A Review of the Contributions of the DHS Program in Sub-Saharan Africa and the Remaining Challenges (1985-2014)

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Background and Introduction

At the end of the World Fertility Surveys program in 1984, the United States Agency for International Development (USAID) launched the Demographic and Health Surveys program. The objective was to collect, analyze and disseminate reliable nationally-representative and cross-nationally comparable data on fertility, family planning and maternal and child health. The project also had capacity building as well as improving the methods for survey data collection in participating countries. The program has been in existence for about 30 years and it is the largest and the longest-enduring data collection of its type in the developing region. From its inception, DHS has provided technical assistance in the implementation of over 300 surveys in about 90 countries in Africa, Asia, Latin America, Middle East, Central Asia and Eastern Europe. Its data and approaches are often referred to as the "gold standard" in international health surveys. The reputation of DHS data is built upon its rigorous data quality assurance procedure, its comparability over time and across countries, its accessibility and strong support to data users and capacity building. Its definitions are standardized and conform to internationally agreed guidelines.

Although DHSs are conducted in practically every region of the developing world, SSA has been the region with the largest number of surveys in each 5-year cycle of program since its inception in 1984. In the mid-1990s, about 45% of all surveys under the program were in SSA. Over the last 5 years, the proportion of the 113 surveys conducted in the region remains above 45%. About 40 countries in the region have participated in the program since its inception. Although the region has many countries, part of the reason for its many surveys is absence of credible alternative sources of data.

Key Questions

What are the contributions of the DHS program in sub-Saharan Africa over the past 30 years? What are the remaining challenges?

