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Maternal and Child
Survival Program

Introducing Agility to the Immunization Supply Chain in Tanzania

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MCSP Overview

- The USAID Maternal & Child Survival Program is a multi-partner, flagship program in support of USAID's priority goal of preventing child and maternal deaths.
- In Tanzania, MCSP is working with the Government of Tanzania (GoT) and in-country partners to expand access to high-quality reproductive, maternal, newborn and child health services (RMNCH).
- JSI is the technical lead for immunization, supporting best practices in program management and service delivery



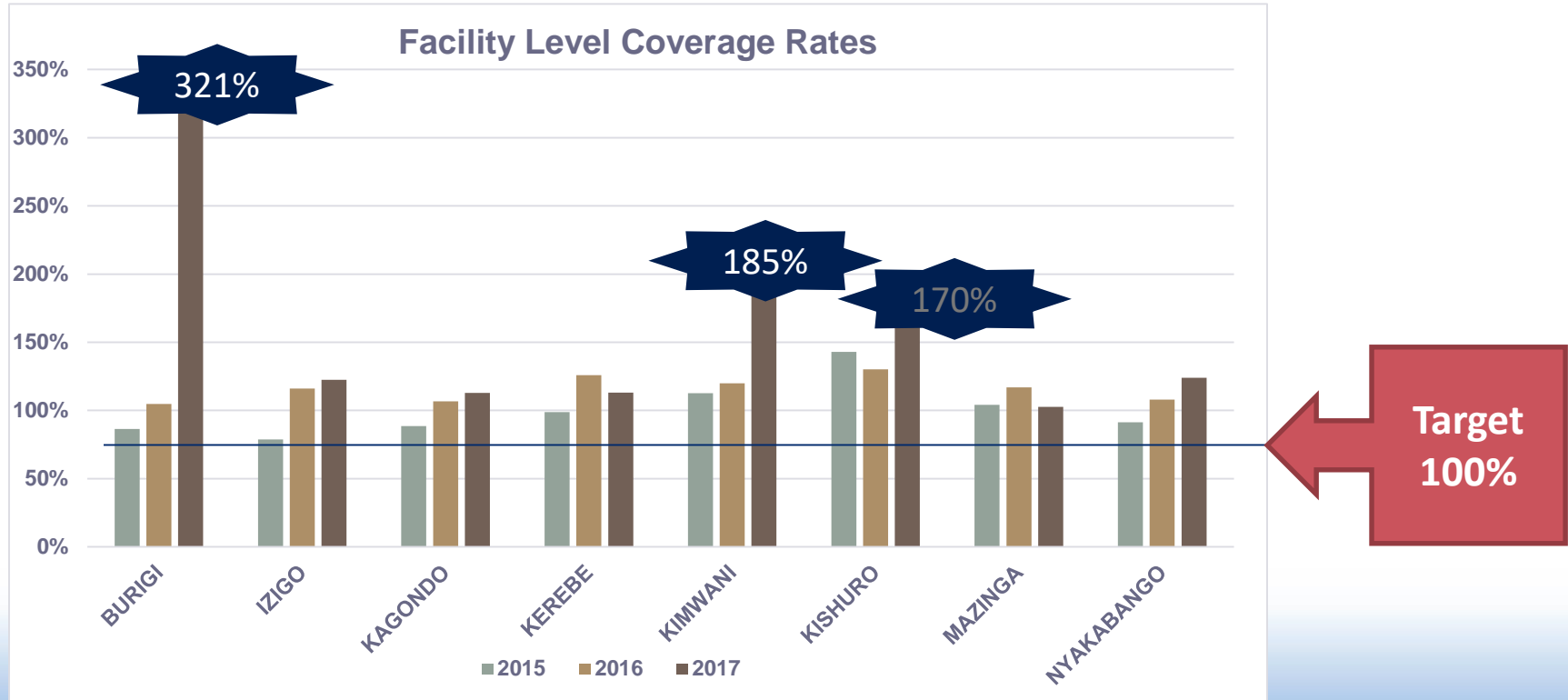
The Denominator Conundrum

- Target populations for immunization program often based on census data
- Census data may be accurate at national level but loses accuracy as it cascades down to sub-national level estimates, particularly at health facility level
- Varying fertility and growth rates among provinces and districts distort population estimates

This results in:

- Illogical immunization coverage rates
- Supply imbalances, stockouts
- The inefficiency of emergency resupply trips
- Skewed reporting

Illogical coverage rates, health facilities, Muleba district, Kagera Region



The denominator conundrum also effects supply decisions

- The Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDCGEC) instructs regions and councils to quantify vaccine needs based on target population.
- Health facilities are allowed to use consumption-based data for needs estimation but it is uncommon and not well understood by sub-national decision makers.
- 17% of health facilities in Muleba district in 2015 reported at least one stockout during the year, most likely due to a mix of poor supply chain management and inaccurate target population.

