Mo-Buzz

Social Media Solutions for Dengue Prevention in Asia

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Problem Overview

Ground Reality

- Dengue is one of the major global health threats (WHO, 2009).
- It affects over 5,000 people in Singapore and many more in Southeast Asia (Grosse, 2012).
- Baseline study and formative research conducted to understand public attitudes, identify gaps in prevention, and generate innovative solutions.

Need Gaps

- Positive attitudes towards preventive actions (e.g., draining stagnant waters) not translating into actual behaviours among residents.
- Existing health education and communication campaigns using traditional media lack effectiveness.
- Under-utilization of technology to predict dengue by authorities and public to prepare for potential outbreaks.
- Lack of active citizen engagement in responding to disease prevention.

Design Opportunities

- Singapore is the most mobile-savvy country in the Southeast Asia region with a penetration rate of nearly 150% and about 90% of Singapore population owns a smartphone (Blackbox Research 2012).
- New and affordable tablet devices have made digital applications easily accessible to the Singaporean middle class population.
- These technologies and associated applications offer immense potential to bolster Dengue surveillance, health communication, and civic engagement in health prevention (Ekeland, Bowes, & Flottorp, 2010; Freifeld et al., 2010).

Solution

Mo-Buzz

- Generates predictive visuals of maps and earth views to help authorities and public prepare preventive actions.
- Enhances decision-making ability of health authorities and policy-makers through integration of information from the ground as well as experts and reliable sources.
- Maintains registry of residents in central database.

Key Features

- Conversion of complex, multi-layer data into user-friendly visualizations to maximize utilization of available information.
- Residents collectively use social media to contribute to health surveillance and awareness efforts.
- Maps inform tailored health communication delivered to citizens on mobile and other devices and focus on effective communication.

Future Directions

- Finalization of Mo-Buzz design concept and health education messages.
- Integration of predictive maps and civic engagement elements.
- Development of integrated Mo-Buzz system with interactive health education system.
- Field testing, system evaluation, and refinement.
- Further data analysis and study of MOP in India, Singapore, and Vietnam to identify further opportunities in social media-based Malaria-Dengue prevention system.

Overview

An integrated mobile and desktop-based health risk communication and response

- Generates predictive visuals of maps and earth views to help authorities and public prepare preventive actions.
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System Flow

- Enables residents to report disease-related information, for instance, potential breeding sites via text-based short messages, geo-tagged images, and videos.
- Empowers authorities to enforce preventive actions by providing health threat information to residents in and around outbreak zones.
- Helps vulnerable populations to handle the situation by providing tailored health communication with feedback SMS option.

References