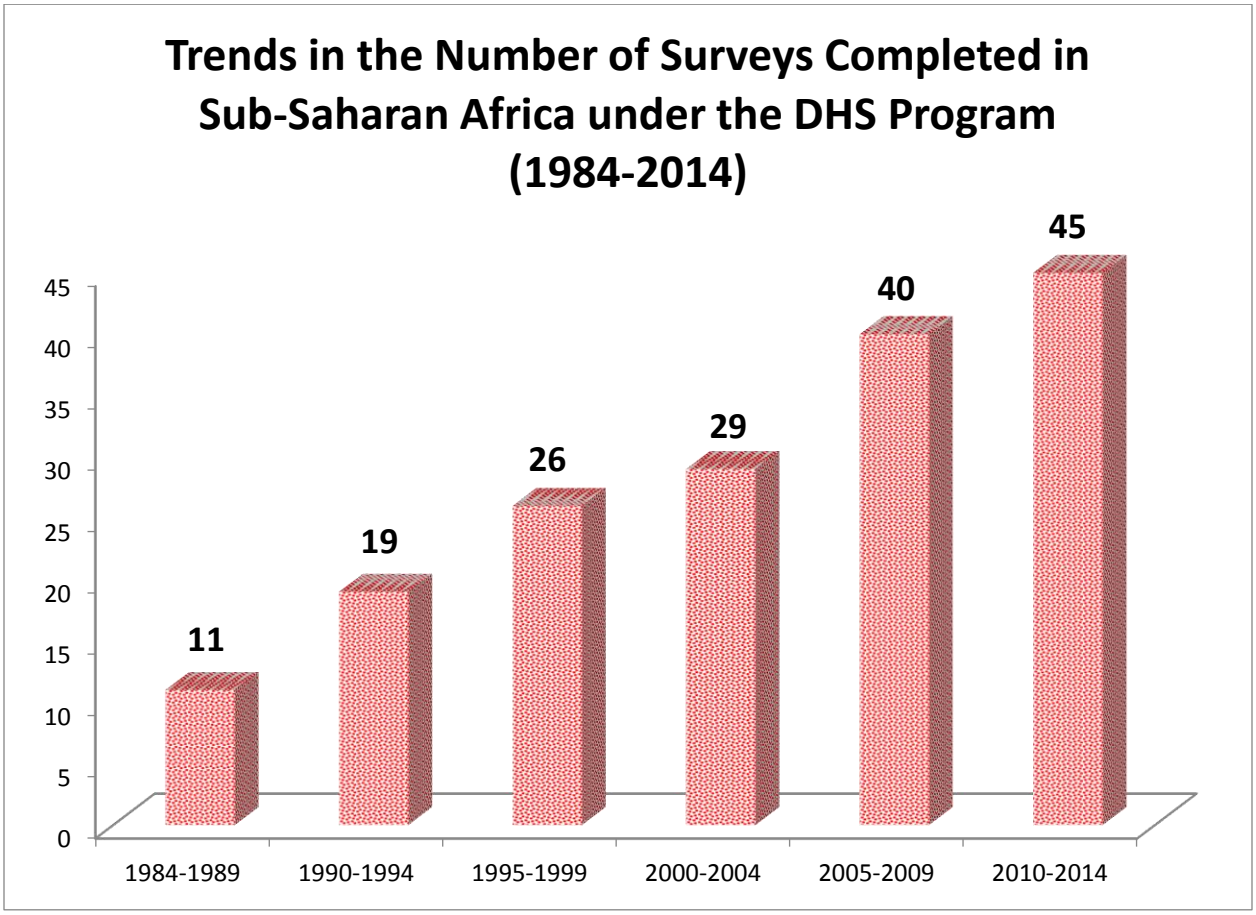
Data Sources

Historical trends Information about number of users by region, data requests and downloads by region was obtained from the DHS archive. The author also reviewed unpublished project documents and reports and used information available on the DHS program web site.

