







# Tanzania: Assessment of Community Services for Childhood Illness

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### **Background- Public Health Sector**

- Decentralized Council (district) health management (CHM)
  - District health management more accountable to local government structure than MoHSW
  - Service Delivery Points include: health post, dispensary\*, health center, district & regional, tertiary hosp
  - Service standards for childhood illness based on the Integrated Management of Childhood Illness (IMCI)
    - Adopted in 1996, part of pre-service curricula for most cadres
    - Have an IMCI unit at MoHSW and a national coordinator

### **Background- Private Health Sector**

- Autonomous clinics and hospitals
- Registered pharmacies, Accredited Dispensing Drug Outlets (ADDOs)\* and informal drug shops (duka la dawa baridi)
- ADDOs = village level drug shops
  - Trained dispensers-abbreviated IMCI curricula-30 days
  - Mostly owned by health workers (policy)
  - Piloted 2003-05; scale-up started in 2006
  - Service package: danger signs, referral, selling OTC and approved short list of prescription drugs
  - Supervision & regulation through public sector

### **Objectives of the Study**

Assess the availability and quality of current community level child health services in rural areas – public and private

Determine if the resources currently in place are adequate to ensure access to quality case management of childhood illness

Recommend modifications that will improve access to and use of services and health outcomes



### **Research Questions**

1. What is the present reach of existing services?

- 2. Can they be expanded to ensure the greatest coverage of children in need of services within the constraints of the current infrastructure and network?
- 3. What is the quality of care and utilization of services?

### Methodology

- Selected three regions with varying ADDO program status with high diarrhea, pneumonia and malaria prevalence rates and anticipated USAID investment in child health
  - Mtwara (mature ADDO program)
  - Kigoma (new ADDO program)
  - Kagera (no ADDO program)

Selected 2-4 rural districts within target regions



### Health facility survey

#### Four components

- Observation of children 2-59 months with diarrhea/fever/cough/difficulty breathing
- Exit Interviews with caregivers of examined children
- Re-examination of all children by trained IMCI supervisor
- Equipment and Supplies Checklist
- Target population: all rural and semi-rural MoHSW health dispensaries and ADDOs in Mtwara and Kigoma; DLDB in Kagera

### Caregiver survey/In-depth interviews (IDI)

- Collected caregiver perspectives with regard to convenience, quality, responsiveness and affordability of services/medications
- Principal barriers (financial, geographic, perception of need, etc.) faced by caregivers when seeking treatment for their child's illnesses
- Probability sample of caregivers of children 2-59 months in each sampled district

# Sample sizes by region

Target Institution	Kigoma	Kagera	Mtwara	TOTAL
Number of dispensaries	37	32	27	96
Number of case observations in dispensaries	93	104	76	302
Number of ADDOs/ potential ADDOs (DLDB)	32	7	19	58
Number of case observations at ADDO*	1	0	24	25
Number of caregiver IDIs	490	525	496	1511
Number of FGDs with Community Health Boards	3	5	4	12

### Additional data collection/analysis

- In-depth narratives with 10 caregivers of children under 5 for insight into decision making and determinants of care seeking patterns
- Focus group discussions with 9 Community Health Boards (1 per sampled district) for role of community and community leaders' perception of services
- Secondary analysis of 2005 and 2010 Tanzania DHS data for care seeking and medications for diarrhea, cough/rapid breaths and fever

### Limitations

- Limited quantitative research capacity of University of Dar-es Salaam
- Convenience sample of caregivers did not encompass respondents located far from facility
- Lack of standard approach to data collection at ADDOs
- Small number of observations at ADDO

### **Results**—Access and Behavioral



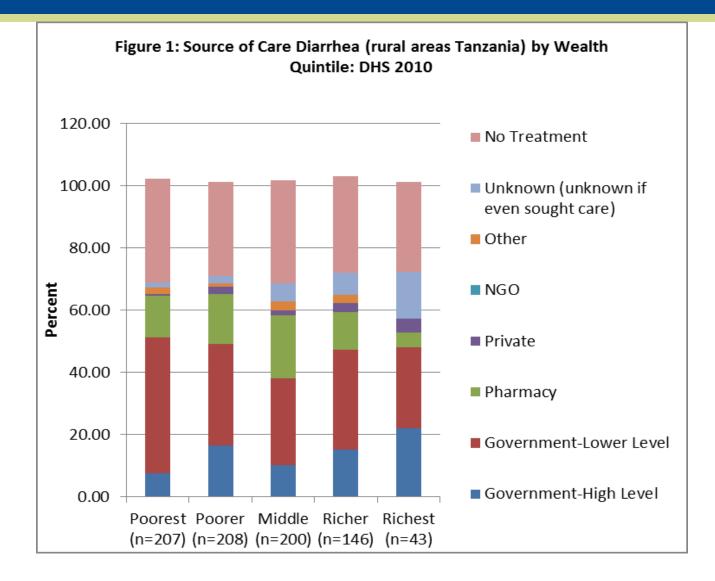
# Access, Acceptability and Barriers to Seeking Care

