country levels

 Align and fund the next version that answers practical questions about campaign integration (cost benefits; more countries; overlap for planning activities; recommendations for specific diseases or regions)



Next Steps

Current Analysis:

Retrospective Analysis of Historic Campaigns

- Analyze all possible combinations of campaigns from 2019-2023 within focus countries to identify which are feasible for integration
- Rank matches based on compatibility
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Next Steps:

Country Engagement, Refinement, Modeling, Implementation

- Consultative engagement
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 Effectiveness Coalition

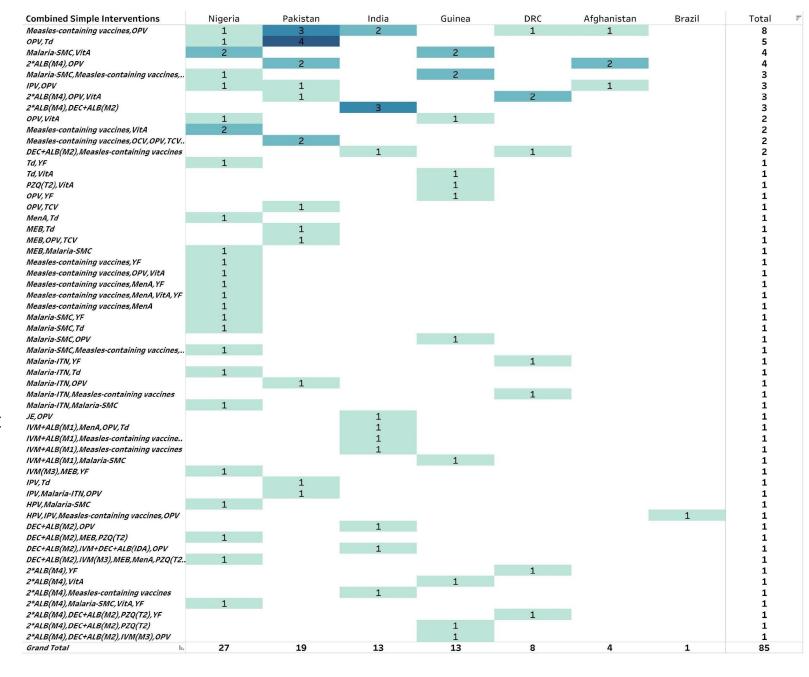


Appendix

Supplemental Results

Full Results

- OPV and MCV integrations were most frequently proposed to be integrated together (8)
- MCV + OPV was the most common integration and was suggested for most target countries (5 of 7)
- Nigeria, given its large number of campaigns across diseases, had the most suggested integrations (27)
- Nigeria integrations were spread out across a diverse number of intervention combinations (25)
- Pakistan integrations were more concentrated into specific interventions that included OPV (OPV + Td; MCV + OPV)





Integration #1 – OPV + MCV/OCV/TCV/Td in PAK

Campaign A (OPV)

Campaign B (M¢V/OCV/TCV/Td)

Country	Туре	Target Demographic	Start Date	Scope	Interventions	Туре	Target Demographic	Start Date	Scope	Interventions	Population Score	Precedence Score	Start Date Score	Final Score
Pakistan	Outbreak response	All 0.0-5	2023-08	Subnational	OPV	Campaign	All 0.75-49	2023-8	Subnational	Measles-containing vaccines,OCV,TCV,Td	20%	0%	77%	32%
Pakistan	Outbreak response	All 0.0-5	2023-10		OPV	Campaign	All 0.75-49	2023-9	Subnational	Measles-containing vaccines,OCV,TCV,Td	20%	0%	70%	30%

- Same intervention combination (OPV + MCV/OCV/TCV/Td) suggested in two integrations for the same country (PAK)
- Same start month for one (2023/08) and one month apart for the second (2023/10 vs. 2023/09)
- Some target population overlap
 - Subnational overlap for one and national/subnational overlap for the second
 - Some age range overlap with 0-5 for OPV and 0.75-49 for MCV/OCV/TCV/Td
- No precedence (i.e., we have not observed this combination in our database)