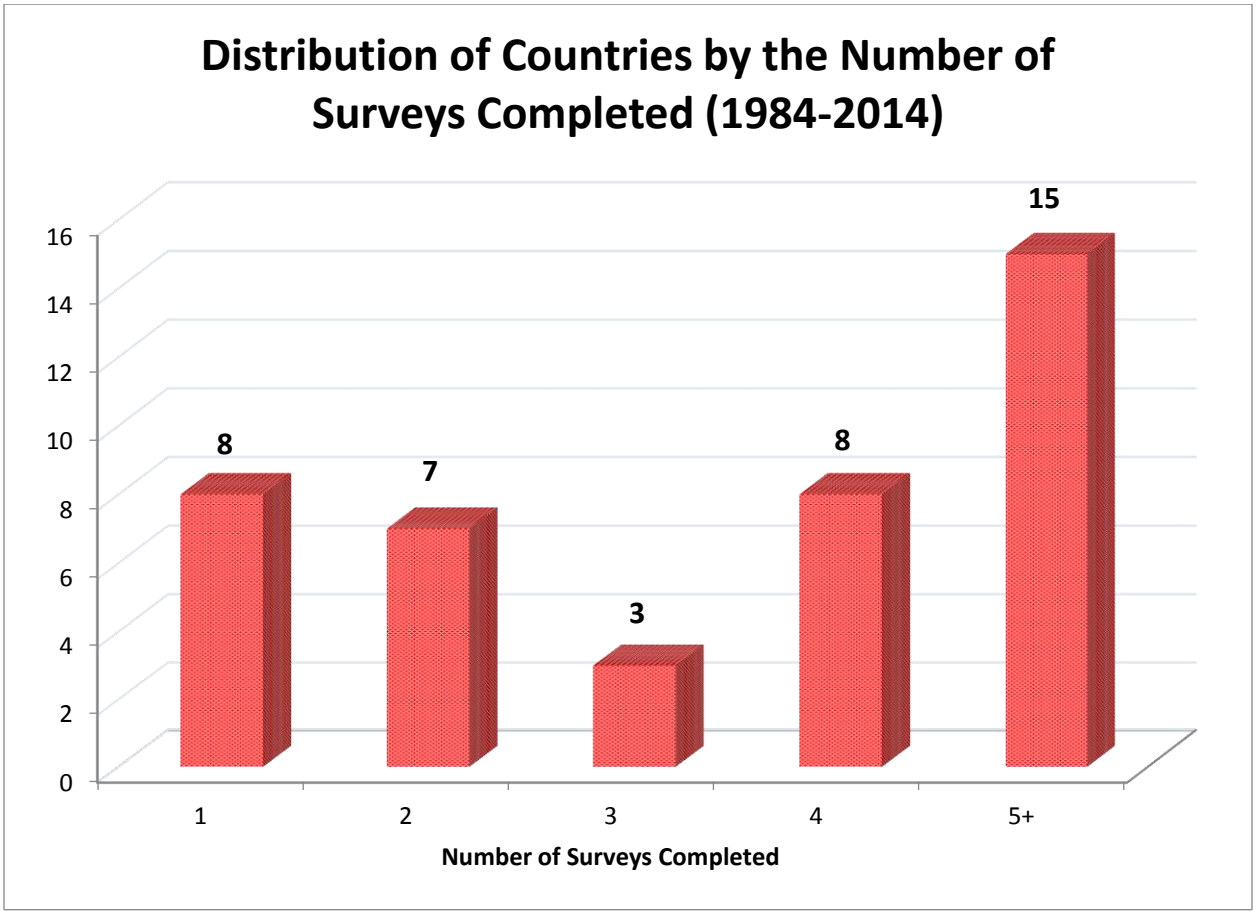
Contributions of the DHS Program

A. Increased Data Availability

The DHS Program has contributed tremendously to availability of reliable nationally representative, cross-nationally comparable and easily accessible survey data and analyses in sub-Saharan Africa. Under the World Fertility Surveys (1972 and 1984), only 11 countries completed a survey in the region. That number was matched within the first five years of the DHS program. Since then, the pace of data collection under the DHS program has increased in the region. On average, about 9 surveys are now completed every year in SSA.



A large majority of countries in the region have implemented multiple rounds of DHS. Many countries have 4 or more surveys.



B. Improved knowledge of Population and Health

The DHS program has made a major contribution to the volume of good national data, analyses and reports about population and health issues in SSA. This has led to other benefits, including:

