



# Malaria Testing and Treatment Market Data

*Malaria RDT and fever case management in the private health care sector in Africa consultative working meeting*

20-21 October, 2015

Entebbe, Uganda



**ACTwatch** is a research project implemented by PSI and Ministries of Health in **13 countries**

- **45 outlet surveys** conducted between 2008-2015
- Most outlet surveys are conducted at **national level**
- Outlet surveys measure **availability, price, and market share** in the public and private sectors for malaria medicines and diagnostics



## What is an outlet survey?

A study of outlets providing malaria medicines or diagnostics

## What is an outlet?

Public and private hospitals/clinics/health centres, pharmacies, drug stores, retail shops, mobile drug sellers, CHWs

## How do we select outlets for the study?

- Select a representative sample of clusters
- Visit all outlets in the cluster and screen for malaria testing and treatment

## What information do we collect?

Audit of all malaria medicines and diagnostics in stock including product information, retail price, and amount recently distributed to customers



Nigeria outlet survey 2015

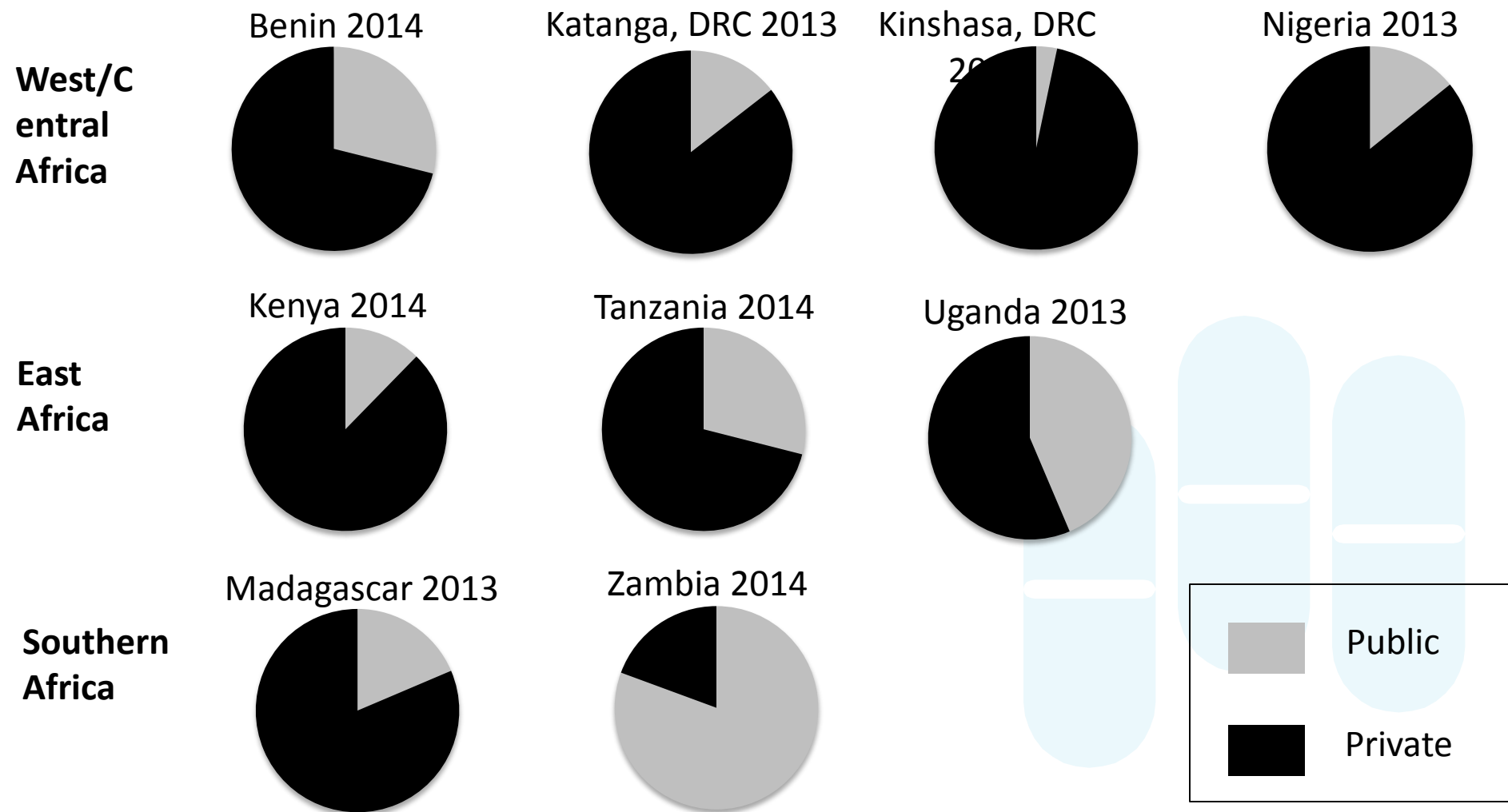


# Where are most antimalarials distributed to individual consumers?



# Results Antimalarial market share

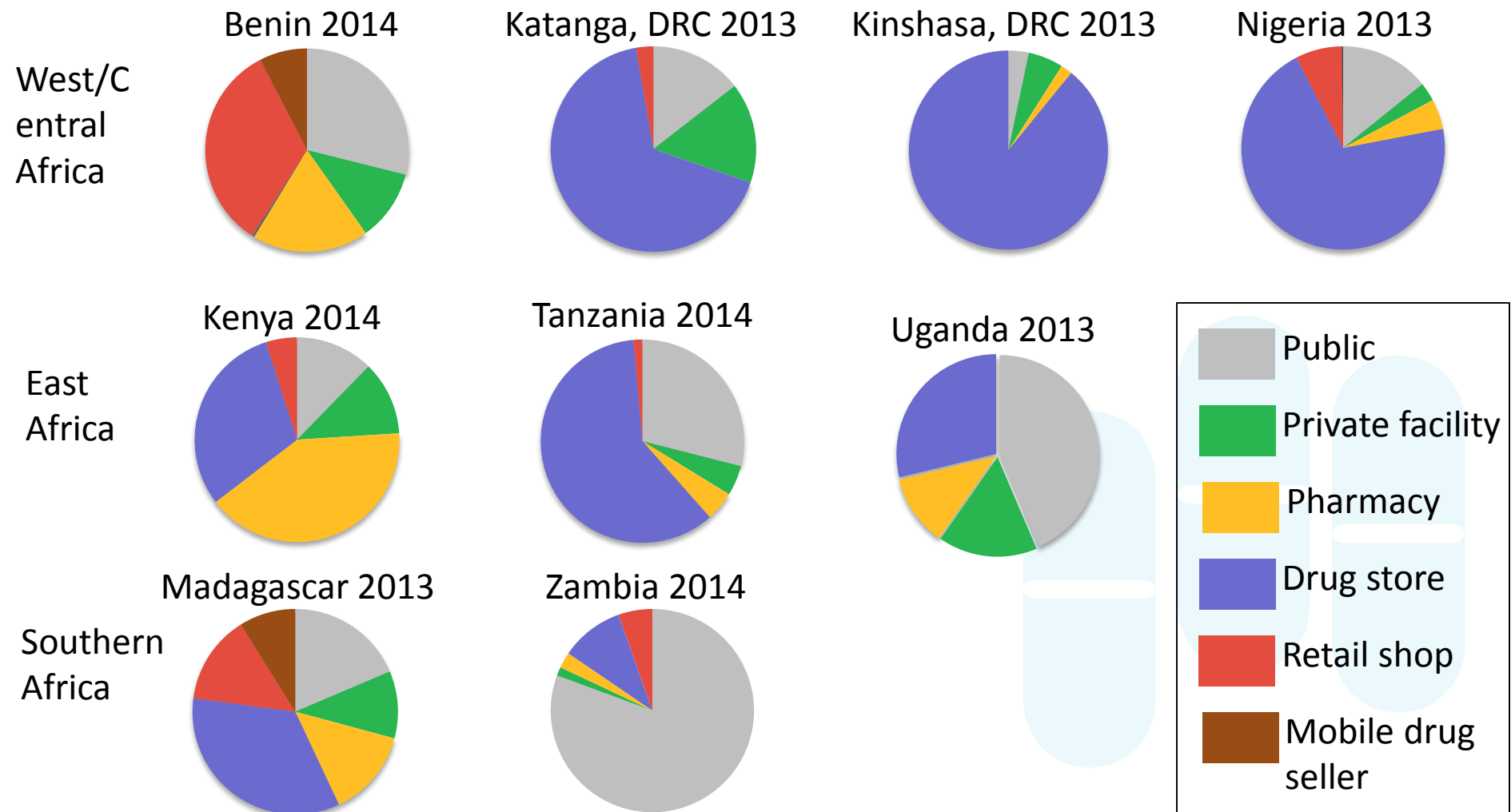
*Proportion of antimalarials distributed to consumers by the public and private sector, 2013-14*



