

# Promoting Equitable Health Product Access through Supply Chain Design

Ensuring that health products are available and accessible for everyone is a critical part of primary health care, and essential to achieving universal health coverage. However, high quality health products are not always available when needed, particularly in under-served populations. Barriers to product accessibility and availability include challenges like inaccurate data for demand forecasting, inadequate storage capacity, geographic distances, and insufficient funds for supply chains outside of the health facility (mobile teams and outreach sessions). Under-served populations vary by country and unique context, and can include people in both urban and rural environments of varying economic levels, as well as people in security compromised areas and migrants.

As urbanization and conflict have shifted population needs, it is critical for supply chains, as part of the health system, to adapt to reach people who are currently at risk of being left behind. Often, product supply chains are designed to optimize overall cost and efficiency, or are built around administrative health system structures, so are not nimble enough to address the needs of under-served people. **Supply chains can be adapted to be responsive to people's needs and** 

preferences. Applying an equity lens to addressing supply chain barriers can help ensure health products are

- (1) conveniently accessible to all;
- (2) available when needed; and
- (3) potent at the point of delivery.

See our four-step guide on page 2 →

# Supply chain equity metrics in action: An immunization case study



Despite global gains increasing immunization coverage, progress has slowed and nearly 20 million children remain under-immunized¹. Geographical clustering of under-immunized children further increases the risk of outbreaks, which makes reaching under-served communities even more critical. One important aspect of increasing immunization coverage is ensuring adequate functioning cold storage capacity up to the point of administration, since uninterrupted cold storage is essential to maintaining vaccine potency. Without adequate cold chain storage, potent vaccines will not be available at service delivery points when people access care.

At the request of the government of Pakistan, VillageReach worked with UNICEF and Gavi, the Vaccine Alliance, to define metrics that could be used to consider equity while designing Pakistan's immunization supply chain. VillageReach developed a country-specific cold chain coverage target for districts of 0.06 liters per fully immunized child, based on resupply frequency, vaccine schedules and buffer stock. Districts that fell below this target of liters of cold chain volume per fully immunized child were prioritized for inclusion in the next phase of Pakistan's Cold Chain Equipment Optimization Platform's (CCEOP) deployment plan.



Definition

Net cold chain volume for the district divided by surviving infants in the district

Benchmark

0.06 liters (vaccine volume required per fully immunized child (FIC) at district level and below (1 month cycle stock, 1 month buffer stock)

Visualization



Greater than 0.09 liters/surviving child



0.06 to 0.09 liters/surviving child



Less than 0.06 liters/surviving child

### A four-step guide

to applying an equity lens in supply chain design

VillageReach developed guidance that governments and implementing partners can use to purposefully consider equity in supply chain design. In this guidance, we assess health product supply chains holistically including public and private service delivery. This guidance walks users through a four-step process to identify supply chain design strategies to reach under-served populations and track progress reducing inequities:



## Identify population:

What are the country's under-served populations and their characteristics?

- Use the guidance to outline the population's relevant characteristics.
- ► The guidance is built for four under-served groups: urban poor; people living in remote, rural areas; people in conflict or security-compromised areas; and internal and cross-country migrants.



# Consider supply chain-related challenges:

Which challenges might be resulting in low coverage for this population?

- Select challenges from the guidance that are most applicable to the under-served population.
- ► Challenges are related to transport, storage, demand forecasting, human resources, and governance, among others.



Determine mitigation strategies:

What are appropriate strategies for addressing this challenge within the identified population?

Choose relevant mitigation strategies from a list of options.



## Measure progress:

Which metrics are relevant to evaluate progress in reducing supply chain-related inequities?

- Select indicators for each challenge to assess progress toward the outcomes of access, availability and potency.
- Each indicator has a recommended target and guidance on measurement.

#### **POPULATION EXAMPLES:**

- An urban poor population that often accesses health services at private health facilities due to ease
- B A remote, rural population that often travels long distances to access services at health facilities

#### **CHALLENGE EXAMPLES:**

- A Potent vaccines may be unavailable at the nearby private facilities, due to weak regulation of procurement that results in stockouts and variable product quality
- B Potent supplies may be unavailable because facility staff are either a) unable to pick up supplies from upstream levels or b) maintain cold chain for the trip, due to lack of transport or poor road infrastructure

#### **STRATEGY EXAMPLES:**

- A Include private health facilities in government supply chain to provide consistent, WHO pre-qualified vaccines at more locations, ensure sufficient cold chain storage, and ensure safe vaccine handling during transport
- B Deliver supplies from upstream levels to fixed service delivery points using specialized vehicles

#### **INDICATOR EXAMPLES:**

- A Percentage of private service delivery points contracting with government for supplies
- B Percentage of days in the year when a vehicle was available to transport products

#### More information

VillageReach is currently working with decision-makers on opportunities to use this guidance and to create more responsive supply chains for under-served communities. If you are interested in learning more or using the guidance, please contact VillageReach.

Additional information on the immunization case study in Pakistan is available on VillageReach's website at <a href="https://www.villagereach.org/considering-equity-in-vaccine-supply-chains/">https://www.villagereach.org/considering-equity-in-vaccine-supply-chains/</a>
Details about this work are also documented in a paper available at <a href="https://doi.org/10.12688/gatesopenres.13121.1">https://doi.org/10.12688/gatesopenres.13121.1</a>

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