

ACTwatch IN UGANDA

- ACTwatch is a multi-country research project designed to fill evidence gaps on malaria diagnosis, antimalarial medicines and fever case management in the private and public sectors. Standardized tools and approaches are used to provide comparable data across 10 project countries and over time (2008-present).
- ACTwatch has conducted the following nationally-representative studies in Uganda: 1 antimalarial supply chain study (2009), 2 household fever treatment-seeking behavior surveys (2009, 2012), and 5 antimalarial medicine outlet surveys (2008, 2009, 2010, 2011, 2013). Reports are available at www.actwatch.info.
- The 2010 and 2011 surveys served as baseline and endline studies for the Affordable Medicines Facility, malaria (AMFm) pilot project under the Global Fund. Under the AMFm, public and private first-line buyers had access to highly subsidized quality-assured ACTs (QAAC) marked with a 'green leaf' to indicate co-payment. Following the pilot period, first-line buyer access to co-paid ACTs from the Global Fund continued through 2013.

2013 NATIONAL OUTLET SURVEY

- Within a sample of urban and rural clusters, a census of all outlets with the potential to sell or distribute antimalarials was conducted between July-August 2013. A total of 8,264 outlets were enumerated and 7,832 were screened for availability of antimalarials or malaria blood testing. Interviews were conducted among 3,479 outlets meeting at least one of three study criteria: 1) antimalarials in stock on the day of the survey; 2) antimalarials reportedly in stock within the past three months; or 3) malaria blood testing available. A provider interview, antimalarial audit, and malaria rapid diagnostic test (RDT) audit were conducted among outlets meeting eligibility criteria.
- Drug information, sale/distribution in the previous week, and retail price were collected for each antimalarial in stock. Product and distribution information was used to calculate relative market share using the adult equivalent treatment dose (AETD) as the unit of analysis.
- Primary survey indicators include: antimalarial market composition (Fig. 1), antimalarial availability (Fig. 2), blood testing availability (Fig. 3), antimalarial price (Fig. 4), and antimalarial market share (Fig. 5).

Fig 1. Market Composition
Outlet type, among outlets with at least one antimalarial in stock (N=2,339)

