



# **The potential of the private sector to promote the integration of rapid diagnostic tests for malaria into developing country health systems: *a multi-country study***

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# Background

- By 2004, most malaria endemic countries had adopted artemisinin-based combination therapies (ACTs) as first-line malaria treatment
- WHO recommends confirmation of infection prior to treatment to reduce unnecessary treatment and delay development of resistance
- Rapid diagnostic tests for malaria (RDTs) are alternative to current gold standard of microscopy
  - Do not require specialised skills
  - Suitable for resource-limited settings
- Despite free or highly subsidised public sector provision, access to diagnosis and treatment remains poor:
  - Many seek treatment from private sector
  - Confirmation of infection not common in private retail sector, outside of private health facilities



# What is ACTwatch?



**5 year, 7 country project**  
Funded by the BMGF

**Objective**  
Provide policy makers with evidence on trends in availability, price, and use of antimalarials

**Partnership**  
PSI, LSHTM and MoHs



# Research Studies - a complete picture of the market



Household Survey (PSI): What are the trends in the levels of use of different antimalarials and diagnostic testing. What are the determinants of use?  
- Two times (baseline & endline)



Outlet Survey (PSI): What are the trends in the availability, volumes and price of antimalarials and RDTs?  
- Three times over the life of project.

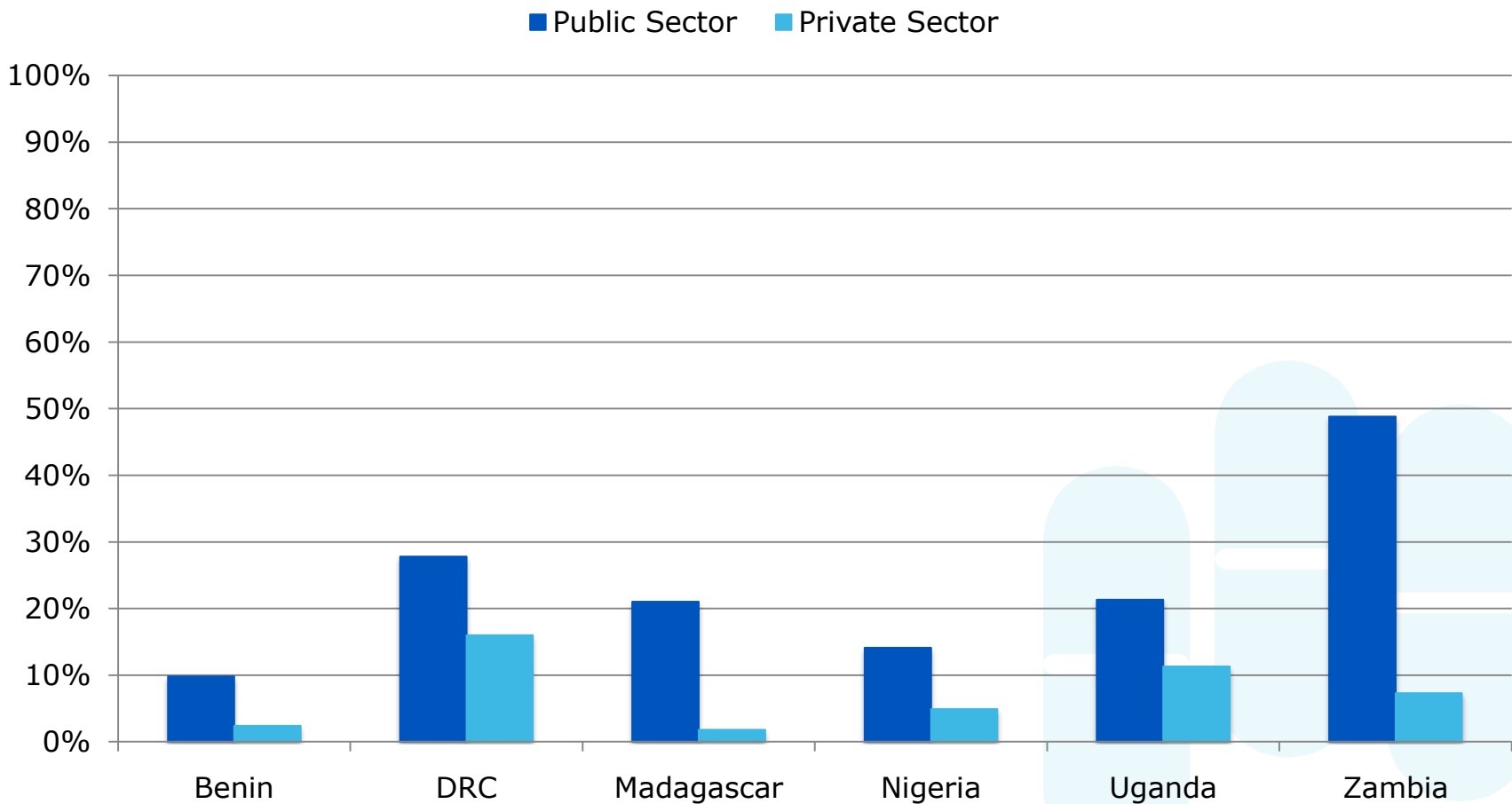


Supply Chain Research (LSHTM): What is the structure of the supply chain, and what characteristics (including mark-up, business practices, etc.) determine price and availability at different levels of the supply chain?  
- Once over life of project