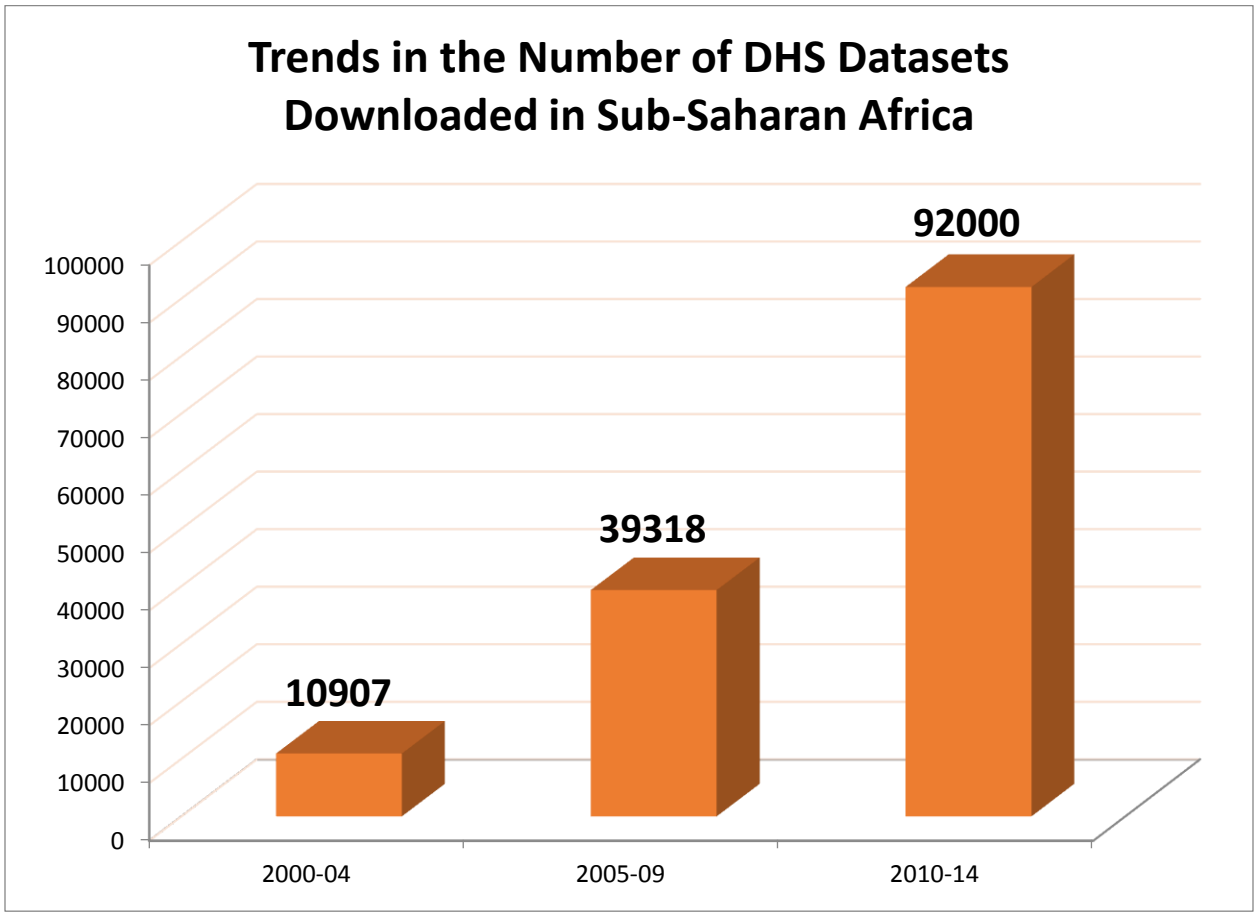
- Better understanding of the patterns, trends and determinants of fertility, contraceptive use, childhood mortality, maternal and child health, nutrition, HIV/AIDS and malaria in the region.
- Improved understanding of the knowledge, attitudes, and behavior about many aspects of maternal and child health, gender-based violence, polygyny, etc.
- Greater understanding of recent trajectories of fertility and childhood mortality now than at any time in the history of Africa (Moultrie et al.). The onset of mortality and fertility decline could be identified because of these data.
- Increased confidence in direct calculation of current fertility and mortality rates, which has contributed to a dramatic decline in the use of indirect methods of fertility and mortality estimation,

both in the region and globally. Many of the assumptions that were used to justify the use of indirect methods became untenable.

