



# **Immunization Data: Evidence for Action**

Find your Finding and let it guide you to better decisions

## Agenda

- IDEA overview 10 minutes
- Dive into the IDEA findings 15 minutes
- Engagement and Advocacy Approach & Specific Implementers Findings 10 minutes
- Discussion/Q&A 25 minutes

### High Quality Data. Informed Actions. More Impact.



The IDEA review is a global synthesis of existing evidence aimed at increasing the use of high quality data to improve immunization coverage. It empowers the immunization community to:

- $\checkmark$  Lean into what's working.
- ✓ Learn from what isn't.
- ✓ Invest in filling knowledge gaps.



## **A Deep Dive**

IDEA review gives the sharpest look yet at evidence for improving the use of data for immunization program and policy decision making.





### **IDEA Partners**





### **Steering Committee**





**CONTROL AND PREVENTION** 



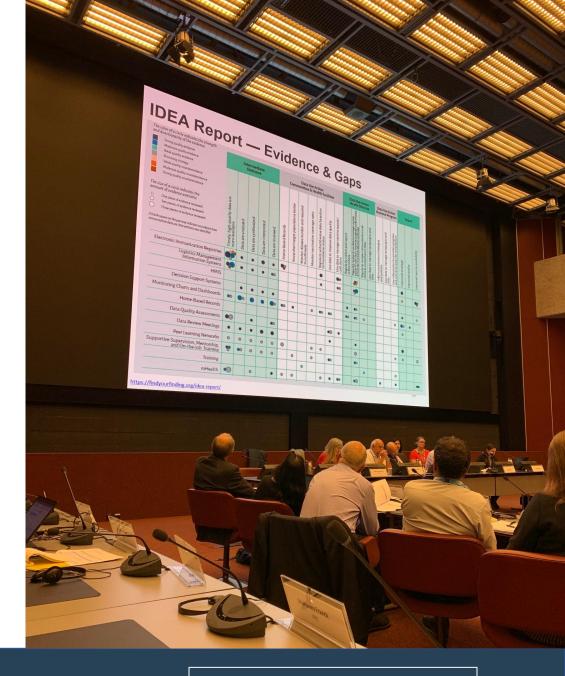


The IDEA review was funded by the Bill & Melinda Gates Foundation.

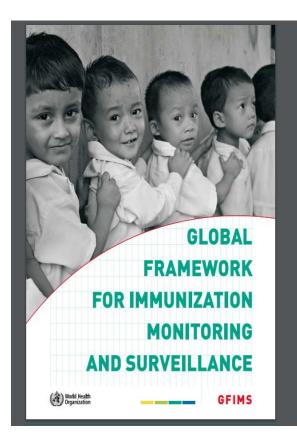


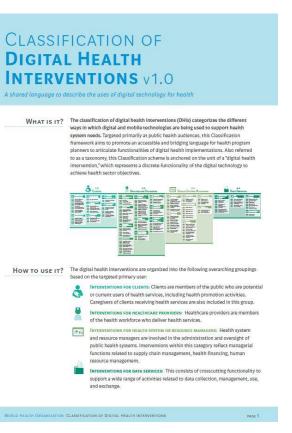
## **Engagement & Advocacy**

- Strategic Advisory Group of Experts on Immunization (SAGE) working group
- Gavi Data Use strategy
- WHO Regional offices
- CDC data improvement plan review
- EPI managers
- PAHO country focal points and partners
- IAIM
- BID Learning Network
- Global Digital Health Network



### **Connected to Global Norms**





WHO GUIDELINE RECOMMENDATIONS ON DIGITAL INTERVENTIONS FOR HEALTH SYSTEM STRENGTHENING



## **Realist Review**

#### **Overarching questions:**

- What are the most effective interventions to improve the use of data for immunization decisions? What does not work?
- Why do these interventions produce the outcomes that they do?