#### Sources of care for childhood illness, TDHS 2005 and TDHS 2010

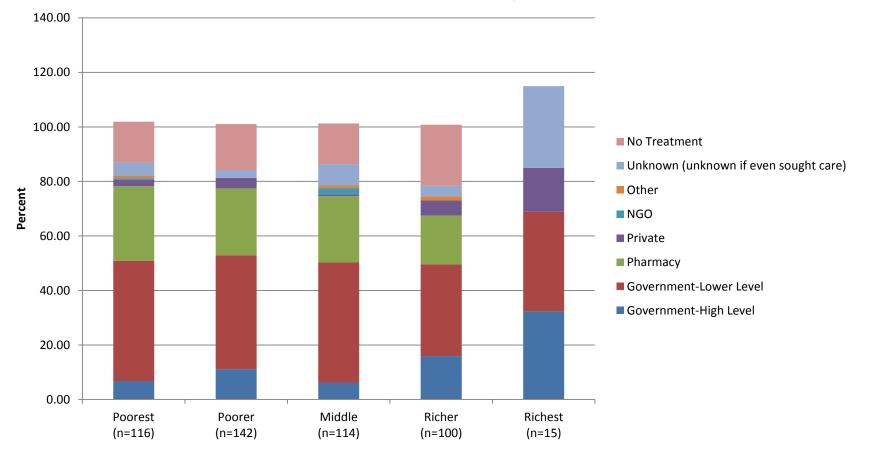
Source of Care	Diarrhea (%)		Fever (%)		Short/rapid breaths (%)	
	2005	2010	2005	2010	2005	2010
Didn't seek care	37.8	31.6	20.2	14.9	13.5	16.8
Private (facility)	4.7	4.1	6.2	6.4	5.1	5.7
Religious/NGO	3.3	4.3	5.1	6.2	6.4	5.8
Other/Pharmacy*	14.7	15.6	23.5	19.9	22.6	20.1
Government hospital	5.4	4.0	7.9	6.6	8.5	7.6
Government health center	7.1	10.7	10.6	11.8	10.2	9.8
Government dispensary**	26.3	30.2	26.5	35.3	34.4	34.5

\* ADDO was not identified as a specific source of care: our assumption is that it is part of pharmacy

### Source of Care for Diarrhea by Wealth Quintile



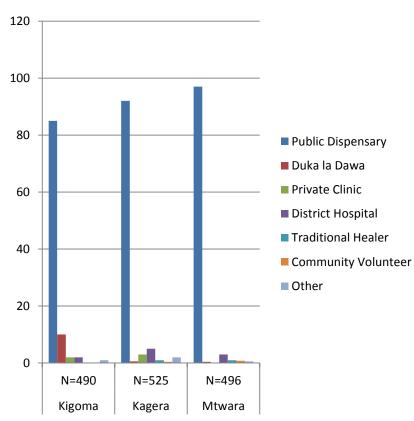
### Source of Care for fever/ARI by Wealth Quintile



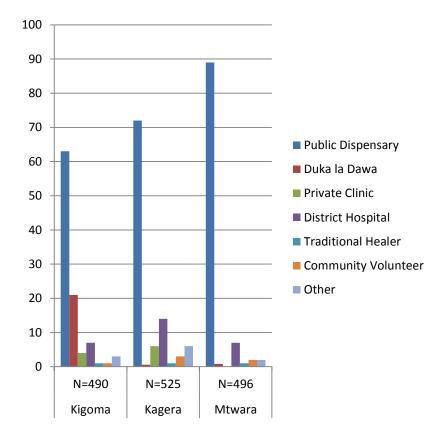
#### Source of Care Fever/Shortness Breath Rural by Wealth Quintile

