BID INITIATIVE BRIEFS: RECOMMENDATIONS AND LESSONS LEARNED
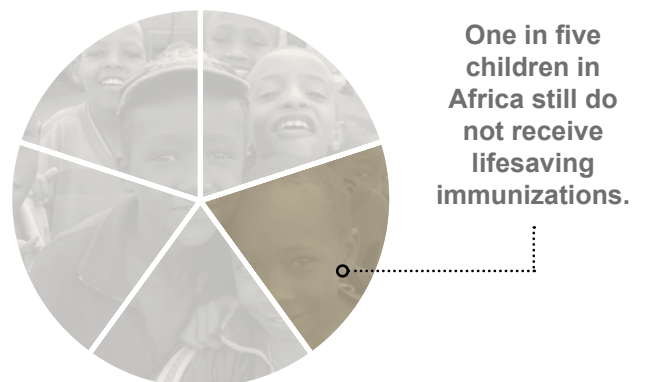
Data use

The BID Initiative is grounded in the belief that better data, plus better decisions will lead to better health outcomes. It was designed in partnership with countries to enhance immunization and overall health service delivery by improving data collection, quality, and use. The BID Initiative takes a holistic approach to address immunization data challenges and strengthen evidenced-based decisions through a package of interventions including people, products, policies, and practices. These briefs summarize the approaches and interventions that the BID Initiative rolled out in partnership with the governments of Tanzania and Zambia and shares recommendations and lessons learned for others interested in improving immunization data quality and use.

BACKGROUND

A primary goal of the BID Initiative is to improve data use at all levels of the health system. Building a data use culture requires products that ease data collection and visibility, policies to support the culture, and people who can enforce the policies by establishing effective practices.

Global stakeholders and national governments openly acknowledge that routine immunization programs and new vaccine introductions face significant challenges related to the collection and use of quality data for planning, management, and performance improvement. Few, however, can identify which challenges matter

FIGURE 1: Africa's routine immunization coverage sits at 80 percent.[1]

One in five children in Africa still do not receive lifesaving immunizations.

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1. Despite gains in access, one in five African children go without lifesaving vaccines page. Immunization in Africa 2016 website. Available at http://immunizationinafrica2016.org/releases/2016/2/22/despite-gains-in-access-one-in-five-african-children-go-without-lifesaving-vaccines.

PATH

One in five children in Africa do not receive needed vaccines.

✔ **NO ACCESS**
Caregivers and their children may have difficulty accessing clinics for immunization and other health services. With the right data, nurses can identify those children and plan outreach sessions.

✔ **NO AVAILABILITY**
Unreliable delivery of supplies and vaccine stock-outs require health workers to turn children away if they do not have enough vaccines on hand. This may result in children being vaccinated too late or too early and contributes to high drop-out rates because of the added inconvenience it imposes on caregivers. Accessible and timely data, along with information to create a more accurate denominator, allow nurses to better plan and manage their stock.

most, or the scope of the problem within a particular country. Management information systems and cultures of evidence-based decision-making, which could help identify operational issues and provide actionable information to better inform immunization programs, are still in the early stages of development in many countries.

Performance monitoring using routine data is often flawed, and many national Expanded Program on Immunization (EPI) managers and global policymakers struggle to

understand how to effectively target limited resources to reach health goals. In the absence of easy-to-access and actionable data on performance gaps and with a limited understanding of the drivers of immunization coverage, stakeholders must rely on incomplete and often anecdotal data that do not reflect actual problems or performance. Successfully addressing these issues requires a suite of interventions and activities that simplifies data flows and reporting, makes data accessible across multiple levels of the health system, and cultivates a culture of data use. In Tanzania and Zambia, specific interventions such as data use guides, readiness assessments, and guidelines on supportive supervision complemented the use of the electronic immunization registry (EIR) to strengthen a culture of data use.

To address a number of the critical data-related challenges facing immunization programs, the BID Initiative worked with the governments of Tanzania and Zambia to introduce these suites of interventions at the facility and district levels. Facility visits began with a readiness assessment to understand how nurses currently use their data for decision-making. By identifying current data use practices and gaps as well as the nurse's willingness or resistance to change, the implementation of interventions was adjusted to address the context.