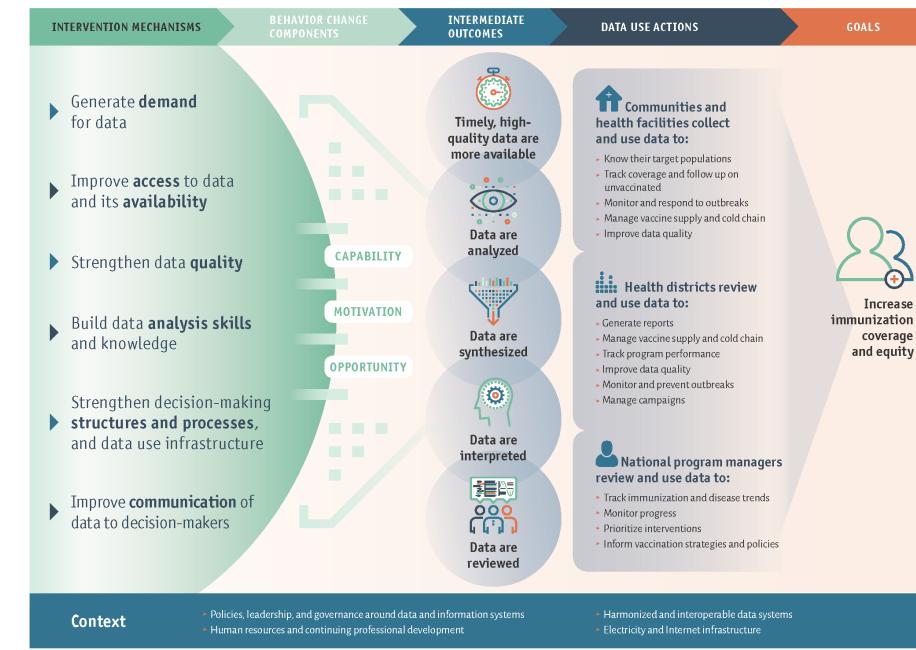




**IDEA Theory of Change: Supporting data-informed decision-making for immunization programs** 



http://bit.ly/IDEAToC

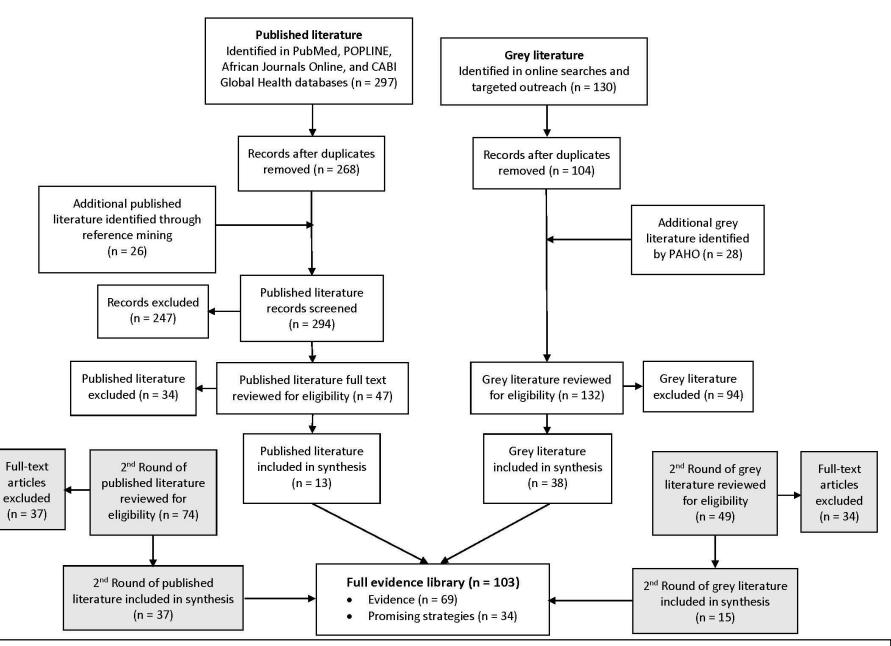


### IDEA

Citations: Aqil et al. 2009; Nutley et al. 2013; Langer et al. 2016; Zuske et al. 2017; World Health Organization, Framework for Partner Collaboration to Strengthen Immunization and Surveillance Data for Decision-making (draft), 2017.

# IDEA

## Systematic Review Flow Chart



\* Grey boxes indicate new literature obtained after a second round of data collection, which included literature from immunization and other health sectors.

