

UNDERSTANDING VACCINATION COVERAGE DATA QUALITY INCENTIVES FINAL PRESENTATION

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START CENTER

STRATEGIC ANALYSIS,
RESEARCH & TRAINING CENTER

PROJECT TEAM



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AGENDA

- START & Project Overview
- Methodology
- Main Findings: Conceptual Framework
- Main Findings: Successful Interventions
- Evidence Database
- Case Studies
- Synthesis and Conclusion



START OVERVIEW

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Leverages leading content expertise from across the University of Washington



Provides high quality research and analytic support to the Bill & Melinda Gates Foundation and global and public health decision-makers



Provides structured mentorship and training to University of Washington graduate research assistants

PROJECT OVERVIEW

BACKGROUND

POOR HEALTH DATA QUALITY

- Intervention coverage data reports go through **several levels** before they are routed to ministries of health
- **Data falsification** can either be intentional distortion (data falsification) or errors (*e.g., shortcuts to speed up job tasks*)
- Data falsification may be **donor driven**, as donors incentivize “good-looking data”
- **Technology aspects** may be relevant but lesser priority



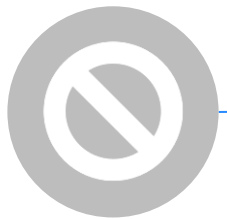
KEY PROJECT OBJECTIVES



To understand what interventions have been **successful** in improving the **accuracy** of health campaign coverage



To understand what **facilitators** possibly contributed to the success of improved accuracy



To understand what **barriers** existed for the case studies and were overcome in improving health data accuracy

METHODOLOGY

DATA SOURCES

1. LITERATURE REVIEW

36/91 articles' focus included data quality

2. EXPERT INTERVIEWS

Project Name	Organization	Experts
Polio Data Program Improvements	Gorman Consulting	<ul style="list-style-type: none">• Trina Gorman• Lauren Schwartz
Salud Mesoamerica Initiative (SMI)	Inter-American Development Bank (IAB)	<ul style="list-style-type: none">• Dr. Emma Iriarte• Maria Paola Zuniga Brenes• Diego Rios-Zeruche
Vaccinator Tracking System (VTS)	eHealth Africa	<ul style="list-style-type: none">• Iheanyichukwu Uzoma• Abubakar shehu
Better Immunization Data (BID)	PATH	<ul style="list-style-type: none">• Fred Njobvu