Integration #2 – 2*ALB(M4) + OPV/VitA in DRC

Campaign A (2*ALB(M4))

Campaign B (OPV/VitA)

														Į.
Country	Туре	Target Demographic	Start Date	Scope	Interventions	Туре	Target Demographic	Start Date	Scope	Interventions	Population Score	Precedence Score	Start Date Score	Final Score
DRC	MDA	All 1-60	2023-05	Subnational	2*ALB(M4)	Campaign	All 0.5-5	2023-05	National	OPV,VitA	40%	20%	100%	53%
DRC	MDA	All 1-60	2023-11	Subnational	2*ALB(M4)	Campaign	All 0.5-5	2023-11	National	OPV,VitA	40%	20%	100%	53%

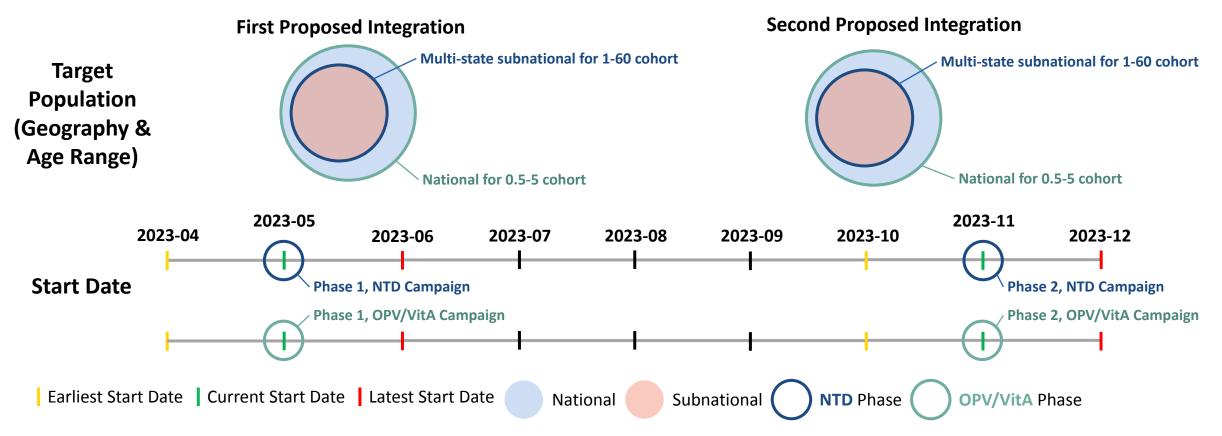
- Two full campaigns suggested to be integrated in DRC
 - Back-to-back phases of **2*ALB(M4)** campaign to integrate with back-to-back phases of **OPV/VitA** campaign
- Same start month for both phases of each (2023/05 for first integration; 2023/11 for second integration)
- Some target population overlap
 - National/subnational overlap for both integrations
 - Some age range overlap with 1-60 for 2*ALB(M4) and 0.5-5 for OPV/VitA
- **Somewhat uncommon** combination of interventions (i.e., low precedence score means it has occurred infrequently in the past)



Examples of potential missed cross platform integration: DRC NTD and OPV/VitA

We are missing integration opportunities for every phase of certain campaigns

- In DRC, back-to-back phases from one NTD campaign could integrate with back-to-back phases of one OPV/VitA campaign
- **Some overlap** in geography (national/subnational) and age range (1-60 vs. 0.5-5 cohorts)
- Same start month for both phases of each campaign
- See Appendix for more details on these specific integrations



