

**Drug Shops and integrated
management of childhood illnesses:
appropriateness of care and
adherence to treatment protocols**

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Conceptual framework showing the dimension of quality in health care addressed in the studies in this thesis – Adapted from WHO dimension of quality framework

Specific objectives

1. To determine the role of drug shops in management of childhood illness and the appropriateness of care they provide
2. To determine the effect on quality of care, of introducing diagnostics and pre-packaged paediatric drugs for malaria, pneumonia and diarrhoea at private sector drug shops
3. To determine the level of adherence by drug shop attendants to the iCCM treatment protocol

Integrated community case management of malaria, pneumonia and diarrhoea (iCCM)



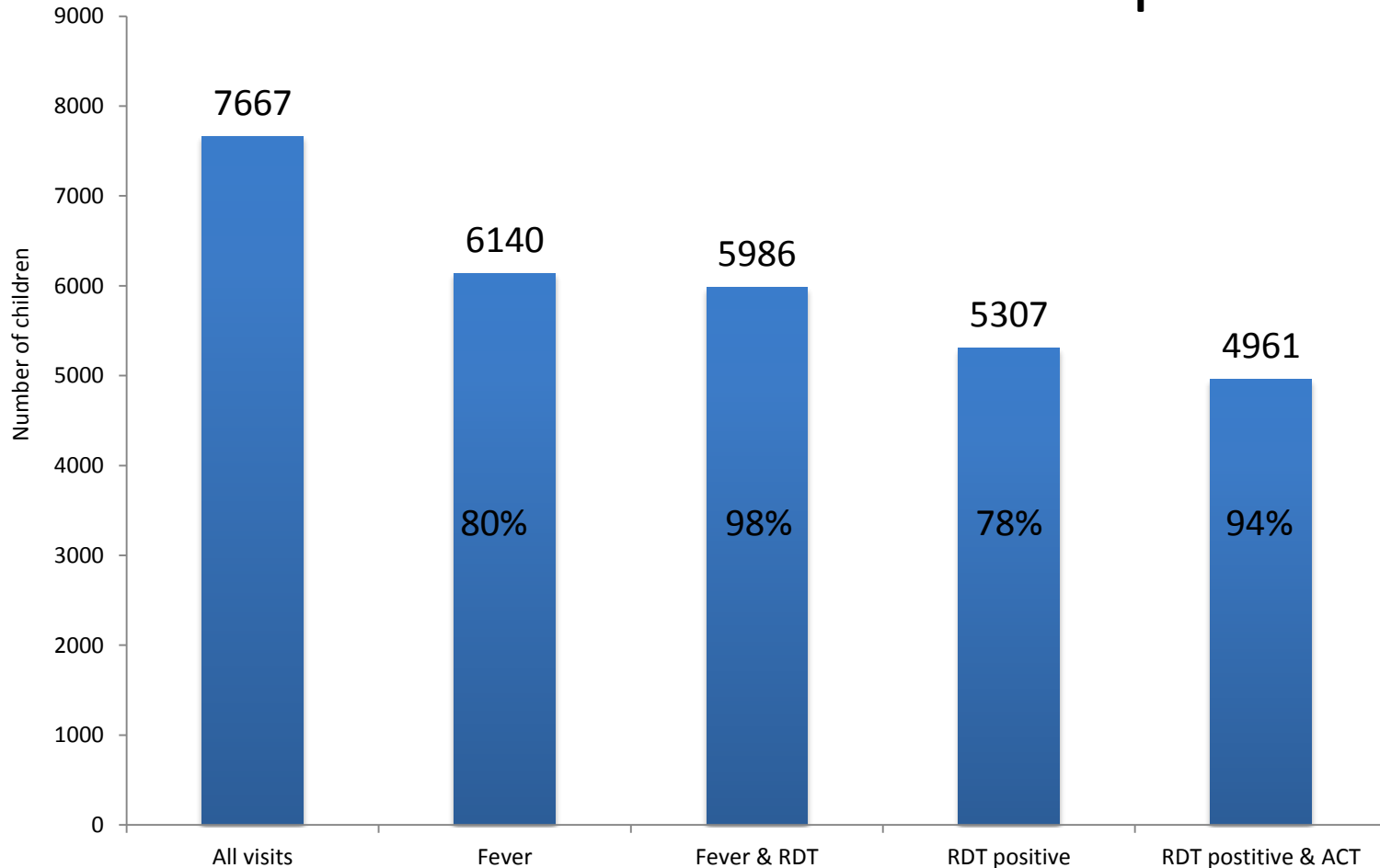
- Promoted by WHO/UNICEF
- 2010 iCCM policy in Uganda
- Scale up through CHWs across Africa in public sector
- No similar private sector intervention