### Caregiver preferences when child is ill

# Preference when child is ill and more than can treat at home



# Preference when emergency medical care needed

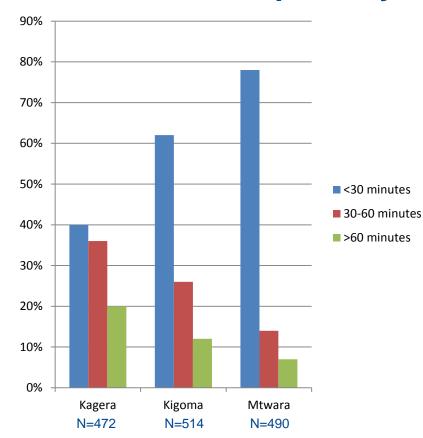


### Accessibility

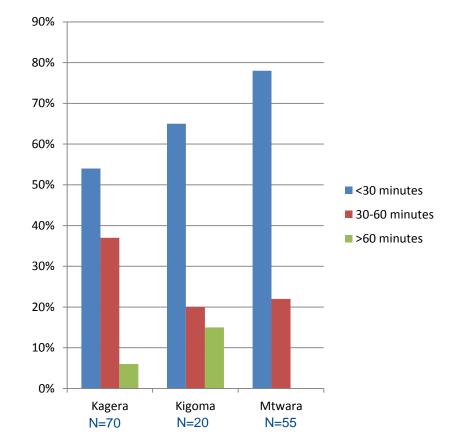
- Most dispensaries accessible 24 hours; ADDOs 18 hours.
- Barriers to Seeking Care
  - Distance=problem for 45% of caregivers per TDHS (2010)
  - Finance (ready cash to pay for drugs at ADDO or treatment at mission hospital)
  - Long waiting times at dispensaries
  - Insufficient staff at dispensaries
  - Insufficient (free) drugs at dispensaries
  - Poor response to emergencies

