



Supply Chains ⁴ Community Case Management

CCM Supply Chain Baseline Assessment Rwanda 2010



SC4CCM Project Goal

SC4CCM will **identify**, **demonstrate**, and **institutionalize** supply chain management practices that **improve the availability** and use of selected essential health products in community-based programs.

- In partnership with MoH, CCM and supply chain stakeholders



Principles – SC4CCM

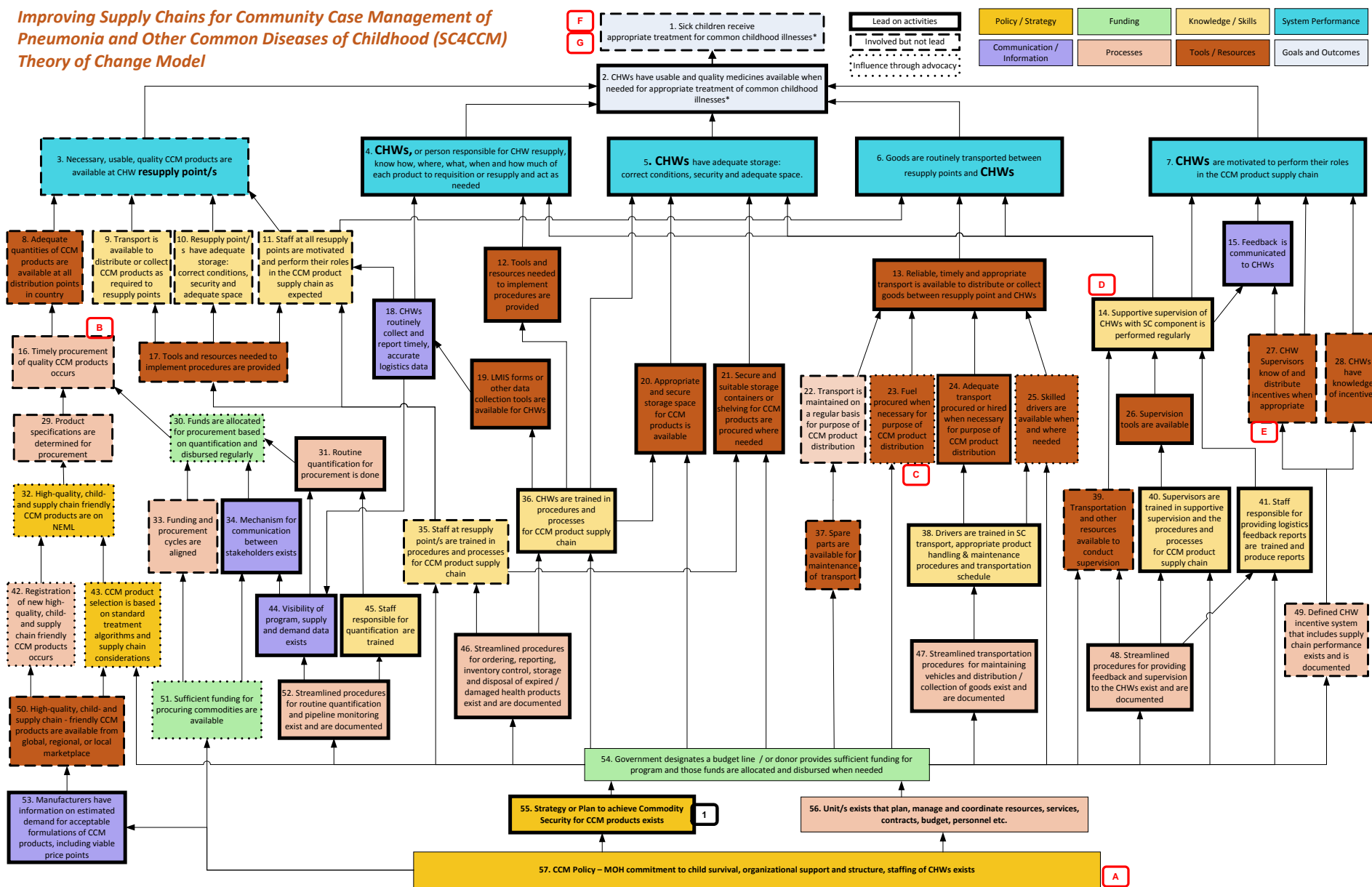
Theory of Change

If effective and efficient supply chain systems can be created to ensure that community health workers have consistent access to sufficient quantities of high quality, affordable essential medicines, they will be able to dramatically improve care and treatment for children.



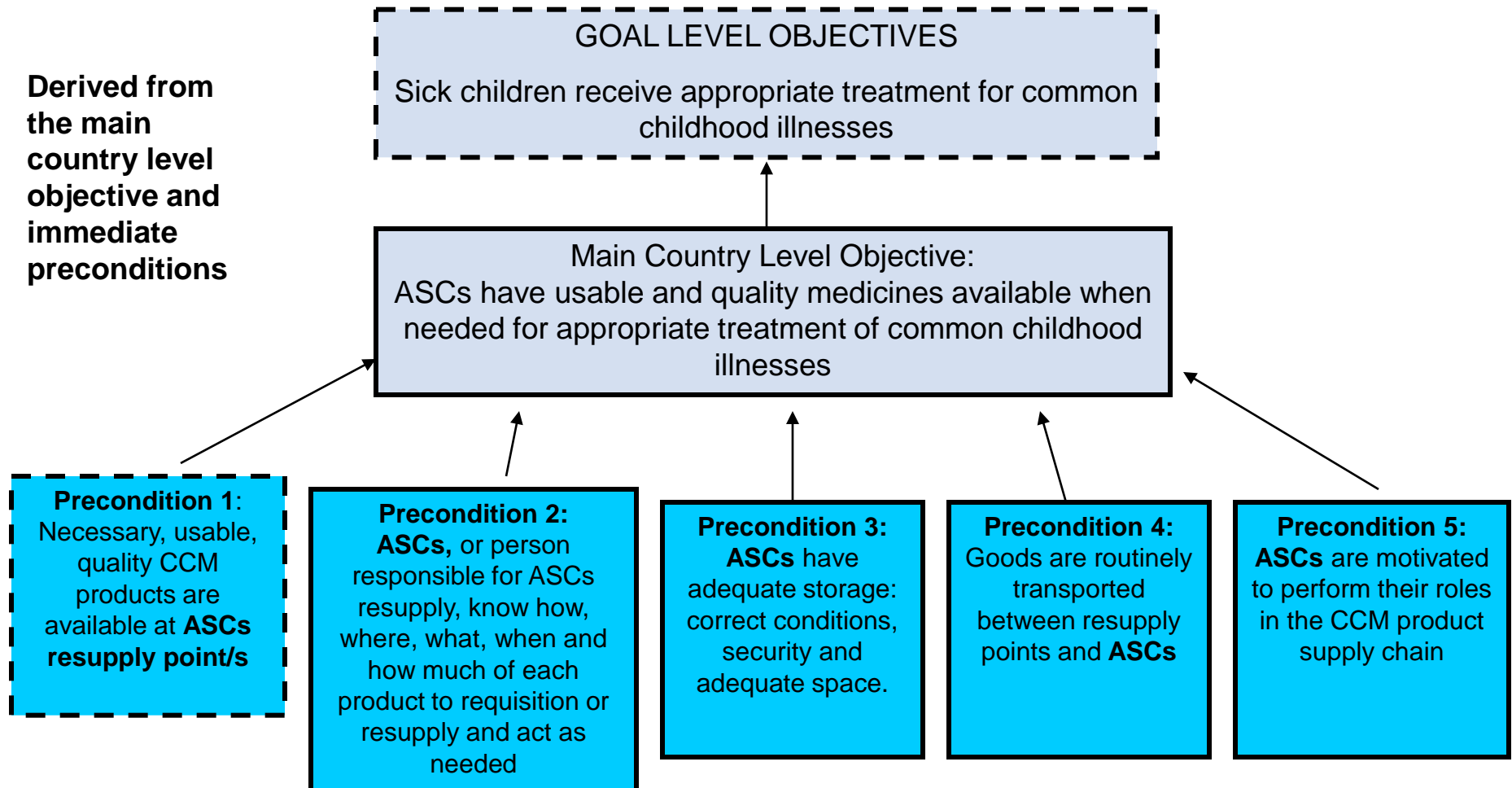
Improving Supply Chains for Community Case Management of Pneumonia and Other Common Diseases of Childhood (SC4CCM)

Theory of Change Model



SC4CCM Core Indicators

Derived from
the main
country level
objective and
immediate
preconditions



Methodology

Both qualitative and quantitative methods were applied:

- Logistics System Assessment Tool (LSAT)
 - 40 participants, 24 from MOH institutions/districts, 16 from partner organizations
- Key informant interviews
- Logistics Indicators Assessment Tool (LIAT)
 - Mobile phones
 - Build local capacity partnering with local evaluation group: National University of Rwanda, School of Public Health (SPH)



LIAT Sampling

Level of Administration / Facility	South	North	Kigali	East	West	Total
District	2	2	1	3	2	10
Health Center (CS)	20	22	8	30	20	100
ASC (Agent de Sante Communautaire)	67	72	22	103	57	321



District Sample

South	North	East
Huye	Burera	Bugesera
Ruhango	Musanze	Ngoma
Kigali	West	Rwamagana
Gasabo	Nyabihu	
	Rutsiro	

Limitations

- Duration of field work lengthened by:
 - Contact information for ASCs not complete
 - Health facility staff absences due to ongoing MOH trainings
 - Delays in administrative and financial processes
 - Dropout of data collectors after initial fieldwork period lapsed
- Due to delays, survey conducted during rainy season (North, West):
 - Difficulties reaching sites
- Replacements necessary because some selected sites not active in CCM

