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The Accredited Drug Dispensing Outlet (ADDO) Model in Tanzania: A Platform for Appropriate Malaria Case Management

Edmund Rutta, MD, MPH

The problem

CPM (Center for Pharmaceutical Management). 2003. *Access to Essential Medicines: Tanzania, 2001*. Prepared for the Strategies for Enhancing Access to Medicines Program. Arlington, VA: Management Sciences for Health

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Medicine Sellers and Malaria Treatment in Sub-Saharan Africa: What Do They Do and How Can Their Practice Be Improved?

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Drug shop regulation and malaria treatment in Tanzania—why do shops break the rules, and does it matter?

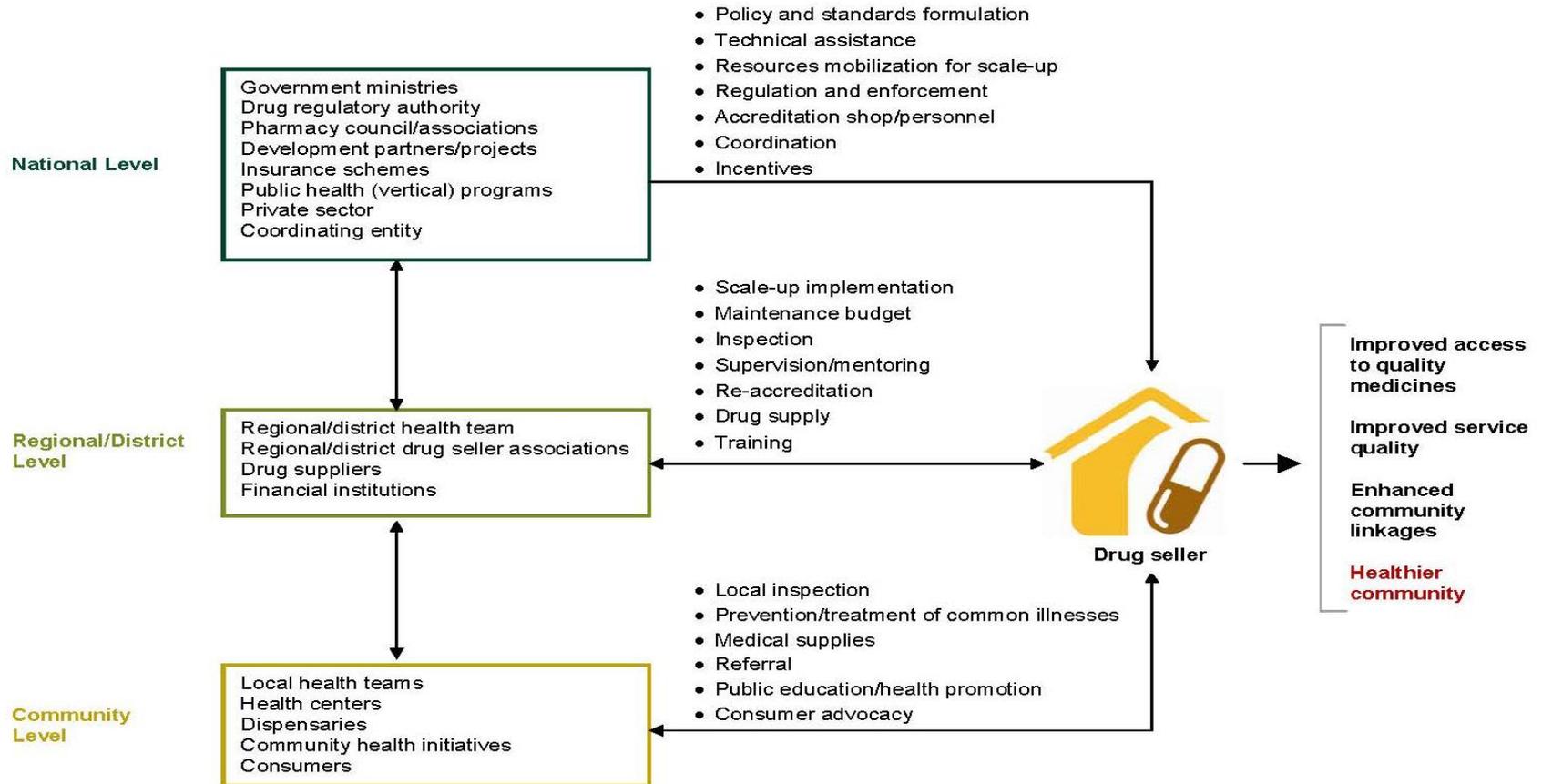
Catherine Goodman,^{1,2*} S Patrick Kachur,^{3,4} Salim Abdulla,⁵ Peter Bloland⁶ and Anne Mills⁷