In addition to streamlining data collection, the EIR automatically produces reports based on the data entered, ensuring information is timely, accurate, and available at all levels of the health system. To identify opportunities for improvement among underperforming health facilities, guides were created for districts to use with their supportive supervision to help them target their approach and identify key questions to understand the story behind the data for each monthly indicator.
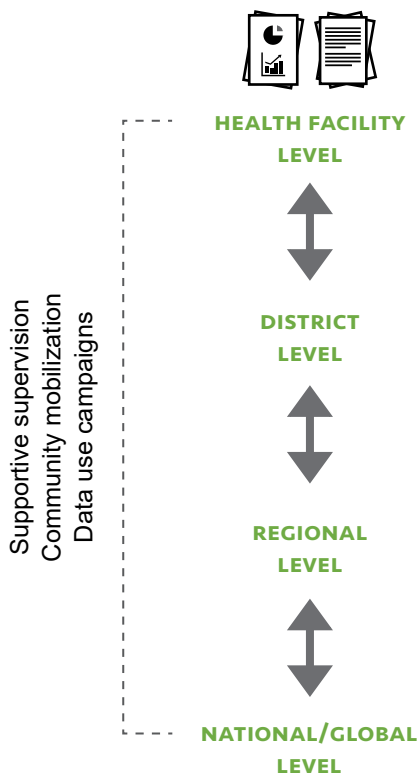
Data use guides were also created for both facility and district-level staff to strengthen data analysis skills for health

Without data use interventions

**HEALTH FACILITY
LEVEL**

**DISTRICT
LEVEL**

**REGIONAL
LEVEL**

**NATIONAL
LEVEL**

With data use interventions

**HEALTH FACILITY
LEVEL**

**DISTRICT
LEVEL**

**REGIONAL
LEVEL**

**NATIONAL/GLOBAL
LEVEL**

Supportive supervision
Community mobilization
Data use campaigns

Addressing data-related challenges facing immunization programs requires a suite of interventions and activities that simplify data flows and reporting, make data accessible across multiple levels of the health system, and cultivate a culture of data use.

workers. Health workers gained a better appreciation for data and how it can be used to influence decision-making by walking through each step of the data use process.

As a result of these and other data use interventions, health workers can plan outreach activities to vaccinate specific children in their known catchment area; trace defaulters to a specific village and caregiver, to help increase vaccination rates; and identify patterns or trends in data, such as geographical differences, late vaccinations, and the number of children projected to attend upcoming immunization clinics. This actionable information helps health workers adjust their strategies as needed and eventually become more efficient in their planning.

RECOMMENDATIONS BASED ON LESSONS LEARNED

Key recommendations based on lessons learned while rolling out data use interventions in Tanzania and Zambia include:

1. **Teach data analysis skills with the facility's existing data to help nurses identify challenges currently affecting service delivery and pinpoint ways to address those issues.** This foundation in data analysis better prepares nurses to adopt new tools and to adapt their data analysis skillsets to different service areas, such as malaria.

2. **Electronic tools, as well as revised paper forms, must go through an iterative process with feedback from facility, district, and regional/ provincial members of user advisory groups.** This allows software developers to understand how data and information will be used by health workers and ensures the creation of intuitive tools that enable access to data for planning and service delivery.

3. **Use targeted, supportive supervision and tools such as job aids and dashboards for data visualization to identify low-performing facilities.** These tools should also present a methodology to walk through the challenges associated with the facility's performance, as well as an approach to identify steps to improve performance.

4. **Create peer support networks to connect health workers with other facilities in their district.** These networks provide an opportunity for nurses to ask questions of one another and to receive support in real time using messenger platforms such as WhatsApp. For instance, health workers may pose questions about how to calculate indicators. Regional leads may also use the network to communicate with nurses and facility in-charges by sharing immunization updates.

5. **Engage regional/provincial and national-level stakeholders.** Although nurses at the facility and district level are the critical data users and will benefit from greater data visibility, stakeholders at all levels should be involved to foster a culture of data use across the health system. Readiness assessment tools and data dashboards for decision-making allow for management of that change.