### **Distance to Facility**

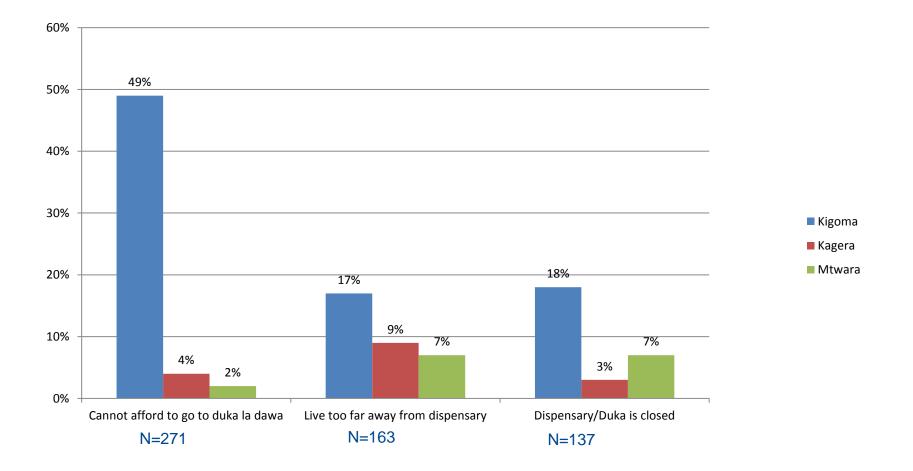
#### Time to walk to dispensary



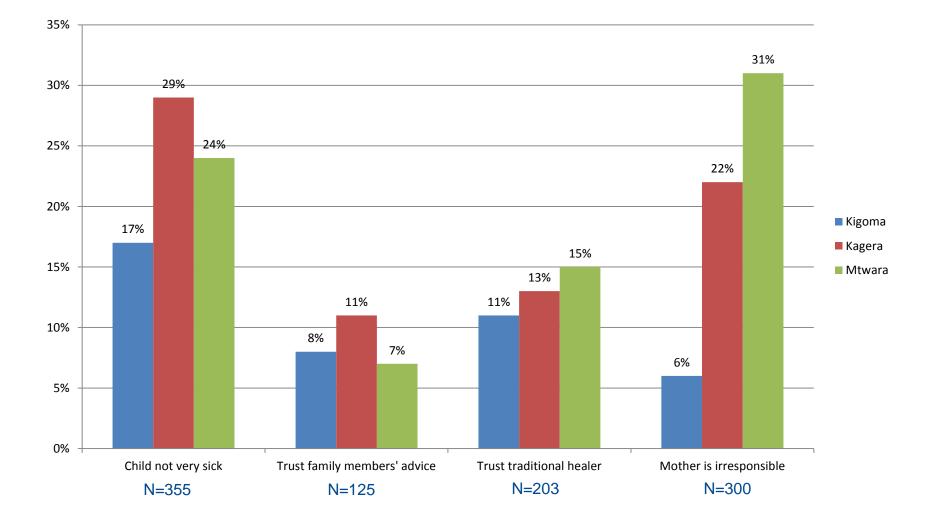
#### Time to walk to ADDO/DLDB



### Reasons for delaying treatment - Access



### Results – Demand/Behavioral

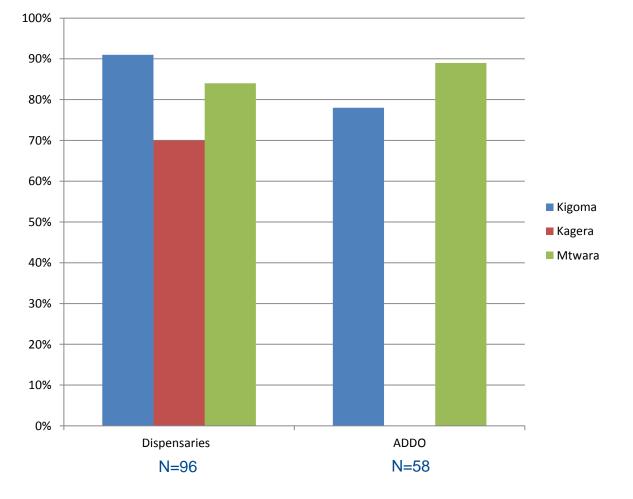


# Quality of Care

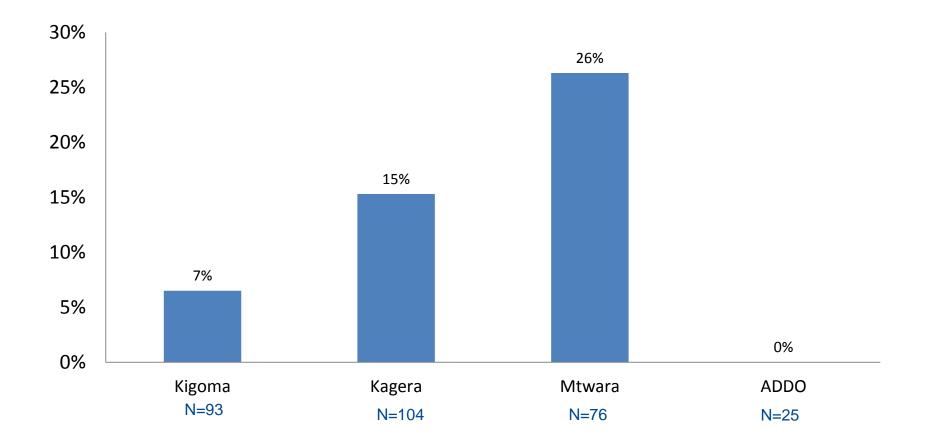


### **Dispensary and ADDO Staff Training**

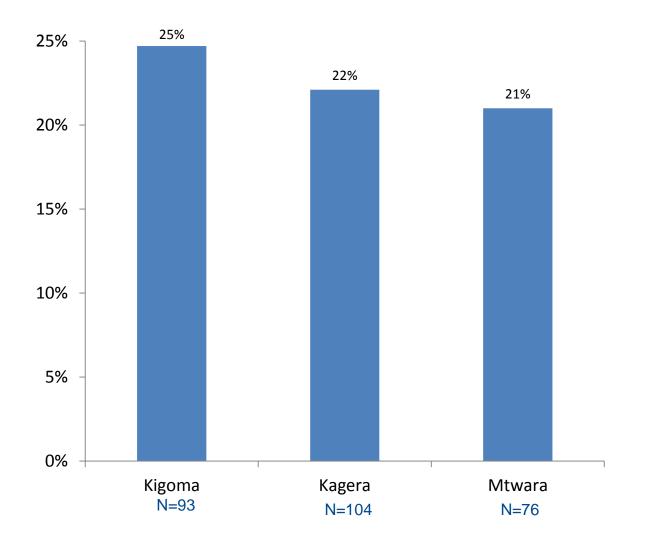




### Child Checked for Danger Signs

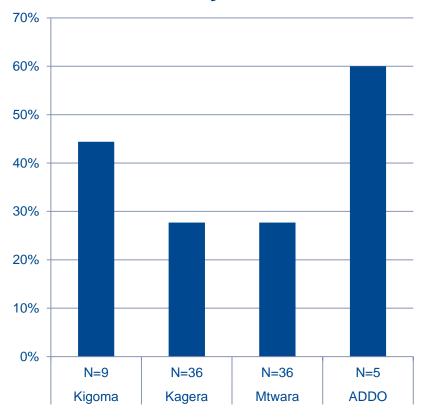


### **Child Correctly Classified**



### **Correct Treatment of Childhood Illnesses**

#### Child with pneumonia correctly treated



#### 30% 25% 20% 15% 10% 5% 0% N=38 N=37 N=34 N=4

Kagera