MAIN FINDINGS: CONCEPTUAL FRAMEWORK

REDEFINING DATA QUALITY, USABILITY AND UTILIZATION

Data Quality



Trueness and concurrence

Data Usability



Relevancy, efficiency, completeness, timeliness, integrity, and consistency

Data Utilization

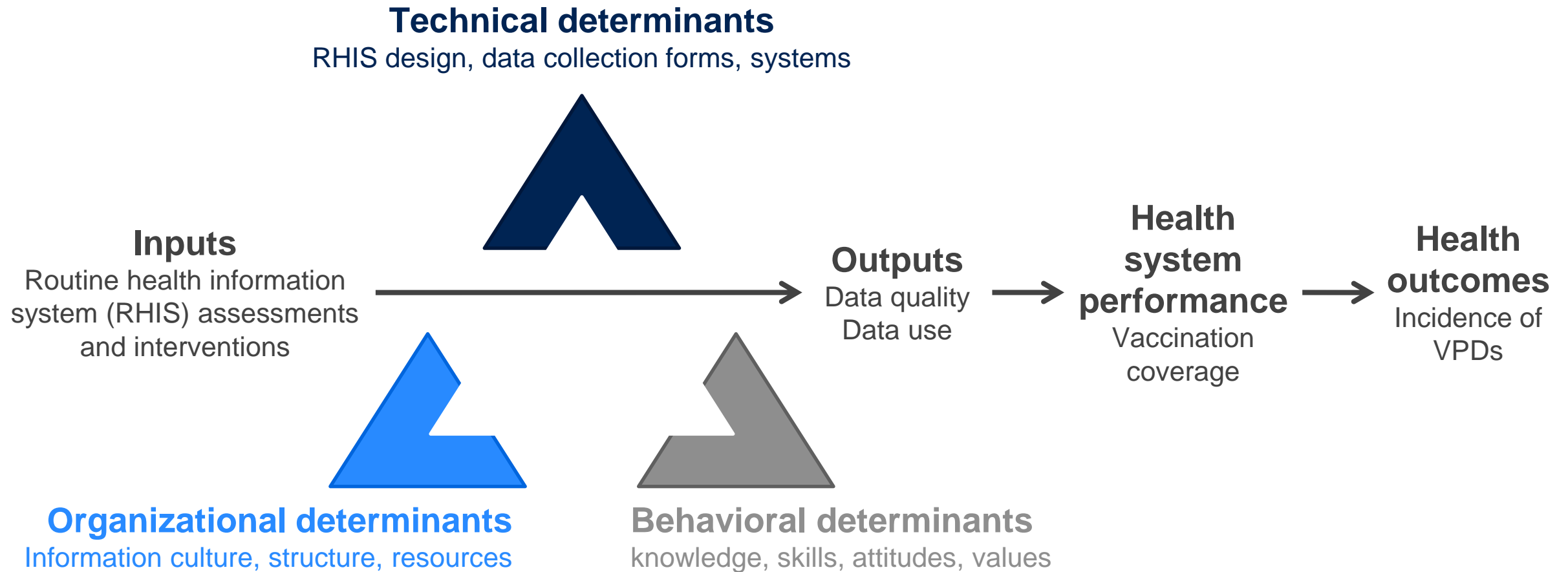


Evidence that data are actually used

Bloland and MacNeil 2019, <https://doi.org/10.1186/s12889-019-6709-1>

CONCEPTUAL FRAMEWORK

PERFORMANCE OF ROUTINE INFORMATION SYSTEM MANAGEMENT (PRISM)



MAIN FINDINGS: SUCCESSFUL INTERVENTIONS

SUCCESSFUL INTERVENTIONS CATEGORIES



CASE STUDIES

SALUD MESOAMERICA INITIATIVE (SMI)



HISTORY

Established in 2011. Primarily working across southern Mexico and Central America. It is a public-private partnership administered by the Inter-American Development Bank (IDB).



MISSION

Mission: To improve maternal, neonatal, and child health outcomes among the most under served communities in seven Central American countries and the state of Chiapas in Mexico.