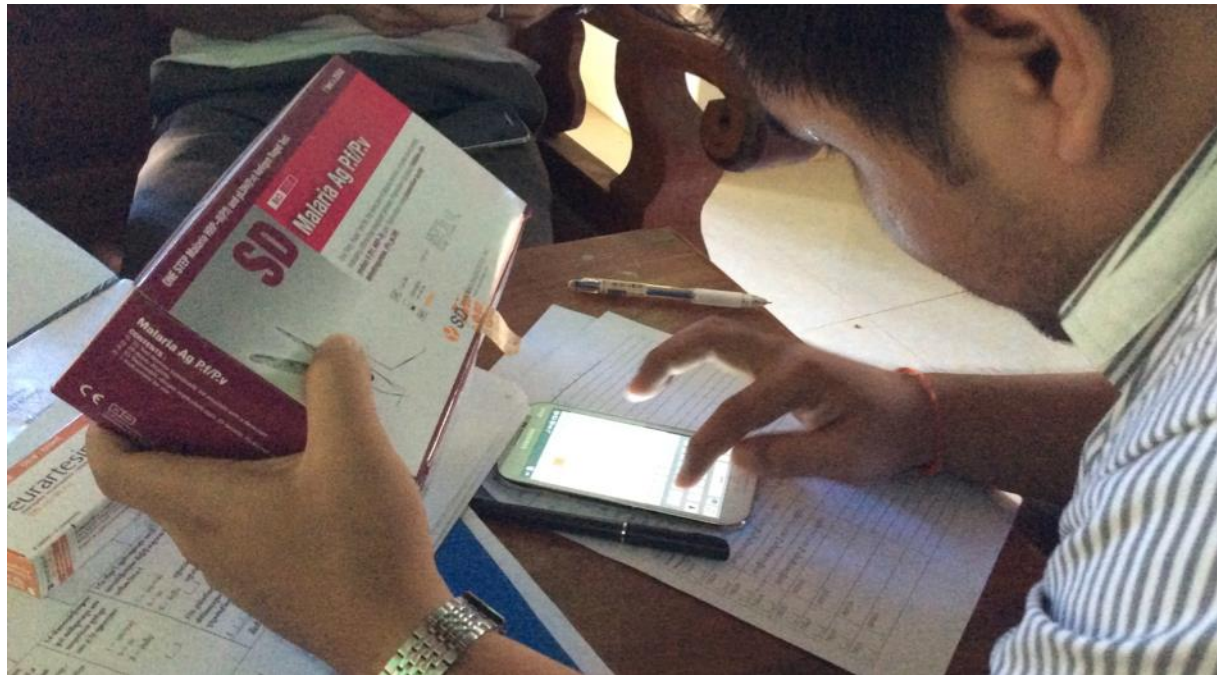


# Results Antimalarial market share

*Proportion of antimalarials distributed to consumers by the public and private sector, 2013-14*

