

MEASURE Evaluation

Working Paper Series

Health Facility Assessment Relevant Resources/Supporting Documents and Mapping Resources Annotated Bibliography

International Health Facility Assessment Network
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The working papers in this series are produced by MEASURE Evaluation in order to speed the dissemination of information from research studies. Most working papers currently are under review or are awaiting journal publication at a later date. Reprints of published papers are substituted for preliminary versions as they become available. The working papers are distributed as received from the authors. Adjustments are made to a standard format with little further editing.

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**Health Facility Assessment
Relevant Resources/Supporting Documents and
Mapping Resources**

Annotated Bibliography

Prepared by International Health Facility Assessment Network

August 2008

This document was prepared by the International Health Facility Assessment Network (IHFAN). Contributors include Yoko Suzuki of the MEASURE Evaluation project, Dorina Maris of the U.S. Agency for International Development (USAID), Bolaji Fapohunda of MEASURE Evaluation, and Nathan Heard of the U.S. Department of State.

This is a working document that will be updated over time, as new resources are added. This edition was produced in August 2008.

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This document is also available at the MEASURE Evaluation Web site at: <http://www.cpc.unc.edu/measure>.

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Introduction

Health facility assessment (HFA) surveys provide valuable information for evidence-based policy-making as well as planning, monitoring, and evaluating programs. Such surveys include the Service Provision Assessment (SPA), Macro International; the Facility Audit of Service Quality (FASQ), MEASURE Evaluation; the Service Availability Mapping (SAM), World Health Organization (WHO); Human Resource for Health (HRF) survey, Abt Associates; and the Health Facility Censuses (HFC), Japan International Cooperation Agency (JICA).

Many HFA surveys have been conducted around the world, and various resources such as tools, reports, and, in some cases, microdata, are accessible by the public. Such resources, however, are not stored in one place but are scattered in various locations — some are on the Internet, others are kept by the implementing agency or country. In order to obtain those resources, countries, donors, and researchers who are interested in conducting an HFA survey or analysing the data need to conduct an intensive search for relevant resources and information.

This annotated bibliography is the first effort to compile relevant resources and supporting documents of HFA surveys for dissemination through print media. It cites over 80 relevant documents, including data collection instruments such as questionnaires and manuals, analytical reports, technical and survey reports, and articles that cited data from major HFA surveys. For most of these, abstracts are presented. The document also includes relevant resources on mapping HFA survey data using geographic information systems (GIS), ranging from databases and data repositories to Web sites that provide GIS application tools. Where available, each item contains details of its availability from the original source and other contact information that may enable readers to obtain original documents.

This annotated bibliography is a work-in-progress. New information will be added as we discover them and based on readers' inputs. We encourage our readers to provide us with additional resources to enhance the comprehensiveness and utility of the bibliography.

Overall Health Facility Assessment

Authors: Fapohunda, B., Fronczak, N., and Hozumi, D.

Year: 2008

Title: Synopsis of Health Facility Assessments Methods (Microsoft PowerPoint presentation)

Source: Entebbe, Uganda: East African Community/IHFAN Regional Workshop on Pillars of HFA and Information Use

Abstract: The presentation explains the difference between population-based assessment and facility-based assessment in terms of the key questions answered by the two types of assessment; introduces major HFAs (SPA, SAM, R-HFA, HFC-JICA, HRH-Abt) that have been already used around the world and other key tools of data collection; and addresses the methodological and cross-cutting implementation issues associated with HFA. Available from the International Health Facility Assessment Network (IHFAN) secretariat

(Tel: +1-703-528-7474 / Fax: + 1-703-528-7480, Email: bfapohunda@jsi.com)

Author: Fapohunda, B., and Hozumi, D.

Year: 2006

Title: Approaches to Health Facility Data Collection and Mapping. (Microsoft PowerPoint presentation)

Source: Chapel Hill, North Carolina: MEASURE Evaluation

Abstract: This presentation describes the role of health facility mapping in strengthening health service delivery and key approaches to HF mapping and addresses the advantages and disadvantages of specific approaches.

Available at

http://www.ccih.org/conferences/presentations/2006/Data_Collection_Mapping_Fapohunda_CCIH_2006.ppt

Author: Fapohunda, B., and Minichiello, S.N.

Year: 2008

Title: Overview: Introduction to Health Facility Assessments (Microsoft PowerPoint presentation)

Source: Entebbe, Uganda: East African Community/IHFAN Regional Workshop on Pillars of HFA and Information Use

Abstract: The presentation covers the overview information on the HFA. The topics in the presentation include 1) types of data that are generated using HFA, 2) main sources of health facility information, 3) implementation issues, 4) HFA and the health system, 5) how HFA fits into a country's health information system, 6) benefits of using multiple sources of data, and 7) definition of HFA.

Available from the International Health Facility Assessment Network (IHFAN) secretariat (Tel: +1-703-528-7474 / Fax: + 1-703-528-7480, Email: bfapohunda@jsi.com).