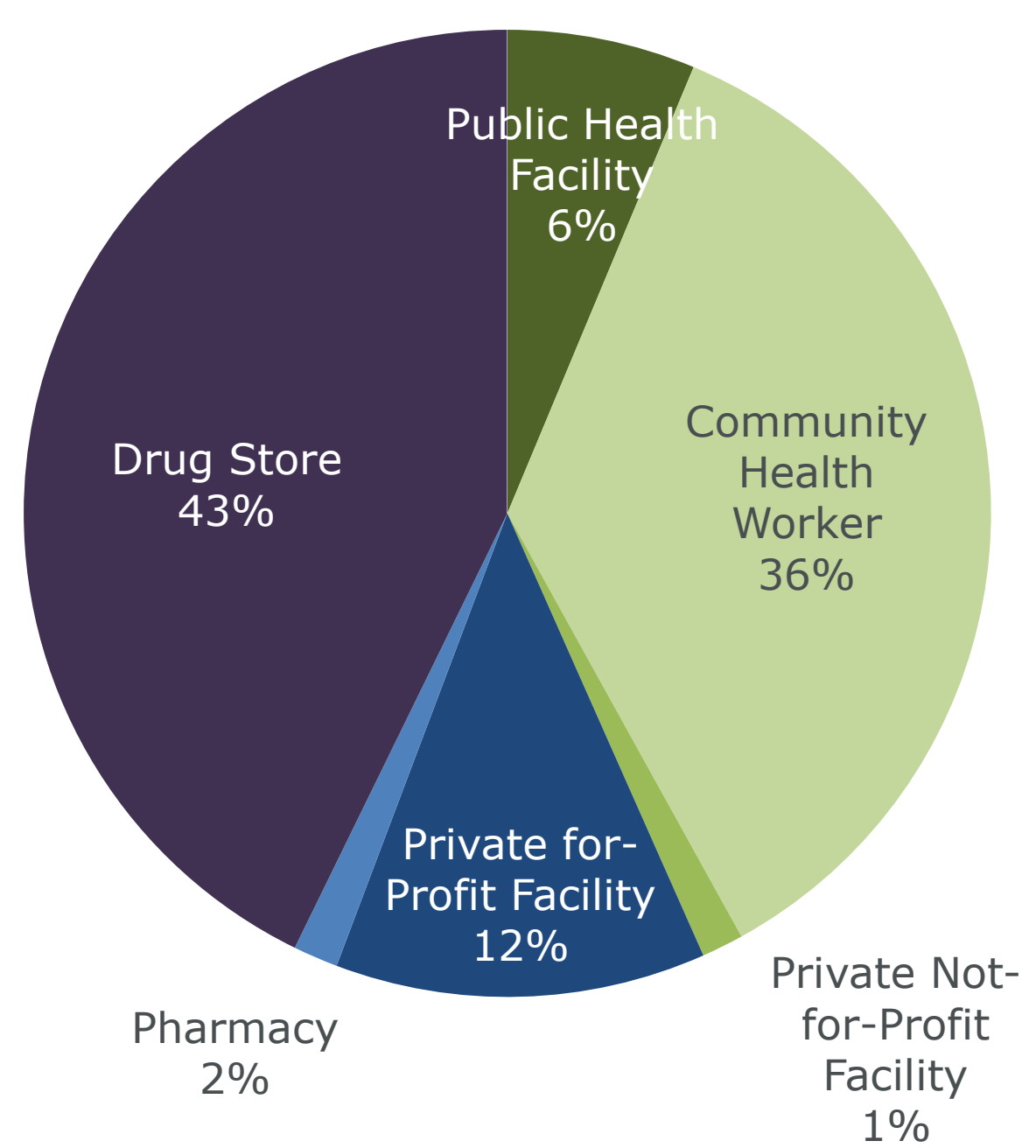


Fig 2. Antimalarial availability
Among outlets currently stocking antimalarials