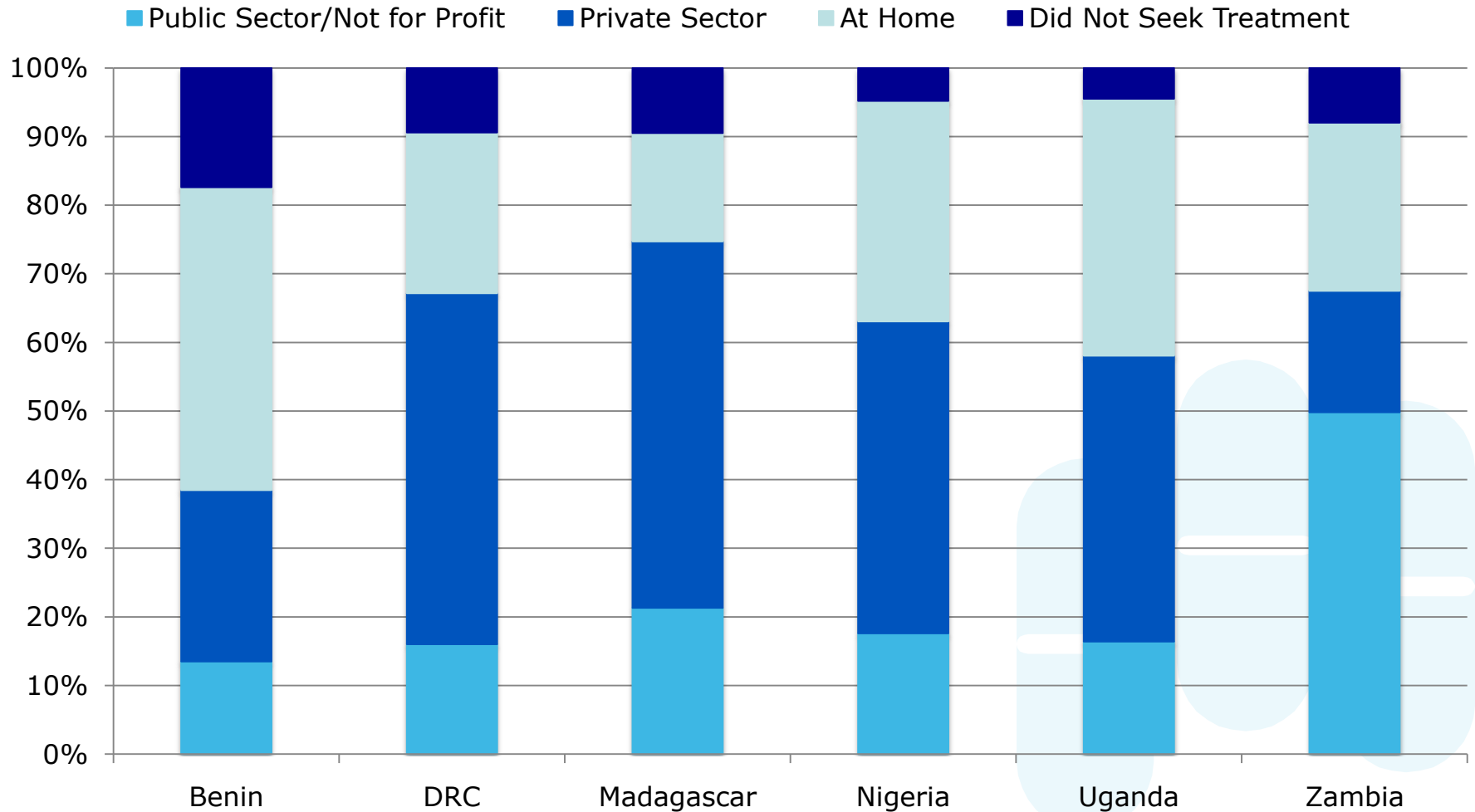
# ACTwatch Survey Methods

- Primary sampling units randomly selected using PPS (Secondary units selected using PPS for households)
- Households systematically sampled and screened for recently febrile children
- Census conducted of all outlets with the potential to stock antimalarials
- Audit conducted of all antimalarials and RDTs in stock
  - Product details, price, volumes
