



## 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**  
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### 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-immunized<sup>1</sup>. 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.

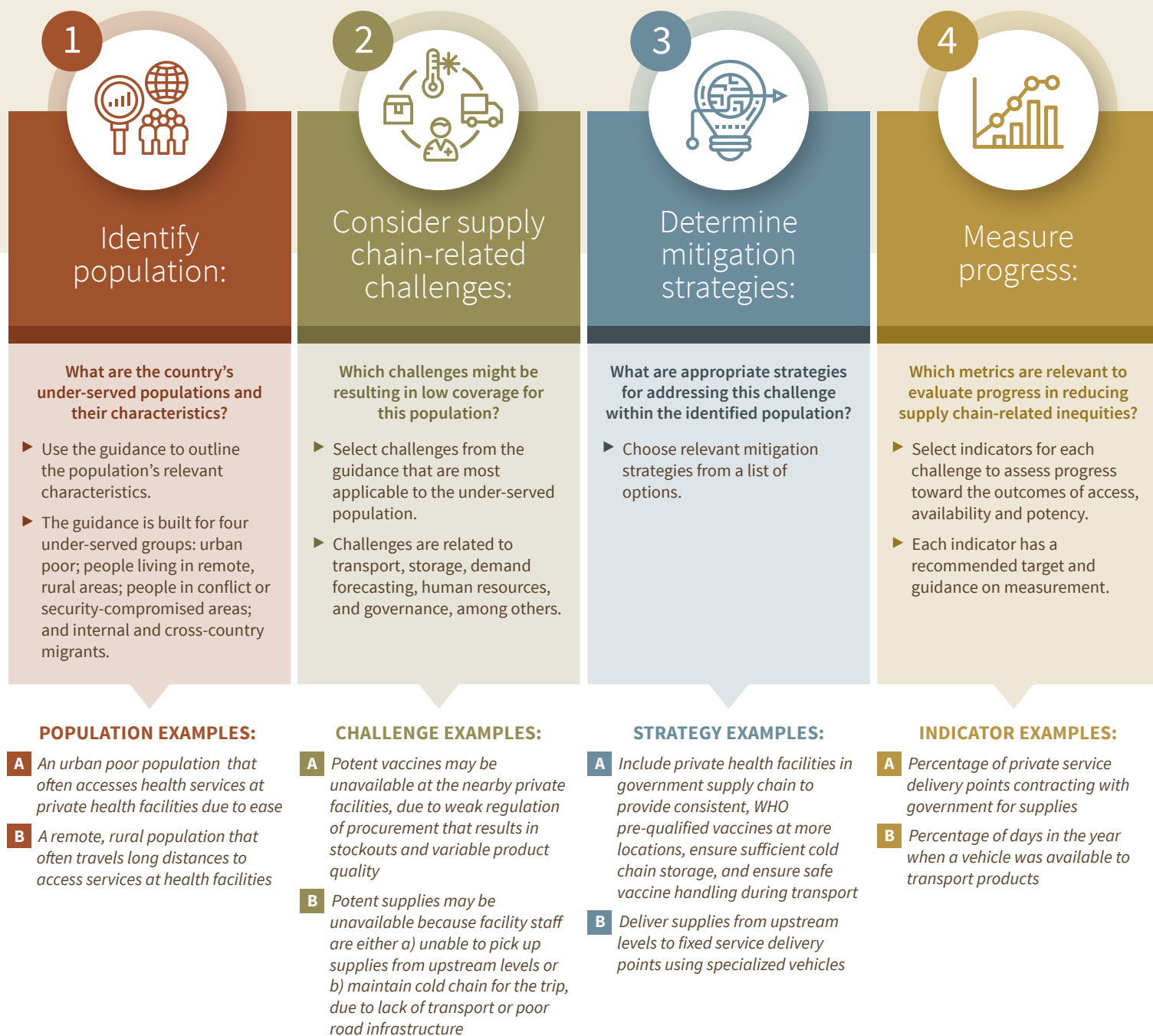


<b>Definition</b>	Net cold chain volume for the district divided by surviving infants in the district		
<b>Benchmark</b>	0.06 liters (vaccine volume required per fully immunized child (FIC) at district level and below (1 month cycle stock, 1 month buffer stock))		
<b>Visualization</b>	<span style="color: green;">●</span> Greater than 0.09 liters/surviving child	<span style="color: yellow;">●</span> 0.06 to 0.09 liters/surviving child	<span style="color: red;">●</span> Less than 0.06 liters/surviving child

<sup>1</sup> <https://www.gavi.org/programmes-impact/our-impact/facts-and-figures>

# 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:



## 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 <https://www.villagereach.org/considering-equity-in-vaccine-supply-chains/> Details about this work are also documented in a paper available at <https://doi.org/10.12688/gatesopenres.13121.1>

**Mariam Zameer,**  
Manager, Health Systems  
[mariam.zameer@villagereach.org](mailto:mariam.zameer@villagereach.org)

**VILLAGE REACH**  
Starting at the Last Mile