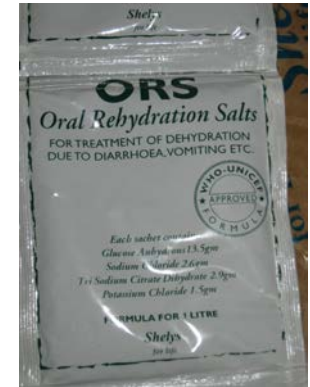


Baseline Results

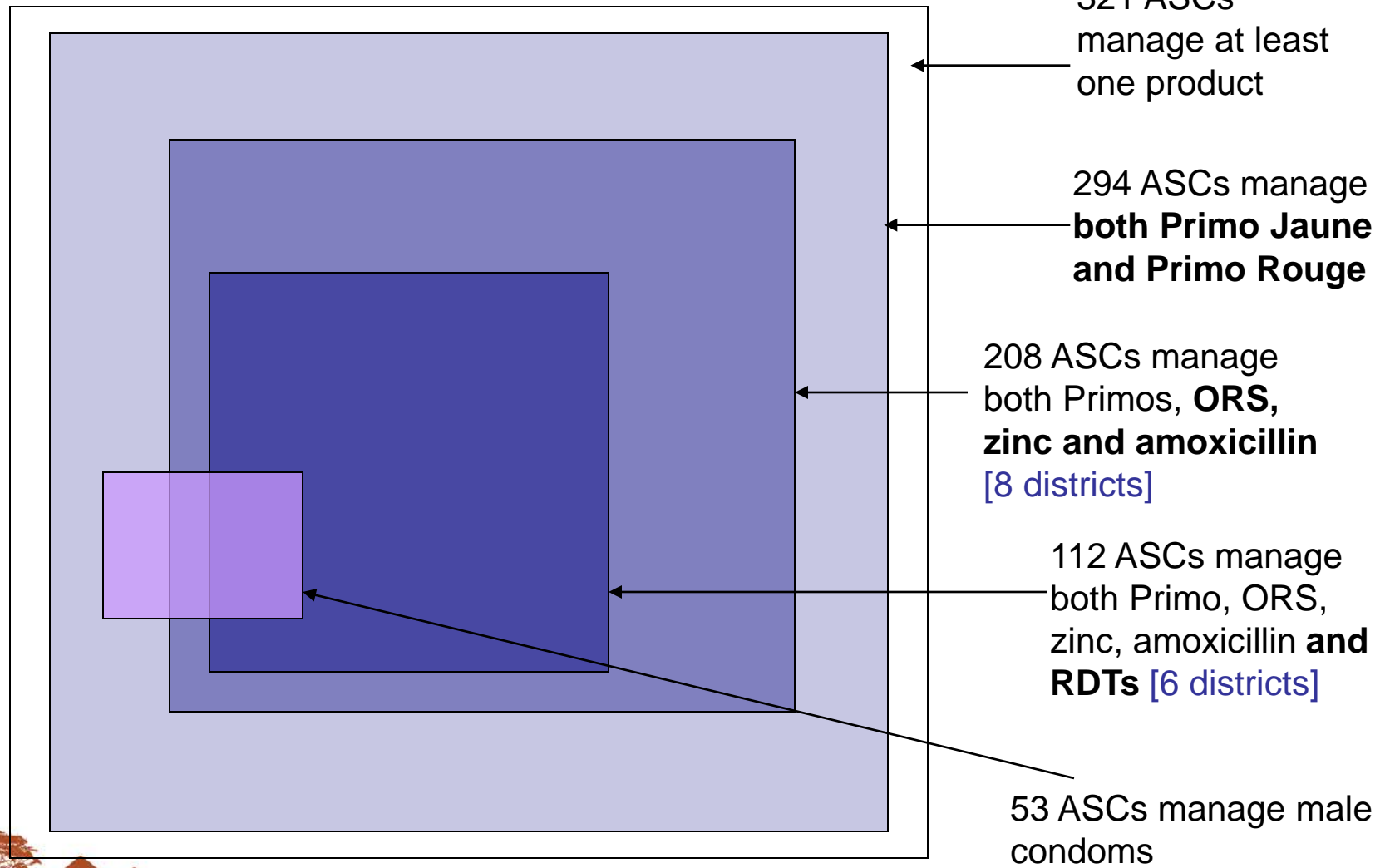


Tracer Products

1. Amoxicillin 250mg capsules
2. Primo Rouge (ACT 1x6) tablets
3. Primo Jaune (ACT 2x6) tablets
4. Malaria Rapid Diagnostic Tests (RDTs)
5. Zinc 20 mg tablets
6. ORS sachets
7. Sur'Eau bottles
8. Male condoms
9. Injectable contraceptive vials



Describing the ASCs Sample



Main Country Level Objective:

ASCs have usable and quality medicines available when needed for appropriate treatment of common childhood illnesses

Key Finding: 49% of 208 ASCs who manage the 5 health products* needed to treat common childhood illnesses (pneumonia, diarrhea, and malaria) had them all in stock on the day of visit (DOV)

***ORS, amoxicillin, zinc and both Primos**



In Stock at ASCs on DOV

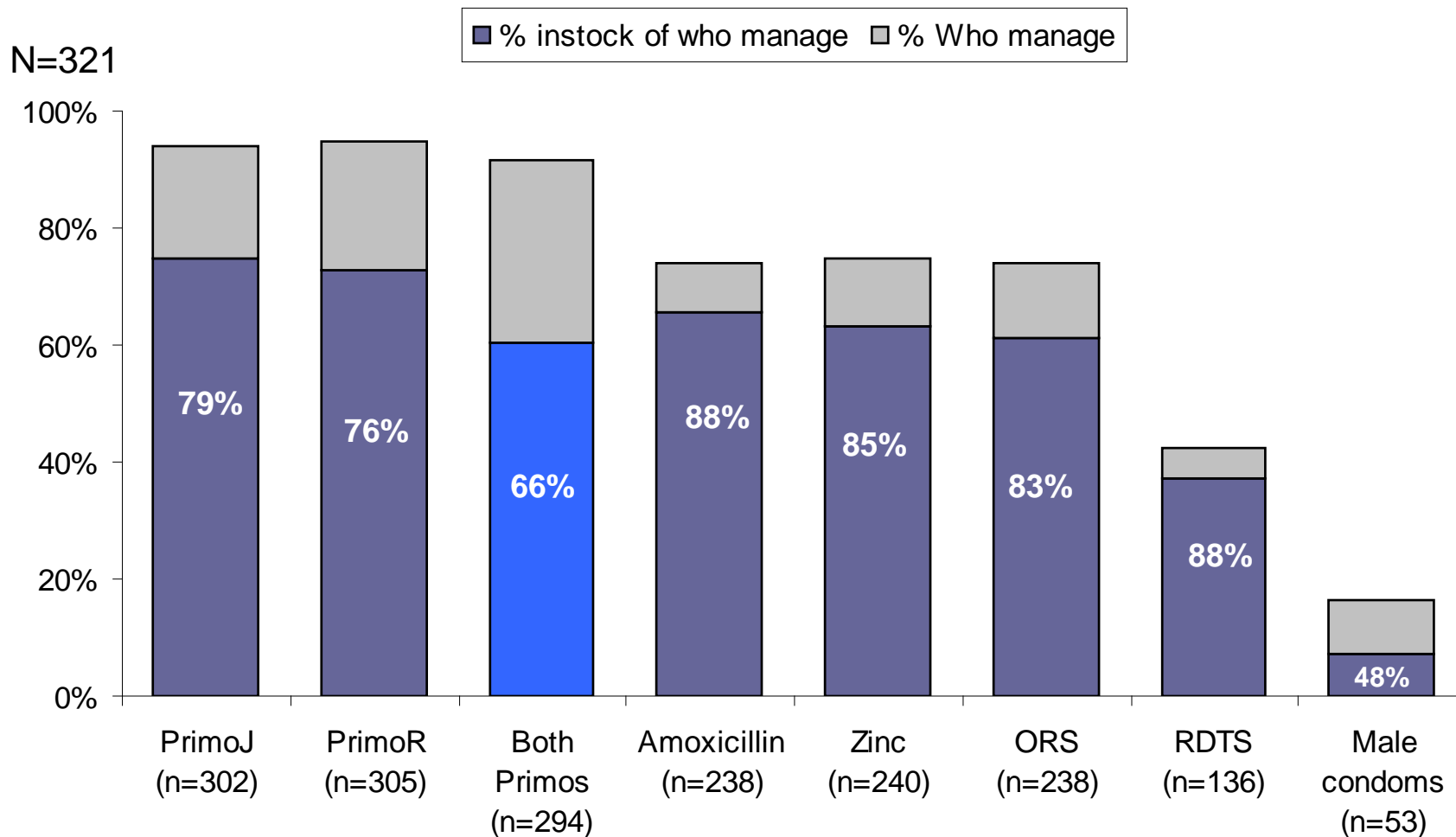
195 of 294 (**66%**)
ASCs who
manage both
Primos had them
in stock

102 of 208 (**49%**) ASCs who manage
both Primos, **ORS, amoxicillin and zinc**
have all in stock

64 of 112 (**57%**) ASCs
managing both
Primos, ORS,
amoxicillin, zinc **and**
RDTs have them all in
stock

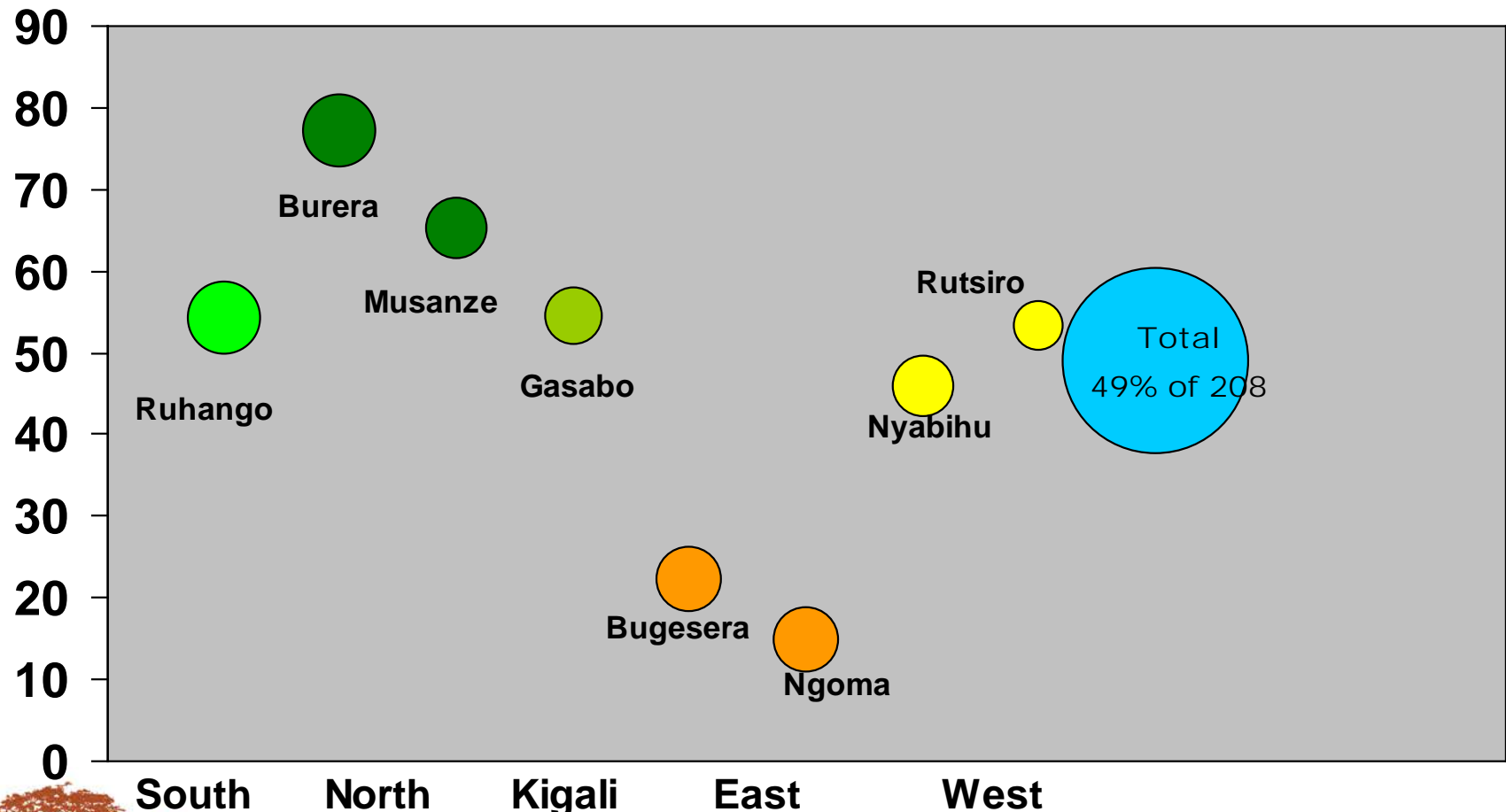


In Stock on DOV at ASCs by Product



% ASCs with Five Key Drugs In Stock

(Amoxicillin, ORS, Zinc & PrimoR/PrimoJ)