Author: Fronczak, N., and Fapohunda, B.

Year: 2008

Title: Core Indicators of HF Readiness to Provide Services: What, Why, How (Microsoft PowerPoint presentation)

Source: Entebbe, Uganda: East African Community/IHFAN Regional Workshop on Pillars of HFA and Information Use

Abstract: In response to users' requests for a set or core indicators for cross country comparisons of HFA, the IHFAN drafted a set of minimum core indicators that can be collected with any HFA approach. This presentation introduces the definitions of these indicators and examples of analysis based on data.

Available from the International Health Facility Assessment Network (IHFAN) secretariat

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Author: Fronczak, N., Fapohunda, B., Buckner, B., and Shenck-Yglesias, C.

Year: 2007

Title: Using Health Facility Profiles as a Monitoring Tool: An Example Based on Data from Three African Countries

Source: Chapel Hill, North Carolina, USA: MEASURE Evaluation. (MEASURE Evaluation Working Paper Series, wp-07-101)

Abstract: Substantial investments have been and continue to be made to improve health services

in countries with weak health systems. However, useful information on the status of services and the overall health systems within which they operate is rarely available. Sound decisions about where to invest resources to improve health services require knowledge of the existing health infrastructure, the services currently offered, the systems needed to support the services, and the availability of equipment and consumable supplies. As a first step towards improving access to this information, the IHFAN has compiled a recommended set of core indicators that measure the presence or absence of minimal, basic standards for facility-based health based services. In this paper, Service Provision Assessment data from three countries (Ghana, Kenya, and Tanzania) were used to calculate the core indicators and to develop a profile of the health facilities in these countries.

Authors found that facilities in Ghana were the least likely to have an emergency communication system (33%) and facilities in Tanzania were the least likely to have an emergency transportation system (10 %). The proportion of all facilities with overnight or inpatient beds ranged from 80% in Ghana to 42 % in Kenya. Low availability of sterilization equipment in facilities below hospital level was revealed across the three countries. The proportion with functioning sterilization equipment was highest across all facilities in Kenya (30%), while in Ghana and Tanzania, less than one in five facilities had functioning sterilization equipment. Regarding the availability of varieties of services, 38 percent of hospitals offered all maternal and child health services and reproductive health services in Tanzania, while only 2 percent in Ghana and 7 percent in Kenya. The results of the analysis show substantial room for improvement of infrastructure, equipment and supplies for providing minimum quality of client services.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/wp-07-101.pdf>.

Author: Health Facility Assessment Technical Working Group

Year: 2007

Title: **Guidance for Selecting and Using Core Indicators for Cross-Country Comparisons of Health Facility Readiness to Provide Services**

Source: Chapel Hill, North Carolina, USA: MEASURE Evaluation. (MEASURE Evaluation Working Paper Series, wp-07-97-en)

Abstract: Health information systems depend on health facility surveys for data. International and program-based approaches using health facility data include the Service Provision Assessment (SPA), Macro International; the Facility Audit of Service Quality (FASQ), MEASURE Evaluation; the Service Availability Mapping (SAM) census, World Health Organization; and the Health Facility Censuses (HFC) with a focus on infrastructure, Japan International Cooperation Agency. Several rounds of data from these sources are available for selected countries. A key gap in facility-based information is that definitions of indicators and data elements differ from approach to approach. The recommended core indicators in this document were selected based on existing tools and data. The indicators assess health systems' functionality rather than the health status of the targeted population.

Author: Health Facility Assessment Technical Working Group

Year: 2007

Title: **The Signature Domain and Geographic Coordinates: A Standardized Approach for Uniquely Identifying a Health Facility**

Source: Chapel Hill, North Carolina, USA: MEASURE Evaluation. (MEASURE Evaluation Working Paper Series, wp-07-91)

Abstract: With any facility survey, the ability to identify a facility uniquely is vital to being able to use and analyse the data properly. This is especially true when making comparisons across surveys or years. This document proposes the creation of a “signature domain” to ensure each facility can be uniquely identified. The elements in the signature domain include: date of the survey, health facility country registry code, health facility survey identification, health facility name, health facility contact information, facility’s geographic administrative unit, and GPS coordinates. The document provides an overview of the elements of the signature domain so that those elements can be included in health facility survey instruments. It also provides a standardised approach for GPS coordinates data collection.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/wp-07-91.pdf>.

Author: Health Metrics Network (HMN)/World Health Organization (WHO)

Year: 2008

Title: **Framework and Standards for Country Health Information Systems** (second edition)

Source: Geneva, Switzerland: World Health Organization

Abstract: The framework serves two broad purposes. At a country level, it can focus investment and technical assistance for health information system (HIS) development in a standardized way. It thus serves as a basis for baseline HIS assessment. As part of this, a roadmap is described for strengthening health information systems, and putting in place ongoing monitoring and evaluation. Second, the framework permits access to – and better use of – improved health information at the country and global levels. The framework is not intended to replace existing guidelines that provide detailed information on health information system elements. Instead, it seeks to identify appropriate and existing standards and to promote them. This dynamic approach is expected to evolve over time as it incorporates new developments, country experiences, and partner inputs. This second edition has been informed by a wealth of input on different aspects of health information systems obtained through consultative meetings and country visits. Its adaptation is intended to be iterative as HMN progresses and country health information systems mature. It is intended that the HMN framework will be instrumental in forging consensus around the vision, standards, and processes required of a health information system.