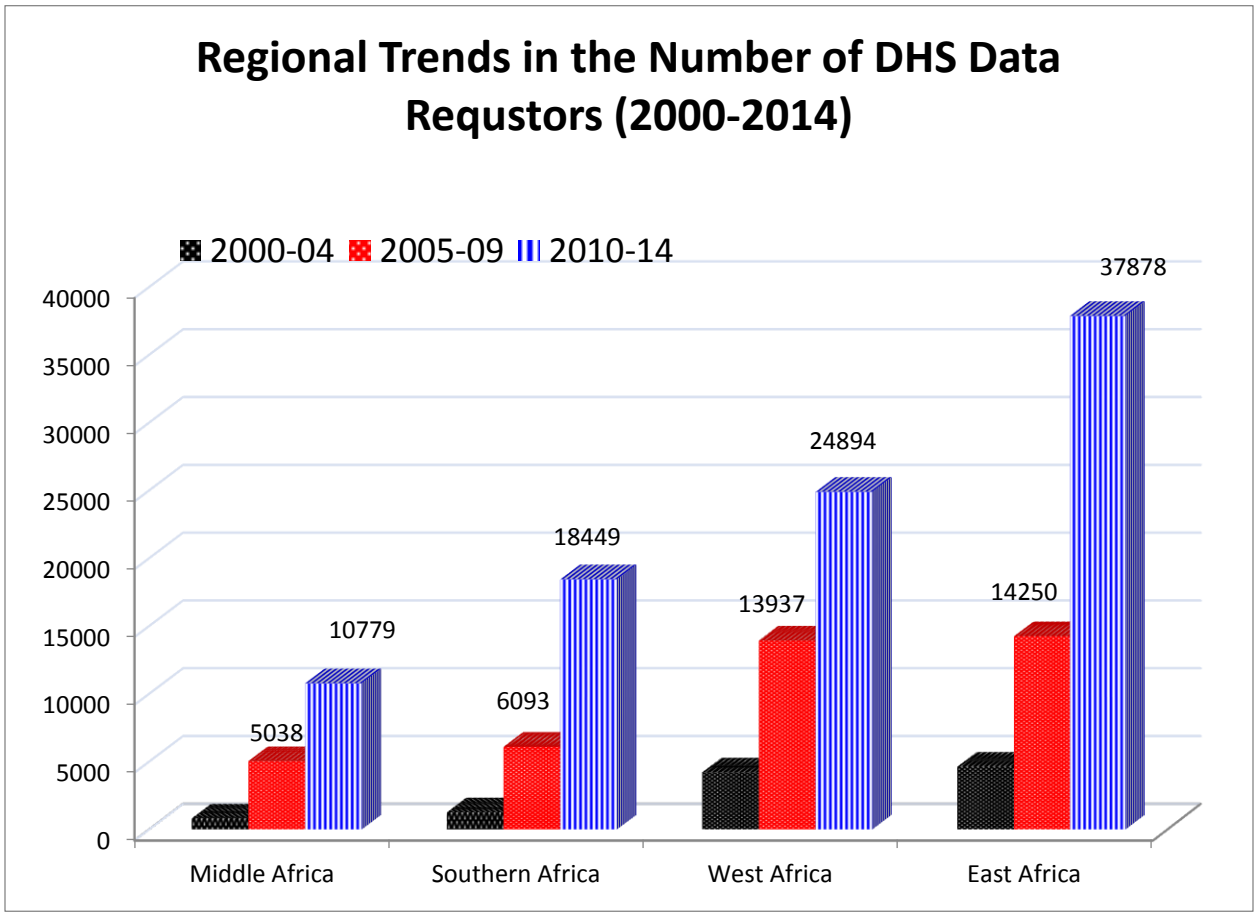
- The contributions to the understanding of the HIV epidemic is especially important. The DHS program began population-based HIV testing in 2001 in Mali. By the end of 2014, it has completed 58 surveys with HIV testing in 32 countries in the region. The findings from these surveys led to a more realistic estimate of HIV prevalence and estimates of people living with HIV globally and in the region. Its anonymously-linked HIV sero-data improved our understanding of the linkages between risk behavior and HIV prevalence.