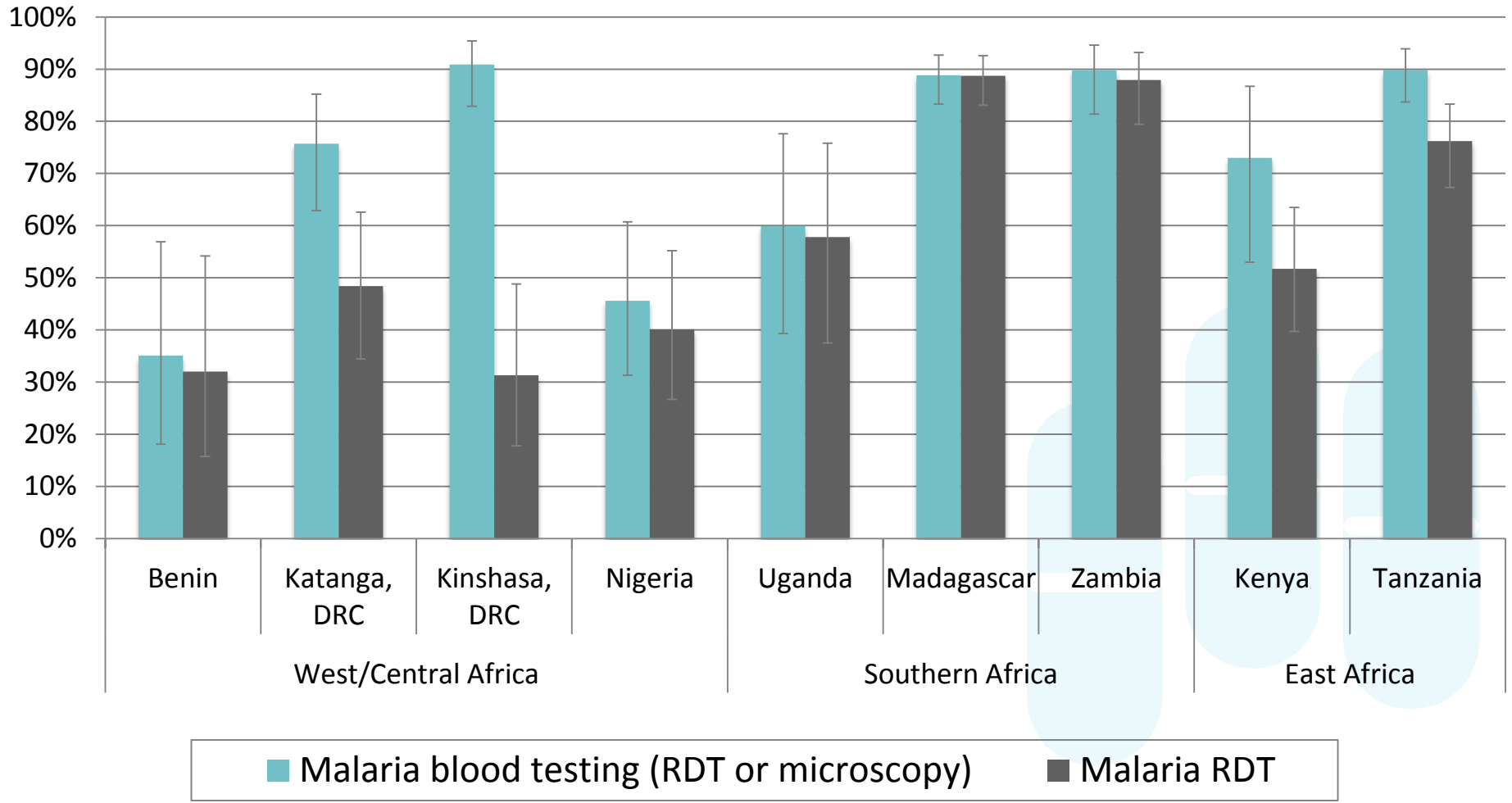


# Where antimalarials are distributed, is malaria blood testing available?



# Results Availability of malaria blood testing

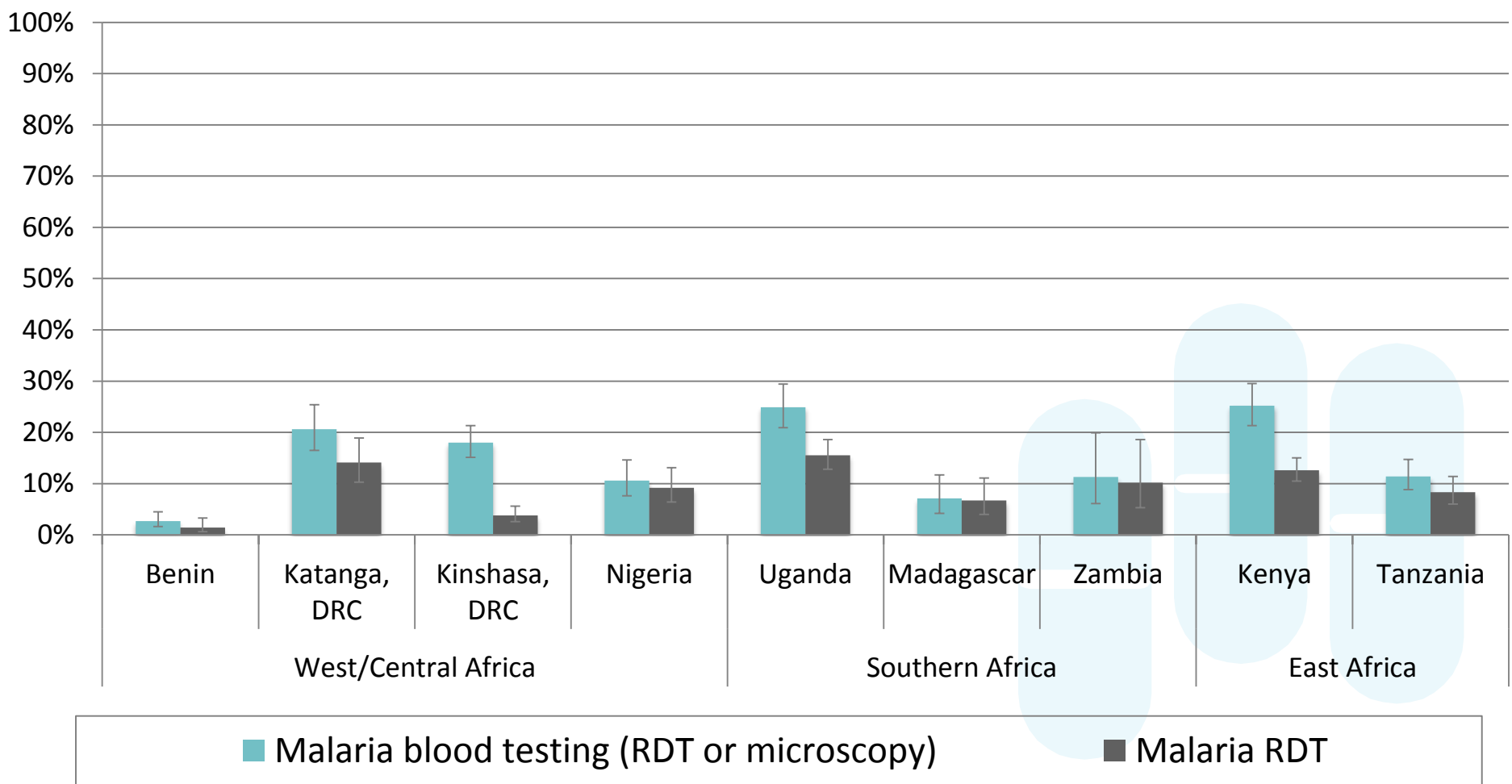
*Proportion of public sector antimalarial-stocking outlets with malaria blood testing available, 2013-14*





# Results Availability of malaria blood testing

*Proportion of private sector antimalarial-stocking outlets with malaria blood testing available, 2013-14*



