

# Fair distribution of malaria prevention medication among children under 5 years in Malawi

Developing a thorough solution for delivery of Malaria prophylaxis to children under 5 in Malawi, we want to include the concern of utility among different parts of the population, and give advice on prioritizing a fairer distribution.

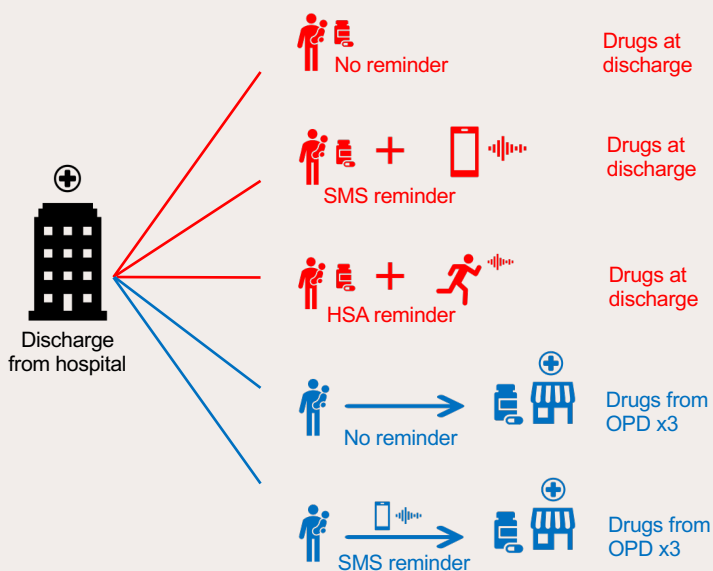
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## BACKGROUND:

While fighting Malaria, mortality rates have been steadily decreasing the past years, but stalled between 2015-2016 both in Africa and other parts of the world<sup>1</sup>. In need of more efficient ways of fighting Malaria, one of WHO's expanding work areas are preventive treatment for population at risk for Malaria.

- Studies have shown that Malaria Prevention after discharge from hospital (hereafter PMC for Post-discharge Malaria Chemoprevention) in Malawian children with anaemia aged less than 5y reduce the rate of readmission and deaths significantly<sup>2</sup>.
- The project is part of a bigger study where we are testing uptake of the drug, cost effectiveness and equality in uptake in 5 different delivery strategies.

## DELIVERY STRATEGIES:



After discharge from hospital, the participants and caretakers are randomized into 5 different arms, with different delivery mechanisms. In the three firsts, the caretaker receives all the drugs for 3 courses of Malaria Chemoprevention (PMC) at the hospital before they leave, where as the last two groups have to go to the Outpatient department (OPD) for each of the three courses of PMC. (HSA- health surveillance assistant)

## METHODS:

- **Interventional, randomized trial**
- **Community versus health facility-based delivery mechanism +/- SMS reminder**
- **Study population 375 children under 5 years with caretakers**
- **Zomba Central Hospital in Malawi and villages in catchment area**
- **December 2015 - October 2018**
- **Outcome: Compare treatment adherence between the 5 arms within different socioeconomic groups**

## ACKNOWLEDGEMENTS

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- Medical Faculty Fund, UIB

## REFERENCES

- 1: Key points, malaria report 2017: <https://www.who.int/malaria/media/world-malaria-report-2017/en/>
- 2: Phiri, K., Esan, M., van Hensbroek, M.B., Khairallah, C., Faragher, B., ter Kuile, F.O., Intermittent preventive therapy for malaria with monthly artemether-lumefantrine for the postdischarge management of severe anaemia in children aged 4-59 months in southern Malawi: a multi-centre, randomised, placebo-controlled trial. *Lancet Infect Dis*, 2012, 12 (3): p. 191-200.

## OBJECTIVE:

Does any of the delivery mechanisms secure a fairer and more equal distribution than others?

## CONCERN FOR EQUALITY:

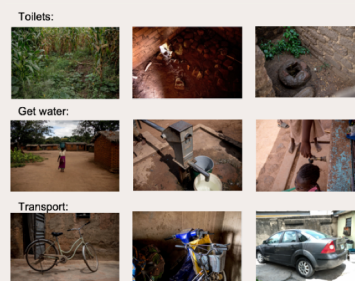
As emphasized in the UN Sustainable Development Goals (SDG's), reducing inequality is a priority, and a concern for the "worst off"-population is essential.



Therefore we are testing uptake of the drug in the different socioeconomic levels, to provide information on how to prioritize the worst off, and advice policymakers on how to target this part of the population, to limit or reduce inequality.

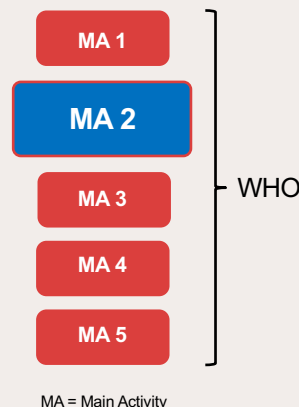
## HOUSEHOLD ASSET INDEX:

In a low income setting, income data is often difficult to get hold of, and using a survey to collect household information on belongings and facilities help us divide into socioeconomic groups using principal component analysis.



Source: Gapminder.org  
Different wealth levels can be differentiated between by gathering information about household belongings, utilities, and infrastructure.

## INFORMING POLICY:



MA = Main Activity

This project is nr. 2 of 5 main activities (MA's) in Uganda, Malawi and Kenya, designed to address gaps in knowledge required to assess whether Malaria Chemoprevention Post discharge (PMC) should be recommended by the World Health Organization as a cost-effective strategy for the post-discharge management of children with severe anaemia in malaria endemic areas.