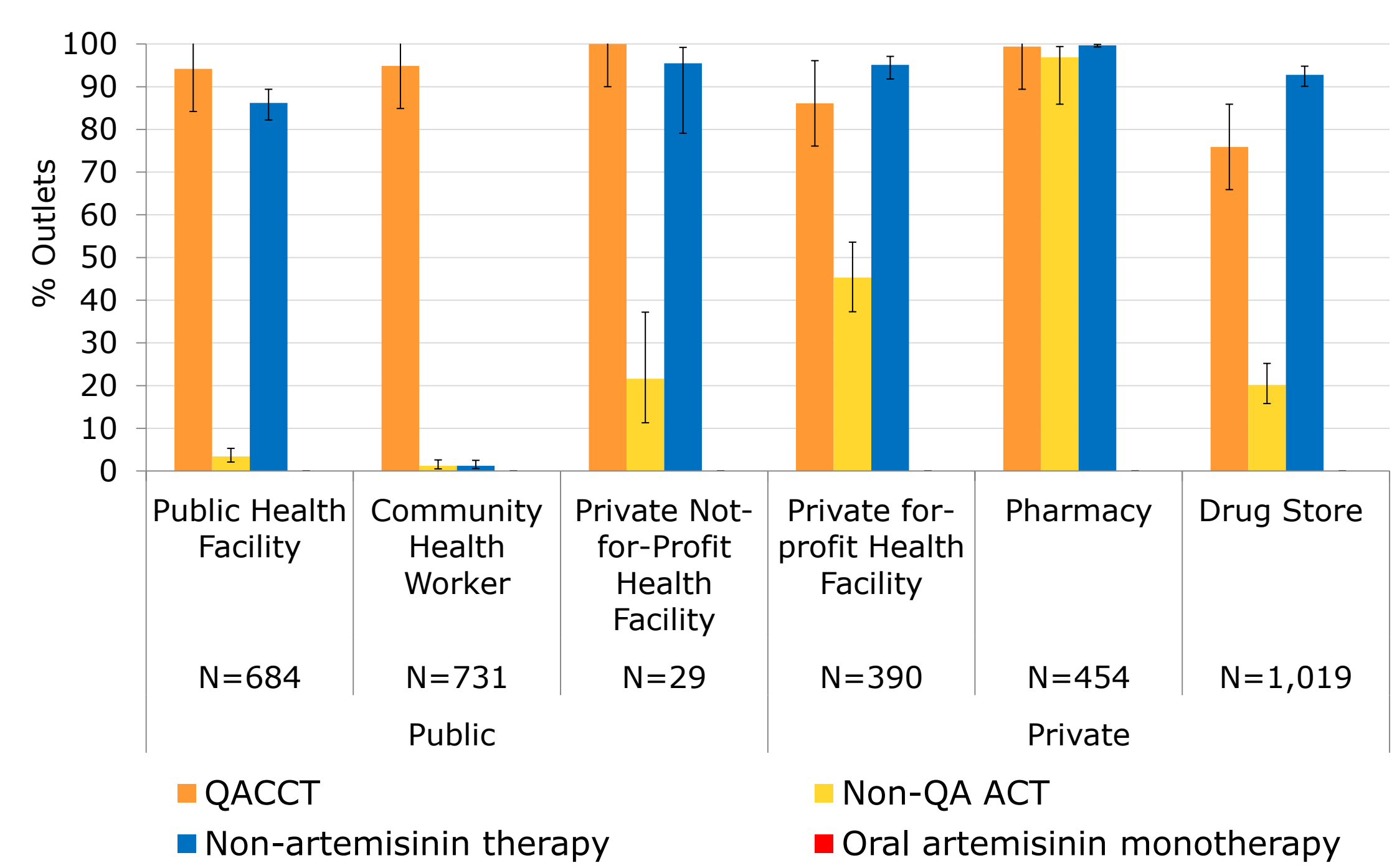


Fig 3. Malaria blood testing availability
Among outlets current/recently stocking antimalarials