Mtwara

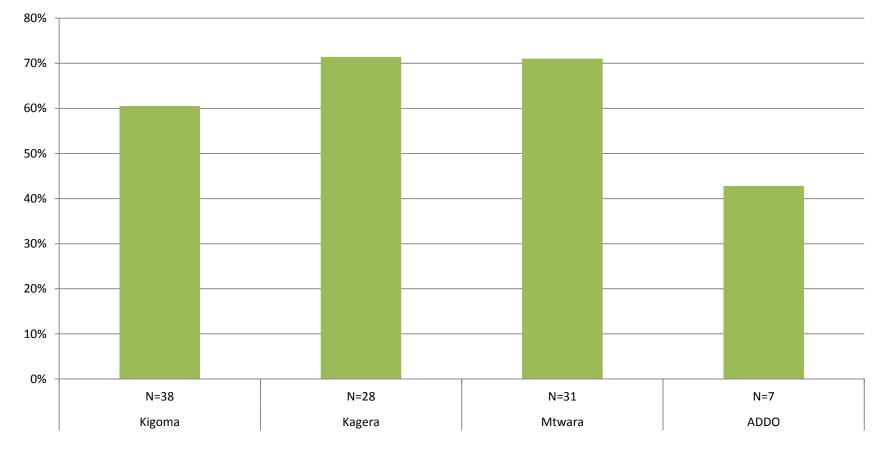
ADDO

Kigoma

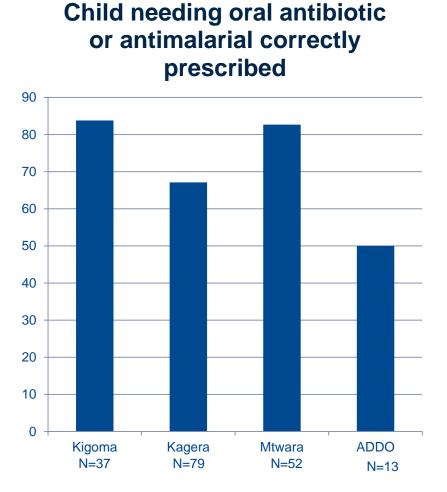
# Child with diarrhea correctly treated

### Correct treatment of Child with Malaria

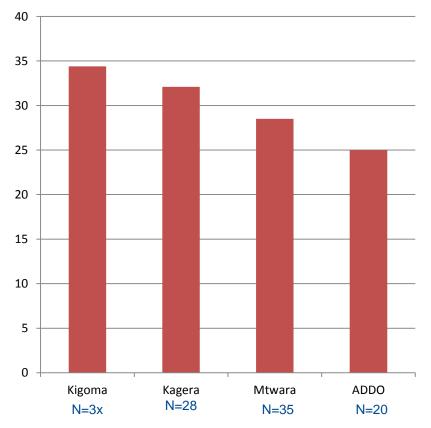
#### Child with malaria correctly treated



### Rational Use of Drugs

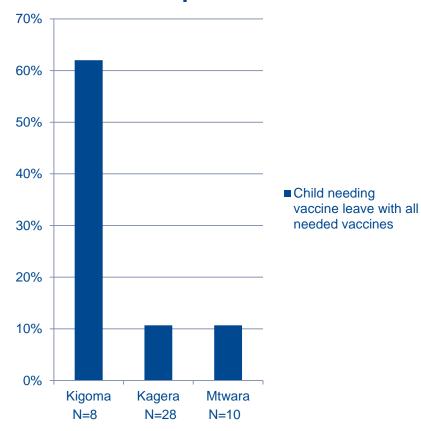


# Child not needing antibiotic leaves facility with antibiotic

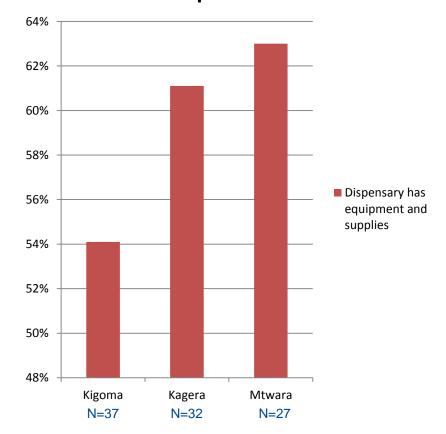


### Child receives needed vaccines

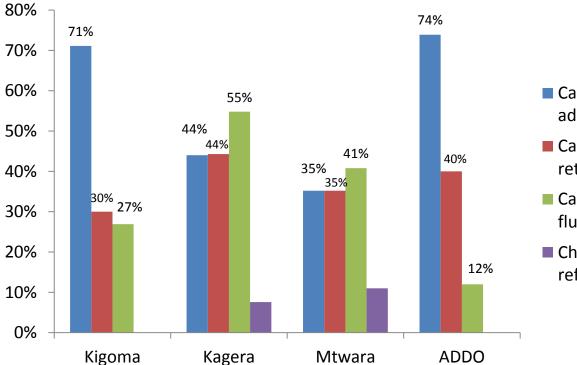
#### Vaccination Services at Dispensaries