Average Stockout Duration and Stock Status for ASCs March-August 2010

Type of Product	Average duration stockouts (months)	Average months of information on stock card	Average months of stock*
Zinc	1.6 (n=37)	2.7 (n=200)	10.9
Amoxicillin	1.7 (n=28)	2.6 (n=197)	3.9
ORS	1.5 (n=41)	2.6 (n=186)	5.8
Primo Rouge	1.6 (n=72)	2.9 (n=185)	2.3
Primo Jaune	2.0 (n=62)	2.6 (n=181)	2.1

*Stockouts not included



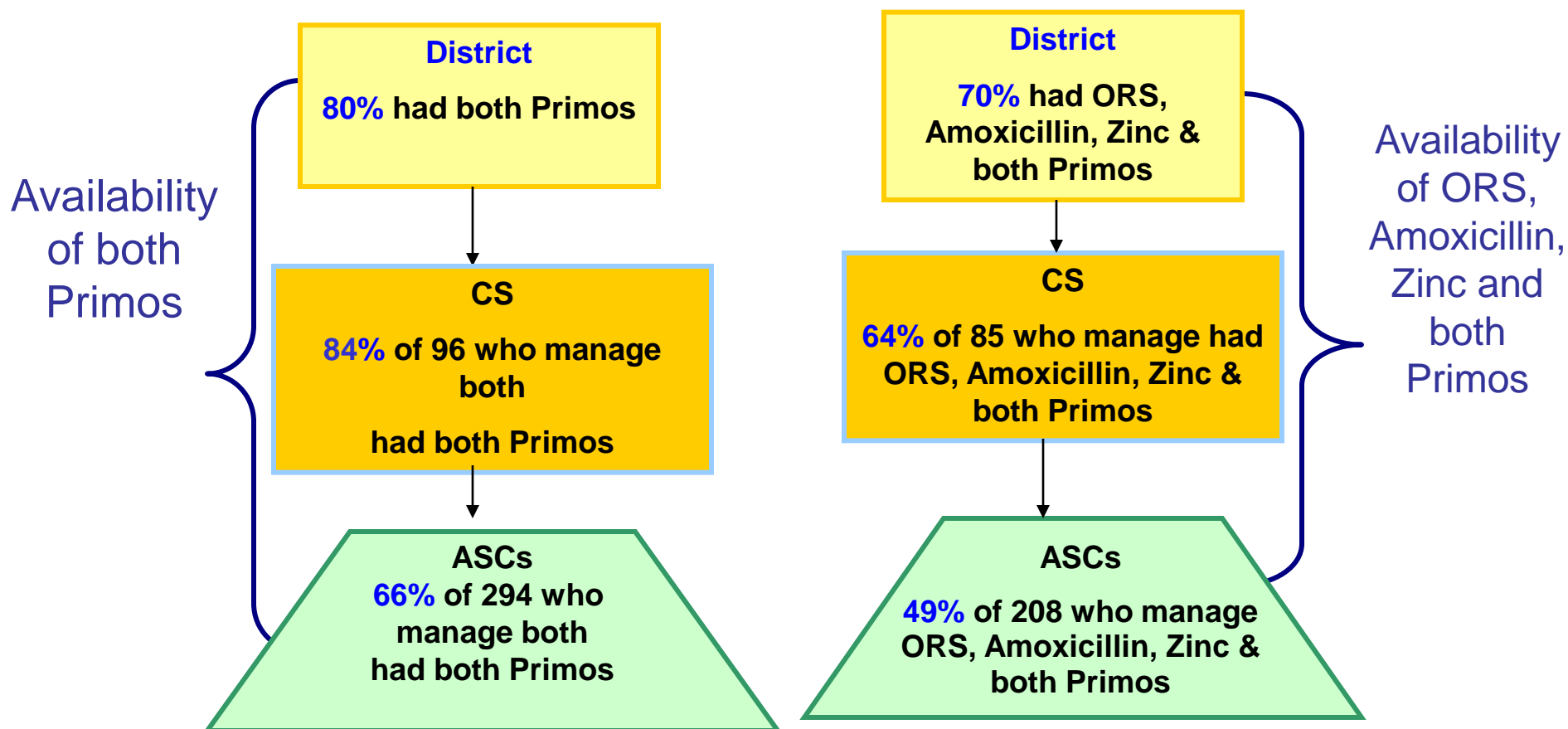
PRECONDITION 1:

Necessary, usable, quality CCM products are available at ASCs resupply point/s

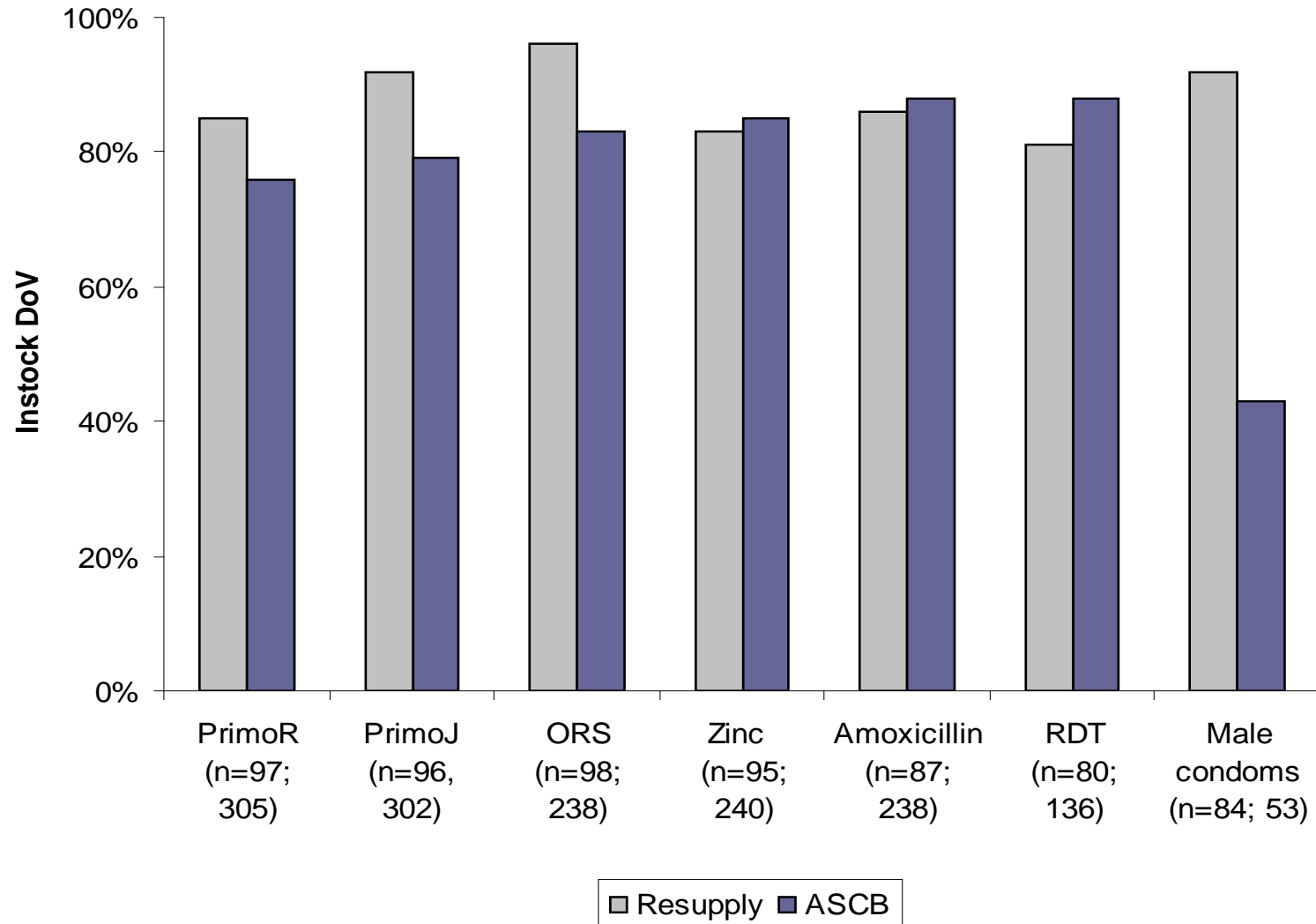
- Product availability at the resupply point appears to be **strongly linked** to product availability at the ASCs Level for:
 - Zinc
 - Amoxicillin
- ASCs **considerably overstocked** in amoxicillin, zinc and ORS



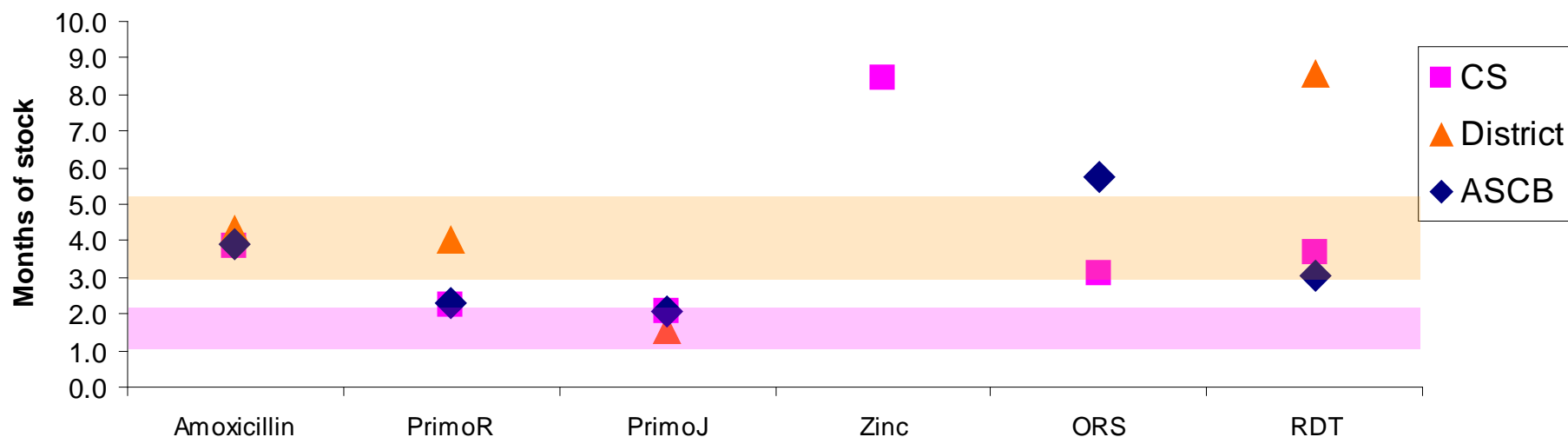
Product Availability at All Levels on DOV