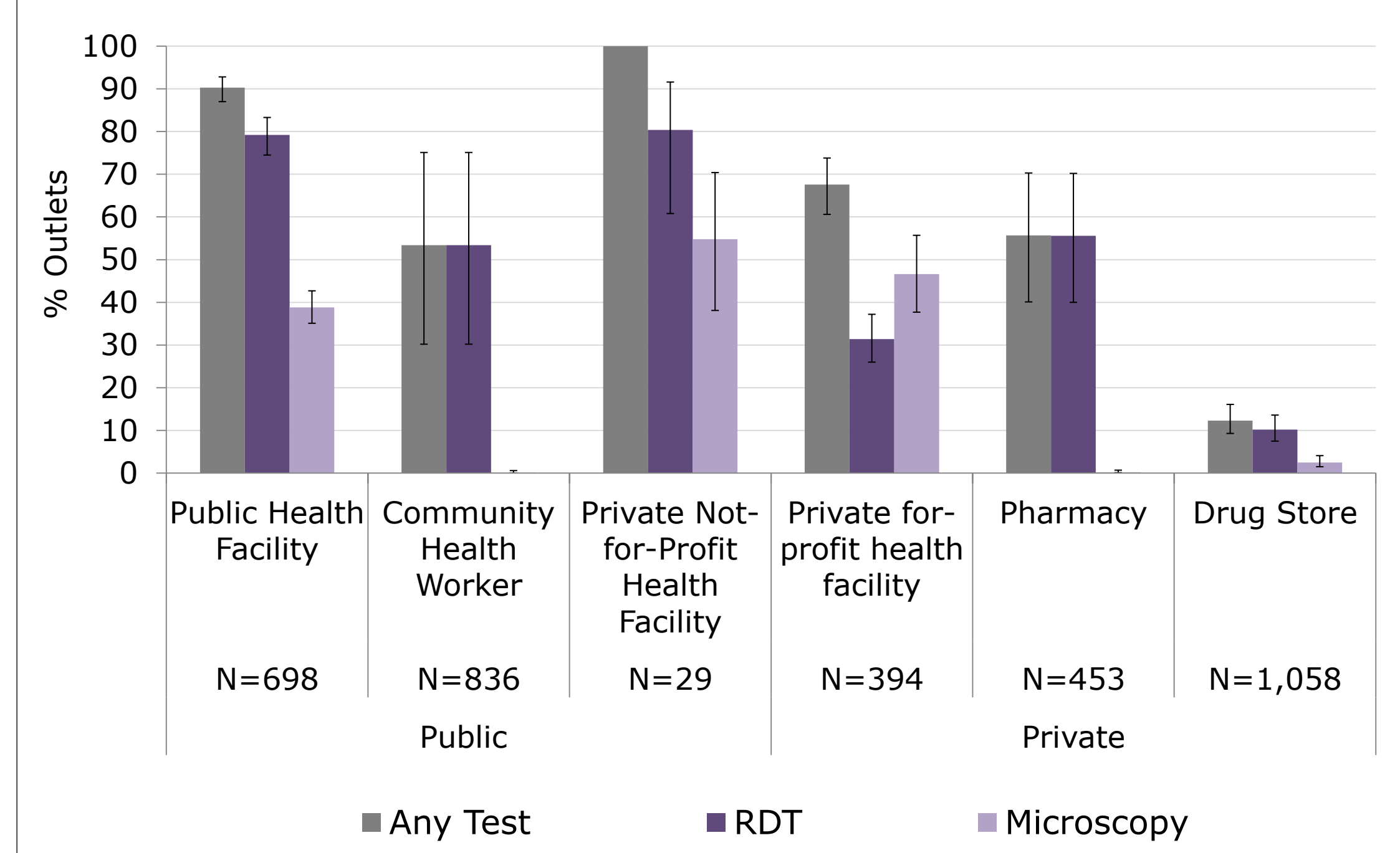


Fig 4. Median private sector price of one adult equivalent treatment dose (tablet formulation)