#### Equipment and Supplies at Dispensaries



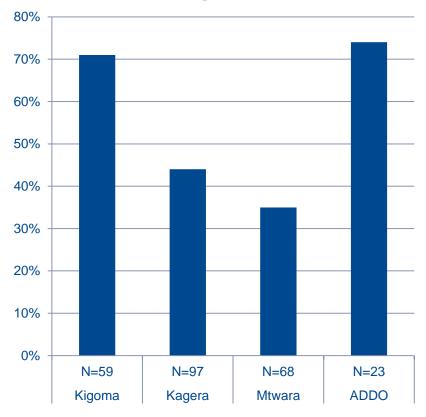
### **Counseling Caregivers**



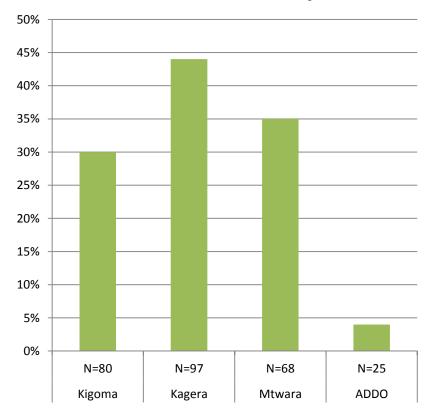
- Caregiver advised how to administer treatment
- Caregiver advised when to return immediately
- Caregiver advised to give extra fluids/feeding
- Child needing referral is referred

### Counseling caregivers

# Caregiver is counseled on administering oral treatment



# Caregivers is advised when to return immediately

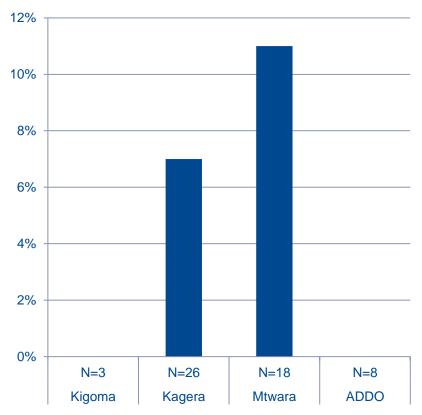


### **Counseling Caregivers**

Caregiver advised on feeding and

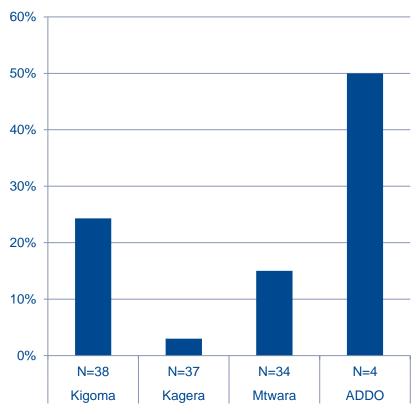
fluids 60% 50% 40% 30% 20% 10% 0% N=25 N=93 N=104 N=76 Kigoma Kagera Mtwara ADDO