## **Analysis and Synthesis**

- 2-day workshop in Washington DC, May 16-17, 2018
- Attendees: IDEA Steering Committee, representatives from across the immunization and health data sectors
- Key objectives:
  - Discuss research findings
  - Validate and refine information about target audiences
  - Identify potential implementation considerations for data interventions.
  - Identify gaps in the findings, as well as potential actions to address them



# IDEA

## Evidence Gap Map

https://findyourfinding.org/ evidence-gap-map

#### Evidence Gap Map

	Intermediate Outcome				Data Use Action: Communities & Health Facilities					Data Use Action: Health Districts				Data Use Action: National Program			Impact					
	Timely, high-quality data are more available	Data are analyzed	Data are synthesized	Data are interpreted	Data are reviewed	Home-based records	Know their target populations better	Monitor disease burden and respond to outbreaks	Monitor vaccination coverage rates	Regularly collect/review data based on immunization status	Use data to improve data quality	Use data to manage vaccine supply/ cold chain	Regularly collect and report relevant data	Regularly review & use data to manage vaccine supply & cold chain, improve program performance, & monitor & prevent disease outbreaks	Regularly review immunization and disease surveillance data	Use data to manage campaigns and SIAs	Inform vaccination strategies and policies	Use data to manage campaigns and SIAs	Use information to monitor progress and prioritize areas for remediation	Improved coverage	Improved quality	Improved vaccine availability
Electronic Immunization Registries		•	•	•	•	•				•		••								•		
Logistics Management Information Systems	•	•	٠	•	••					•		••		•						•		•
HMIS																						
Decision Support Systems		•	•	•	•								•	••						•		
Monitoring Charts and Dashboards	••	00			••	••	•		۰	••	••		••	••	•				۰		•	
Home-based records																				۲		
Data Quality Assessments			•		••						•	•										
Data Review Meetings	•	•	•	٠	٠						•			•						•		
Peer Learning Networks	۰	۲	•	•	۰				۰	۰									•	•		
Supportive Supervision, Mentorship, and On-the-job Training	*	••	۰	•	•		•		۲		•0			••								
Training								۲											۰			
mHealth	•		•		•	•	•			•	•	••		•			•		•			••

Evidence presented in the gap map includes studies and evaluations of immunization data use interventions that applied scientific research methods or evaluation design, as well as literature that did not qualify as a study or evaluation but had strong theoretical plausibility of improving data use, as judged by our TOC. We referred to these records as promising strategies, which we define as strategies that have The color of a circle indicates the strength and directionality of the evidence

Strong quality evidence Moderate quality evidence Weak quality evidence

## **Top Findings**



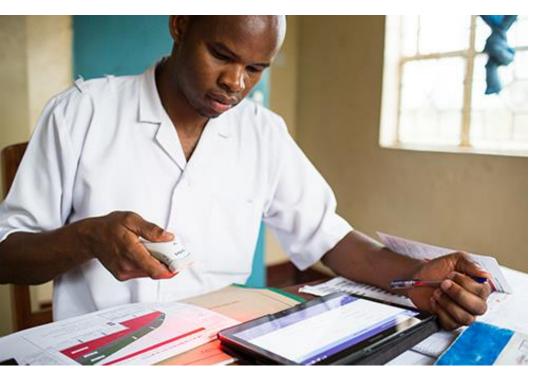


### **Interconnected Strategies Get Better Results**



- Data use improved with the use of a comprehensive set of interconnected and mutually reinforcing strategies that addressed barriers to data use.
- Successful packages included strategies that addressed:
  - $\,\circ\,$  Skill and capacity building
  - Behavior change management
  - User-centered design principles
  - Integrating data use
  - $\,\circ\,$  Consideration for human resource capacity gaps
  - $\,\circ\,$  Measures to address workload increases
  - $\circ~$  Mechanisms for increasing collaboration
  - $\,\circ\,$  Structured approaches to problem solving and decision making
  - Long-term resource commitments



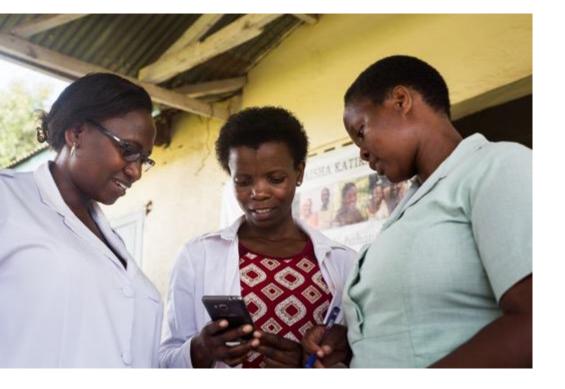


- The relationship between data quality and its use is dynamic and cyclical.
- The more data is used, the more its quality improves, and as data quality improves, health care workers are more confident about using it to guide their actions.
- There is a missed opportunity for strengthening data use at the facility level, where emphasis has been narrowly focused on data quality.