- Sampling frame of wholesalers created by tracing the distribution chain starting from the bottom and working up
  - All outlets asked for the name & address of top 2 antimalarial suppliers (terminal wholesalers)
  - Terminal wholesalers asked for their suppliers (intermediate wholesalers), and so on, till top of the chain is reached

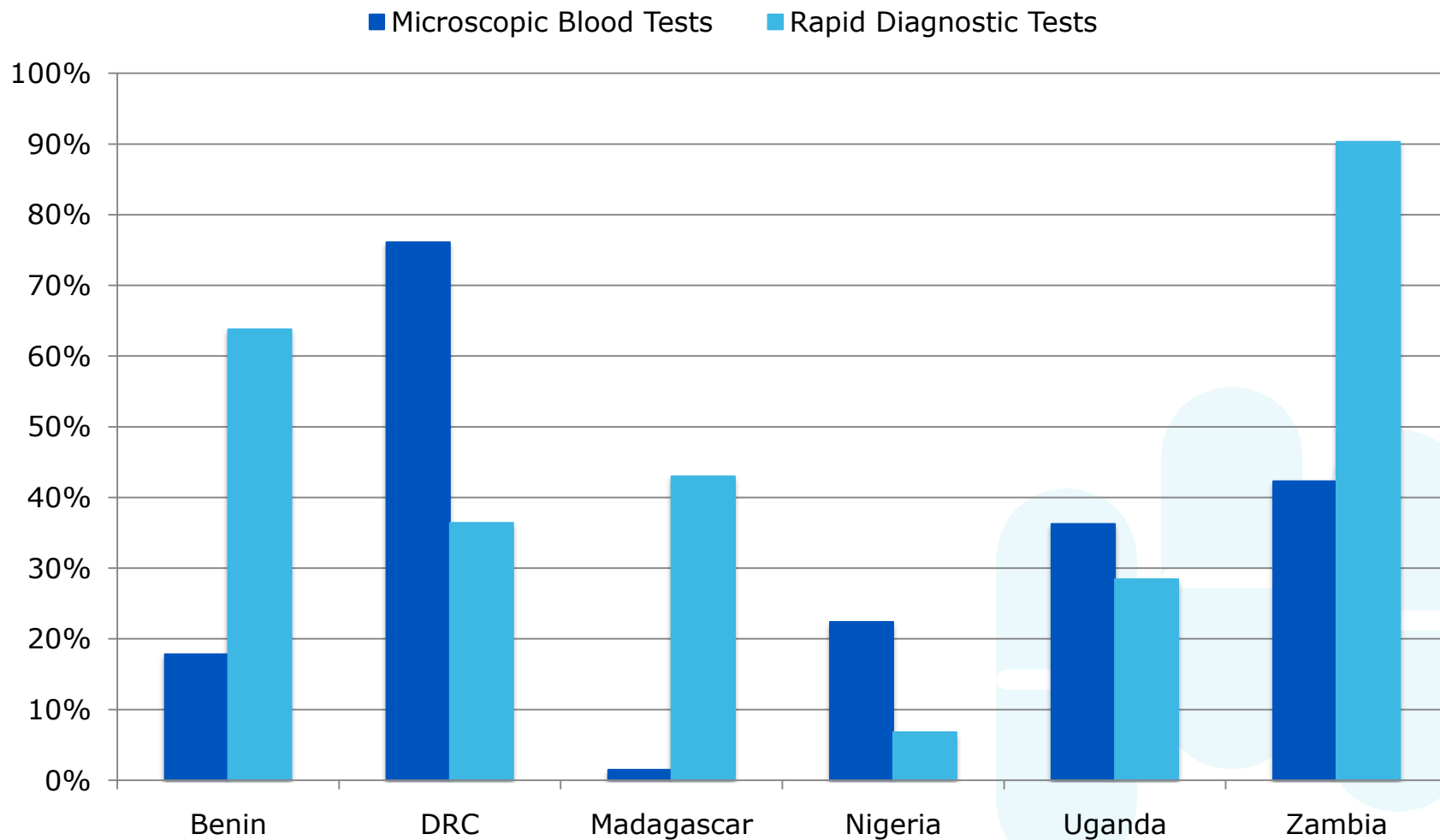
# Proportion of children under 5 with fever receiving blood test for malaria