ADDOs: concept to scale-up

- Holistic approach—standards setting, training, incentives, regulatory enforcement, supervision, and consumer advocacy to improve access and use and help assure sustainability
- **Broad stakeholder engagement to promote ownership and sustainability**
- Model piloted and evaluated in Ruvuma region during 2003–2004; plans for national scale up started in 2005
- After 10 years of effort from central and local governments and development partners, nationwide scale-up completed in June 2013

ADDO as part of the health system

Drug Seller Initiative Conceptual Framework¹



Leveraging resources to develop the ADDO program



Government of Tanzania

BILL & MELINDA
GATES foundation



USAID
FROM THE AMERICAN PEOPLE



Investing in our future
The Global Fund
To Fight AIDS, Tuberculosis and Malaria

THE
ROCKEFELLER
FOUNDATION



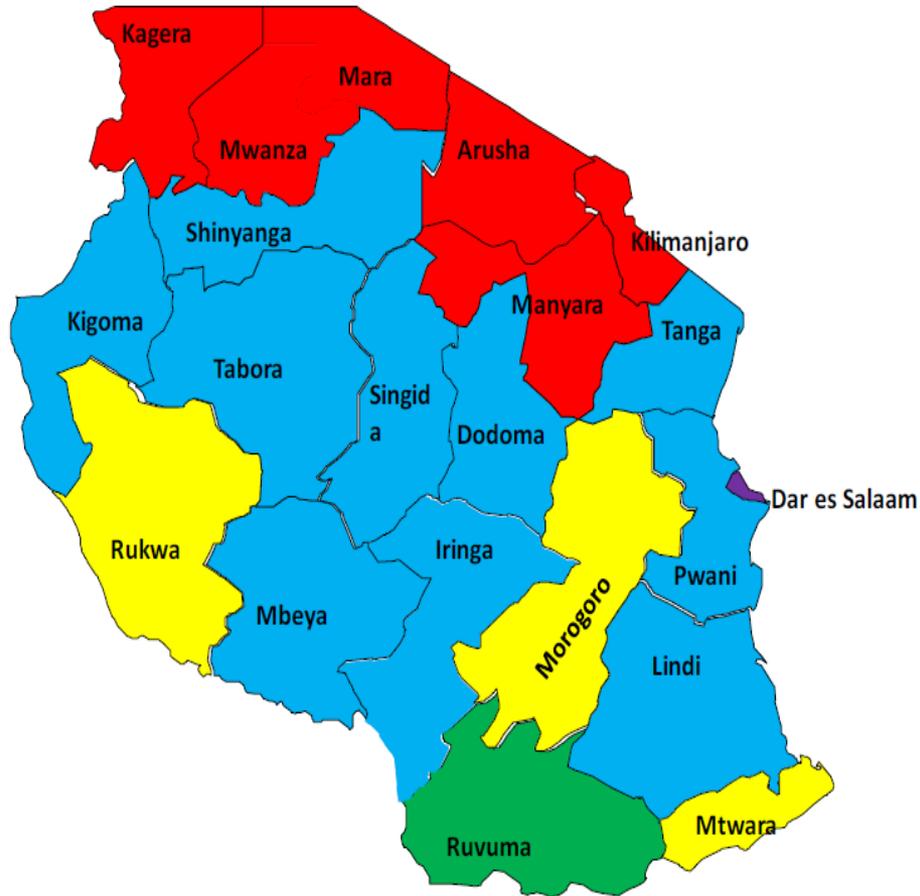
SDSI 
Sustainable Drug Seller Initiatives