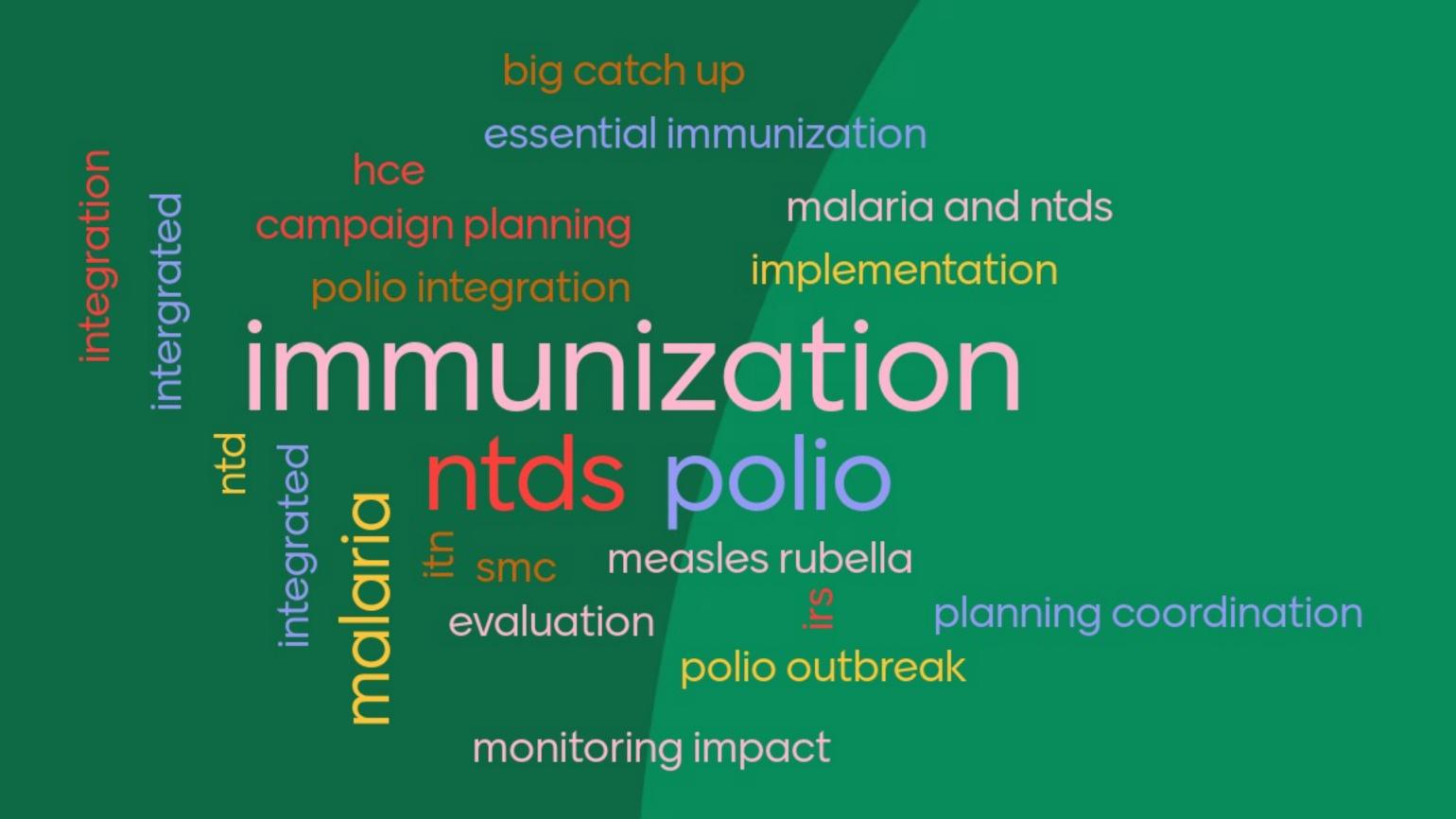
Menti Discussion

• Please join at menti.com | use code 4861 8156





What campaign domain(s) do you work in? 37 responses

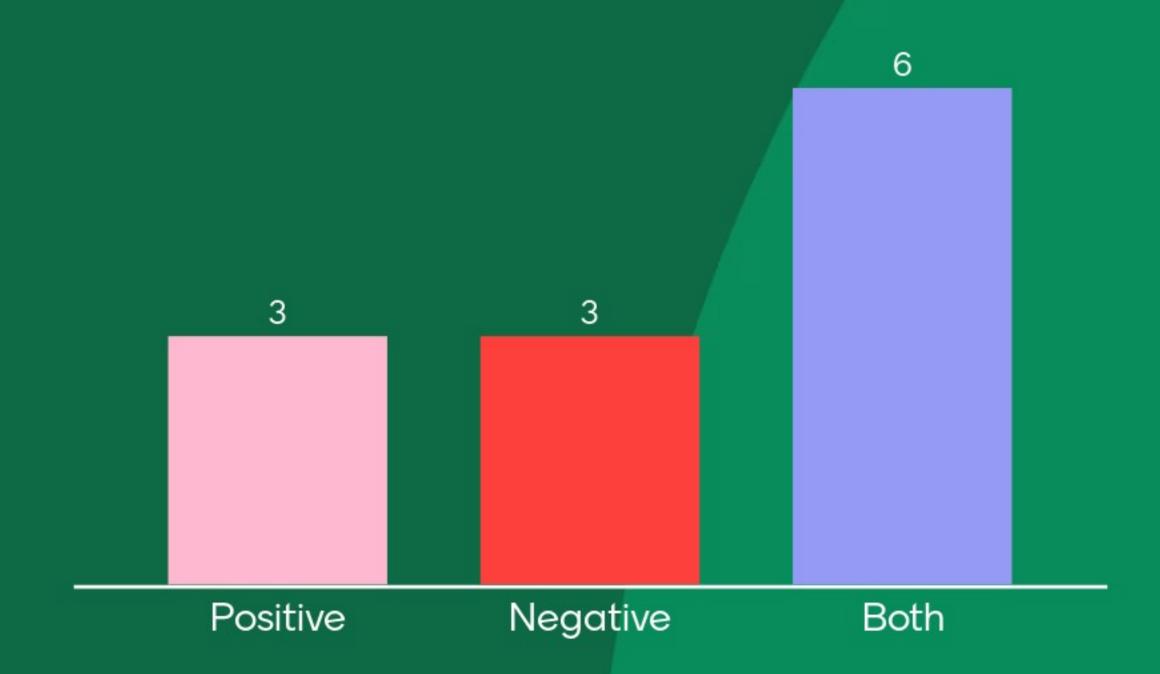








Have you had positive or negative experiences with campaign integration?









What barriers or challenges have you encountered with campaign integration?

Coordination of finance, supplies and people

9 Popular

National programmes often refuse, supply chain issues

3

Logistical issues, financial difficulties, timing

9 Popular

Adapting data collection tools and processes

3

different funders

7

Leadership buy-in, funding coordination, program silos, lack of donor support

3

Poor planning

6

In context of polio, that is seen as priority

2







What barriers or challenges have you encountered with campaign integration?

Lack of access to reliable data

2

Lack of cooperation

2

Different partner repotting

2

- Siloed programs at the MoH;- Lack of planning coordination: even if you have buy-in for integration, then the 2 campaign plannings derail on their own track.

2

Timing

2

campaign delays

1

Différent departments managing different disease areas

1

Stakeholders push backDifficult avhieving coordinationWeak evidence of drug to drug interactions for MDA

1







What barriers or challenges have you encountered with campaign integration?

Unequal planning resulting in delays and under performance

Availability and adequate human resource

Lack of time or resources (ie: Human Resources) to coordinate across campaigns

Adequate and skilled human resource

Immunization teams at community levels want to be paid for more campaigns, not fewer campaigns!