# Child needing referral is referred

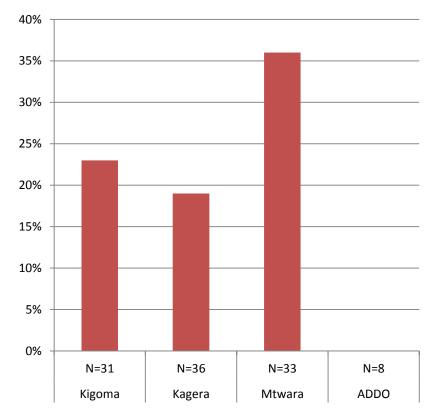


# Facility takes opportunity to counsel about prevention

# Child with diarrhea is counseled about WASH

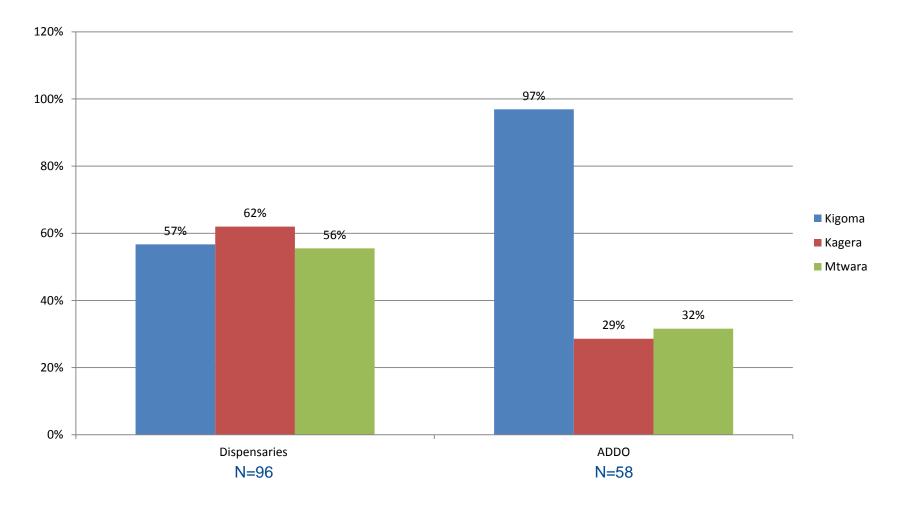


# Caregiver of child with malaria counseled about ITNs



### Supportive or Regulatory Supervision

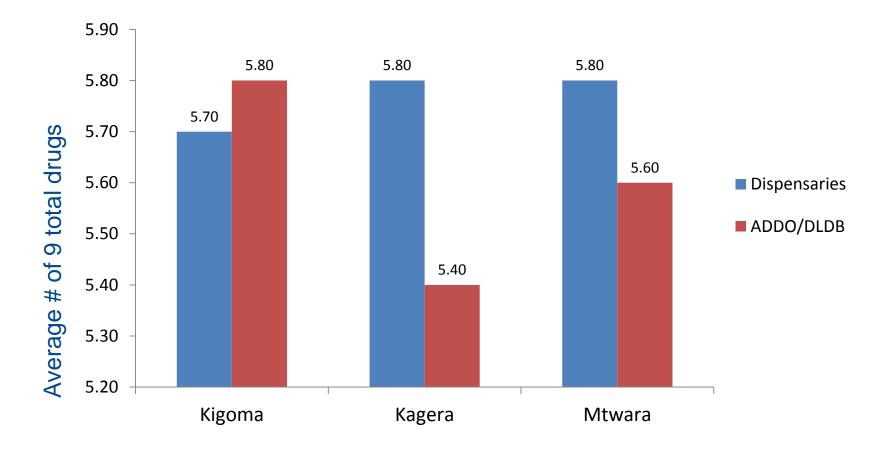
#### Supervisory/regulatory visit in last 6 months



# Supply

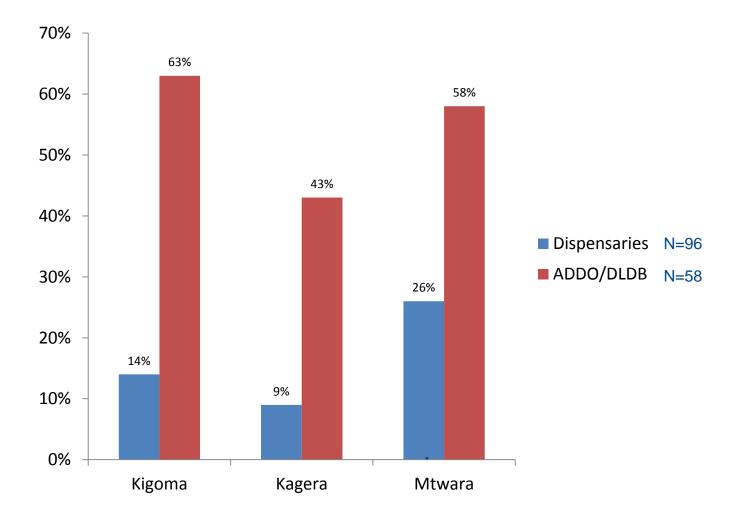


### Availability of 9 Essential Oral Treatments



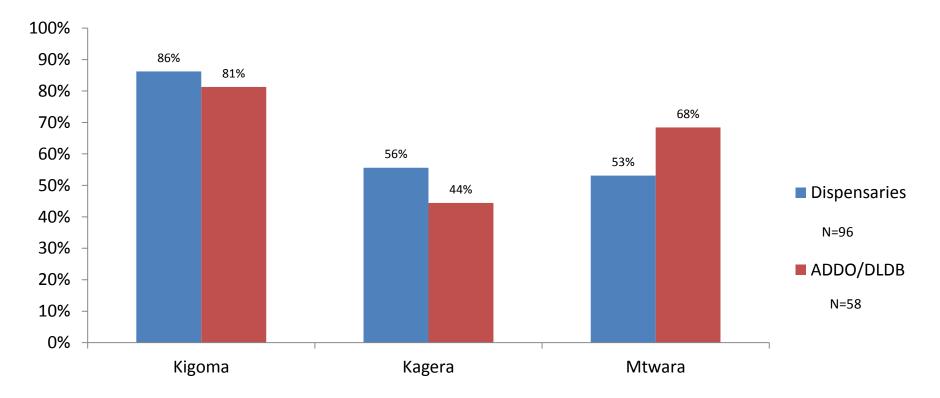
### Availability of Specific Treatments - Diarrhea

Availability of First Line Diarrhea Treatments (ORS+Zinc)

