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.

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. 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.
- 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:

<table>
<thead>
<tr>
<th>Delivery Mechanism</th>
<th>Abbreviation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>No reminder</td>
<td>MA 1</td>
<td>Drugs at discharge from hospital</td>
</tr>
<tr>
<td>SMS reminder</td>
<td>MA 2</td>
<td>Drugs at discharge from hospital</td>
</tr>
<tr>
<td>HSA reminder</td>
<td>MA 3</td>
<td>Drugs at discharge from hospital</td>
</tr>
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<td>MA 4</td>
<td>Drugs from OPD x3</td>
</tr>
<tr>
<td>SMS reminder</td>
<td>MA 5</td>
<td>Drugs from OPD x3</td>
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</tbody>
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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

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.

INFORMING POLICY:
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.

ACKNOWLEDGEMENTS

REFERENCES