% of Resupply Points and ASCs in Stock on DOV



Stock Status (up to 6 mos.) at all levels, based on Min/Max concept

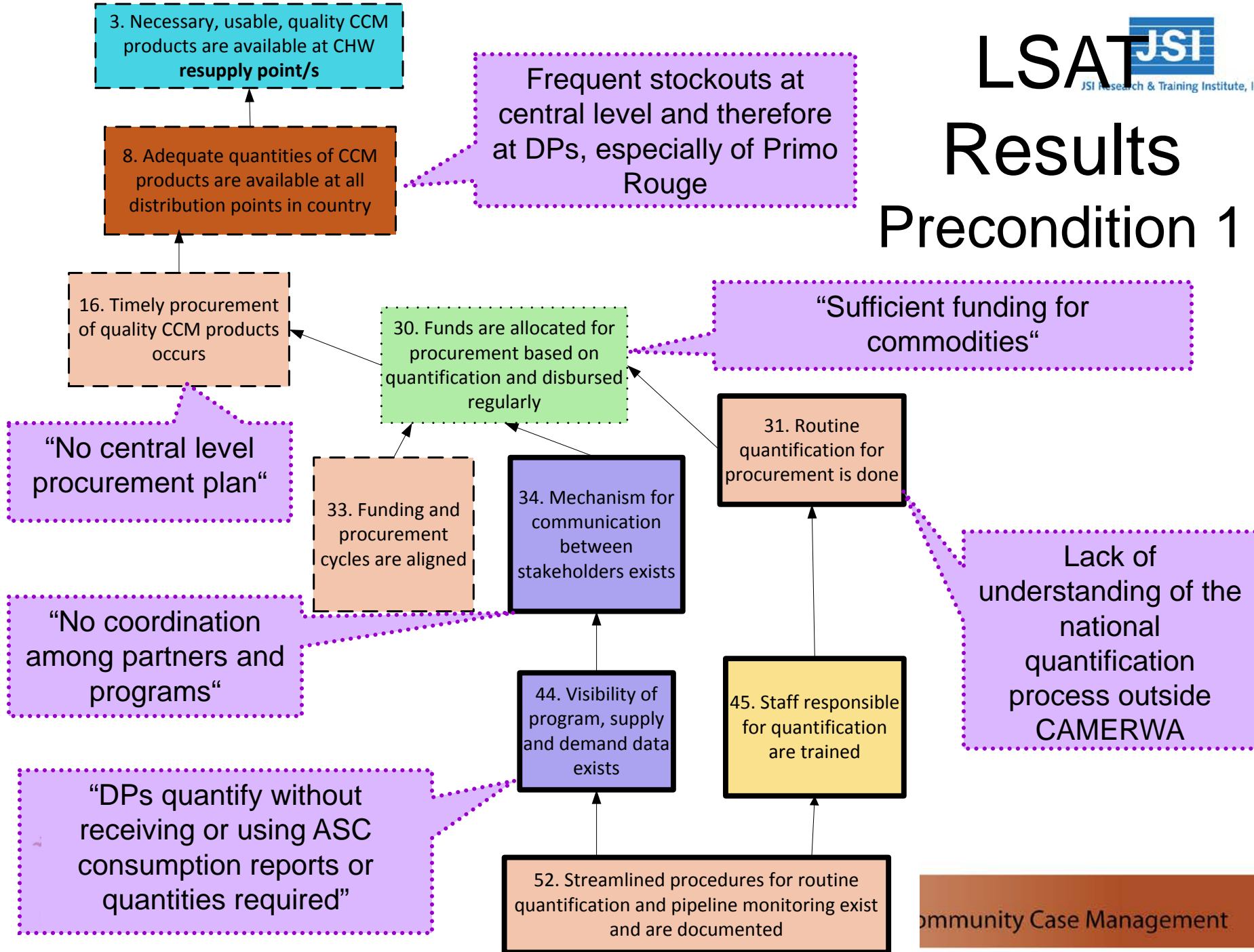


Colored bars represent ideal Min Max ranges for CS and District



Results

Precondition 1



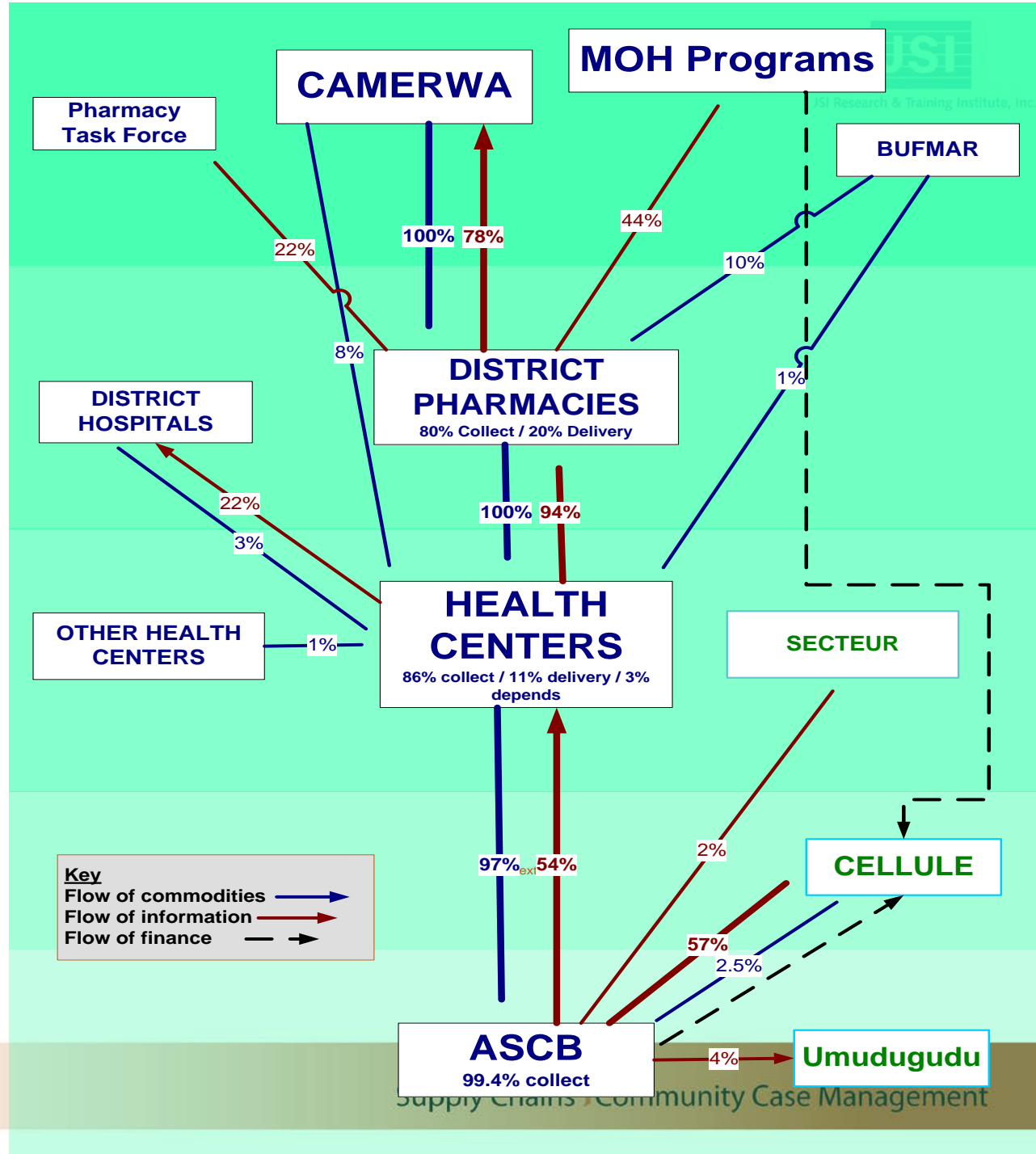
PRECONDITION 2:

ASCs, or person responsible for ASCs resupply, know how, where, what, when and how much of each product to requisition or resupply and act as needed

- High levels of supply chain training reported by staff at CS and ASCs
- Supply chain data not visible at all levels of the system
- No standard operating procedures (SOPs) or standard formula of resupply quantities for ASCs



Flow of Products and Information

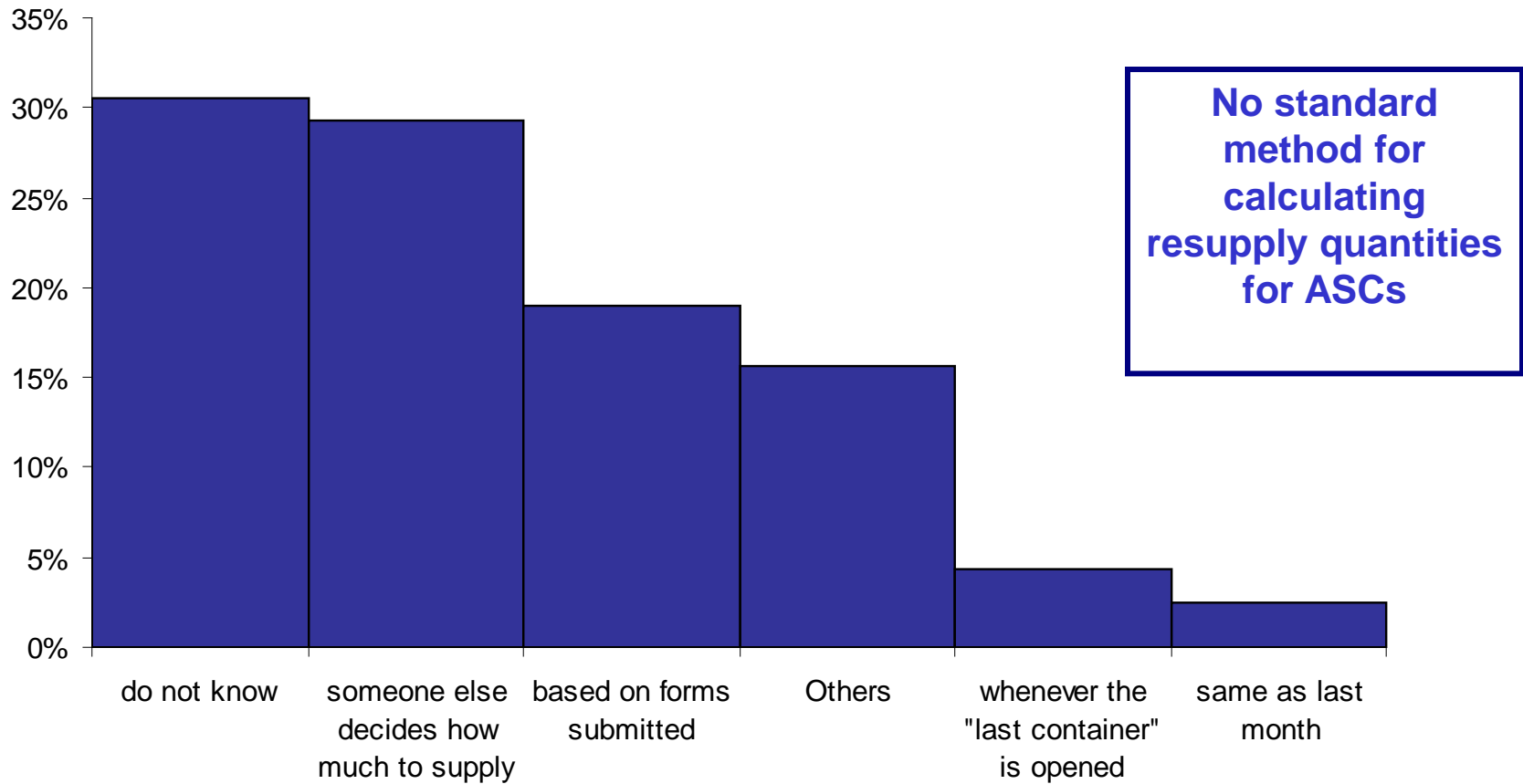


ASCs Reported Training in Supply Chain Management

	ASCs formally trained in SC areas (N=304)
% ASCs who reported training in all three: record keeping, ordering, receiving (combined as a %)	49%
% ASCs who reported training in both: storage and FEFO (combined as a %)	93%
% ASCs who reported training in transportation	79%