 **msh**
Management Sciences for Health

ADDO program status

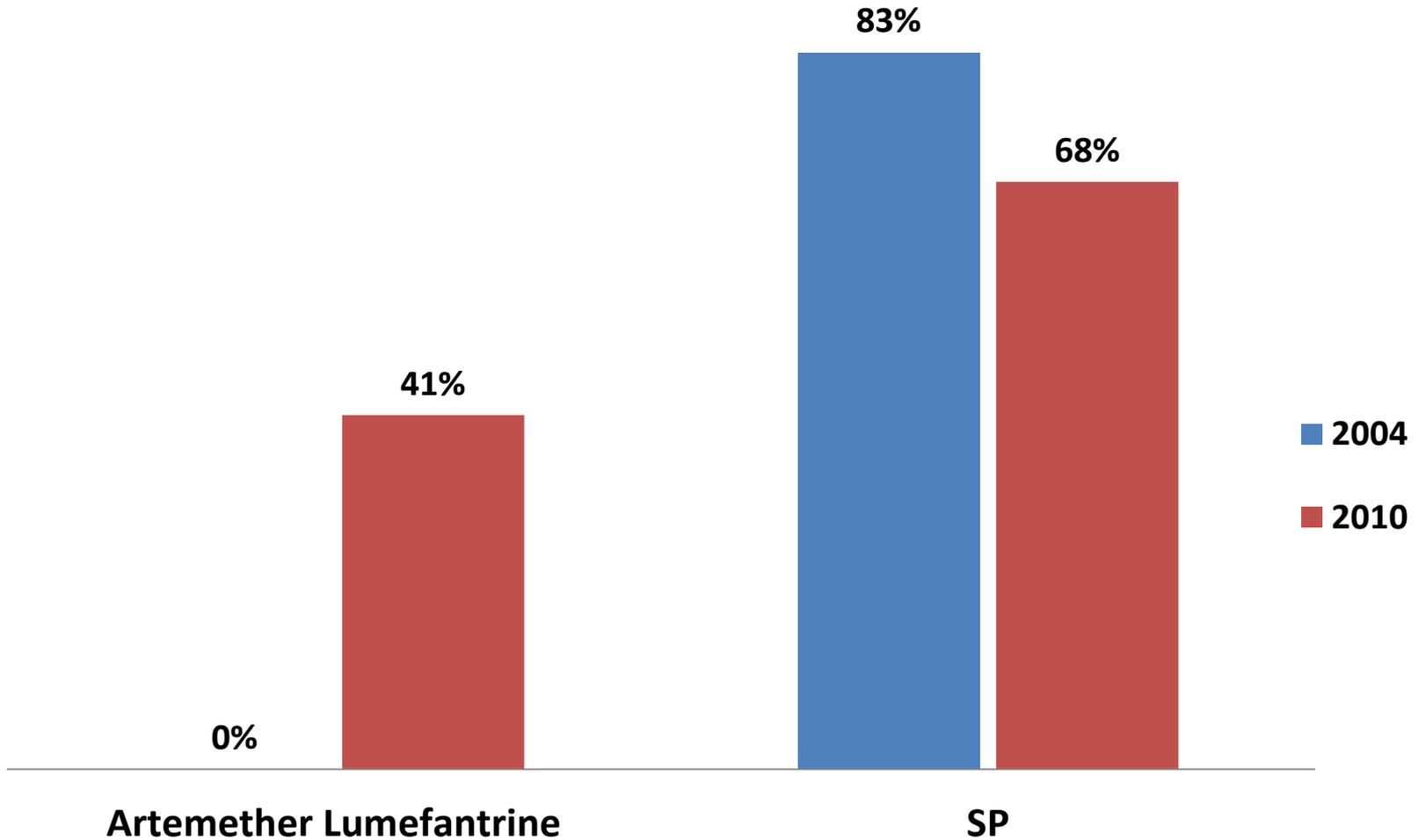
ADDO Program Implementation in Tanzania: 2003-2013



As of August 2013

Regions scaled up	21
Total no of drug shops	9,226
Shops accredited (ADDOs)	5,467
Shops on application process	3,759
Trained dispensers	13,302
Trained district inspectors	262
Trained ward inspectors	3,000

Antimalarials Availability in PMI pilot region (pre-AMFm)



