The Demographic and Health Surveys: A Program and an Institution

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DHS: A Program and an Institution

- Part 1: DHS as a Program: An activity sponsored by USAID to collect data that can be used to construct a wide range of demographic and health indicators

- Part 2: DHS as an Institution: A program that has been in operation for 30+ years, with the same core group, that is linked to a range of other programs and organizations

The contractor has changed several times but there has been unusually high continuity of staff.
My perspective or vantage point

- Long academic career in demography and social statistics, mostly in Departments of Sociology at the University of Texas and University of Washington

- First contact with DHS-type surveys: visited the University of the Philippines, 1971-72, worked on the 1968 National Demographic Survey (NDS)

- During 1973-1984 spent a total of about three years with the World Fertility Survey, preparing documents and reports

- 1985-2010, occasional consulting for USAID and reports for DHS

- Global Health Fellow at USAID, 2010-2011, working on M&E of USG programs for vulnerable children

- Director of Research at DHS, 2011-present
Specific DHS objectives

• Collect high-quality data for policy formulation, program planning, and monitoring and evaluation

• Foster and reinforce host-country ownership of data collection, analysis, presentation, and use

• Increase the capacity of host-country partners to collect and use data for policy and program purposes
The DHS started in 1984:

- DHS-II (1989-1993)
- MEASURE DHS (2003-2008)
- MEASURE DHS Phase III (2008-2014)
- DHS-7: The DHS Program (2013-2018)
Demographic and Health Survey (DHS): standard survey that includes fertility, mortality, family planning, maternal and child health, nutrition, HIV/AIDS, and other health indicators.

AIDS Indicator Survey (AIS): indicators include HIV knowledge, attitudes, behaviors; can include HIV testing; shorter than a full DHS to allow for more frequent monitoring.
Malaria Indicator Survey (MIS): indicators include mosquito net ownership and use, IPTp, prevalence and treatment of fever in children; can include testing for malaria and/or anemia; shorter than full DHS to allow for more frequent monitoring.

Service Provision Assessment (SPA) Survey: survey of health facilities, providers, and clients; indicators include service infrastructure, service availability at facility and providers’ practices towards clients.
Basics of the DHS

- Cross-sectional, nationally-representative sample of households
  - Women and men interviewed in sample households
  - Sample size: 3,000-100,000+ households
- Standardized sample design, questionnaires, and implementation procedures
  - Key indicators measured with the same approach over time
Types of DHS Questionnaires

Standard DHS surveys generally include:

- Household questionnaire
- Woman’s questionnaire
- Biomarker questionnaire
- Man’s questionnaire
Household Questionnaire

- For household members:
  - Age, sex, residence
  - Head of household and relationship to the head
  - Education for all; schooling for children

- For women, children < age 5, and often men:
  - Nutritional status (height and weight)
  - Anemia test
  - Other biomarkers

- Assets, land ownership, housing characteristics

- Sanitation, water, and other environmental health issues
Individual Questionnaires

In both women’s and men’s questionnaires:

- Socio-demographic characteristics
- Number of children
- Contraception
- Marriage and sexual behavior
- Fertility preferences
- STIs and HIV/AIDS, knowledge, attitudes & behavior
Only in women’s questionnaires

- Fertility: Birth history; five-year calendar
- Infant and child mortality
- Maternal health: ANC, delivery, postpartum care
- Child nutrition, including breastfeeding
- Immunization and childhood illness
DHS Questionnaire Modules

Additional Modules

- Domestic Violence
- Female Genital Cutting
- Maternal Mortality
- Fistula
- Out-of-pocket Health Expenditures
Biomarkers

As of 2014, more than 10 million biomarker tests have been completed as part of The DHS Program.

Most common biomarkers:

- Anemia
- Anthropometry (height/weight)
- HIV prevalence
- Malaria prevalence
Service Provision Assessment (SPA) Surveys

• Survey of health facilities by
  – Type:
    • Hospitals
    • Health centers
    • Health posts
    • Pharmacies
  – Managing authority:
    • Government
    • Privately
    • FBO
SPA Survey Instruments

- Facility inventory (e.g. what supplies are available)
- Provider interview
- Patient interview
- Observation of patient consultation
Service Provision Assessment (SPA) Surveys

SPA answers 4 key questions:

• What is the availability of different health services in a country?

• To what extent are facilities prepared to provide health services? Do facilities have the necessary infrastructure, resources and support systems available? (e.g. electricity, water?)

• To what extent does the service delivery process follow generally accepted standards of care?

• Are clients and service providers satisfied with the service delivery environment?
DHS Strengthens Capacity Through:

- Close collaboration with implementing agencies and partners throughout survey design and implementation for on-the-job skills transfer
- Workshops on data analysis, data processing, report writing, data use for decisionmaking, and more
- Distance learning and online tools
DHS Fellows Program

• Annual program designed to increase in-country capacity to use DHS data to conduct high-quality research

• Since 2011, the program has competitively recruited university faculty Fellows from DHS countries in sub-Saharan Africa
DHS Fellows Program

• 2 intensive workshops and remote technical assistance for 12-15 Fellows from 4-5 universities per year
• Fellows work in teams to prepare and publish an original DHS working paper and carry out capacity-building activities during the fellowship year
• Former fellows co-facilitate the workshops
• Fellows publish their paper in peer-reviewed journals and continue to undertake capacity-building activities after the fellowship year ends
DHS Curriculum

- 5-day course on Understanding and Using DHS
- Curriculum package includes PowerPoints, activities, handouts, and facilitators notes
- Topics include survey design, basic demographic concepts, basic statistics, how to read tables, and much more.
- Taught at universities in Kenya, Malawi, Liberia, Tanzania, Ethiopia, and Uganda.
As the result of the implementation of Geographic Information Systems (GIS), DHS data can now be linked with a number of databases (climatic, agricultural, road network, etc.), allowing for mapping of indicators across regions and countries.