# Initial Treatment Seeking Behaviour

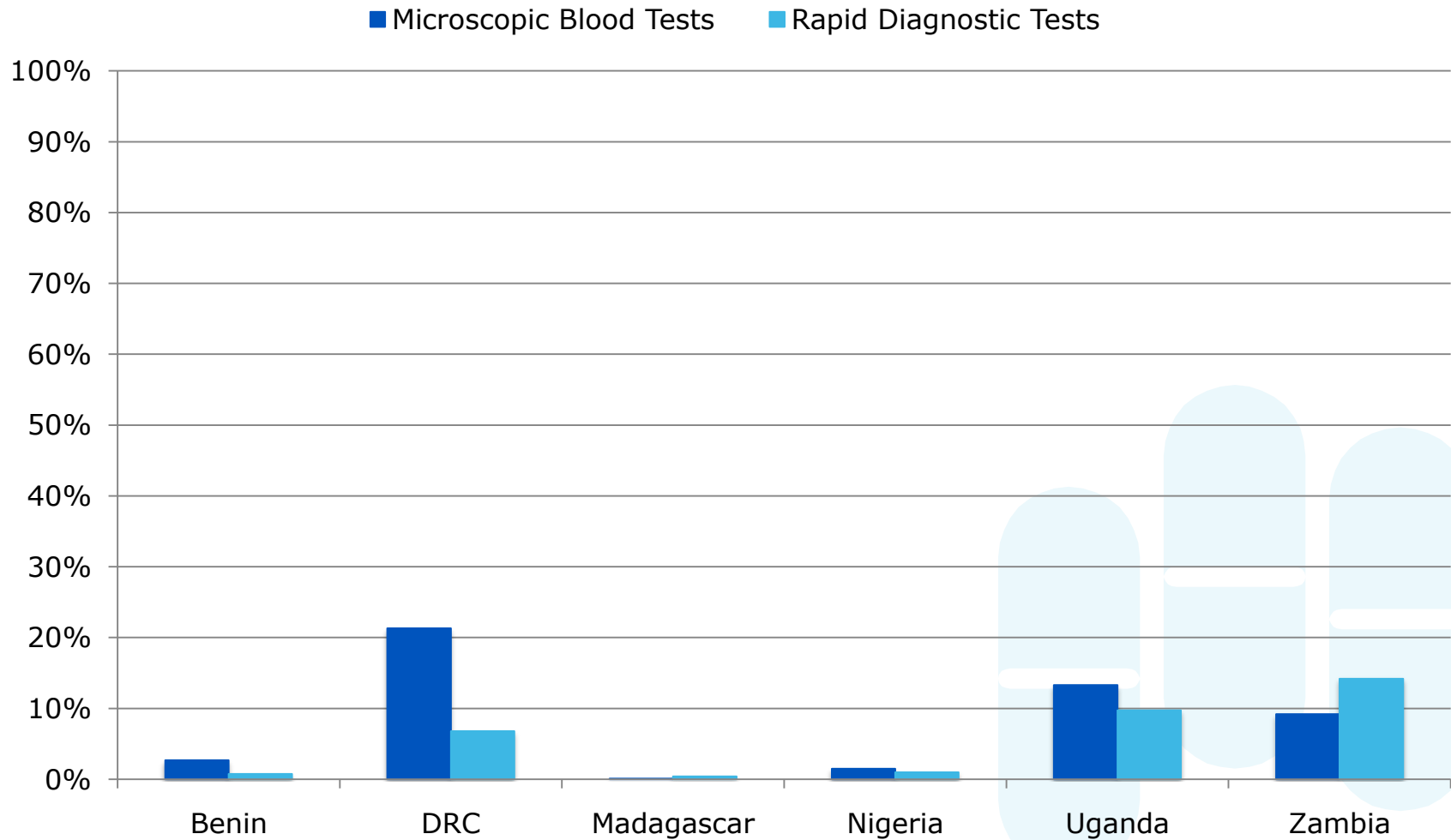


# Public Sector Availability of Malaria Testing: by test type

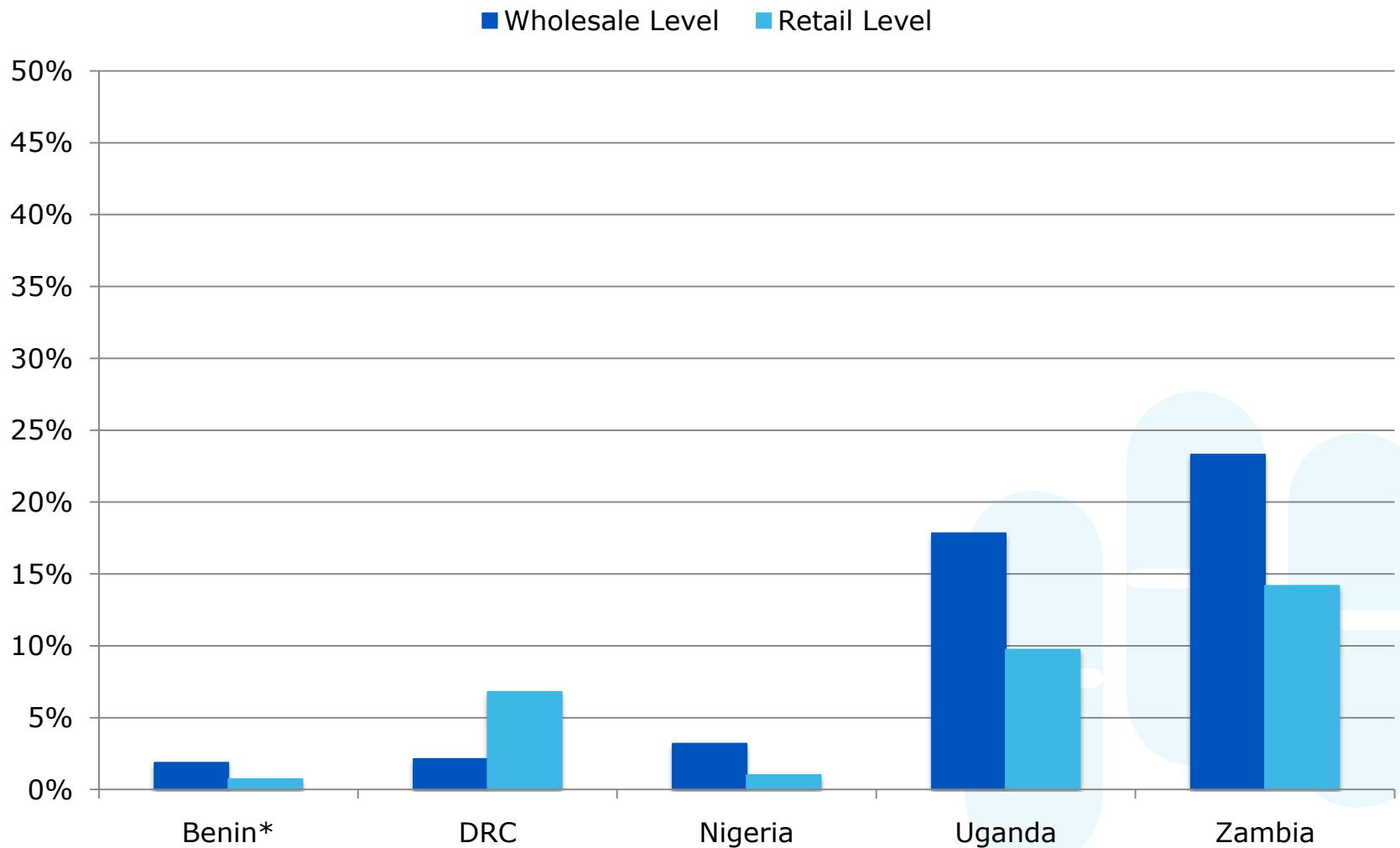




# Private Sector Availability of Malaria Testing: by test type

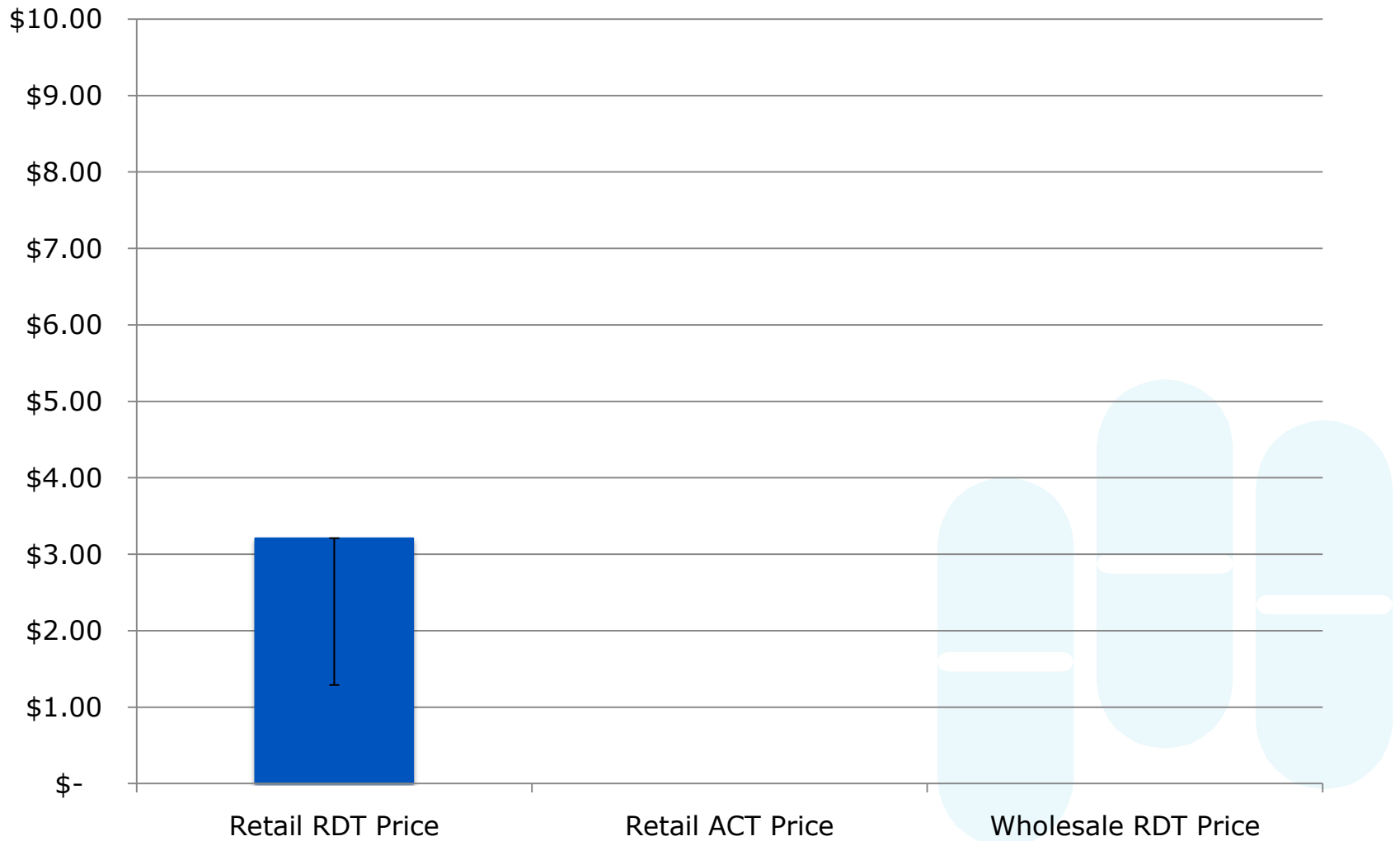