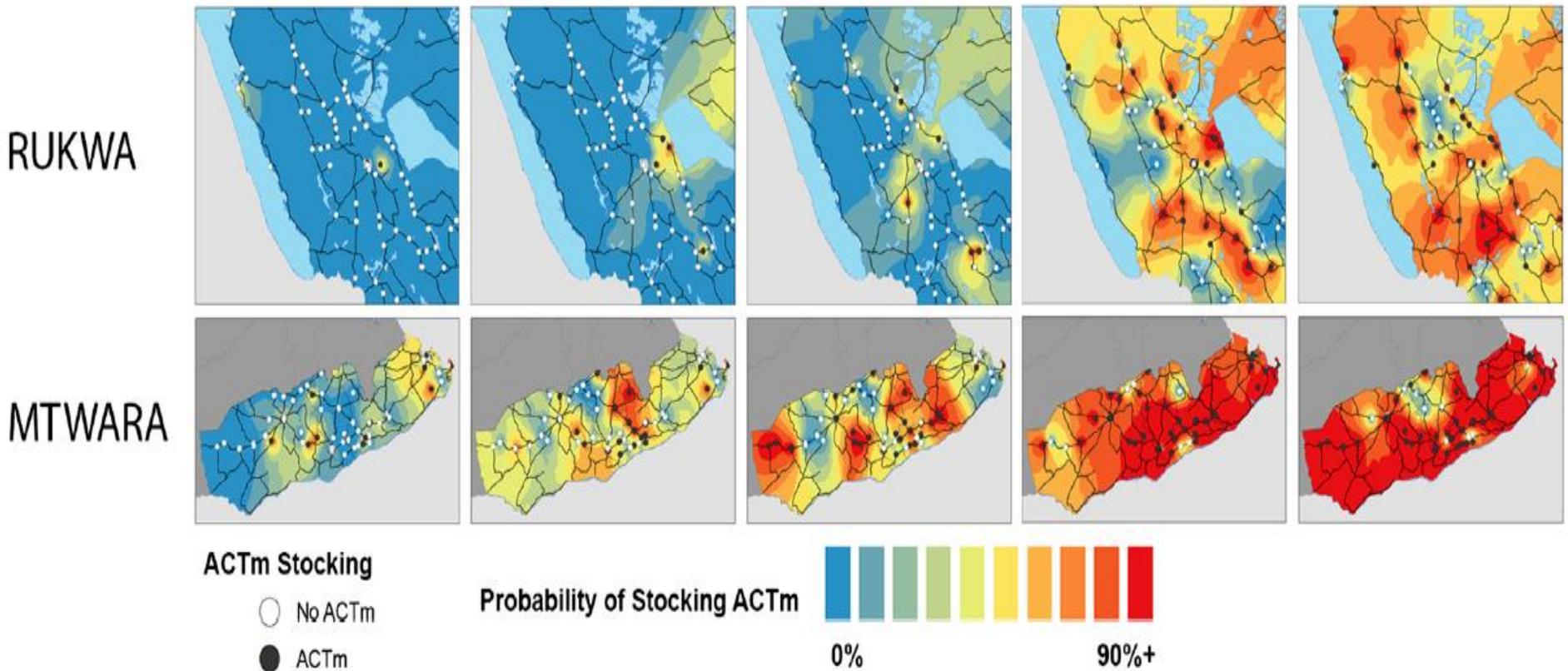
Trends in availability and prices of subsidized ACT over the first year of the AMFm: evidence from remote regions of Tanzania

Prashant Yadav^{1,2,3}, Jessica L Cohen^{4*}, Sarah Alphas¹, Jean Arkedis⁵, Peter S Larson³, Julius Massaga⁶ and Oliver Sabot⁷

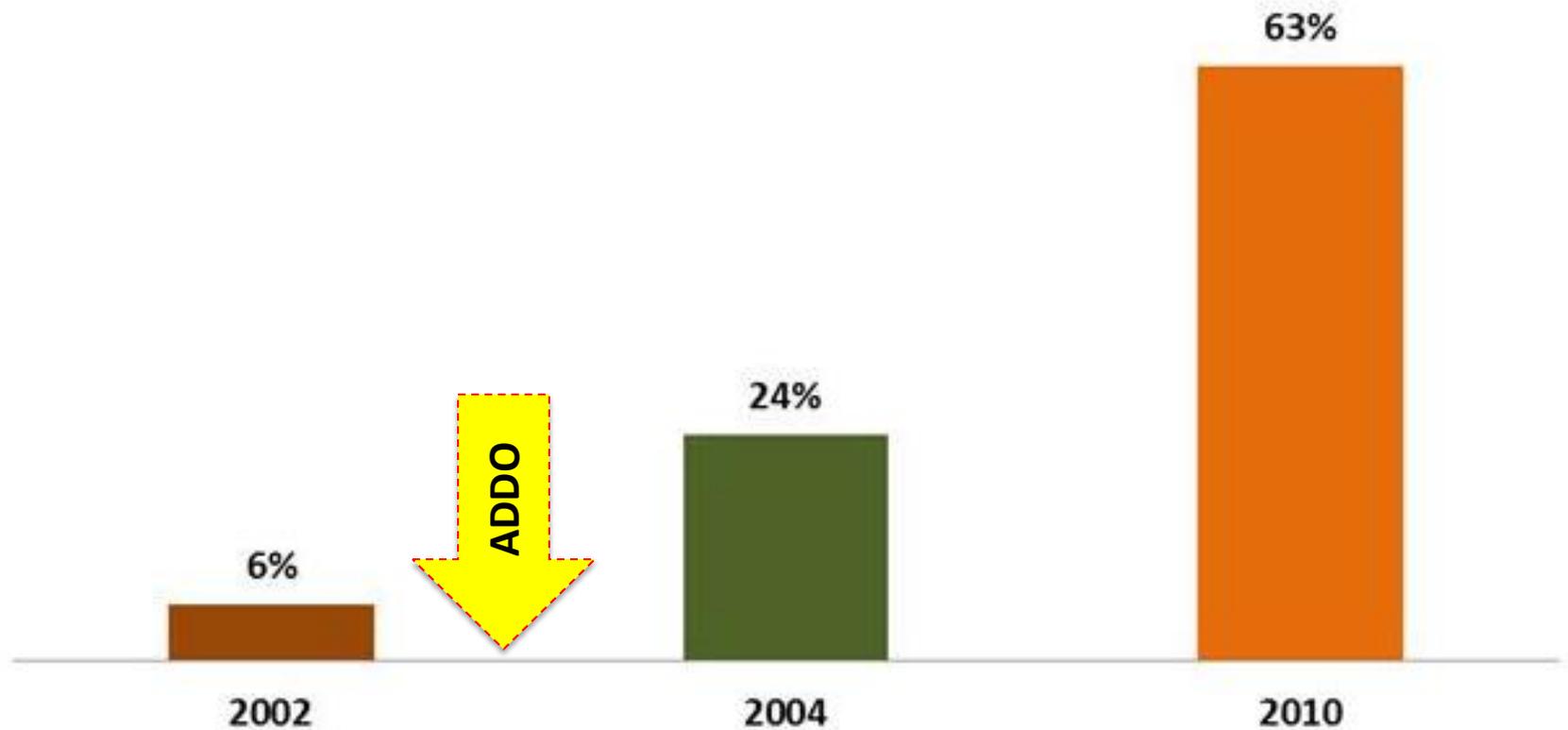
Table 1 Percentage of shops stocking AMFm-subsidized ACT by region and survey round with tests for differences in proportions

