GIS to Support Public Health Interventions: Targeting, Planning, and Managing Social Marketing Interventions

The example of an international non-profit organization

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PSI is a leading global health organization with programs targeting malaria, child survival, HIV and reproductive health, in Africa, Asia, Eastern Europe, and Latin America. Working in partnership within the public and private sectors, and harnessing the power of the markets, PSI provides life-saving products, clinical services and behaviour change communications that empower the world’s most vulnerable populations to lead healthier lives.

Many of our country offices now actively use GIS to support a range of public health interventions, including STI and HIV testing, prevention, and treatment, reproductive health service provision, prevention and treatment of malaria and TB, maternal and child health, and safe water systems.

Below are just a few examples of how international non-profit organizations such as PSI can benefit from maps and GIS technology, be it for resource allocation, monitoring and reporting of interventions at the national level, or targeting and planning field activities in communities.

ArcGIS for Non-Profit Organizations

• PSI has greatly benefited from the Esri non-profit scheme, which was launched in 2010.

• Where software costs used to be a barrier to the adoption of a systematic mapping and spatial analysis approach, the organization now has access to powerful and flexible GIS software. All of the maps shown here were created with ArcGIS Desktop (v.10) software.

• Since 2010, around 40 PSI researchers and M&E officers from 20 countries have been trained on ArcGIS, and many more have basic mapping skills.

Working with the Public Health and GIS Communities

• PSI annually collects several thousands of GPS locations of health facilities, private clinics, pharmacies, drug stores, small shops, communities, priority sites for HIV prevention, and other points of interest.

• Datasets and maps are made available to local partners (Ministry of Health, National Mapping Agency, UN agencies, other NGOs) so that these organizations can also benefit from spatial data and maps.

• Several PSI country offices actively disseminate information on access to health services and products, using Google Maps.

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In Tanzania, PSI uses an innovative SMS-based approach to track condom sales and to implement HIV prevention events. Project staff use maps to identify distribution gaps, based on population maps and HIV prevalence estimates.

PSI Laos actively shares maps with health service provider locations, for example on its “Sun Quality Health” clinic network through which essential TB and reproductive health services are provided by trained practitioners.

PSI Madagascar has adopted a true “geomarketing” approach, under which interventions are actively mapped out, and where maps play a key role in project management. As in several other country offices, maps are now a standard component of project dashboards.

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