APPROACH

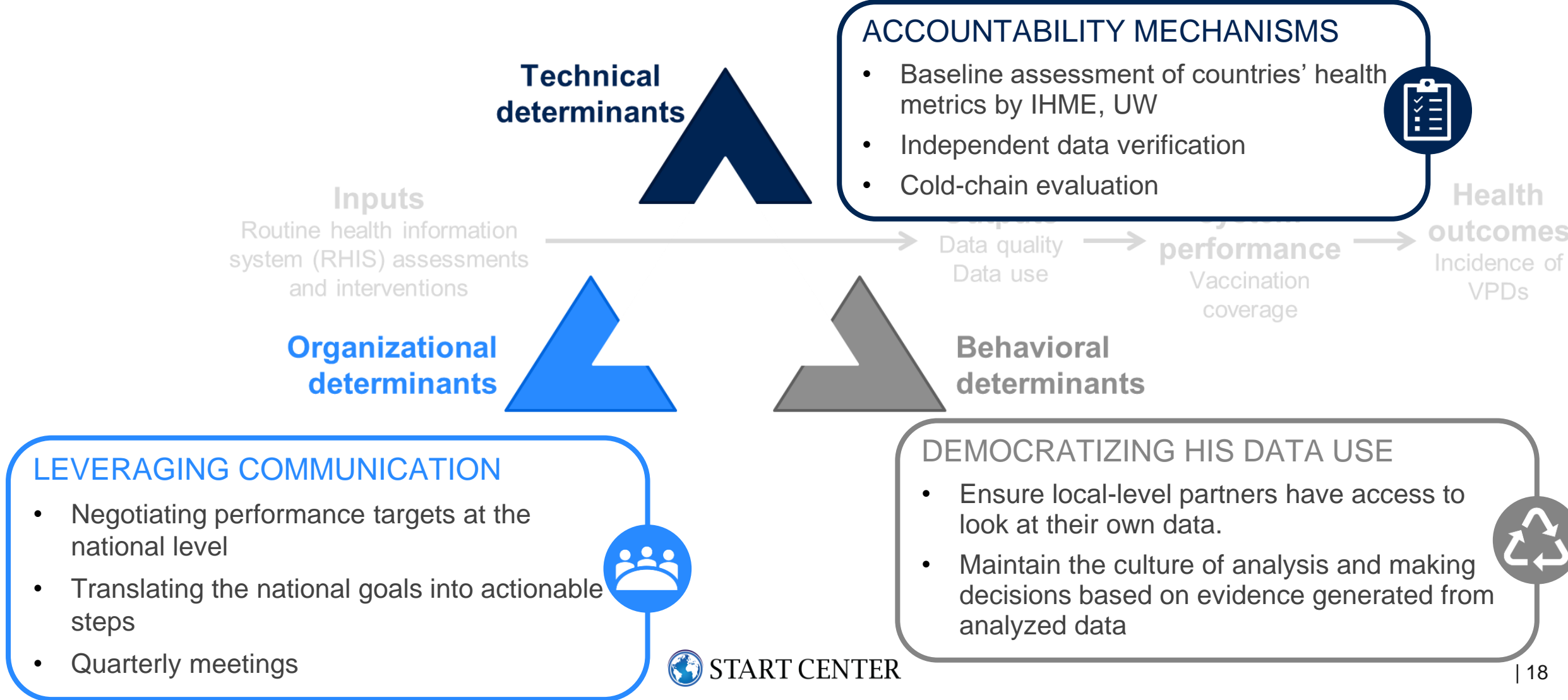
SMI utilizes a results-based aid mechanism which sets performance indicators with governments to align with country-specific priorities.



FOCUS

SMI places a significant focus on strengthening the health system through building capacity and providing technical assistance for partnering countries.

SALUD MESOAMERICA INITIATIVE (SMI)



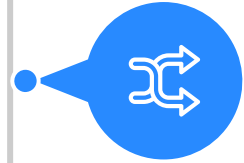
VACCINATOR TRACKING SYSTEM (VTS)

eHEALTH AFRICA



HISTORY

Established in 2009. Primarily working across West Africa and currently execute projects in many countries, including Chad, Cameroon, the Democratic Republic of Congo, Nigeria, and others.



MISSION

To build stronger health systems through the design and implementation of data-driven solutions.