Studies and publications

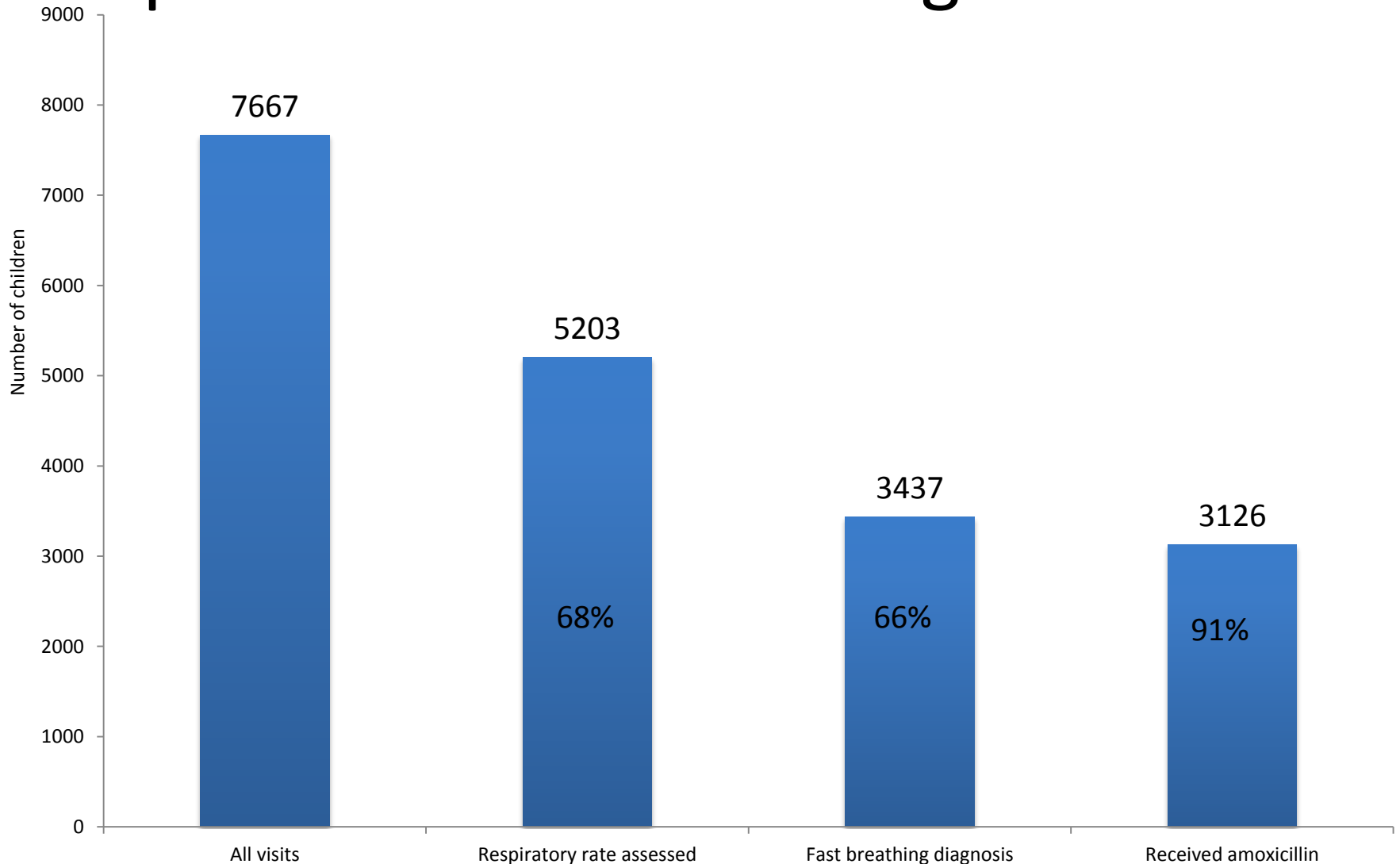
- I. **Awor P**, Wamani H, Bwire G, Jagoe G, Peterson S. (2012) Private sector drug shops in integrated community case management of malaria, pneumonia and diarrhoea in children in Uganda. *American Journal of Tropical Medicine and Hygiene*. 87:92-96
- II. **Awor P**, Wamani H, Tylleskar T, Jagoe G, Peterson S. (2014) Increased access to care and appropriateness of treatment at private sector drug shops with integrated management of malaria, pneumonia and diarrhoea: a quasi-experimental study in Uganda. *PLoS ONE* 9(12): e115440.
- III. **Awor P**, Wamani H, Tylleskar T, Peterson S. (2015) Drug seller adherence to clinical protocols with integrated management of malaria, pneumonia and diarrhoea at drug shops in Uganda. *Malaria Journal*. 2015, 14: 277.

