

## Geographic Information System Helps Health Workers Identify Service Needs

During the first week of July, TB CARE I/Management Sciences for Health (MSH) teamed up with MEASURE Evaluation and the Royal Tropical Institute (KIT) to train 24 Ethiopia health professionals to use Geographic Information Systems (GIS). In health care settings, GIS allows staff to display facility and contextual data so human resource capacity and service provision gaps can be easily identified.



Workshop participants discussing information needs and data use for TB program management.

Workshop participants came from the Oromia Regional Health Bureau, West Arsi Zonal Health Office, Southern Nations, Nationalities, and Peoples Region (SNNPR) Regional Health Bureau, and USAID's TB CARE I and Help Ethiopia Address Low Tuberculosis (HEAL TB) projects.

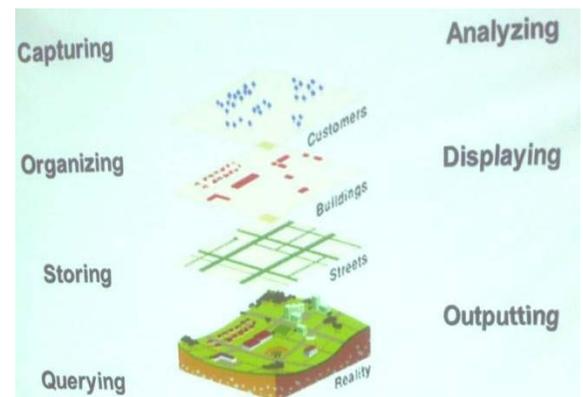
Facilitators taught participants to use quantum GIS (QGIS), an open source mapping software, to overlay TB data from their routine reports and human resource data by geographical location. Participants

mapped various indicators onto zonal maps to highlight programmatic and human resource strengths and weaknesses. Indicators included burden of disease, laboratory capacity, treatment outcomes, and staff training for TB patient screening and management. The workshop was supported by USAID through the TB CARE I Core project, "Using GIS to support Human Resource Management."

The workshop's capacity building sessions included a two-day, classroom-based training led by facilitators from MSH, KIT, and MEASURE Evaluation. These facilitators used a hands-on approach to teach the 24 trainees how to select appropriate indicators, use QGIS for displaying data, interpret data, use data for decision-making, and discuss program implications. The classroom sessions also included short presentations by facilitators, group discussions, and plenary sessions where participants learned to use GIS for displaying data. During the plenary sessions, trainees discussed information needs and the use of information for TB program management and control, reviewed the TB CARE I critical pathway using routinely collected data, and analyzed human resource needs for TB control.

After the classroom training, facilitators worked with participants at their place of work and provided additional coaching on the use of QGIS for mapping their service delivery data. This approach allowed facilitators to build trainees' capacity by working at their own pace and tailoring the content for each participant's individual learning needs.

In the coming months, facilitators will follow up with the participants and provide regular, long-distance support and mentoring via phone, e-mail, and Skype to ensure trainees effectively incorporate these new skills into their work.



Steps for managing data using GIS