LEVERAGING MOBILE TECHNOLOGY AND FINANCIAL INCENTIVES TO INCREASE NON-COMMUNICABLE DISEASE SCREENING RATES IN TANZANIA

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THE RISE OF HYPERTENSION AND DIABETES

Hypertension (H) and Diabetes (D) throughout the Sub-Saharan Africa (SSA).

- Cardiovascular disease is 3rd leading cause of death in SSA, leading cause for those over 50.
- 26% of 25-64 year olds in Tanzania have H, 9% have D (NIMR 2012).

- H and D are easily detected and readily manageable once detected early.

- Less than 10% of adults screened for Diabetes in Tanzania (MoHSW 2015). Only 7% of those are managing their illness.

- Screening is inexpensive, but costs can be high due to lost wages. Also an aversion to seeking medical attention when not ill.
HOW TO INCREASE SCREENING?

1. SMS - Information approach?

2. Financial incentives?
   a. Just offset transportation & opportunity costs
   b. Additional incentive (offset disutility to test/inertia)

Primary outcomes of interest:
• Do individuals go to get screened?
RESEARCH TO DATE

Incentives

- Research from the developed world on incentives used to increase other types of screening (Sutherland, 2008)
- Little research on impact of incentives on NCD screening uptake in developing context

SMS

- The literature has focused on improving treatment adherence or preventive behaviors.
- There is little knowledge, however, on how SMS can be used to affect one-time behavior change, such as for screening take-up, and how its cost-effectiveness may compare to mass media informational campaigns.
**RESEARCH DESIGN**

Randomized controlled trial (RCT)
- Randomize at household level

<table>
<thead>
<tr>
<th></th>
<th>Availability of testing services</th>
<th>Health information</th>
<th>Offer incentive to offset travel and opportunity cost</th>
<th>Larger incentive offer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control</strong></td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>T1: Health Information</strong></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
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<tr>
<td><strong>T2: Health info + Zero full price</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>T3: Health info + Negative price</strong></td>
<td>Yes</td>
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</tbody>
</table>
STUDY POPULATION

- The Demographic Surveillance System (DSS) under the University of Dodoma (UDOM) in Chamwino district -> Dodoma region.

- Households having at least one mobile phone.

- Head / spouse/ (An adult over the age of 40+), be randomly sampled.

- About 1300 households roughly equally divided into the 4 groups
1. This study is assessing the additional benefits of SMS information campaign and cash incentives.

2. Given low cost of SMS and Mobile money cash transfers
   ➔ Potential Scalable intervention

3. Potential approaches to improving screening of H&D
   ➔ Reduction in the cost of health care
THANK YOU

QUESTIONS?