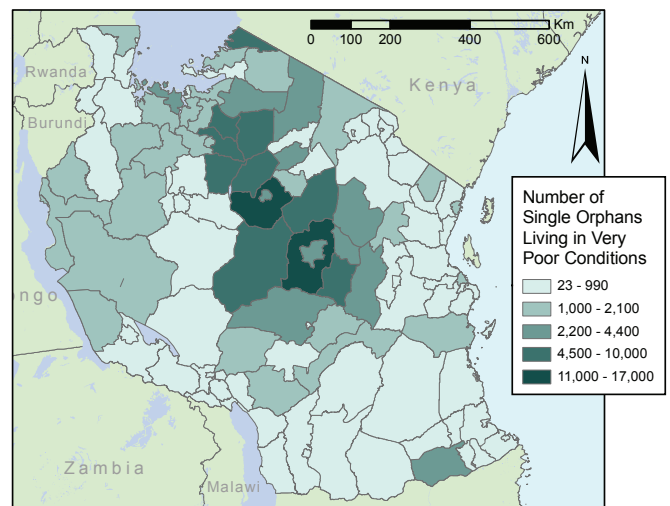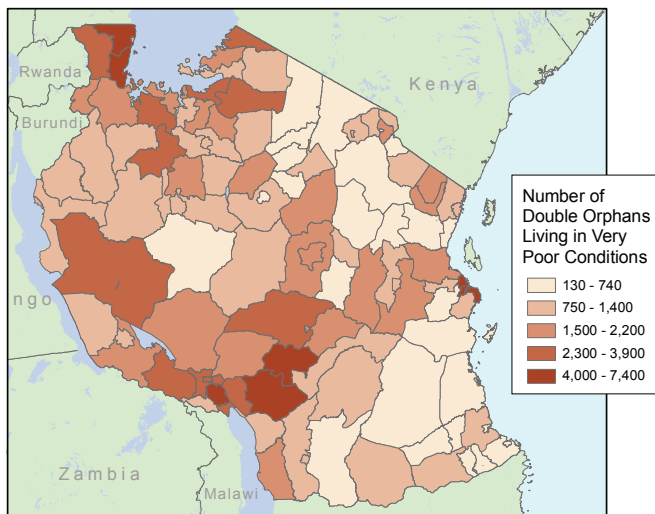# OVC Mapping Activity

Using maps and the data infrastructure to help make better decisions for orphans and vulnerable children

The value of Geographic Information Systems (GIS) and mapping for analysis and decision making is well known. Maps are a powerful way to present data. The value of GIS, however, extends beyond making maps. GIS is also a valuable tool for managing and understanding the data infrastructure, or all data available to support decision making. For example, the maps on this page combine data from different sources, thus creating new knowledge for decision-makers.

Almost 10 million people affected by HIV/AIDS, including nearly 4 million orphans and vulnerable children (OVC), have received care under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). A full understanding of the needs of the populations PEPFAR serves requires quality data and a strong data infrastructure. Accessing all available information for decision making can be challenging. It is often difficult to know what data are available in various departments and agencies (within the U.S. government (USG) and from other development partners and host-country programs). Additionally, variations in data quality across multiple data sources make it difficult to compare and combine datasets. The synthesis of various data sets, or having a full understanding of what insight the collected data can actually provide, can also be difficult.

OVC MAPPING ACTIVITY

All PEPFAR activities and beneficiaries can be tied to some location. In many cases it is possible to know the specific service delivery point, such as a health facility or clinic. In other cases it is only possible to know the service delivery or catchment area (for instance, indirect OVC services may be provided across an entire district). Including a geographic identifier with PEPFAR service delivery and reporting data accomplishes two goals: it allows the data to be mapped, which can support decision making; and, it makes it possible to manage and synthesize data from various sources using GIS data management capabilities.

MEASURE Evaluation's OVC mapping activity has evaluated the available data for OVC programs in 12 countries to assess the potential role for mapping in decision-making and data management. The lessons learned from the activity can be valuable for all PEPFAR programs. OVC programs and services are a complex topic and no single data set can provide a complete picture of the population, its needs, the causes and services required. Rather it is necessary to rely on data from a variety of sources and a variety of topics. Evaluation of the available OVC data in the countries reviewed showed the necessity of a strong data infrastructure for effective decision making. Communication and data sharing across USG programs and beyond is essential to capitalize on the available data infrastructure.

MATURING DATA INFRASTRUCTURE

The illustration (right) shows the conceptual framework for building a mature data infrastructure. Collected data becomes part of the data infrastructure, and when this cycle is replicated across various domains, such as OVC, Antiretroviral Therapy (ART), and Preventing Mother-to-Child Transmission (PMTCT), the pool of collected data is available to support decisions. Since many aspects of health are connected, it is important to be able to link various datasets together. For instance having ART and PMTCT data can be helpful for OVC program planning. GIS provides the means to link all of the elements in the data infrastructure together as well as produce maps to display the data.

PEPFAR datasets, if they contain a geographic identifier, can be combined in a GIS. This means that it is possible to relate OVC data to other HIV services data such as ART delivery, and palliative care, as well as prevention programs. Additionally, USG program data from other relevant domains, such as malaria and TB, can also be integrated into the decision making process when useful. Making use of a variety of available
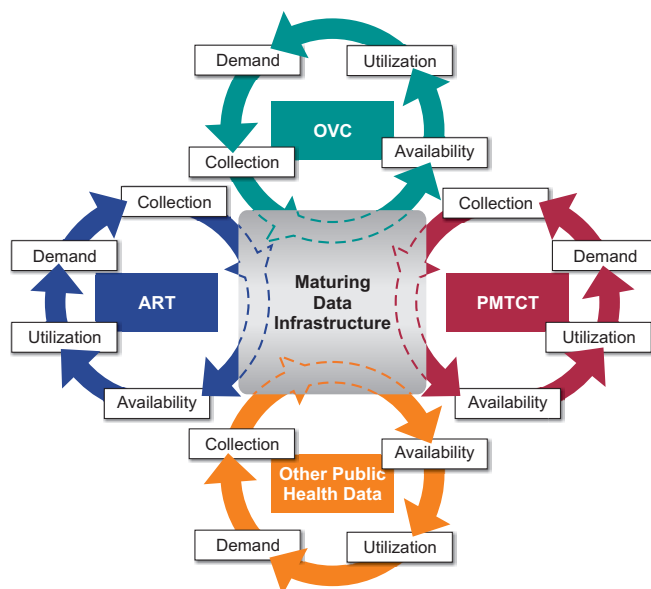

Illustration of relationship between data infrastructure domains

data can help to strengthen the synergy of USG and other program responses. In the case of OVC programs this synergy is critical to maximize the impact of interventions that respond to the needs of orphans and highly vulnerable children. Understanding the data infrastructure is critical for the multidimensional responses required for OVC programs. Data without context are a collection of numbers, but when they are transformed into information through synthesis and analysis, their real power is unleashed. A strong data infrastructure that incorporates data from multiple contexts and is effectively managed using a GIS can support decision makers and lead to better decisions and improvements in people's lives.

ONLINE

Contact John Spencer at John_Spencer@unc.edu or Chuck Pill at CPill@futuresgroup.com or visit www.cpc.unc.edu/measure/approaches/geographic-information-systems.