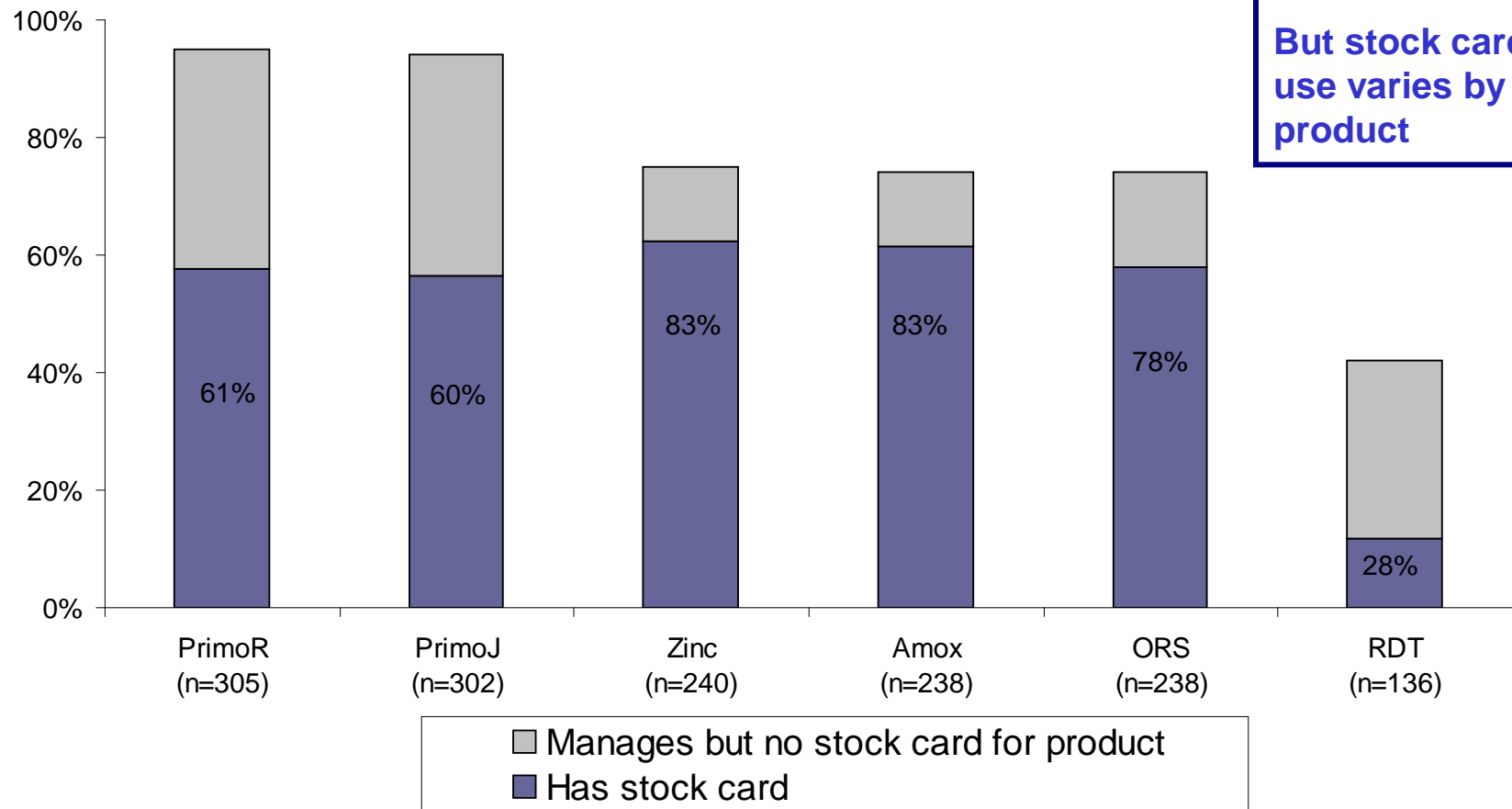
Methods used by ASCs to Determine Resupply Quantity