APPROACH

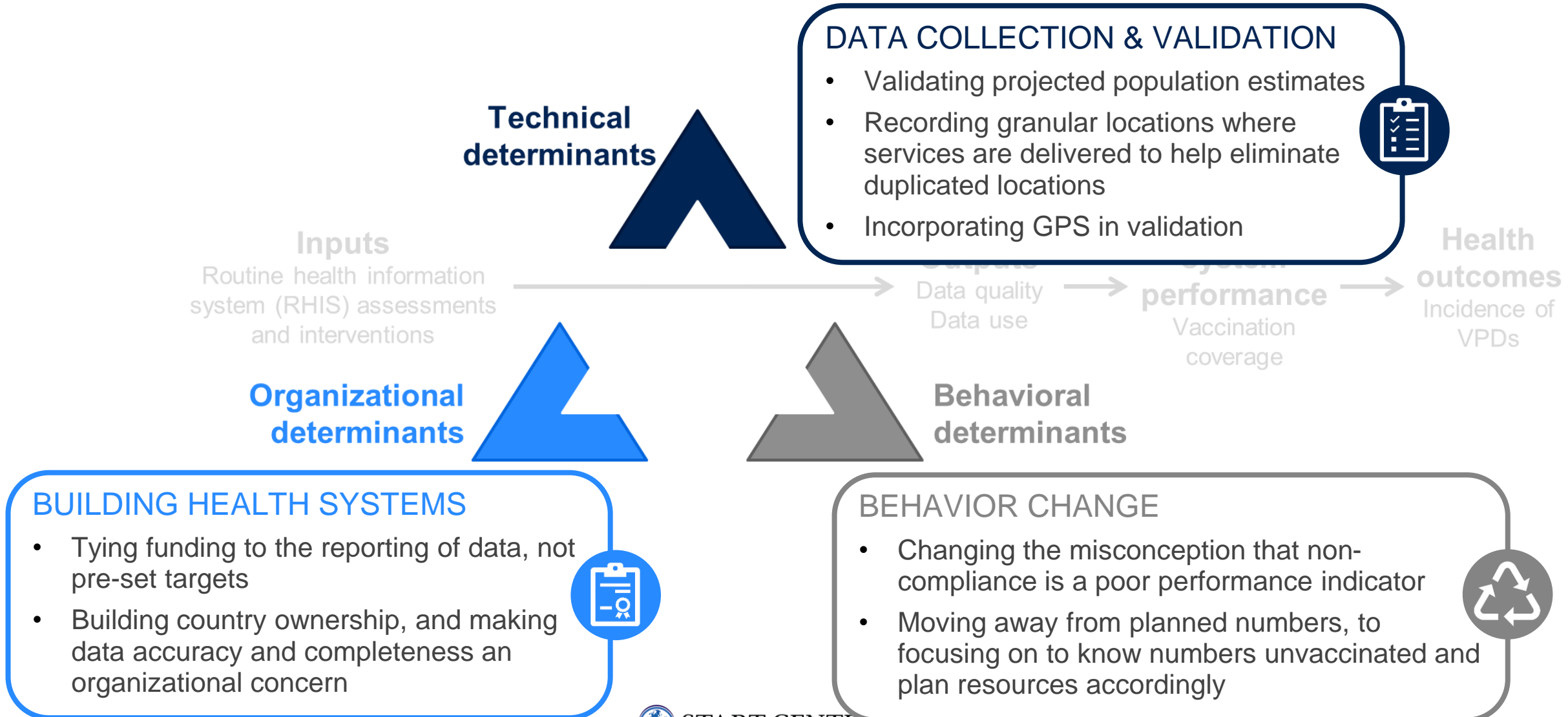
Supports interventions through a broad spectrum: pre-, during-, and post-intervention.



FOCUS

Vaccinator Tracking System (VTS) incorporates components from the 3 determinants of successful interventions

VACCINATOR TRACKING SYSTEM (VTS)



BETTER IMMUNIZATION DATA (BID) INITIATIVE



HISTORY

Launched in 2013, BID was led by PATH and the governments of Tanzania and Zambia with support from the Bill & Melinda Gates Foundation.



MISSION

The BID Initiative is grounded in the belief that better data, plus better decisions, will lead to better health outcomes.



APPROACH

BID has identified practical, country-owned, country-led solutions to improve immunization service delivery—and potentially other health areas, as well.



FOCUS

To design, test, and roll out a holistic suite of interventions to address their most critical routine immunization service delivery problems through improved data collection, quality, and use.

BETTER IMMUNIZATION DATA (BID) INITIATIVE



SYNTHESIS AND CONCLUSION

SYNTHESIS (1/2)

DATA FALSIFICATION

- Data falsification exists, but it is more attributable to ***poor data systems*** and ***poor data use*** rather than due to funding incentives.
- Different interventions currently implemented are designed to mitigate data falsification.
- No evidence about the prevalence or magnitude of data falsification.

BARRIERS AND FACILITATORS

- Limited data regarding the respective magnitude of each.
- Most commonly reported barriers: ***“inadequate reporting systems”*** and ***“inaccurate data”***.
- Key facilitators: ***“strong leadership and political support”*** and ***“adequate resources”***.

IMPACT OF INTERVENTIONS

- The most prominent perceived outcome is ***staff enthusiasm*** and ***sense of ownership***.
- A subset of studies reported on the impact of the different interventions.