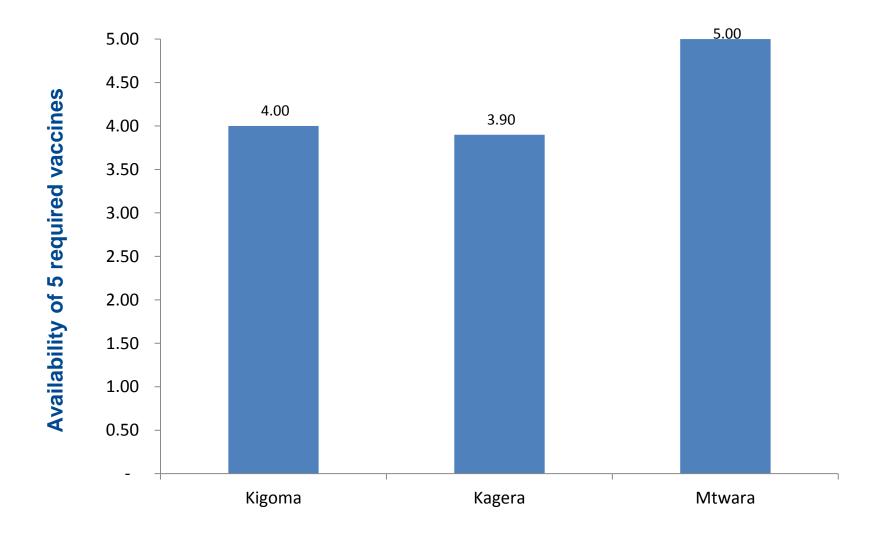


### Availability of Specific Treatment - Pneumonia

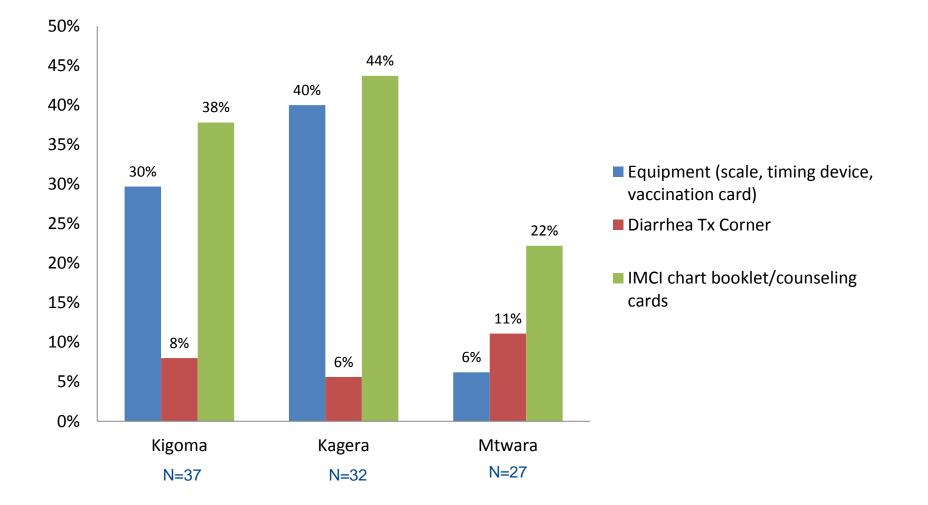
#### **Availability of First Line Pneumonia Treatment (Cotrimoxazole)**



### Availability of 5 vaccines



### Availability of Equipment and Materials



### **Research Questions**

1. What is the present reach of existing services?

- 2. Can they be expanded to ensure the greatest coverage of children in need of services within the constraints of the current infrastructure and network?
- 3. What is the quality of care and utilization of services?

### **Conclusions - Dispensaries**

- Dispensaries are the first choice for routine care among rural populations and across wealth quintiles but some communities travel long distances.
- Quality of services is below standards.
- Issues:
  - Stock out of first line drugs; trained staff and not following IMCI protocols.
  - Assuring that the system is functioning through supervision and mentoring.

### Recommendations by Stakeholders

- Improve Quality and Effectiveness
  - Improve supervision and appropriate training of front line workers and supervisors
  - Prioritize procurement of child health drugs, improve forecasting
- Increase Access and Coverage
  - Develop policy to allow alternative providers (community health workers) in hard-to-reach areas
- Use community structures to identify at risk children and refer them to available services.

### **Conclusions - ADDOs**

- ADDOs have in stock and are dispensing quality medicines to clients.
- They are located in peri-urban areas and around dispensaries where they have a market for their products, not in remote, rural areas.
- ADDOs are not accepted by established medical system as service providers. ADDOs are primarily filling prescriptions from the dispensary. They are expected to provide quality, affordable drugs and accompanying advice.
- ADDOs have been trained to recognize danger signs and refer but they did not do this during the survey (24 observations in Mtwara). This is a key role that should be emphasized.
- Government has been providing both a supervisory and a regulatory role. This has been ineffective in improving quality.

### **Recommendations by Stakeholders**

- Organize ADDOs into associations and link them with wholesalers so they can provide quality drugs at a lower price
- Create incentives for good performance, adherence to standards, and relocation to remote areas
- Provide appropriate private sector-led supervision while Government maintains its regulatory role
- In areas with no ADDOs, consider testing an iCCM-based community distribution system









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SHOPS is funded by the U.S. Agency for International Development. Abt Associates leads the project in collaboration with Banyan Global Jhpiego Marie Stopes International Monitor Group O'Hanlon Health Consulting