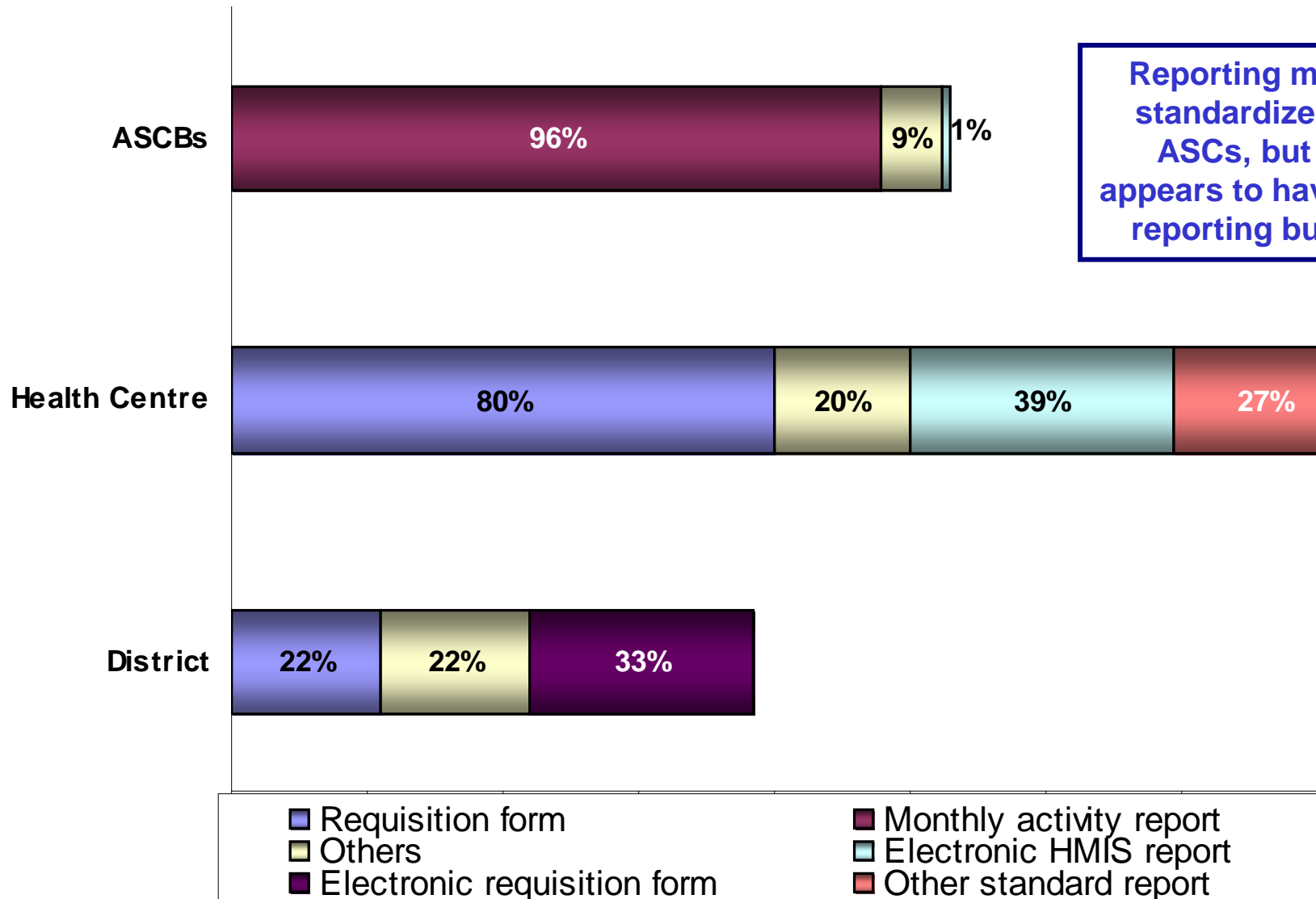
Availability of Stock Card at ASC Level

72% of ASCs
report using a
stock card

But stock card
use varies by
product



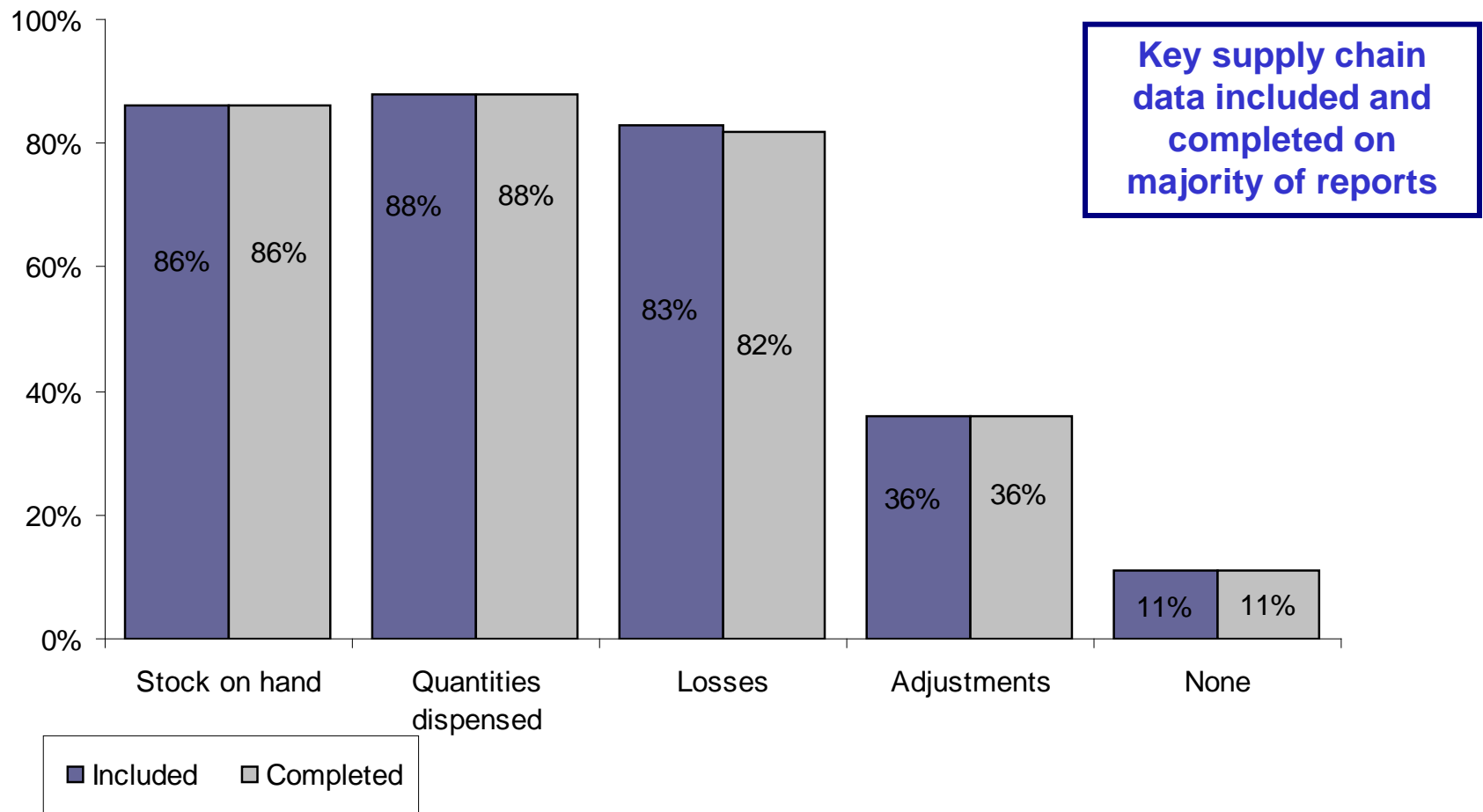
Types of Reports Submitted



Reporting mostly standardized for ASCs, but CS appears to have high reporting burden

Completion of ASC Monthly Report

% of Information Included and Completed on ASCs Reporting Forms
Viewed at the ASC Level (n=248)



4. **CHWs**, or person responsible for CHW resupply, know how, where, what, when and how much of each product to requisition or resupply and act as needed

18. CHWs routinely collect and report timely, accurate logistics data

12. Tools and resources needed to implement procedures are provided

“No documents that collect consumption data at ASC, requisition documents exist only for Primo”

“Not all products are included on LMIS forms “

19. LMIS forms or other data collection tools are available for CHWs

“LMIS forms need to be harmonized “

“This is a resupply and reporting system without a reporting tool”

36. CHWs are trained in procedures and processes for CCM product supply chain

46. Streamlined procedures for ordering, reporting, inventory control, storage and disposal of expired / damaged health products exist and are documented

LSAT Results Precondition 2

PRECONDITION 3:

ASCs have adequate storage: correct conditions, security and adequate space.

Standards for appropriate storage conditions appear generally well maintained at all levels, with some outstanding gaps, and some conflicting evidence from qualitative results



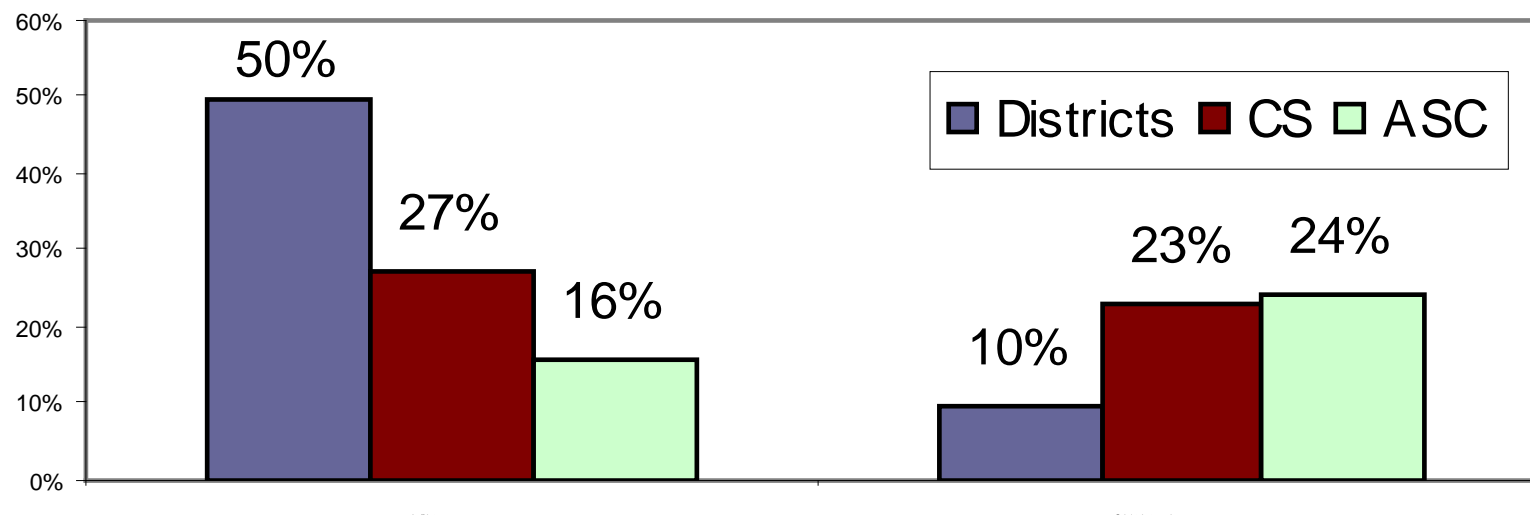
Satisfactory Storage Conditions

Health products are stored:

1. in an area free of rodents or insects
2. securely with a lock and key, and with limited access
3. in an area that is protected from direct sunlight
4. at the appropriate temperature
5. in a clean, dry, well-lit and well-ventilated storeroom
6. in an area that is accessible during all normal working hours.
7. so that first-to-expire, first-out (FEFO) is observed
8. on shelves or stacked off the floor in stacks and away from walls
9. separately to damaged and/or expired health products
10. well organized in the drug box (ASCs only)



Storage gaps: Two conditions require improvement at all levels



The current storeroom or storage area or box and organization are not sufficient for existing medicines and supplies

The stock card did not indicate removal of any damaged or expired medicines or supplies that are on site on the day of the visit



Storage gaps: Conditions requiring improvement at each level

	District	CS
Do not store products on shelves or stacked off the floor	30%	13%
Do not store products organized by FEFO	20%	16%
Do no store products away from direct sun	10%	
Do not store them separately from chemicals and insecticides	10%	
		ASC
Do not secure the storage box with a lock and key, nor is access limited to authorized personnel	37%	
Do not store products in a clean, dry, well-lit and well-ventilated storage area	15%	
Storage area or box is NOT free of rodents or insects	15%	



LSAT Results

Precondition 3

5. **CHWs** have adequate storage:
correct conditions, security and adequate space.

“Storage capacity
not adequate
...products stored
near goats,
cookers,
bedrooms”

20. Appropriate
and secure
storage space
for CCM
products is
available

21. Secure and
suitable storage
containers or
shelving for CCM
products are
procured where
needed

“Secure boxes are
old, in poor
condition and can’t
be replaced due to
lack of funds”



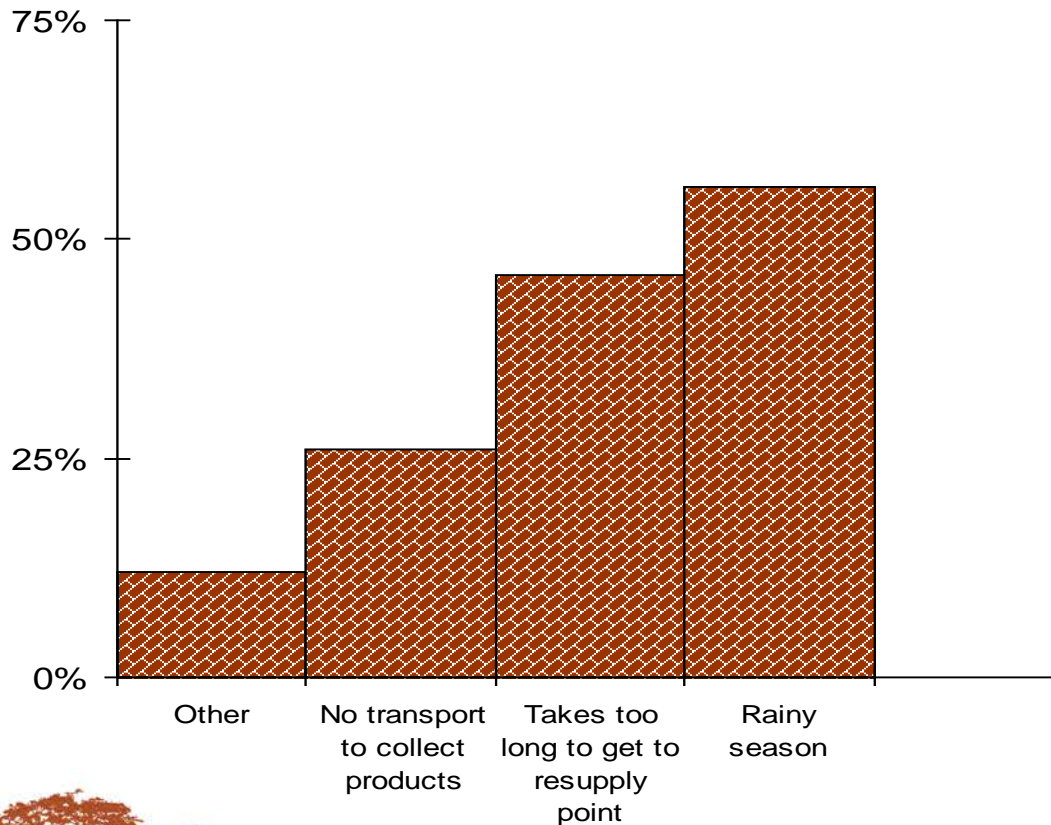
PRECONDITION 4:

Goods are routinely transported between resupply points and **ASCs**

- ASCs are generally located in remote areas that are difficult to reach particularly during rainy season
- **26%** of 90 ASCs with problems related to collecting or receiving health products reported **lack of transport** as the major constraint



Problems Collecting/Receiving Products Reported by 90 out of 321 ASCs



Most ASCs travel less than an hour in dry season, while about half must travel more than an hour in rainy season