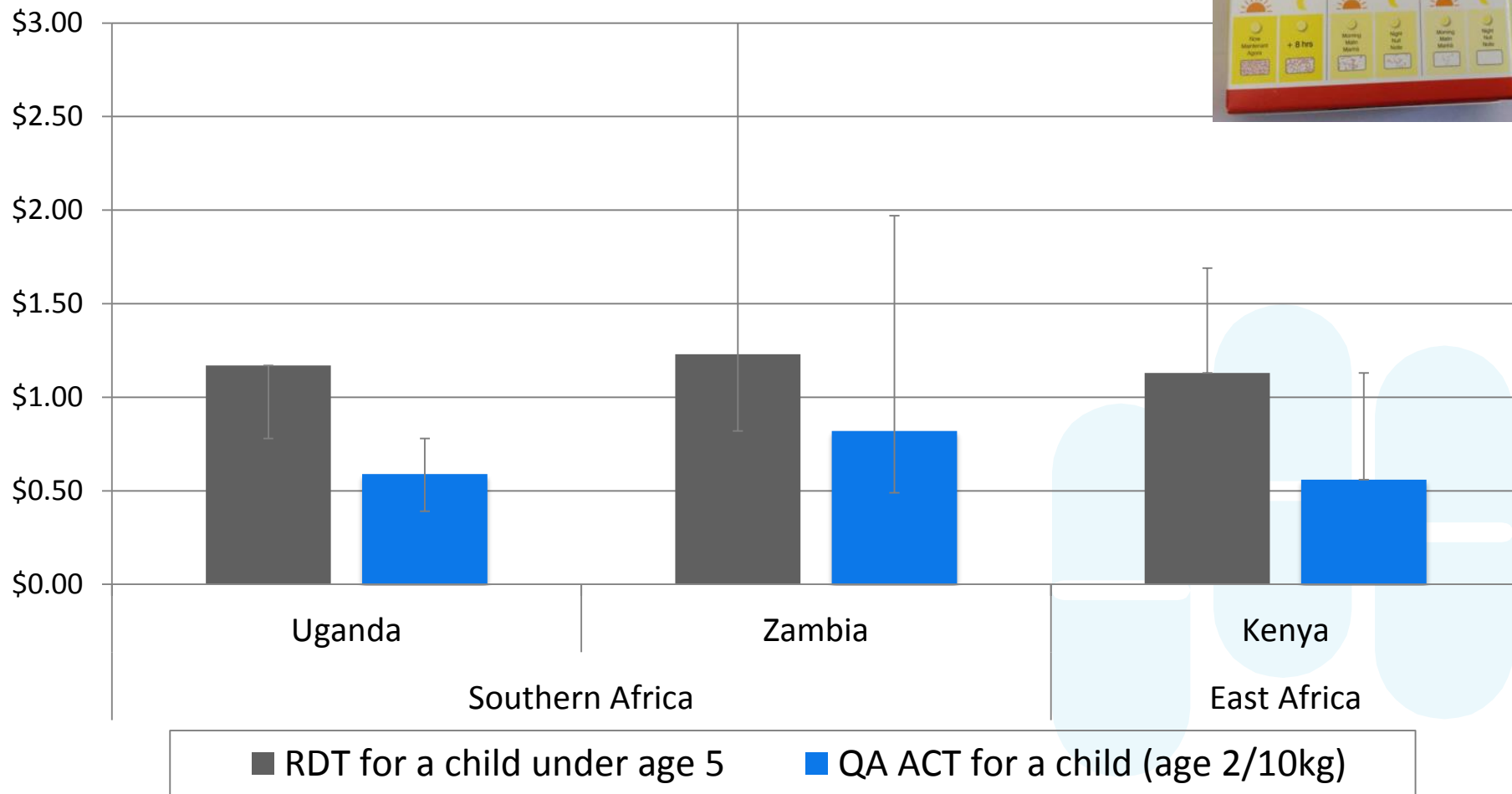


# How much does RDT testing cost compared to QA ACT treatment in the private sector ?



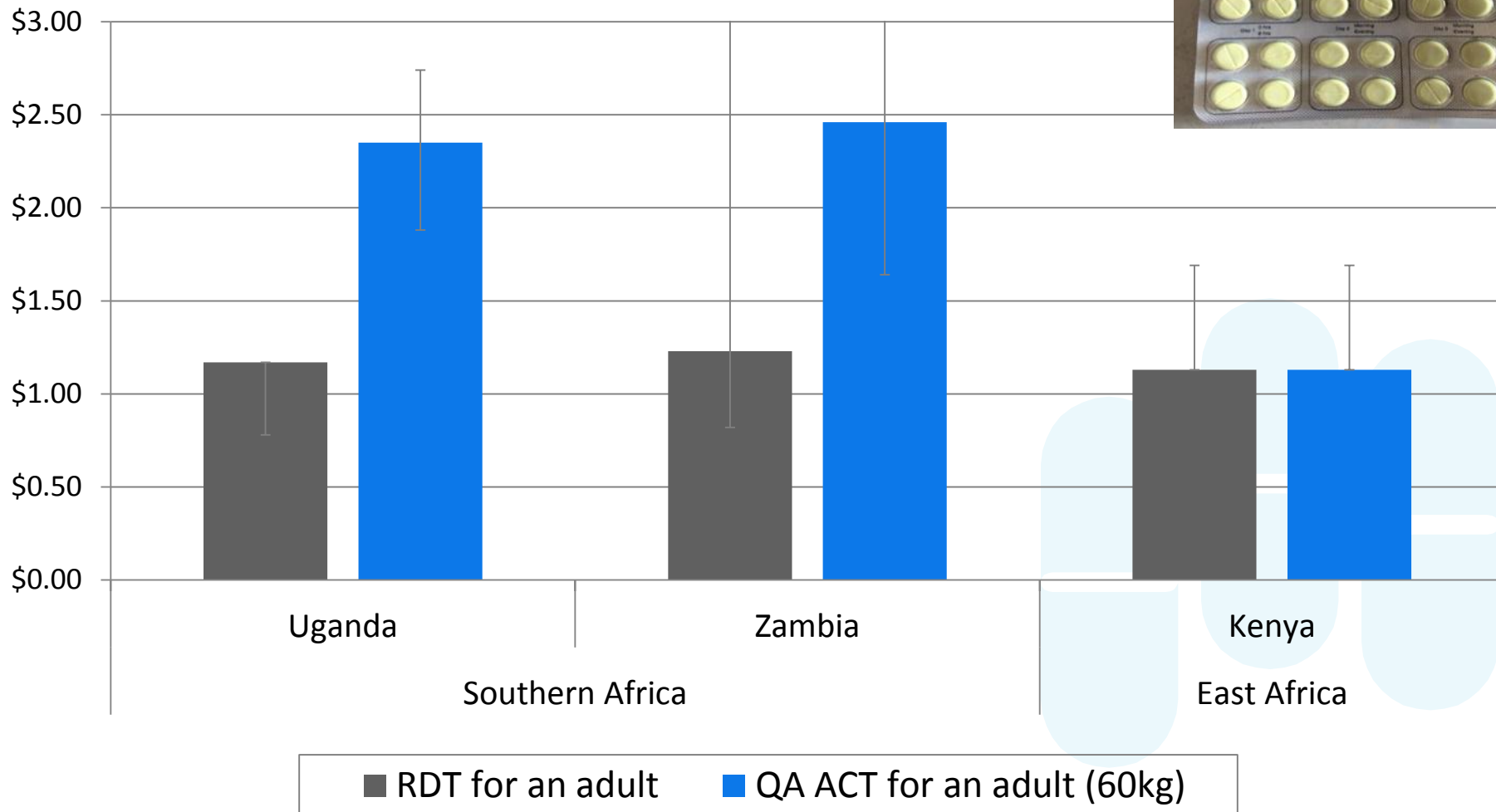
# Results Private sector price for children

## Median private sector price including fees, US dollars, 2013-14



# Results Private sector price for adults

*Median private sector price including fees,  
US dollars, 2013-14*



# Summary

**The private sector distributes more than half of all antimalarials at national level in many countries**

Including health facilities, pharmacies, drug stores, and retail shops

**Private sector providers distributing antimalarials often do not have malaria blood testing available**

- Patients seeking fever treatment at these outlets do not have opportunity for confirmatory testing on site

**The price of malaria RDTs relative to quality-assured ACT:**

- Could be an incentive to test, particularly for adults
- Could be a disincentive to test, particularly for small children







Visit: [www.actwatch.info](http://www.actwatch.info)  
Contact: Megan Littrell | [mlittrell@psi.org](mailto:mlittrell@psi.org)



# How is market share estimated?

- We visit **all outlets** within a sampled cluster that have potential to distribute antimalarials
- We collect information about each unique antimalarial in stock including product information and **amount reportedly distributed to customers in the past 7 days**
- We use the product and distribution information to determine the **total number of courses distributed**. We calculate **relative distribution** for different types of outlets and antimalarials
- We also calculate **blood testing market** share by outlet type and by type of test (RDT and microscopy) using provider reports on number of tests performed in the past 7 days
- We calculate **relative market share for RDT manufacturers** as well