The new Spatial Data Repository (spatialdata.dhsprogram.com) warehouses GIS data and provides tutorials for use.
Further Analysis of DHS Results

- Researchers at DHS analyze survey results to provide a richer understanding of the data
  - Comparative reports: compare a large group of DHS countries across harmonized indicators
  - Trend Reports: assess trends in a given country
  - Analytical Studies: Program and policy-relevant themes go deeper than final report tables.
  - Qualitative reports: increase the validity of quantitative survey questions and explore the social contexts of specific issues.
All publications, data, and interactive tools are available FREE at:

www.dhsprogram.com
User Forum

userforum.DHSProgram.com

- A web-based forum to ask and discuss DHS-related questions with the larger user community.
- Get help with analysis, data use, and more
- Help others!! You have been trained and are now a DHS expert!
Origins of DHS: Key elements in the early 1970s

- Several years of experience with fertility and family planning surveys in the U.S. and Europe. In the U.S., the first round of the National Survey of Family Growth was in 1973.

- Several years of experience with similar surveys in developing countries, such as Taiwan, South Korea, the Philippines, etc.

- Some very experienced and pro-active academic researchers in the U.S., such as Charles Westoff, Norman Ryder, Ronald Freedman, Donald Bogue.


- Adequate funding as part of the family planning activities at USAID.

- A legendary conversation between Rei Ravenholt and Charles Westoff.
The World Fertility Survey, 1972-1984

An attempt was made to distance WFS from USAID, which at the time had a very heavy-handed reputation

- Contracted to the International Statistical Institute (ISI)
- Technical support from the International Union for the Scientific Study of Population (IUSSP)
- 51% UNFPA, 49% USAID (but the UNFPA funds came from USAID!)
- Based outside the U.S., in London
- First director was Maurice (M.G.) Kendall, a prominent British statistician

The structure, standards, and professionalism of DHS can be traced directly to Sir Maurice and the staff of WFS
The transition from WFS to DHS in 1984

- Maurice Kendall retired in 1980 because of poor health (he died in 1983)
- He was succeeded by a series of three directors in the space of three years, two of whom were European bureaucrats with no vision and no responsiveness to USAID (Dirk van de Kaa was an exception)
- The London location was a barrier to communication and USAID oversight
- The interval from data collection to the main report was much too long
- After about ten years with the same contractor, USAID was ready for a change
- (My speculation) USAID was getting country participation more readily and did not see a need to give such important roles to ISI, IUSSP, and UNFPA
DHS, the daughter of WFS

- The first contract went to a survey subsidiary of Westinghouse, with Robert Lapham, an American, as the director.

- Several WFS staff were hired, including Shea Rutstein and Trevor Croft, who are still with DHS, and several others who have since retired.

- Martin Vaessen became the director after the premature death of Robert Lapham, and was the director for about 18 years.

- Successive ownership by different companies, but the core group continued. More recent directors: Ann Way and Sunita Kishor; current company is ICF International.

- Focus shifted partially away from fertility, fertility preferences, and family planning into child health, nutrition, biomarkers, HIV, malaria, etc.
Relationship with USAID

- At present, and for the past several years, at least, the relationship is surprisingly professional and collaborative, with much mutual respect. It is clear that USAID is the client and ICF is the contractor, but we work very well together.

- Very close monitoring of DHS activities by the USAID management team, consisting of representatives from the Bureau for Global Health: the Office of Population and Reproductive Health (PRH); the Office of Health, Infectious Diseases, and Nutrition (HIDN), which includes MCH and Malaria; the Office of HIV/AIDS (OHA).

- Twice a month we have two-hour video conferences with about 6 to 8 people on each side.

- Frequent visits back and forth, phone calls, email.

- Every five years there is a re-bid, and there is generally a serious competitor.
External relationships

• USAID Missions. The surveys are not funded by USAID/Washington, but by “field support” coming from the country and regional missions. They have to be involved at every step.

• Ministries and statistical offices in the countries. These are the implementing agencies with whom we contract and must maintain trust and respect.

• UNICEF and the Multiple Indicator Cluster Surveys (MICS). Very collaborative relationship. We “harmonize” the questionnaires and indicators and learn from each other.

• WHO and the other UN agencies. Almost every week someone is going to WHO from DHS or from the USAID management staff. We are represented on most of the relevant MERGs and inter-agency groups.

• Other donors. Most DHS surveys are partially funded by UNICEF or aid agencies from other countries such as the UK and Norway.
Conclusions

• DHS is the product of 30 to 40 years of continuous evolution and adaptation to the needs of USAID -- primarily the Bureau for Global Health, and within that, primarily the Office of Population and Reproductive Health – and the participating countries.

• It exists within a context of USAID cooperation with UNICEF, WHO, other international agencies and donors, and certainly with the participating countries.

• DHS also has active links with universities, schools of public health such as JHSPH, and professional associations, which contribute to its accountability and high standards. In that spirit, I’d be interested in any questions or comments you may have.