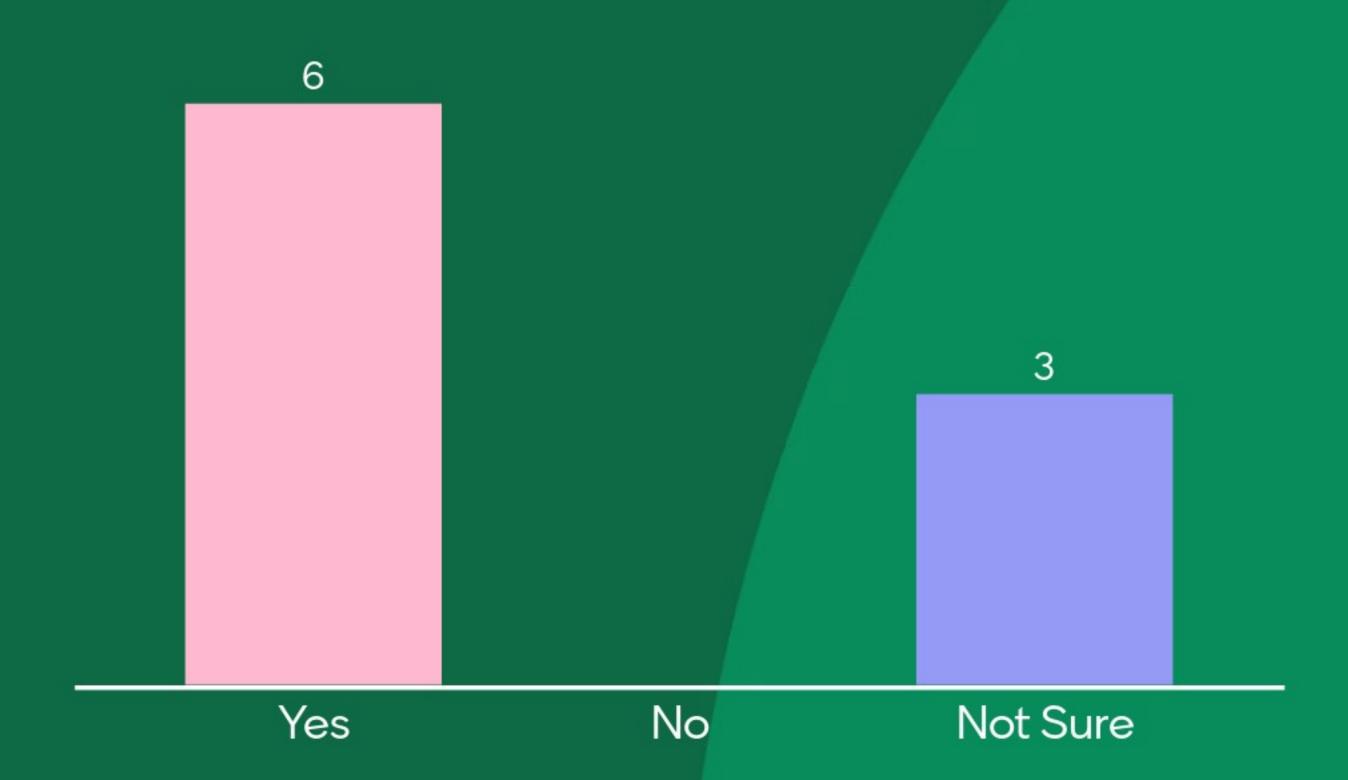
Delayed and mixed communication messaging -confusion







Would you use a tool like this?









If yes, how would you use this tool and in what context?

To look at potential integration opportunities of FUTURE campaigns, not past campaigns, to influence the funding and planning of those.

Popular

Create the tool to run the algorithms for implementation by the country planners not HQ database

Planning and working with stakeholders

6

I'd LOVE to use this tool to evaluate / analyze the SAVINGS coming from integrated campaigns. This way, we have a better leverage to donors and MoH to go for integrated campaigns.

It should consider modality (house-to-house vs fixed site) and vaccine type (injectible vs oral vaccine)

National level strategic planning, grant applications (GAVI, Global Fund)

Outbreaks: what are other campaigns we can piggy back on and integrate campaigns for outbreaks?

More for long term planning



If yes, how would you use this tool and in what context?

If the tool is flexible and will include some contextual description of scenarios

2

Drive the decision of integration based on data

2

At national and sub national level. NTD and Immunization campaigns

2

Maybe for a last-minute outbreak response to see if it could capitalize on any planned campaign

1







If no, how should this tool be changed to be useful?

Country level usability

Forward facing - adjust the algorithms regarding start date

Include a cost-saving analysis.

It's a good leverage to get buy-in from donors and MoHs for integrated campaigns (or it should be, at least!).

Modify based on menti pool

It would be great to also add some kind of analysis impact of integrated health campaigns on the demand side, specifically does it add more wait time for those getting the service Digital component: is there an opportunity to leverage to integrate campaigns from a digital point of view?