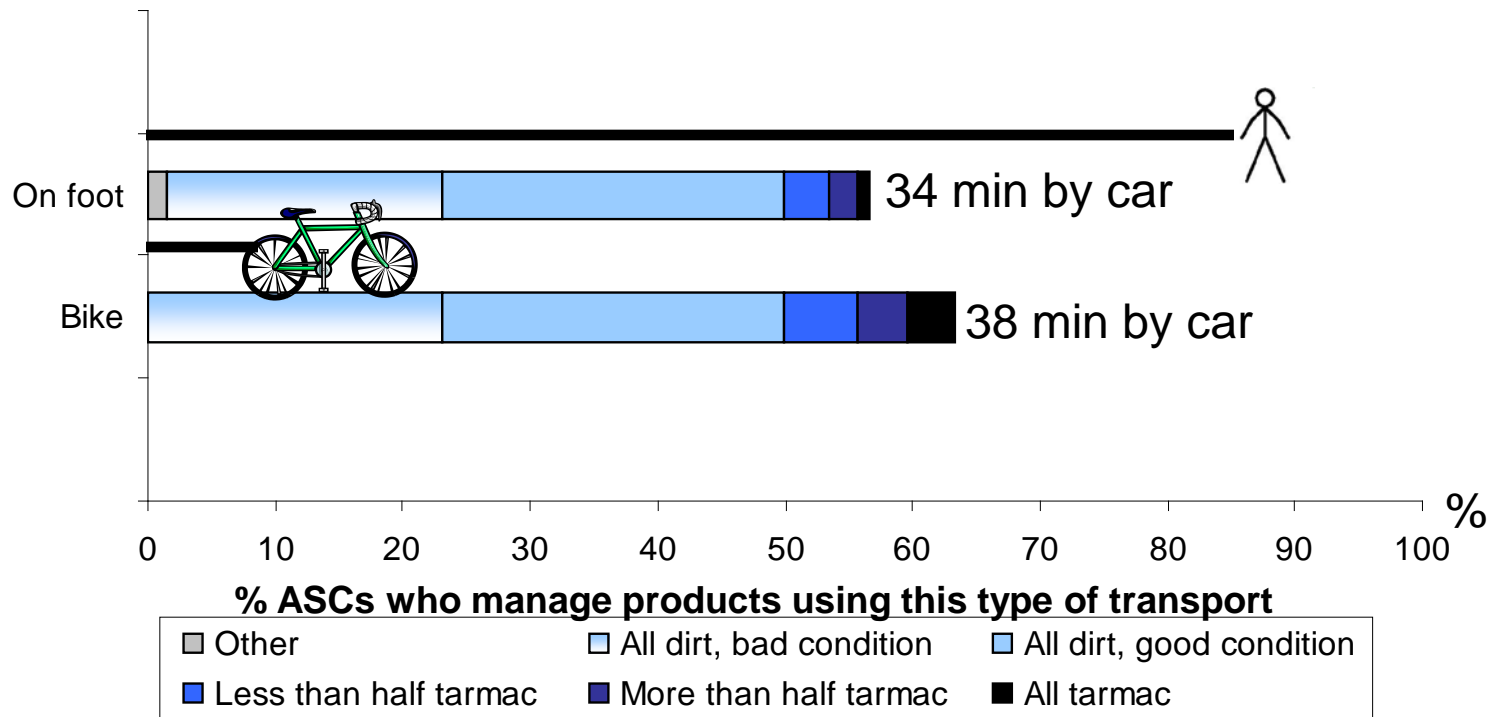
n=320	Dry	Rainy
<1 hr	70%	56%
1-3 hrs	28%	35%
3 hrs	2%	5%
3-5 hrs		4%



Transport and Distance

Most ASCs travel by foot, and the roads are overwhelmingly dirt.

88% of ASCs travel by foot, 10% use bikes, 0.9% use private vehicles, and 0.3% use public transport.



*Length of bar indicates the distance an ASCs would have to travel to get to health center by car (in minutes).

*Segments of bar indicate the proportion of ASCs using this type of transport who travel on various types of roads.

*Line length indicates the percent of ASCs that use this type of transport.



LSAT Results

Precondition 4

6. Goods are routinely transported between resupply points and **CHWs**

13. Reliable, timely and appropriate transport is available to distribute or collect goods between resupply point and CHWs

“Distribution schedules exist for all levels but orders not delivered/collected on schedule.”

24. Adequate transport procured or hired when necessary for purpose of CCM product distribution

“Transportation is insufficient at all levels.”

“Transportation not used efficiently since there are too many uses for one vehicle.”

47. Streamlined transportation procedures for maintaining vehicles and distribution /collection of goods exist and are documented



PRECONDITION 5:

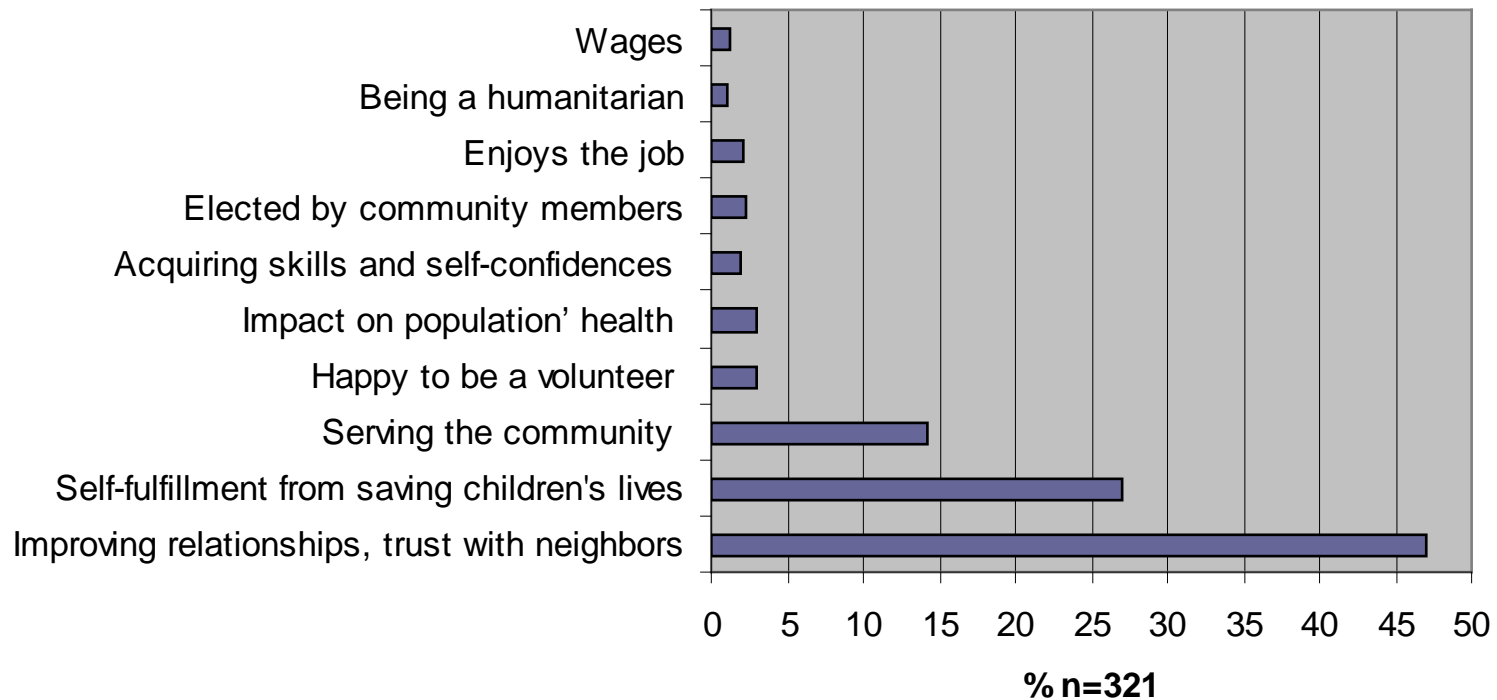
ASCs are motivated to perform their roles in the CCM product supply chain

- **Biggest motivators for ASCs**
 - Social relationships, trust and esteem from neighbours (47%)
 - Being able to save children's lives/help community (27%)
- **90% ASCs reported being supervised at least once a quarter (54% monthly, 36% quarterly)**

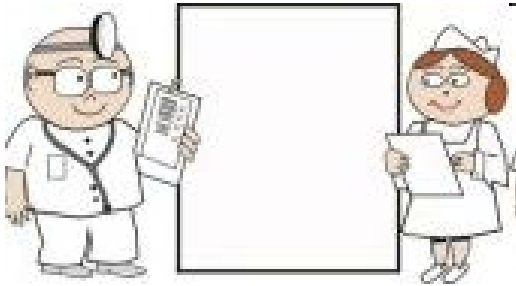


What motivates ASCs to do their job?

Motivating factors for ASCs

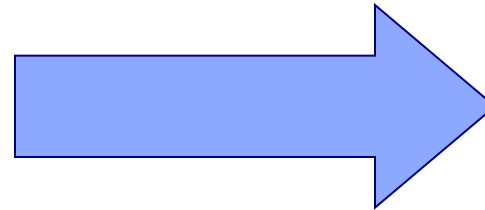


Supervision



87% supervisors reported providing supervision to ASCs every 3 months

- **96%** supervisors reported providing feedback



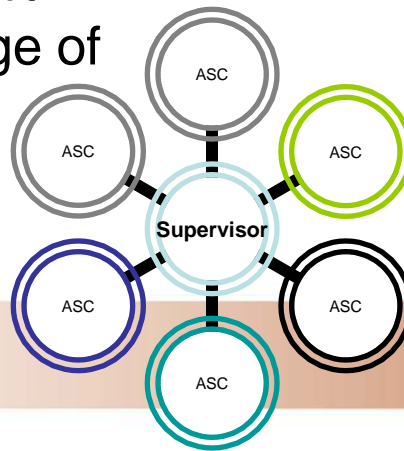
Last 3 months



93% ASCs reported receiving a supervisory visit in last 3 months

- **82%** ASCs reported receiving feedback specifically on managing products

...supervisors report supervising an average of **88** ASCs each

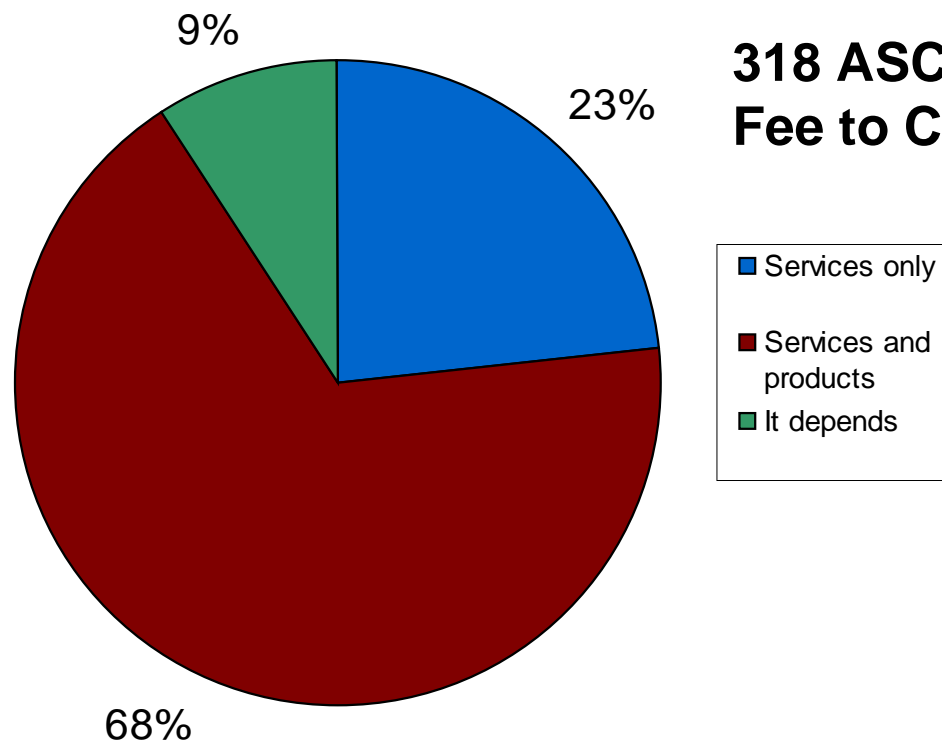


Does most supervision visits occur in a group setting?