### **Systemizing Data Use Leads to Long-Term Success**



Interventions are more likely to be successful long term if they institutionalize data use through:

- $\circ~$  Dedicated staff positions for data management
- $\circ$  Routine data review meetings
- $\circ~$  Training and guidelines for front-line staff

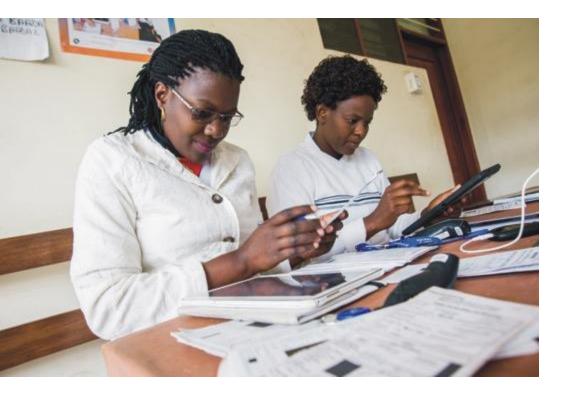
# HMIS & LMIS Increase Availability of Quality Data



- Digital systems such as health management information systems (HMIS) and computerized logistics management information systems (LMIS) have made higher-quality data more available to decision-makers in real-time.
- Even greater gains in data use are achieved when digital systems are paired with other activities that reinforce data use.



### Digital Systems Show Promise but Barriers Still Exist



- Although the transition from paper to digital systems has made higher-quality data more available, it has not automatically translated into greater data use.
- There is more success at the district level or higher because of fewer operational challenges than at the facility level.
- This finding points to the need for a phased approach, ensuring data use infrastructure, human resource capacity and skill building are in place before a full digital transition.

## **Recommendations for Monitoring & Evaluation**

#### Monitoring

- Monitoring could be strengthened through the use of better process and outcome indicators.
- We propose a set of indicators that are adapted for measuring routine immunization data use.

#### **Evaluation**

 Process evaluation is one approach we recommend to uncover why and how the intervention works and its relationship to context.

#### TABLE 3.

Health facilities					
Does the facility cha	rt and display data	a (in a table, graph/chart, or map	) on immunization coverage rates	5?	
D2. Has the facility had	a routine meeting	to review immunization data in	the last month?		
	arge participated i	in meetings at the district level t	o discuss routine immunization		
performance in	TABLE 6.				
04. In the last three performance?	TABLE 0.				
5. Has the facility from the distric	Indicator	s for monitoring in	nmunization data us	se interventions	
06. Has the facility decision based (	Indicator category	Facility level	District level	National level	Data source
07. Does the facility		Ability to identify problems with data	Ability to identify facilities with poor data quality*	Ability to identify districts with poor data quality*	
07. Does the facility		quality*			
07. Does the facility	Data use skills	quality* Ability to identify defaulters and unvaccinated in facility catchment area			Self- assessment of confidence in each area
07. Does the facility		Ability to identify defaulters and unvaccinated in facility	Ability to identify facilities with low DPT3 coverage	Ability to identify districts with low DPT3 coverage	assessment of confidence

## **Engagement & Advocacy Approach**







### Implementers

### **Policymakers**

### **Funders**



### **Communications Activities**





IDEA 🛃

#findyourfinding

BID Initiative @BIDInitiative · Apr 2 V While health data has become increasingly accessible, it's often underutilized in the design & implementation of immunization programs around the world. The IDEA review by @PATHtweets & @pahowho identifies 5 proven strategies to improve data use. ow.ly/ZctX30oixlc



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## **IDEA is now on TechNet-21!**

#### https://www.technet-21.org/en/topics/idea

TechNet-21 Sign In	Hom	e Forum	Network	Library	CCE	Topics	Careers	Conference	Search
Home > Topics > IDEA									

