

Priorities for Local AIDS Control Efforts (PLACE) Mapping Tool: A plug-in for QGIS

Background

The HIV pandemic is global, but the epidemic differs widely by country, and within a country HIV prevalence differs by region, district, and even community. In fact, no two local HIV epidemics are the same. Local epidemics are driven by sexual and injecting drug-use networks in unique local contexts—urban, rural, along a major highway, within a fishing village, or along drug trafficking routes. Although the HIV epidemic is global, all transmission is local. To be effective, local responses should be tailored to the local context and drivers of transmission.

The PLACE (Priorities for Local AIDS Control Efforts) method increases the understanding of the local HIV epidemic among service delivery providers, community leaders, and other stakeholders so that a response is tailored to the epidemic. Maps are the heart of the PLACE method. Maps reveal where to reach those most likely to acquire an infection and where there are resources to help.

Many people involved in public health have not been trained in the use of spatial data analysis and portrayal. This mapping tool runs on top of technical mapping software in a step-by-step fashion to help users produce maps that can be used with the PLACE method.

What the tool can do

Increasingly, relevant contextual demographic and other data are available as spatial data, and can be mapped. The PLACE Mapping Tool allows users with even limited knowledge of GIS (geographic information systems) to overlay PLACE-specific data with other information, such as population data, transportation networks, and health data.

Because the tool is a plug-in that comes complete with a copy of QGIS (a popular free and open-source GIS program), a researcher can use it to import data and display them in a basic fashion on a screen and in a printout. It also allows a skilled GIS technician to extract the data from the map and work with them later, if necessary. The tool can handle two types of geographic data: “area” data (usually a rate or percentage or score, by district) and “point” data (discrete locations, such as venues).

Output is generated automatically as a PDF—a familiar and useful format. Map output includes title and legend information, which the user can customize.

What’s included

The tool package comes with a complete version of QGIS, Excel templates for properly preparing your own data, and special geographic map data files—called “shapefiles”—that provide the administrative area geometry for 14 countries (Angola, Burundi, Côte d’Ivoire, Democratic Republic of the Congo, Eswatini, Ghana, Haiti, Kenya, Malawi, Mozambique, Rwanda, South Africa, Tanzania, and Uganda).

An instruction manual included with the tool describes:

- How to format the two types of basic PLACE data (district data and GPS coordinate location data)
- How to work with the tool’s “wizard” to produce a map
- Tips on how to use some of the basic features of the QGIS software
- Information on where to go for additional GIS instruction



QGIS, a popular free and open-source GIS program, comes with the tool package



A button for launching the tool will automatically install in the QGIS toolbar

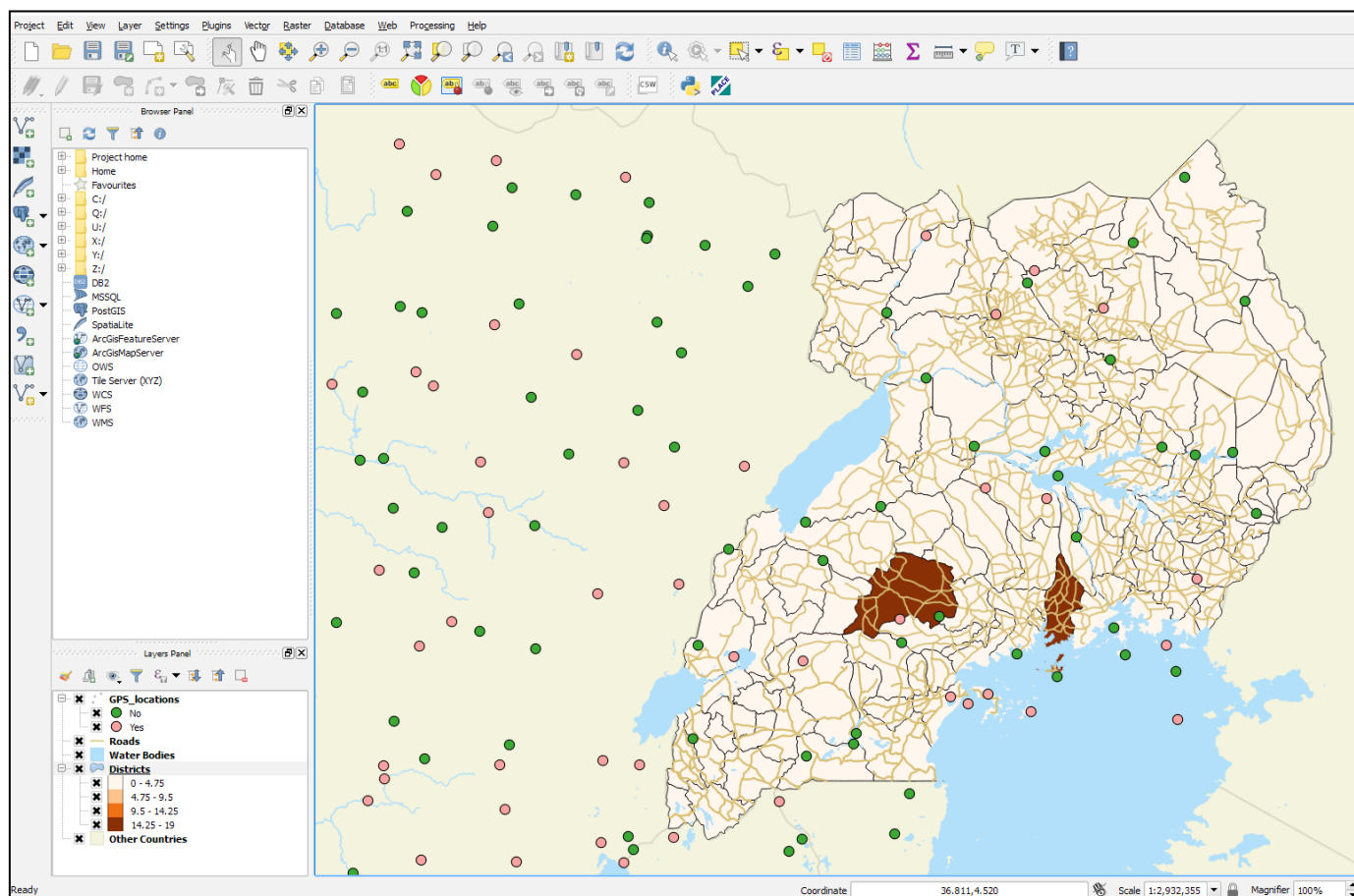
For a free copy of this tool, please click here: <https://www.measureevaluation.org/resources/publications/tl-19-39>.

For more information about the PLACE method and to access the entire toolkit that supports the method’s use, click here: <http://www.measureevaluation.org/resources/tools/hiv-aids/place>.

4 screens to guide users

Screen	Purpose
Screen 1: Map the country	This screen accesses data to show the boundaries of districts or other geographic areas.
Screen 2: Map a variable	Optional. Use this step to produce planning maps that show variables for districts (or other administrative areas) to help you decide where to implement PLACE.
Screen 3: Map PLACE sites	Optional. Use this step to produce results maps of sites where data were collected with PLACE. This requires input from an Excel file that contains x,y (latitudinal/longitudinal) coordinates for the sites.
Screen 4: Save the map image file	Save the image as a separate .jpg or other file for use in reports or presentations, complete with legend and title. If you skip this step and click "Finish," the map will simply display inside QGIS.

Sample screen output in QGIS



This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of the MEASURE Evaluation cooperative agreement AID-OAA-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government. FS-17-214