Rational to shift to consumption-based facility needs estimation of vaccines

- Assessed facilities with over 100% cumulative immunization coverage
- Facilities with more than 120% coverage rates are in largely transient areas
 - Market towns
 - Nomadic areas
 - Fishing villages/shores
- Population is rapidly changing rather than stable
- High risk of stockouts because they serve a client population that is larger than the target population upon which their resupply was based

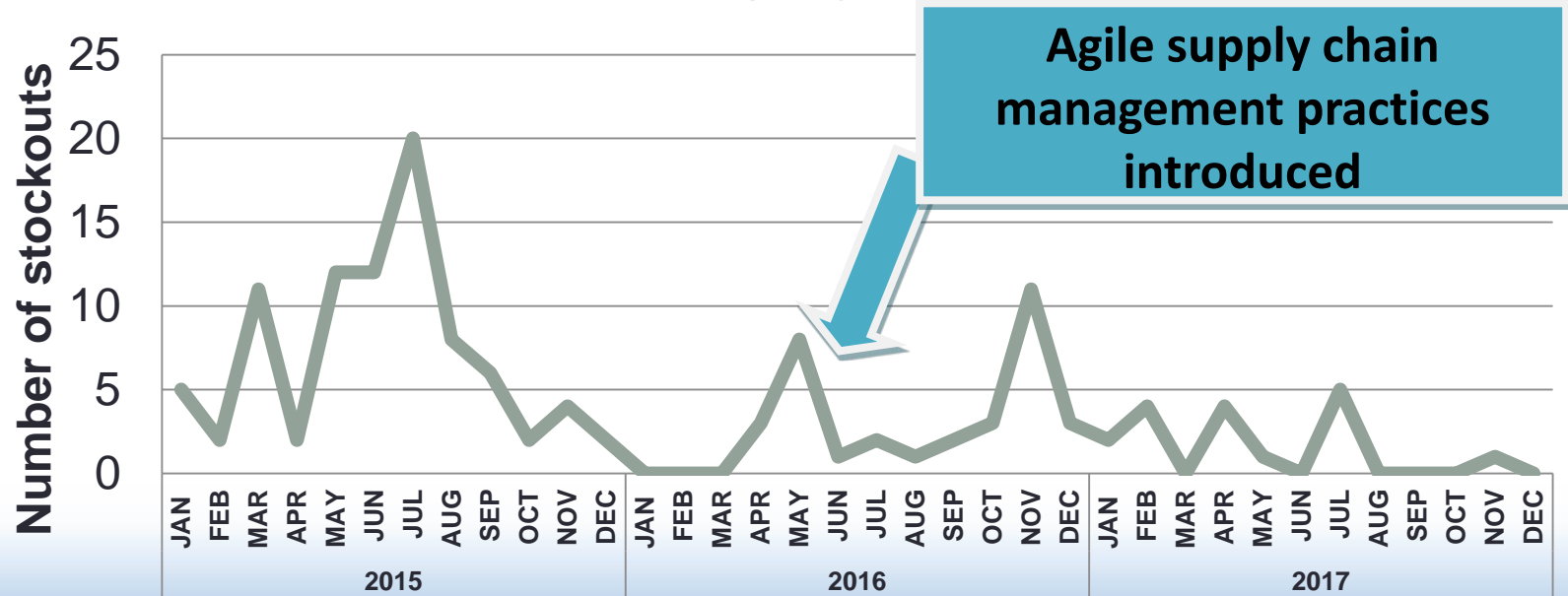
Consumption based methodology



Triangulates target population and consumption data from previous months to identify true vaccine need, based on more accurate target population, wastage and buffer stock.

Using consumption-based needs estimation greatly reduced stockouts

Number of Stockouts by Facilities, Muleba District



Key lessons learned

- Shifting to consumption-based needs estimation can:
 - Reduce the reported stockouts (from 17% to 3% of health facilities in the district)
 - Create a more agile and adaptive supply chain
 - Better respond to true supply need of the health facility
- More accurate supply reduces the burden on healthcare workers for emergency resupply trip for stock
- Consumption-based needs estimation has been applied in an ad hoc manner.
- However, to achieve full impact, this methodology would need to be introduced systematically at scale as part of policy

There is always more to do

- Build capacity of healthcare workers and District Immunization and Vaccine Officers to fine-tune decisions related to the immunization supply chain
- Better understand the link between improved stock availability and coverage rates
- Ensure more accurate vaccine needs estimates from facility level get aggregated up to district and higher



A young child with dark skin and short hair, wearing a yellow polo shirt, is looking towards the camera. The child is holding a white health card in their left hand and has their right hand near their ear. In the background, there are several white plastic containers on a shelf, one of which has the word 'ALPRIM' printed on it. The setting appears to be a clinic or a health facility.

Thank you

Photo by Ian J. Connors

For more information, please visit
www.mcspprogram.org

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