**Mobile Malaria-Dengue Education and Diagnosis**

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**INTRODUCTION**

Malaria and dengue are life threatening diseases transmitted by mosquitoes in tropical countries.

- Affect more than 1.5 million people in India and millions people around the world each year (WHO).
- Curable and treatable if detected early.

**THE PROBLEM**

- Positive attitudes towards preventive behaviors fail to translate into behavioral performance
- Health campaigns using traditional media have shown limited influence on increasing preventive behaviors.

**THE OPPORTUNITY**

- Unprecedented penetration of mobile phones among India’s middle-of-pyramid (middle class) population
- Strong intent on behalf of municipal authorities and policymakers to explore mobile-based solutions for surveillance and prevention of Malaria in India

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**MALARIA**

Most deadly diseases in the world

**DENGUE**

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**AIMS**

- Design and test a mobile phone-based health risk communication and response system called m-MED (Mobile Malaria-Dengue Education and Diagnosis)
- Inform and strengthen Malaria prevention policymaking at the municipality level by integrating m-MED with existing surveillance infrastructure
- Harness the power of informal social networks using social media to disseminate Malaria information among citizens and attract active civic participation

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**FRAMEWORK**

**SURVEILLANCE**

Based on weather and patient data, prospective Malaria hotspots will be mapped and displayed on touch-screens for policymakers to plan prevention activities

**HEALTH EDUCATION**

A 6-stage theory-based communication campaign (awareness, threat, risk information, vulnerability, efficacy and self-monitoring) with feedback SMS option will be launched. Residents in different areas will receive targeted and customized messages based on their Malaria risk assessment using hotspots mapping.

**CIVIC ENGAGEMENT**

Residents can register their mobile phone numbers to a central database. They can report diseases-related information, for instance potential breeding sites, weather data via either text-based short messages or geo-tagged pictures. The central system then notifies local authorities to enforce needed preventive or treatment actions. It will also connect to public and others in their circle of living area to provide information of the diseases and advice.

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**EXPECTED RESULTS**

At the individual level, we plan to see an increase in knowledge of Malaria transmission and preventive methods. We expect to see a greater translation of attitudes to behavioral intention in terms of performing preventive actions.

At the community level, we expect to see a greater engagement of citizenry in health prevention activities. This engagement will lead to greater synergies between people and the system (municipal authorities)

At the policy level, we expect to see (in the medium and long-term), preventive strategies that are streamlined, targeted and focused; and a renewed approach to health communication

At the health outcomes level, we expect to see (in the medium and long-term), a decrease in Malaria prevalence and incidence in Mumbai

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**PROPOSED M-MED**

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