C. Data Accessibility

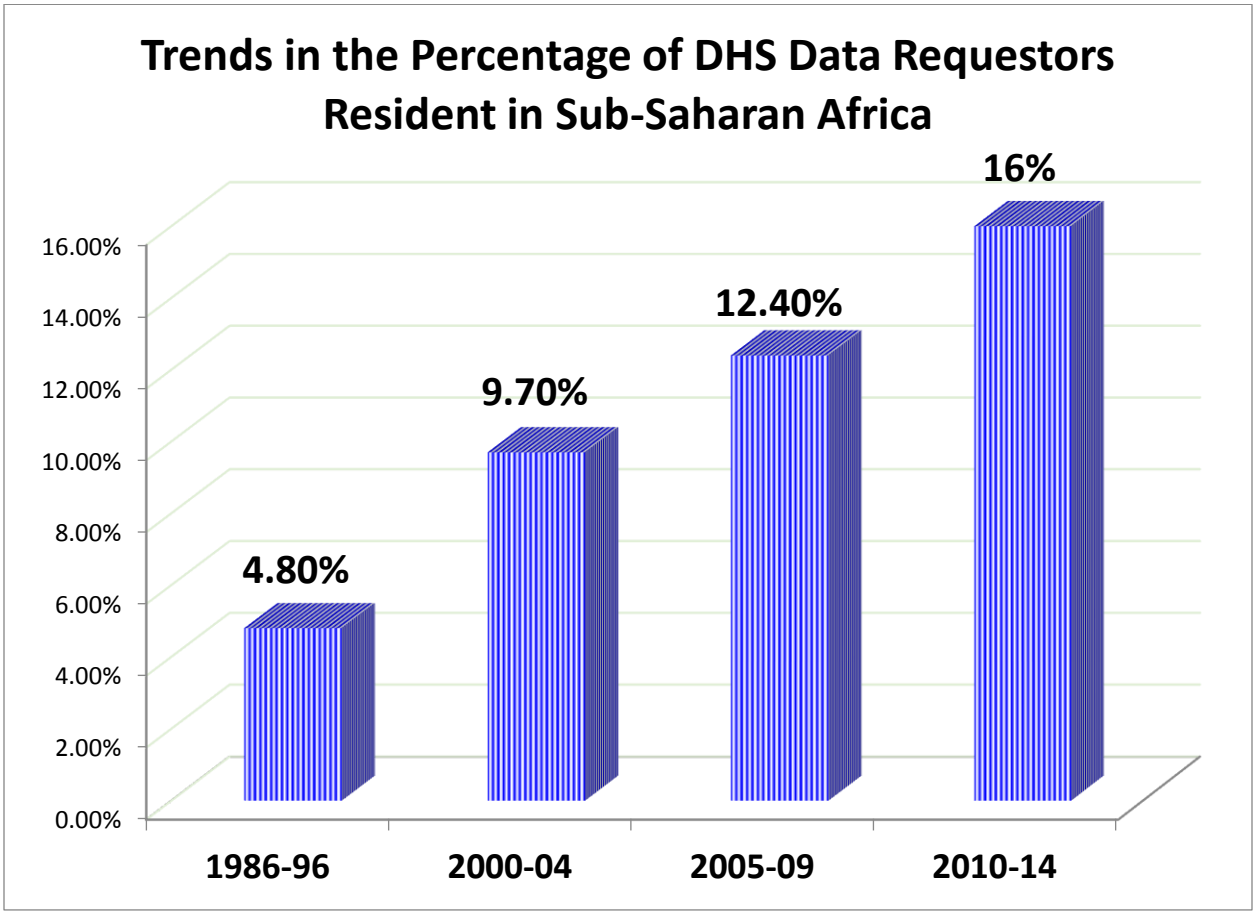
Not only are more data available through the DHS program, accessibility of these data to users has increased in the region. More and more researchers are downloading and analyzing DHS data. Between 2000 and 2004, about 11,000 datasets were downloaded in SSA, compared with a total of about 40 requests in the first 12 years of the project (Adetunji, 1999:385). By 2014, about 92,000 datasets were downloaded – representing about 8 times the total number in 2004.



Most of these users seem to be increasingly concentrated in East Africa. Of the 92,000 datasets down-loaded in SSA between 2010 and 2014, 37,878 (41%) were down-loaded in East Africa.



When compared with other regions of the world, the proportion of datasets downloaded by researchers and organizations that are based in SSA had increased tremendously. Between 1984 and 1996, about 5% of the total number of data requests were from SSA, compared with a total of 16% in 2010-2014.