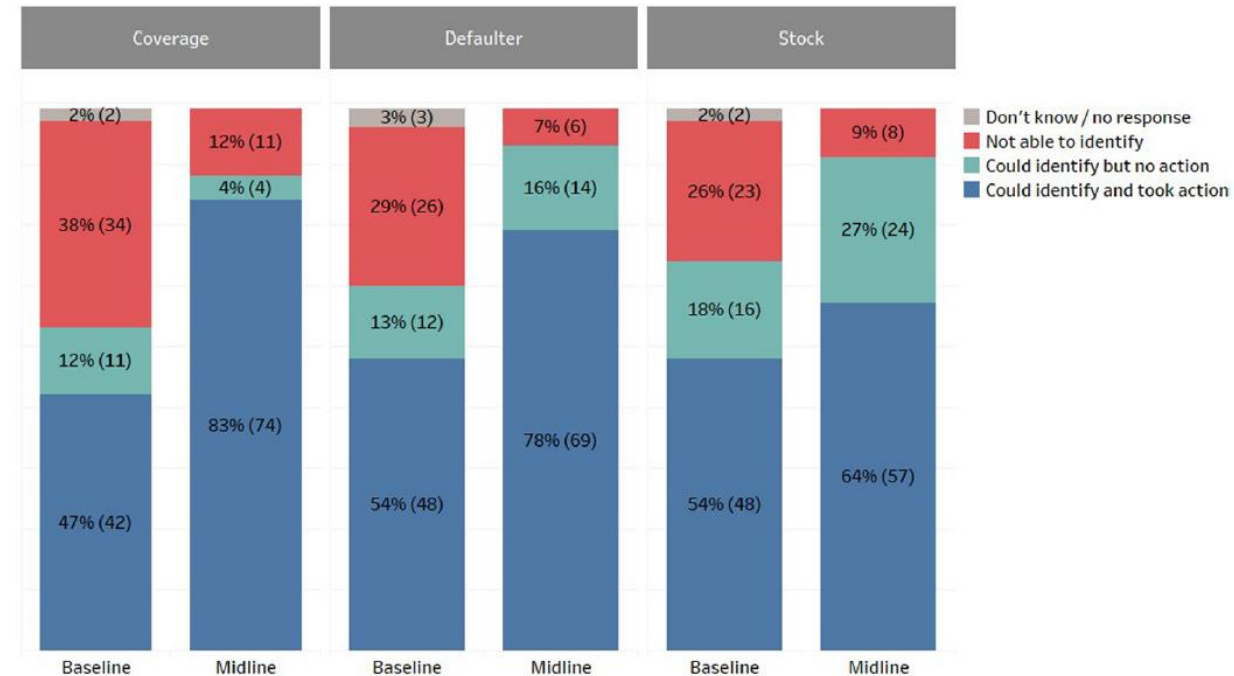
SYNTHESIS (2/2)

IMPACT OF INTERVENTIONS

Perceptions of data quality among facility in-charges and immunization nurses in Tanga Region, Tanzania



Ability to identify low DPT3 coverage areas, defaulters, and vaccine stock levels among facility health care workers, baseline versus midline, Southern Province, Zambia



Werner et al., 2019 – <https://doi.org/10.9745/GHSP-D-19-00024>

CONCLUSION



A practical understanding of data quality, usability and use is important for programmatic decision-making



The PRISM framework captures *behavioral*, *technical*, and *organizational* determinants for health information systems



Often there is intersection between the different *barriers* and *facilitators*. The individual importance of each *intervention* is difficult to disentangle



Multifaceted, multi-phased interventions have proven successful in incentivizing data quality and may have multiplicative effects



Theory of change is cyclical: interventions → better data quality → informed decision making → data use → better data quality



Data falsification can be donor driven but can also be attributable to *poor data systems* and *data use*. Technology is an important tool here



Sustainability is still an evidence gap and more long-term evaluations are warranted

THANK YOU



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