

TITLE: Local Knowledge for Participatory Public Health Practice: A Crowdsourcing Approach to Mapping Social Determinants within Low-Resourced LHDs

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STUDENT SUBMISSION: No

TOPIC/TARGET AUDIENCE: Researchers/practitioners with an interest in ICT applications w/in public health research and practice. Those with interest in mHealth, intergenerational collaborative web-based community mapping, participatory GIS, or Photovoice. Practitioners in (social) epidemiology in low-resourced, rural, or geographically hard to reach populations.

ABSTRACT: Background: Many local health departments (LHDs) are confronted with fiscal, political, and jurisdictional limitations that compromise their ability to assess and equitably respond to community health issues. This is particularly true of smaller and/or rural LHDs without epidemiologists on staff. Information and communication technologies (ICTs) open the door for low-cost “crowdsourcing” approaches for community assessment, and can offer residents opportunities to inform local practice. As such, ICTs afford opportunities to move towards more inclusive/participatory assessment models to better assess/address local SDH.

Purpose/Methods: Participants were recruited as parent-youth dyads and trained in four participatory methods, including Photovoice (via smartphones) and Participatory GIS. They used this combination of methods to document and geolocate daily SDH-related experiences/exposures. Participants integrated findings via a multimedia-enabled web-based ICT platform for community mapping.

Results/Findings: Participants documented 100+ experiences/exposures related to SDH, from food availability to community safety. Overall, 74% of “healthy/positive” experiences/exposures were spatially located outside their residential area, contrasted with 59% of “unhealthy/negative” experiences/exposures within.

Conclusion/Implications: Through integrating participatory methods with ICTs, residents modeled a low-cost crowdsourcing approach to local SDH assessment. Their work highlights the potential value of participatory processes in uplifting local knowledge, amplifying community voice, and promoting civic engagement for health equity.

OBJECTIVE(S): Identify applications for ICTs in local public health practice for community assessment and community engagement

Discuss the potential value of crowdsourcing approaches in informing community health assessment, health impact assessment, and health in all policies work

Describe the relevance and utility of ICTs in fostering a more inclusive social epidemiology

Discuss core technical, procedural, and ethical challenges of ICTs for participatory community health assessment

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