	Overall		Mtwara		Rukwa		T Test for difference between Mtwara and Rukwa P
	N	Percent	N	Percent	N	Percent	
R1: mid Feb 2011	255	12.55%	110	24.55%	145	3.45%	<.0001
R2: Apr 2011	253	26.09%	109	50.46%	144	7.64%	<.0001
R3: May 2011	237	37.55%	102	61.76%	135	19.26%	<.0001
R4: Aug 2011	234	66.67%	97	87.63%	137	51.82%	<.0001
R5: Jan 2012	243	73.25%	102	88.24%	141	62.41%	<.0001

Spatial distribution of AMFm-ACT stocking over five surveys



Encounters receiving appropriate malaria treatment in Ruvuma region

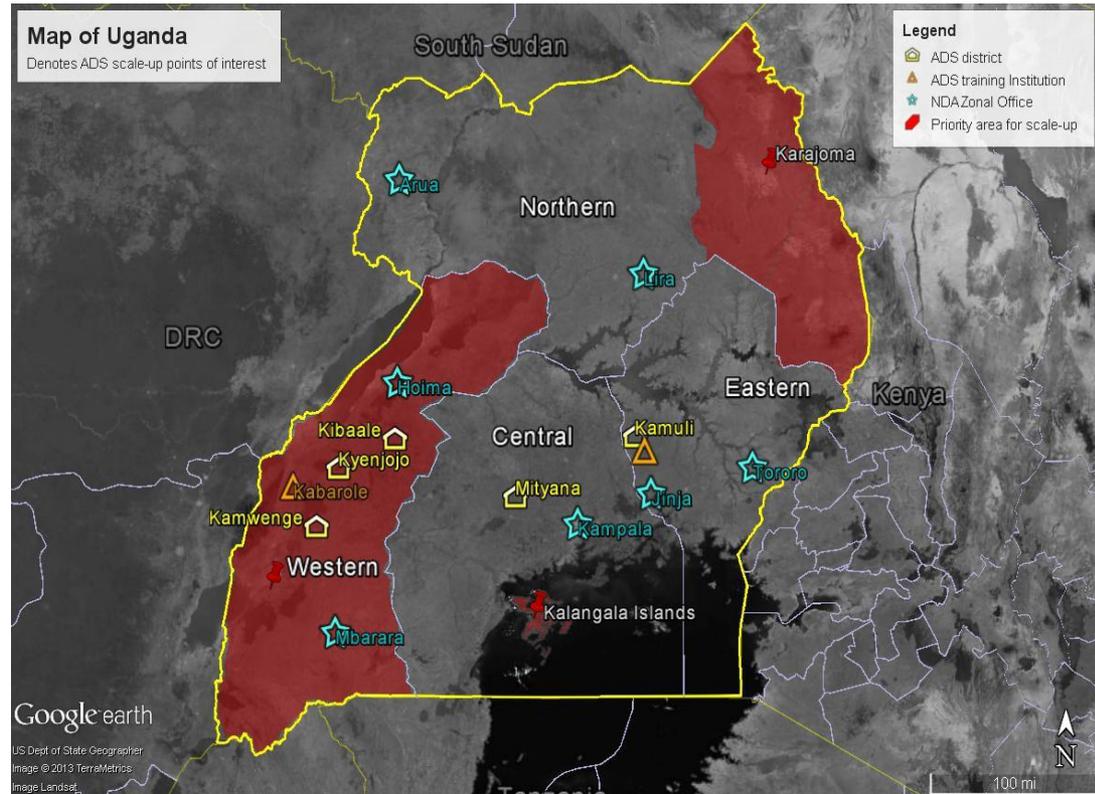


Access to rapid diagnostic tests in ADDOs

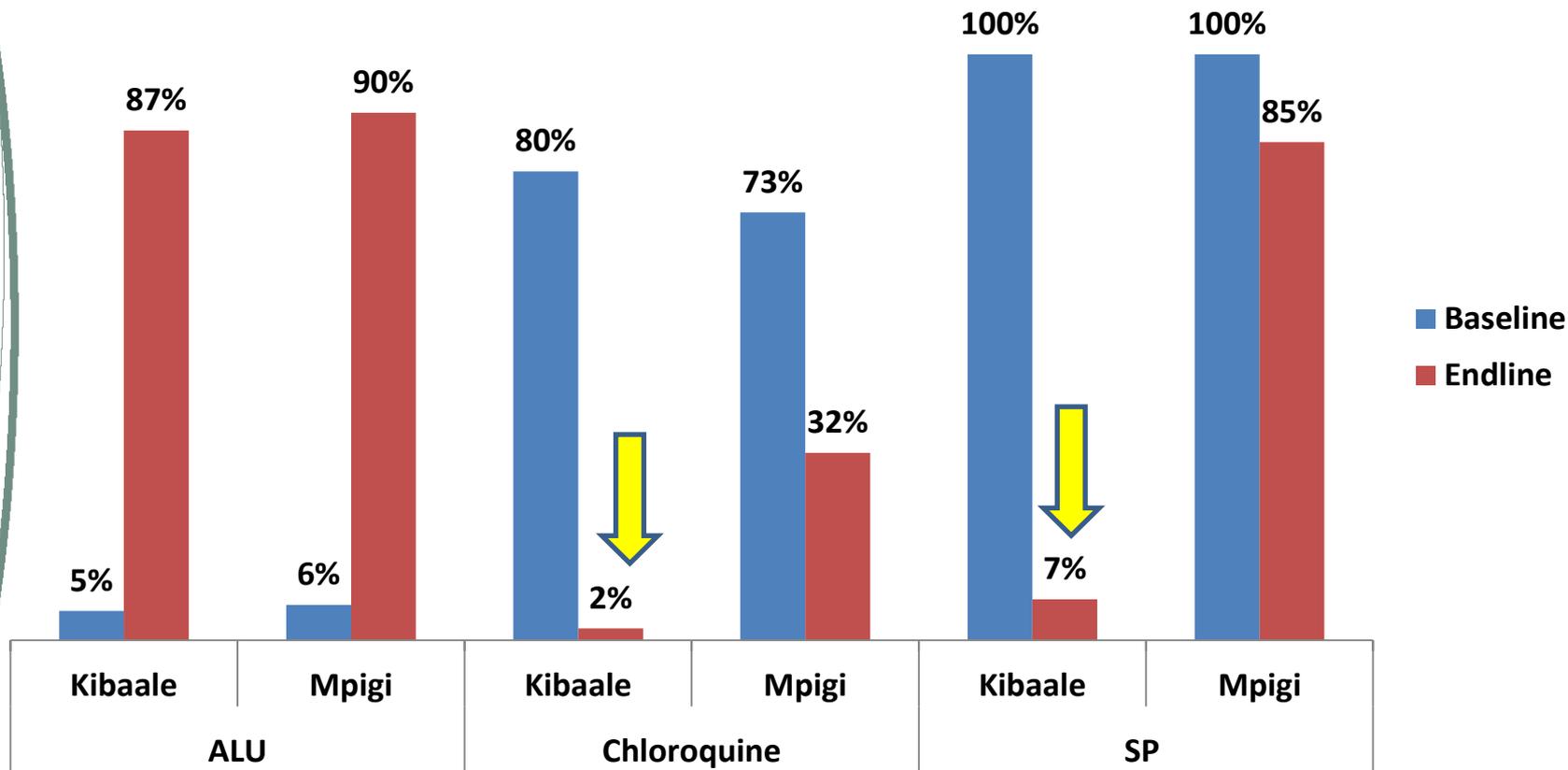
- Tanzania's National Malaria Control Program awaiting results of CHAI's RDT pilot in two districts to make policy decision for scale-up
- NMCP initiated discussions with Pharmacy Council and Laboratory registration agency to address regulatory barriers to introducing RDTs in ADDOs