D. Capacity Building

Over the past 30 years, the DHS program has taken various steps to improve technical capacity for survey implementation and analysis, with a particular focus on SSA. For example, in the area of fellowships and training (including post-doctoral, short-term residence, faculty, etc.), between 2009 and 2014, all 63 DHS faculty fellows were from SSA; all 242 participants in DHS Curriculum Training were from the region, and about 54% of the 444 people trained in DHS data analysis were from the region as well. Over the past 5 years, the largest proportion of people who received training in various aspects of survey data analysis and use under DHS Program are from Sub-Saharan Africa.

Other ways through which the DHS program builds capacity include the mentoring and hands-on experiences in survey processes and implementation that occur through the process of survey implementation in-country. They include provision of web-based materials such as the DHS curriculum,

Guide to DHS statistics, survey manuals, videos, questionnaires, and self-help kits. Finally, the continuous DHS and SPA surveys experiment in Senegal is a strategy to not only build capacity but institutionalize host-country ownership and sustainability of the DHS. The continuous DHS experiment in Peru was successful in building institutional capacity and government ownership.

Table 1: Selected Indicators of Capacity Building under the DHS Program, Sub-Saharan Africa 2009-2014

Activity	Total Participants	Percent from SSA
Data Analysis Training	444	54
Training in Data Processing	250	53
Journalist Training	423	67
DHS Curriculum Training	242	100
Faculty Fellowships	63	100

Source: DHS Program data

The DHS program also supports institutional strengthening by working with and mentoring officials of government statistical agencies in the region, donating all equipment used for survey data collection, data processing and laboratory (laptops, desktops, handheld devices, vehicles, etc.) to local implementing agencies.

There is increased acceptance of results of these surveys by host-country governments and their use in monitoring population and health trends, and sometimes for policy and program decisions. There has also been an increase in the number of host-country governments in sub-Saharan Africa that put in funds for DHS implementation. In the early years of DHS in the region, there were no host country funds going to support these surveys. Between 2003 and 2008, $7.2 million of the $51 million from non-USAID sources supporting DHS implementation came from 15 host-country governments in SSA. By 2009-2014, the amount of money from host country government in SSA had increased to $14.2 million from 19 governments. This represents 29% of the roughly $103 million from non-USAID sources at that period.

E. Host Governments Funding Support has Increased

Host governments in SSA are increasingly committing their own funds to supporting DHS. Initially, such support was non-existent. For example, between 2003 and 2008, 15 of the 18 country governments that contributed funds to DHS were from SSA – they contributed $7.2 million (representing 54% of funds from host governments under the program). Similarly, between 2008 and 2014, 19 of the 25 host governments that contributed funds were from SSA – and they contributed a total of $14.2 million to DHS (48% of funding from host governments). The continuous DHS and SPA surveys experiment is ongoing in Senegal and it represents a new way to further build institutional capacity and government ownership of the DHS process.

CHALLENGES

Some challenges remain for data collection and analysis in the region. For example, the coverage of DHS is not uniform in the region. A few countries have not participated. Some have participated only once or twice while some implement a survey almost every two-three years. Secondly, capacity for survey implementation and analysis is uneven among implementing agencies in the region. Third, attrition is an issue in capacity building in the sense that when you train people and they competence in survey implementation, data analysis or dissemination, they tend to move up in the organization, be re-assigned to another department within the same organization or they get better-paying jobs outside. When this happens, the result is that beneficiaries of capacity strengthening efforts are not available to do the jobs that they have been trained to do. Therefore, ongoing efforts are needed to boost the capacity of data users and stakeholders to take advantage of the rich information in the DHS – beyond final reports.

CONCLUSIONS

The DHS program has made tremendous contributions to improvements in the collection, analysis and dissemination of quality population and health survey data and in promoting their use for program and policy decisions in the region.

It has provided technical assistance in about 170 surveys in over 40 countries in the region – which represents over 50% of all surveys under the DHS program since 1984.

Many countries have completed five or more surveys. Through the surveys and analysis of their data, the DHS program has also improved our understanding of trends, patterns and determinants of population and health problems in the region.

It has also boosted host country capacity for survey implementation and promoted host-country data ownership and use.

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