"See and learn, not read and learn:" Context analysis and community support for a mobile team eLearning intervention to improve non-communicable disease prevention in Pohnpei State, Micronesia

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Background: The diabetes rate in Micronesia is the second highest in the world, projected to remain so for the next two decades. This formative research was conducted on Pohnpei, Micronesia's isolated capital island, to understand the context, opportunities, and challenges surrounding Pohnpei's goals to improve NCD prevention, and whether appropriate technological intervention could facilitate this goal.

Methods: Rapid Qualitative Inquiry was implemented to assess technology use, needs, and NCDs prevention opportunities. 43 Key opinion leaders, providers, traditional leaders, pastors, and community members engaged through focus group discussions, individual interviews, and meetings. The team debriefed daily and iteratively built upon learnings, triangulating with in-country partners. Data were analyzed for themes arising that related to the main topics of interest (NCD prevention and technology).

Findings: Participants prioritized NCDs as a public health concern, and NCD prevention and policy evidence was seen throughout the island (e.g. "no smoking" signs, health promotion material). NCD incidence was generally attributed to shifts in modern diet and physical activity patterns resulting from military occupation, and with the introduction of modern conveniences. Participants noted an inability to effectively reach many people with prevention health messages to influence behavior. They explained an attitude of fatalism, fear, and denial of potential medical consequences, and lack of education on the best methods to design and implement health education intervention. Participants identified the most effective intervention was community engagement and outreach, often deployed through mobile teams and events, and frequently with testimony provided by affected populations.

Discussion: Interventions that engage community members in groups, with personalized stories, and with local theming were preferred. Flexible technology suitable for a range of environments was also acceptable. The team plans to develop an eLearning initiative to meet the health education needs of stakeholder groups (e.g. health workers, social service and voluntary outreach teams, US Peace Corps Volunteers), for use in mobile teams and for community gatherings, and can offer both connected and off-line multimedia features.

Interpretation: Pohnpei would likely sustain and benefit from a user-centered technological innovation that supported workers in delivering best-practice health education strategies.

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Expanding from pilots to scalable mHealth solutions: World vision's experience 2007-2015

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Program/Project Purpose: World Vision is a faith-based NGO delivering community-based programs in 60+ countries. World Vision has advanced mHealth as a tool to boost health and nutrition outcomes for pregnant women, mothers and children under 5. The mHealth portfolio includes 21 deployments supporting community health workers (CHWs) and health facility staff in 16 countries in Africa, South and Southeast Asia.

Structure/Method/Design: Several activities support these deployments on the path to scalability including: establishment of a global Steering Committee, providing modest strategic/technical guidance, and working with field-experienced technology partners. Experiences have recently been synthesized in a global report.

Outcome & Evaluation: Most mHealth deployments are moderately scaled and represent proof-of-concept experiences. Negotiations are ongoing to achieve population-level coverage based on positive results. For 13 projects, World Vision built a common application within MoTECH Suite, enabled through a partnership with Dimagi and Grameen Foundation supported by The Gates Foundation. This common application supports 5 different interventions and has shortened time to deployment and minimized costs

The Ugandan mHealth deployment is one of the largest, with 896 CHW users provisioned with MoTECH Suite equipped phones. Partnering efforts in Sierra Leone culminated in the government recognizing the MoTECH Suite as the preferred mobile solution at the community level. In Niger, CHWs were proud to become proficient in an 'advanced technology' while effecting community perception of CHWs. Clear indication of inadequate IT support was also evident.

Going Forward: World Vision's experience highlights the need to study the mHealth 'ecosystem' to clarify whether to offer a new solution in a consortium scenario or support an existing solution with proven value. Project designs must be Ministry of Health-centric to achieve interoperability with a maturing HMIS else risk losing momentum. The common application approach together with partnering to achieve favorable pricing from mobile network operators can lead to sustainable cost models. These consolidated results demonstrate readiness for scalable projects.

Funding: All mHealth projects are embedded within health or nutrition projects, many funded by bilateral donors including USAID, Canada DFATD and Irish AID. Some are supported privately by World Vision, especially during start-up, and others have corporate or foundation support.

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