ADDO model transfer to other countries— Uganda's Accredited Drug Shops

- As of August 2013, 409 ADS accredited in Kibaale, Kamwenge, Kyenjojo, Mityana, and Kamuli districts
- 721 ADS sellers trained
- 93 local drug monitors trained
- 435 owners trained in business

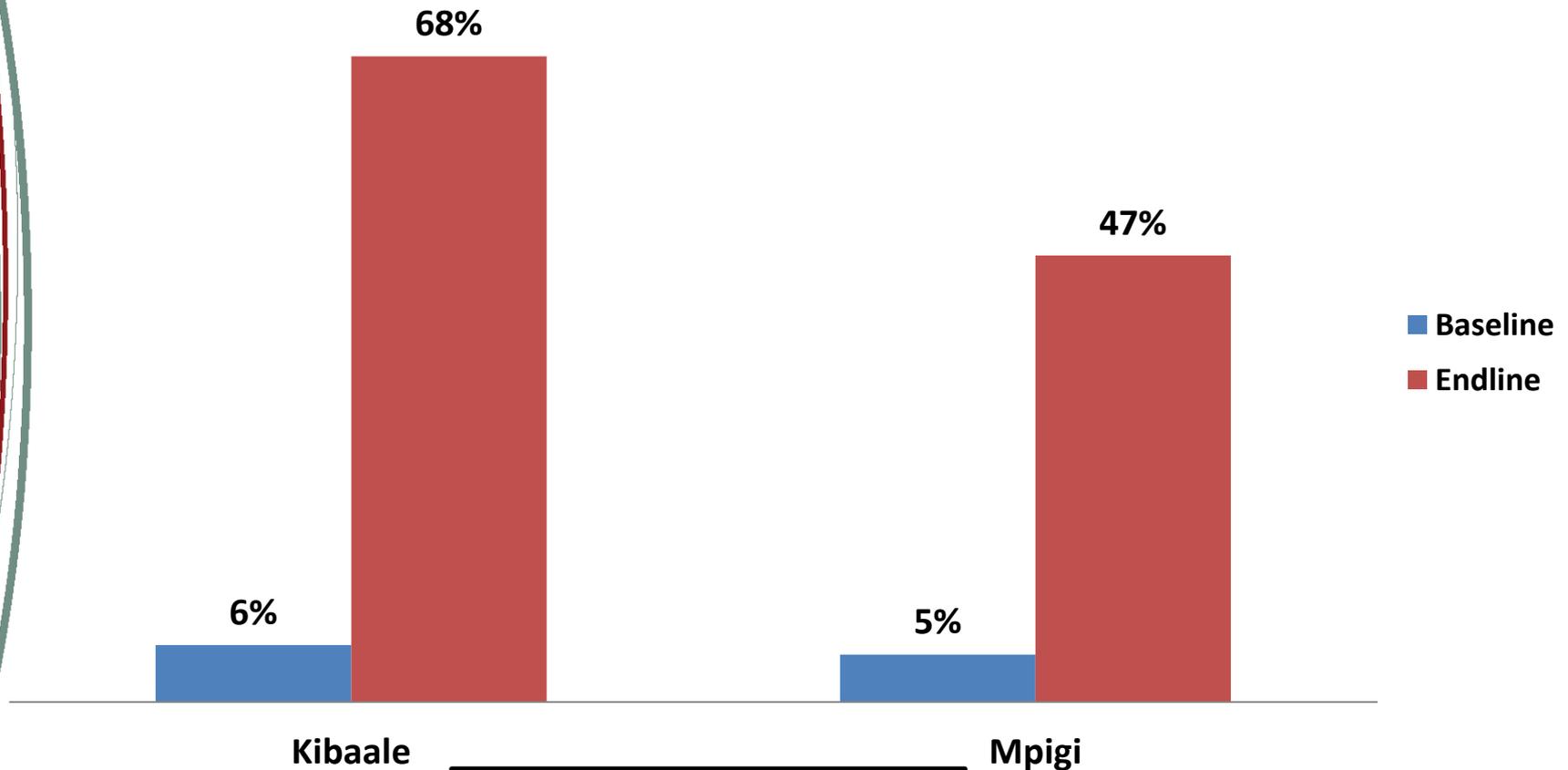


Effect of ADS on availability of antimalarials in Uganda



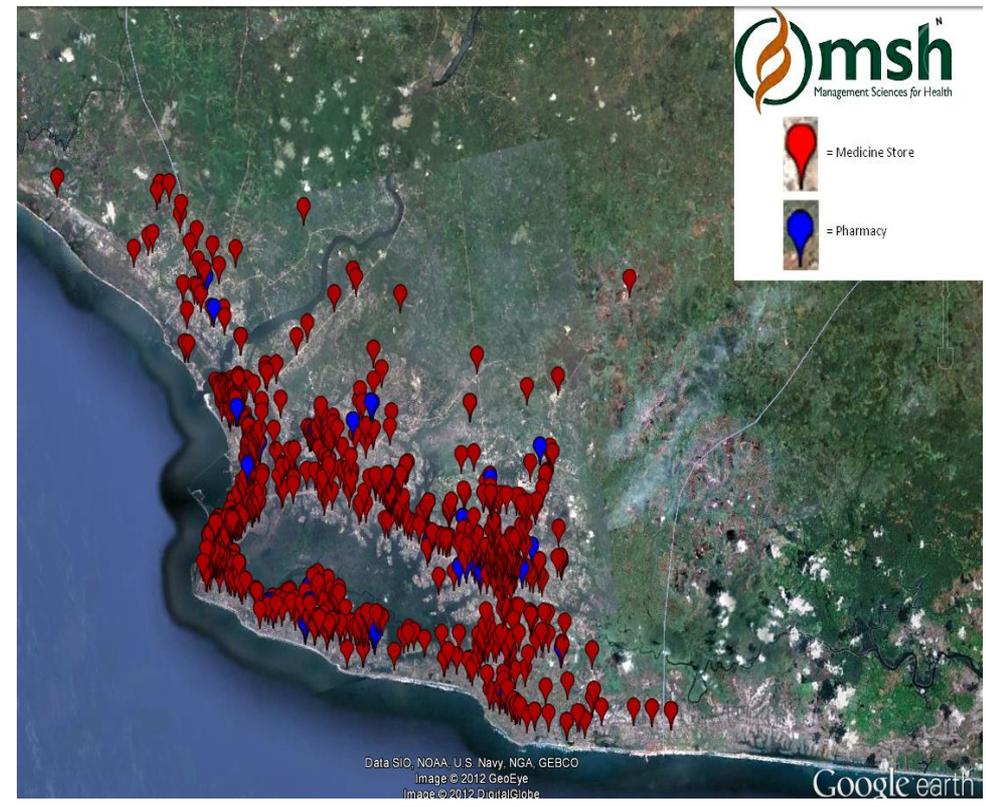
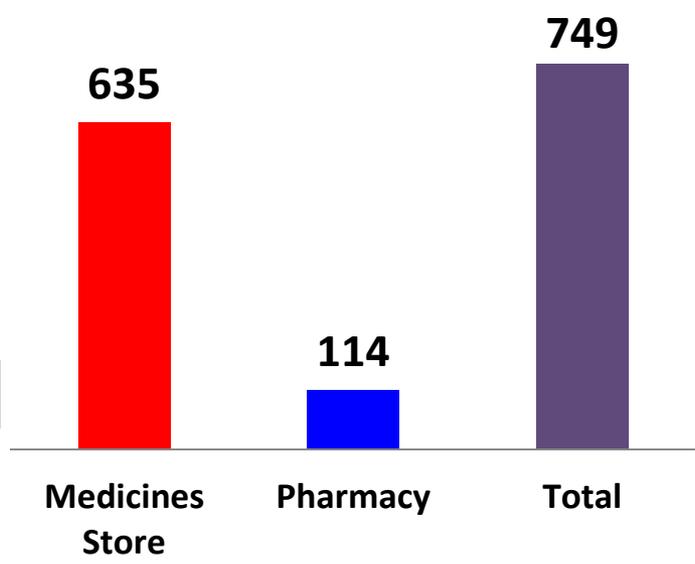
Kibaale (intervention)
Mpigi (control)

Percent of drug shop encounters with appropriate malaria treatment in Uganda



Kibaale (intervention)
Mpigi (control)

ADDO model transfer to other countries— Liberia's Accredited Medicine Stores



Challenges to RDTs

- Many country regulations do not allow diagnostic services in retail pharmaceutical outlets
- Keeping up-to-date records of sales transactions for ACTs and RDTs is a major challenge
- Assuring that drug sellers adhere to diagnosis and treatment standards and requires intense monitoring
- Even with subsidies, ACTs and RDTs are expensive to stock for very remotely located ADDOs

What works?

- ADDO model has improved access to ACTs by comprehensively addressing drug seller operations
- Evidence suggests improved adherence to treatment standards and increase referrals of under-fives to public sector following accreditation
- Availability of ACT at ADDOs result in drug stores serving as back-ups for public clinics with ACT stock-outs

Asante Sana!