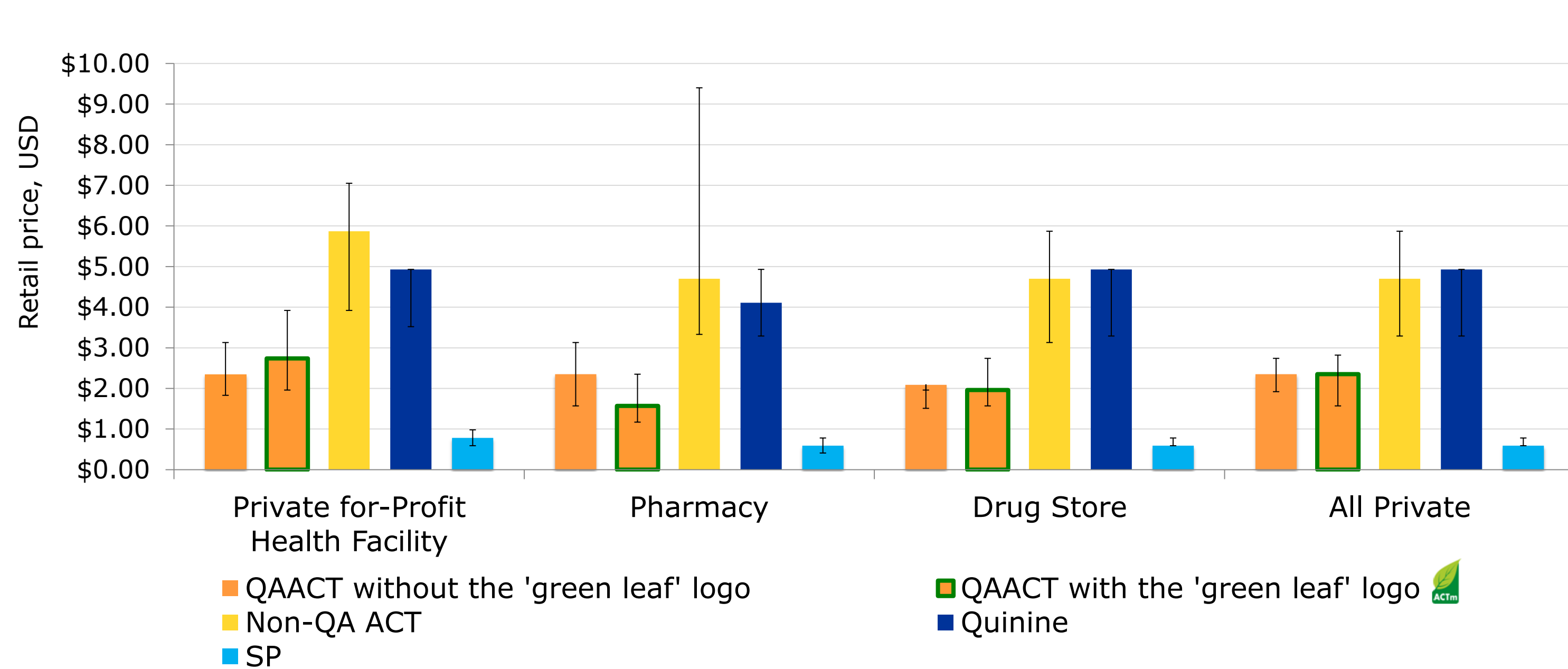
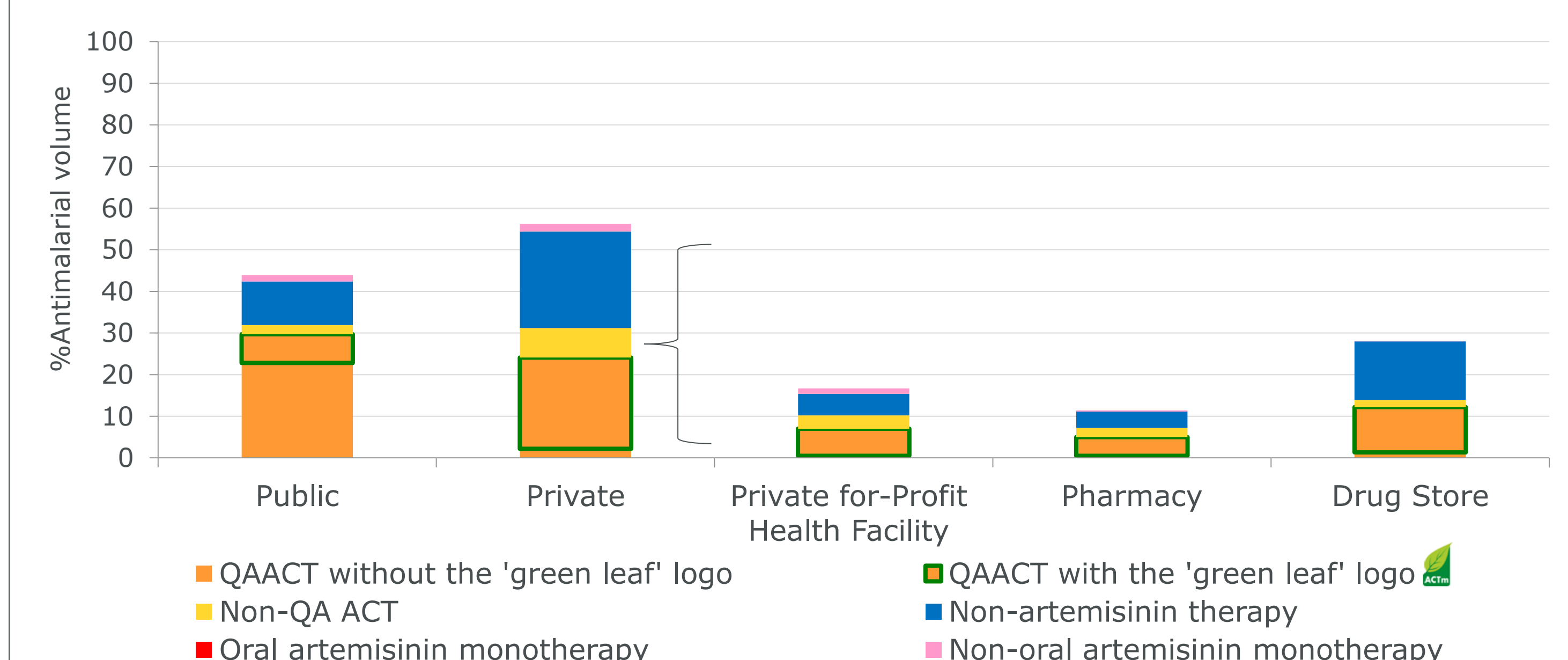