Results

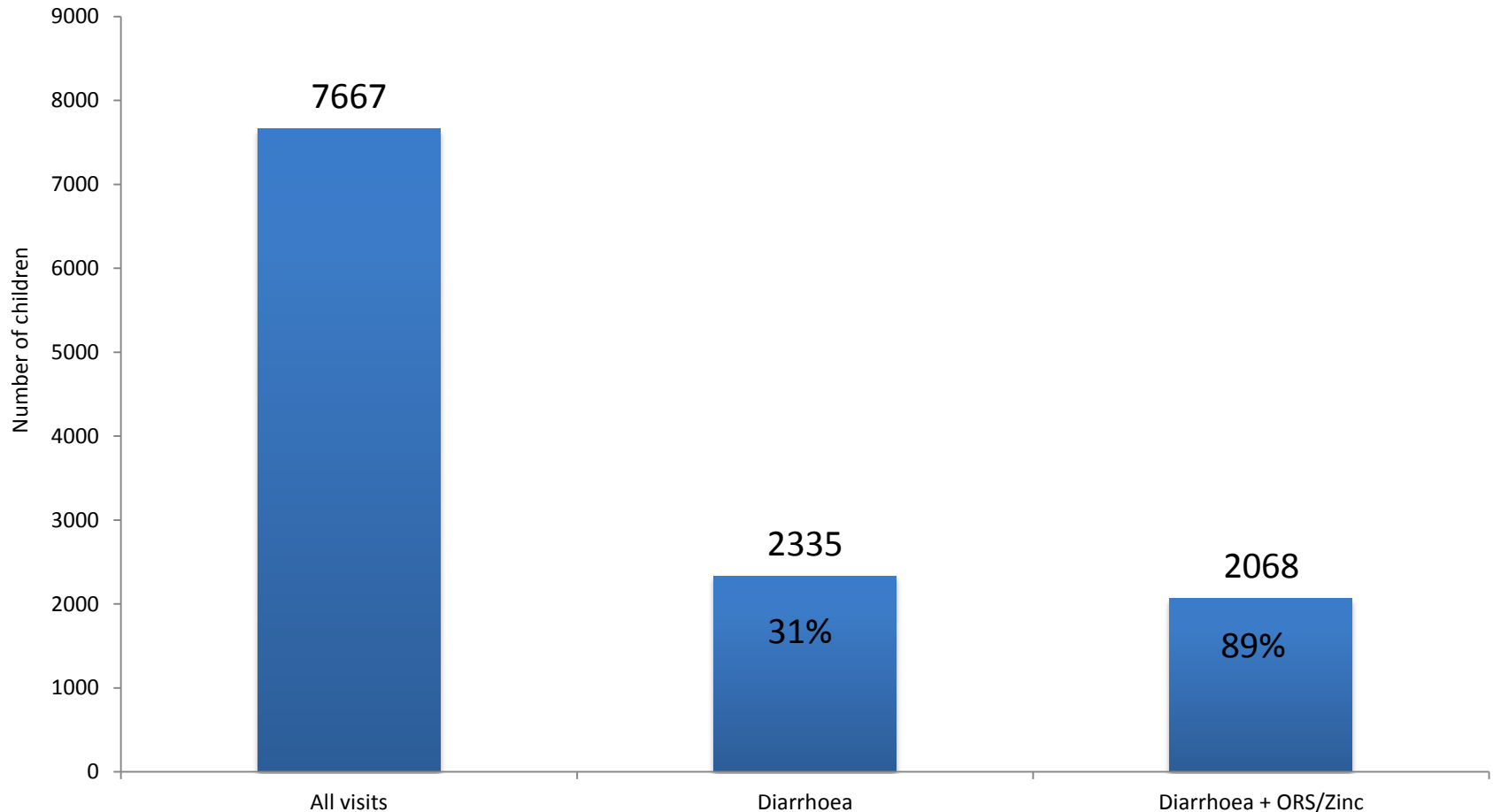
Adherence to the malaria treatment protocol



Adherence by drug shop attendants to pneumonia treatment guidelines



Adherence by drug shop attendants to diarrhoea treatment guidelines



Ethical considerations

- Potential ethical risks in this study included:
 - Drug shop attendants may not carry out diagnostics tests properly
 - Poor disposal of sharps and blood stained items
 - Promotion of utilization the private sector at the expense of public sector
- Risks mitigated through training, support supervision, community awareness, subsidized drugs

Additional lessons learned

- Pricing and quality control: Early negotiation with drug sellers on pricing and standards is paramount
- Supervision: Use of the district drug inspector
- Support supervision important
- Data collection and management: data reported to district statistician and integrated into HMIS

Conclusions

- The majority of parents seek care for febrile children in the private sector, mainly comprising of drug shops, where the management of malaria, pneumonia and diarrhoea is largely inappropriate - **Paper I**
- Introduction of the iCCM intervention at drug shops in rural Uganda resulted in high levels of appropriateness of care for malaria, pneumonia and diarrhoea in children - **Paper II**
- There was also high adherence to the iCCM treatment protocols by the drug shop attendants - **Paper III**

Policy recommendations

1. Quality of care for children with malaria, pneumonia and diarrhoea can be considerably improved by extending the iCCM strategy to drug shops in Uganda
2. As with the public sector iCCM interventions, a subsidy is necessary in the private sector to ensure affordability for the majority of patients
3. For ease of implementation, consider including a limited number of dedicated drug shops per village
4. Scale up could be done in a step-wise fashion to allow for strong assessment of the effect of intervention

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