# Where does ACTwatch collect malaria market data?

- Benin 2009, 2011, 2014, 2016
- Cambodia 2009, 2011, 2013, 2015
- DRC (Katanga, Kinshasa) 2009, 2013, 2015
- Kenya 2010, 2011, 2014, 2016
- Lao PDR 2015
- Madagascar 2010, 2011, 2013, 2015
- Myanmar 2012, 2013, 2014, 2015
- Nigeria 2009, 2011, 2013, 2015
- Tanzania 2010, 2011, 2014, 2016
- Thailand 2015
- Uganda 2010, 2011, 2013, 2015
- Vietnam 2015
- Zambia 2009, 2011, 2014





## Additional Slides

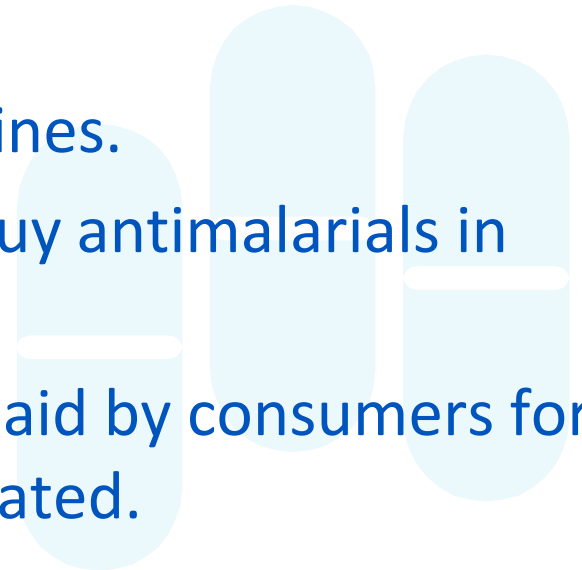






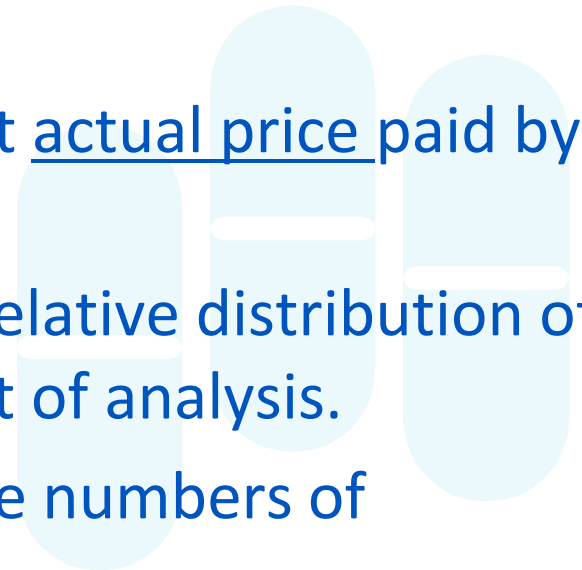
# Adult Equivalent Treatment Dose (AETD)

- Antimalarials have variation in AIs, dosage forms, strengths and package sizes. A standardized unit is needed to compare price and amount distributed.
- AETD is the standard unit used for price and market share indicators.
- One AETD = the number of mg of an antimalarial drug required to treat a 60kg adult.
  - According to WHO treatment guidelines.
- AETD has limitations: individuals may buy antimalarials in doses other than an AETD.
  - Indicators may not represent price paid by consumers for treatment or number of patients treated.
  - Systematic variations affect interpretation.



# ACTwatch Outlet Survey Limitations (1)

- Outlet surveys provide information on availability and relative distribution of antimalarials and malaria blood testing.
  - The survey does not provide information about how individual patients are managed (testing and treatment based on results).
- The AETD unit of analysis used for price is useful for comparing relative price of medicines.
  - The AETD does not necessarily reflect actual price paid by customers for malaria treatment.
- Market share provides information on relative distribution of antimalarials using the AETD for the unit of analysis.
  - Market share does not reflect relative numbers of suspected cases managed.



## ACTwatch Outlet Survey Limitations (2)

- Availability of banned or non-recommended medicines, or availability of medicines among non-registered outlets may be underestimated due to lack of full participation and cooperation.
- ACTwatch does not include a drug quality testing component and cannot report on fake or substandard medicine availability.
  - When results are presented regarding *quality-assured ACT*, we are referring to medicines that according to drug packaging information have WHO pre-qualification or EMA approval.