Fig 5. Antimalarial market share
Relative antimalarial sale/distribution



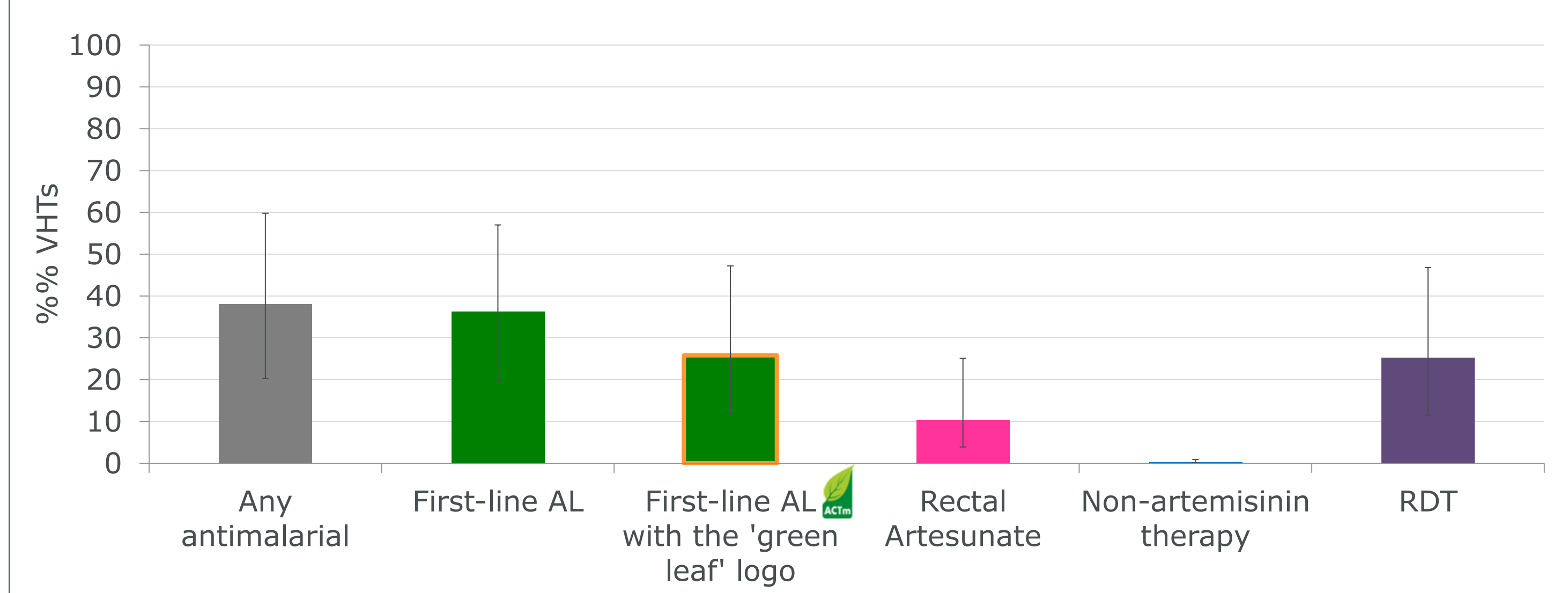
VILLAGE HEALTH TEAMS FOR MALARIA CASE MANAGEMENT

- Village Health Teams (VHT) were established in Uganda in 2001 under the Ministry of Health Sector Strategic Plan as a mechanism for delivering community-based health services. VHT volunteers are selected by the community to serve the health needs of the community. District Health Teams provide training and supervision for VHTs.
- VHTs have been trained and equipped to manage sick children according to integrated community case management (ICCM) guidelines. This includes assessment and treatment or referral for malaria, diarrhea, and pneumonia. Malaria case management training and service provision includes testing using RDTs, treatment for uncomplicated cases using artemether lumefantrine (AL), and referral for severe cases. Pre-referral treatment with rectal artesunate is recommended.

METHODS

As part of the 2013 ACTwatch national outlet survey, N=1,787 VHTs were identified during the census of sampled sub-counties. Of 34 sub-counties included in the national survey, 16 were used for this analysis because they were located in districts where VHTs had been equipped to provide ICCM. The ACTwatch antimalarial and RDT audit and provider questionnaire were administered to these VHTs.