#### Immunization Data: Evidence for Action (IDEA)

Curated by: Jacqueline Deelstra



The use of high-quality data is widely understood in the global health community to be a cornerstone of well-functioning health systems. However, despite continuous growth in the amount of health data available, the actual use of data in immunization program decision-making remains a challenge. The Immunization Data: Evidence for Action (IDEA) review is a global synthesis of existing evidence aimed at increasing the use of high-quality data to improve immunization coverage. Developed in partnership between PATH and the Pan American Health Organization (PAHO), the IDEA review draws on findings from nearly 550 documents--including published literature, working papers, project evaluations, and reports-distilled and prioritized by global immunization experts. The review identifies five proven strategies to improve data use and outlines how funders, policymakers, and program implementers can incorporate these best practices to improve the efficacy of state, regional, and national immunization programs. The resulting report provides a concise guide for global and public health practice dentified by the IDEA report data quality and use, why it works, and how the immunization community can take evidence-based action to improve immunization outcomes around the world. This page provides a list of IDEA report materials, which include the evidence identified by the IDEA report and the top findings:

### **FIND YOUR FINDING**

Find the evidence that speaks to you. And for you.

**Step 1:** Find us on TechNet: <u>https://www.technet-21.org/en/topics/idea</u>

**Step 2:** What are your main data use challenges? Find an IDEA finding that helps address your needs.

**Step 3:** Share your commitment and put it into action.



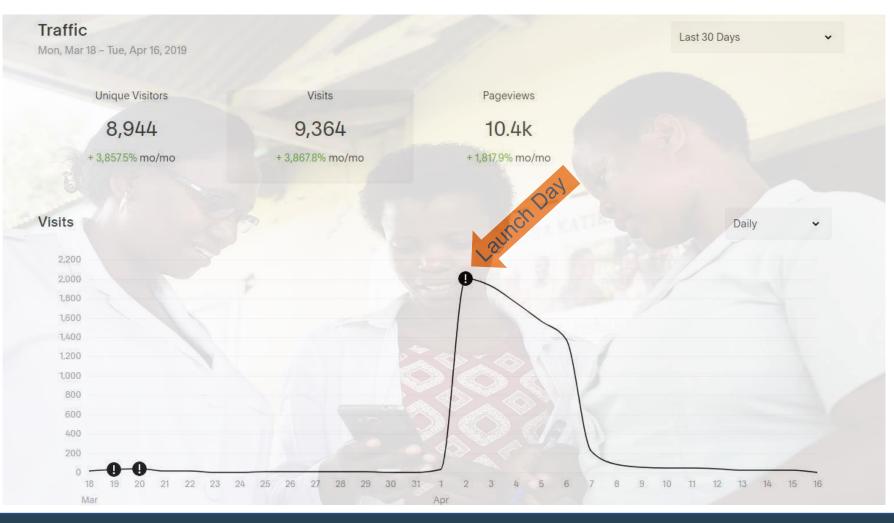
### #findyourfinding

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- Hallie Goertz, Director of Engagement, CoDE, hgoertz@path.org



## **Communications Impact**





### **Evidence for Action**



- Data-based actions have impact. Data based decision-making and actions can effectively address existing immunization challenges such as data visibility, inventory stability, and program impact.
- Best practices to inform programs. Low- and middle-income countries in particular can benefit from the IDEA review's best practices to inform immunization program strategy.
- Time is of the essence. Improving data quality and decisionmaking can start today—with existing systems and staff.
- Better data can lead to more timely and better informed decisions.

## **Evidence for Action**

#### • Recognize the human element.

- Prioritize learning and improvement over simply meeting targets to increase data use.
- Focus on data quality as well as human resource requirements to motivate data use.
- Infrastructure is essential. Transition to computerized systems is most successful when tech infrastructure improvements come first.
- Technology makes a difference. Immunization information systems (IIS) and electronic immunization registries (EIR) can generate better data for decisionmaking around immunization coverage and timing.



### Make an Impact



- Design interventions to address multiple mechanisms of data use, such as demand, access and availability, data quality, data use skills, structure and process, and communication.
- Incorporate data use within data review and decisionmaking processes to better manage vaccine supply and cold chain, improve data quality and program performance, and monitor and prevent disease outbreaks.
- Develop **national guidelines** with well-defined processes and procedures for data collection, analysis, and use.
- In training programs, include curricula that builds health worker skills on how to use routine service delivery data for decision-making and problem-solving.

## Make an Impact

- Ensure that adequate **feedback loops** are in place.
- Develop M&E strategies to measure whether data is being used and defined as intended.
- Ensure that district level health workers have adequate tools and training to deliver effective supportive supervision.
- Use information to monitor progress, prioritize geographic areas and populations, and inform vaccination strategies and policies.