Are drug boxes viewed during supervision?

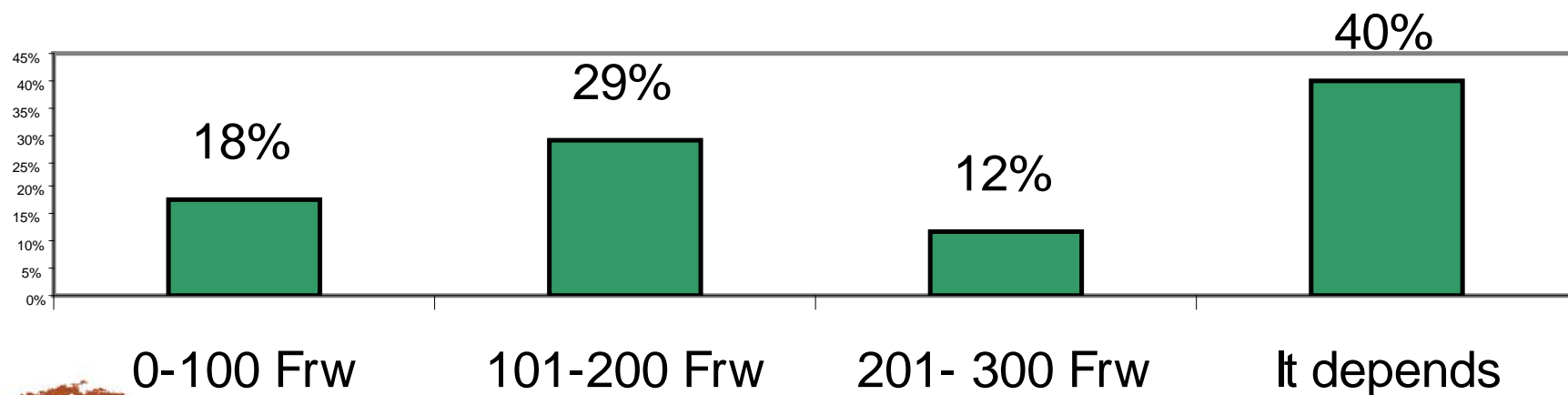


318 ASCs Report Charging a Fee to Clients



Some ASCs charge for consultation only.

Variation in amount of fees charged: Huye & Rwamagana are the only districts charging 0-100 Frw



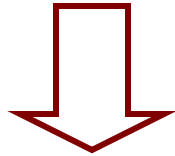
Value of fees charged by ASCs

Supply Chains 4 Community Case Management

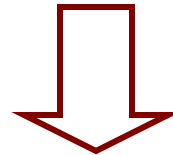
Access to Communication Technology



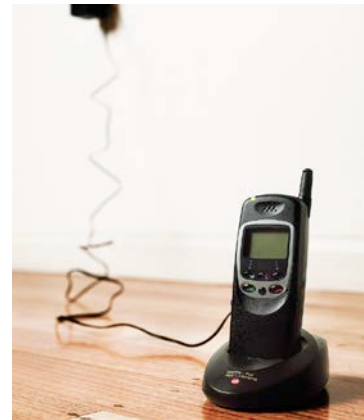
98% of ASCs who manage health products have a mobile phone



62% have network coverage at work all the time,
85% have at least sometimes

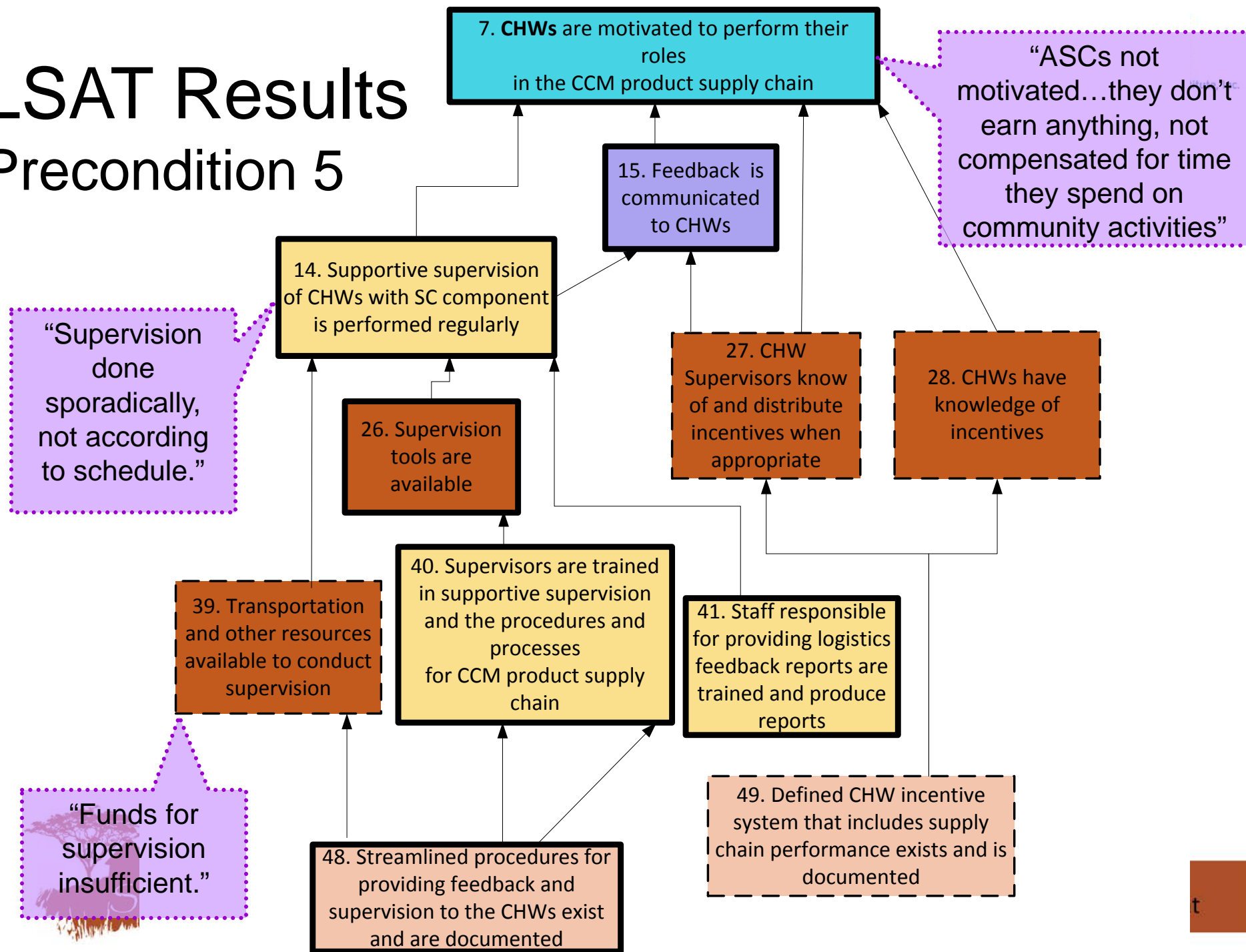


39% have source of recharge for phone battery
9% have at least sometimes



LSAT Results

Precondition 5

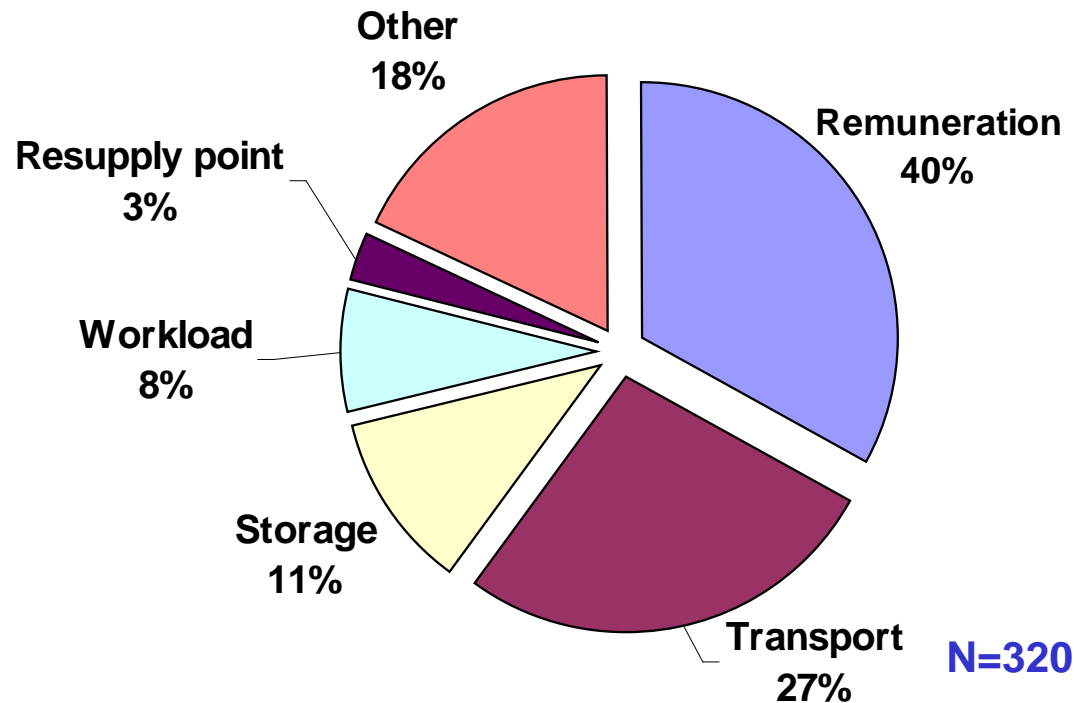


General results: CCM Supply Chain & Customer **Service**

- Barriers to client accessing ASC services:
 - Between Aug-Nov 2010, **38** ASCs reported referring patients **because of a stockout**
 - Frequent stockouts affect client confidence in system → are not consistently served (*LSAT)
 - Clients pay Fr200 for ASC service, if referred have to pay another Fr200 (*LSAT)



General results: ASCs' Greatest Challenge in Managing Health Products



What would you consider your greatest challenge to managing health products?



Thank You



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