# Wholesale vs. Retail Availability of RDTs

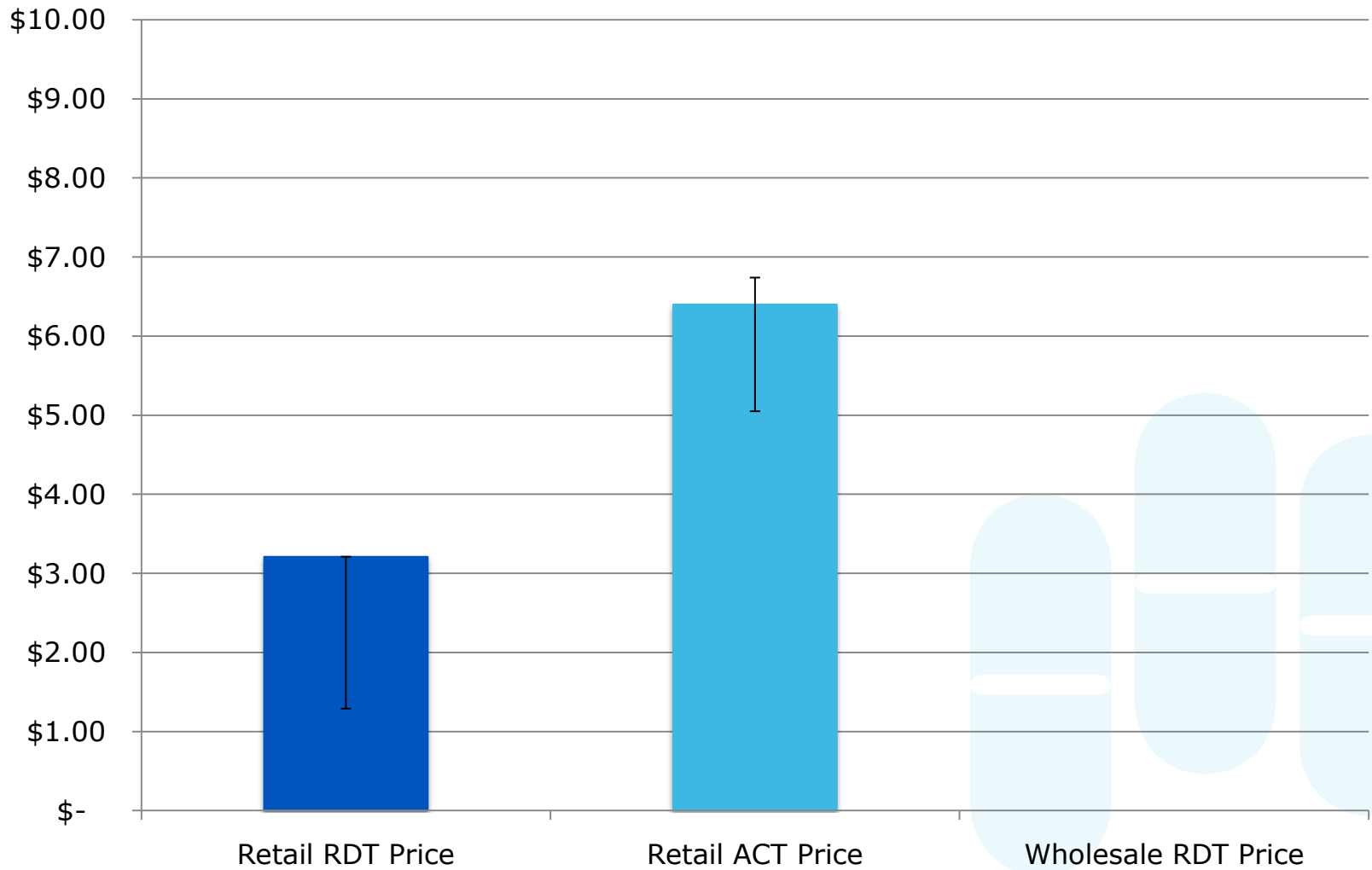


\* Unweighted data

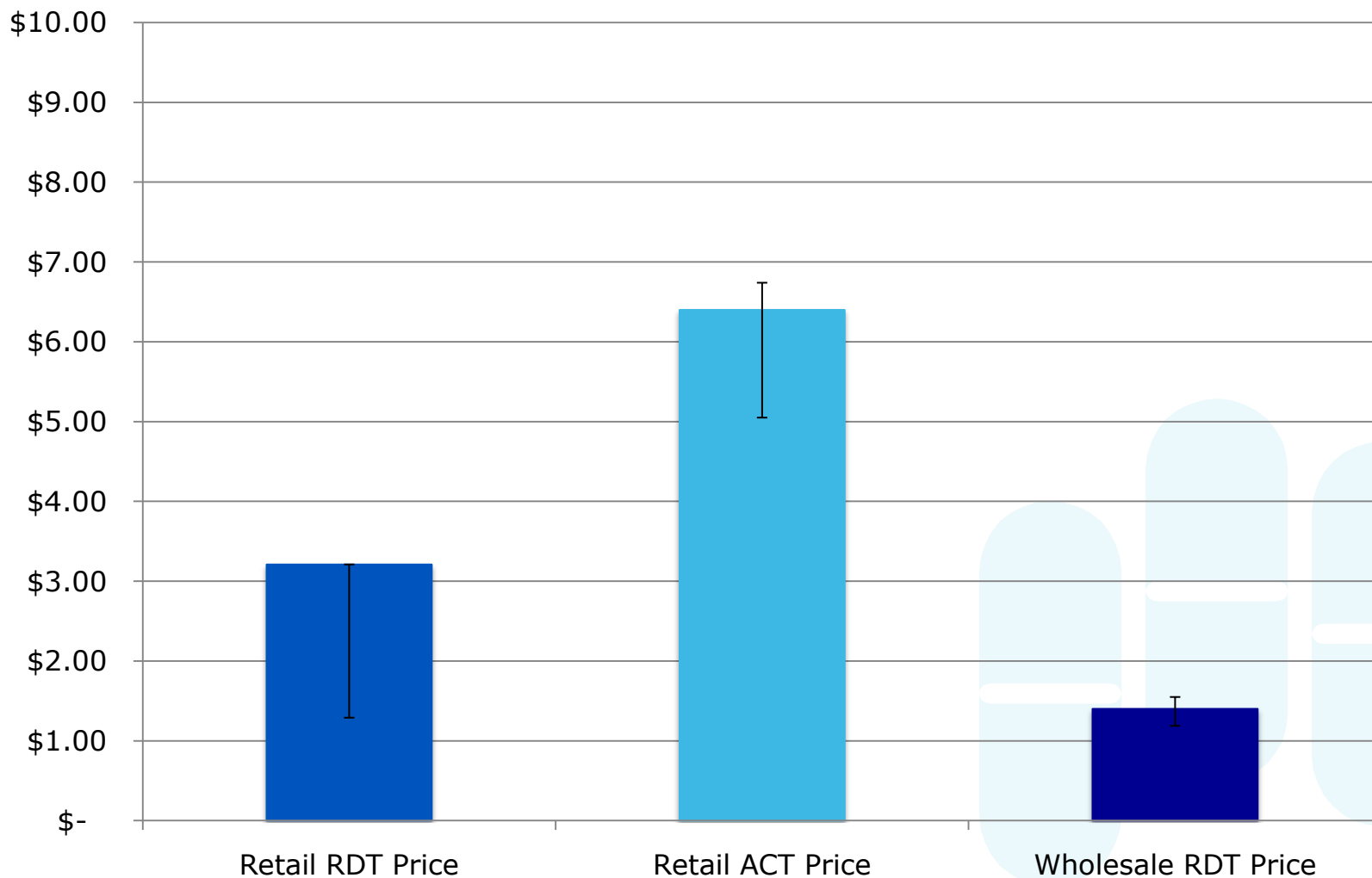
# Nigeria: RDT Price Comparisons



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# Discussion

- Long way before reaching policy objective of confirmed diagnosis prior to treatment
- Complementing public sector strengthening, private sector RDTs for malaria:
  - Could help improve treatment choices and outcomes of large numbers of febrile children treated in private sector and *at home*
  - Could support public sector practice of confirmed diagnosis
- Supply- and demand-side interventions required to facilitate integration of diagnostic testing into private sector management of malaria and fever
  - Wholesaler sensitisation, training on treatment...
  - Subsidies, social marketing, negotiations...



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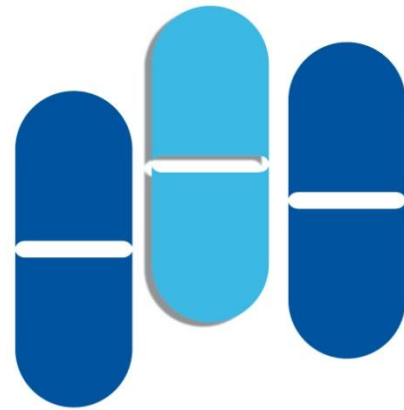
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# ACTwatch

Evidence for Malaria Medicine Policy



Healthy lives. Measurable results.