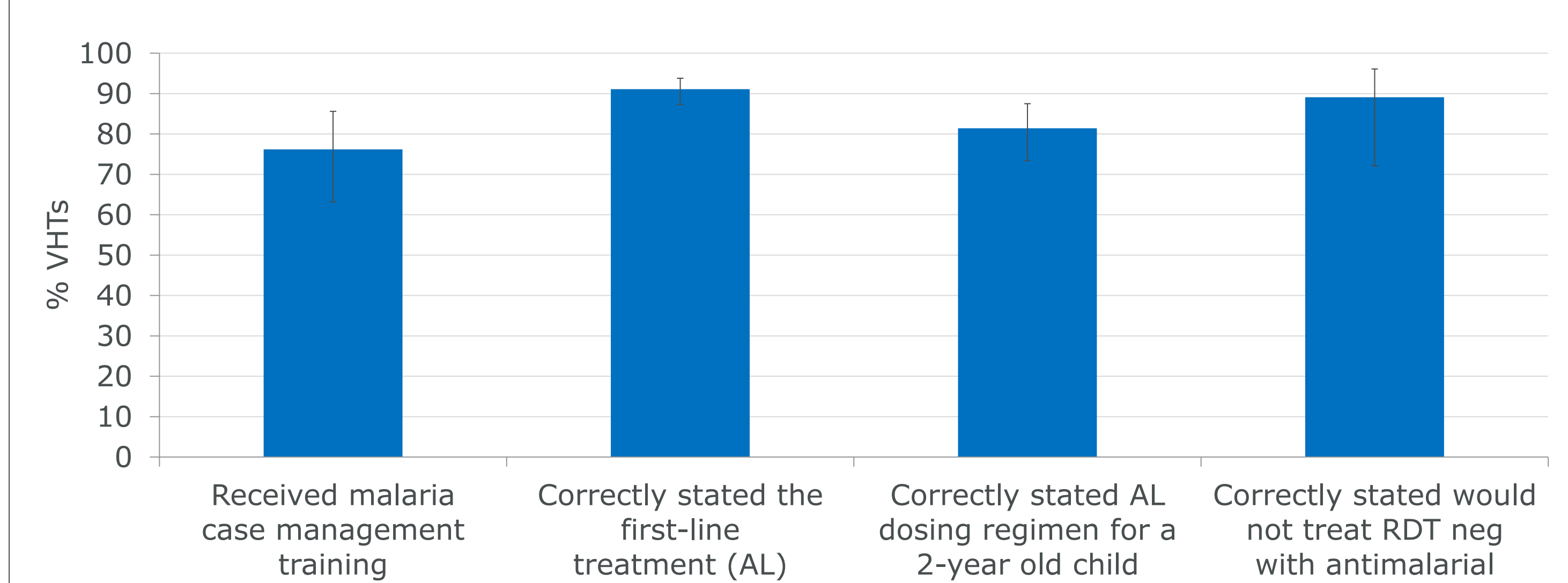
Fig 6. Antimalarial and RDT availability
Among all VHTs screened (N=1,787)



RESULTS

- **Availability of antimalarials and RDTs:** Fewer than half of VHTs were stocking antimalarial medicines (38%) including the first-line ACT, AL (36%). 10% of VHTs had rectal artesunate available for pre-referral treatment of severe malaria. One-quarter of VHTs had malaria RDTs in stock (Fig. 6). Among VHTs stocking AL, 54% reported a disruption in stock within the three months preceding the survey.
- **Malaria case management training:** Among antimalarial-stocking VHTs, 76% reported receiving malaria case management training within the past 12 months (Fig. 6).
- **Malaria case management knowledge:** The vast majority of antimalarial-stocking VHTs could correctly state the first-line treatment (AL) and 81% could correctly state the dosing regimen for a 2-year old child (Fig. 7).
- **Malaria case management practices:** VHTs were asked about their familiarity with malaria rapid diagnostic tests and nearly 90% indicated that they had seen or heard of malaria RDTs. Among those who were familiar with RDTs, VHTs were asked if and when they would recommend antimalarial treatment following a negative RDT result and nearly 90% provided a response of 'never' (Fig. 7).

Fig 7. Malaria case management training, knowledge and practices,
Among VHTs stocking antimalarials (N=658)



DISCUSSION

VHTs in Uganda commonly have correct knowledge for malaria case management. However this national survey identified gaps in the availability of first-line ACT treatment and RDTs among VHTs residing in districts with ICCM. Equipping VHTs with knowledge and commodities for appropriate malaria case management is a promising strategy to improve coverage and reduce severe disease and death due malaria. However continuous commodity stocks will be required to achieve improvements in effective coverage.