Available at http://www.who.int/healthmetrics/documents/hmn_framework200803.pdf.

Author: Heard, N., and Spencer, J.

Year: 2008

Title: **Signature Domain and Geographic Coordinates: Uniquely Identifying a Facility** (Microsoft PowerPoint presentation)

Source: Entebbe, Uganda: East African Community/IHFAN Regional Workshop on Pillars of HFA and Information Use

Abstract: A standardized approach for uniquely identifying health facilities includes geographic coordinates (obtained using GPS receivers), facility name, date of survey, health facility country registry code, health survey ID, and health facility contact information. This presentation demonstrates the rationale for and use of signature domain and how the approach fits within HFA. Available from the International Health Facility Assessment Network (IHFAN) secretariat (Tel: +1-703-528-7474 / Fax: +1-703-528-7480, Email: bfapohunda@jsi.com)

Author: Hozumi, D., Fronczak, N., Minichiello, N.S., Buckner, B., and Fapohunda, B.

Year: 2006

Title: **Profiles of Health Facility Assessment Methods** (TR-06-36)

Source: Chapel Hill, North Carolina, USA: MEASURE Evaluation.

Abstract: This document profiles four instruments used for health facility assessment, and specifies their management utility. The instruments included in this document are Service Provision Assessment, Facility Audit of Service Quality, Health Facility Census, and Service Availability Mapping.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-06-36.pdf>.

Author: International Health Facility Assessment Network.

Year: 2008

Title: **Flowchart of Steps of Conduct a Health Facility Assessment** (MS-08-28)

Source: Chapel Hill, North Carolina, USA: MEASURE Evaluation.

Abstract: The flow chart is a step-by-step guide, in visual form, of key stages in the preparation and conduct of a health facility assessment (HFA). It has two parts, the first being a short presentation of the actual stages, the people involved in them, any documentation available for more details, and any special considerations. The second part is a narrative description of issues related to each stage, and information to help the reader understand how each stage is connected to the preceding and subsequent stages.

Available at www.cpc.unc.edu/measure/publications/pdf/ms-08-28.pdf.

Author: Kizito **Year:** 2008

Title: Further Analysis of 2004 Kenya Service Provision Assessment (Microsoft PowerPoint presentation)

Source: Entebbe, Uganda: East African Community/IHFAN Regional Workshop on Pillars of HFA and Information Use

Abstract: In Kenya, the secondary analysis was conducted using the data from the Kenya Service Provision Assessment (KSPA). The purposes of the analysis were to increase use of KSPA findings to inform policy and programs, to increase skills of Kenyan researchers for using the KSPA dataset, to try to explain current trends in fertility and mortality, and to involve stakeholders in the analysis and use of information. This presentation shows examples of the analysis of data generated by the SPA.

Available from the International Health Facility Assessment Network (IHFAN) secretariat (Tel: +1-703-528-7474 / Fax: + 1-703-528-7480, Email: bfapohunda@jsi.com).

Author: Likwasi, P., Simushi, V., and Chitembure, R.

Year: 2008

Title: Zambia Health Facility Census Presentation (Microsoft PowerPoint presentation)

Source: Entebbe, Uganda: East African Community/IHFAN Regional Workshop on Pillars of HFA and Information Use

Abstract: This presentation introduces the data collected, methodology, scope and limitation of data, and how to use the data in a real context. Examples of data analysis including the maps generated from the HFC data are also shown in the presentation.

Available from the International Health Facility Assessment Network (IHFAN) secretariat (Tel: +1-703-528-7474 / Fax: + 1-703-528-7480, Email: bfapohunda@jsi.com).

Author: Lindelöw, M., and Wagstaff, A.

Year: 2003

Title: Health Facility Surveys: An Introduction (Policy Research Working Paper 2953)

Source: Washington, USA: World Bank

Abstract: Health facility surveys come in various dimensions. One dimension in which they vary is motivation. Some seek to understand better provider behavior and performance. Still others seek to understand the interrelationships among providers, while yet others seek to shed light on the linkages between government and providers. Health facility surveys also differ in the data they collect, in part due to the different motivations. Surveys also vary in the way they collect data — some relying on direct observation, some on record review, and some on interview. Some quality data are collected from clinical vignettes. Facility data have been put to a variety of uses, including planning and budgeting; monitoring, evaluation, and promoting accountability; and research.

Lindelöw and Wag review some of the literature under each heading and offer some conclusions regarding the current state of health facility surveys.

Available at <http://econ.worldbank.org>.

Author: Murray, C.J.L., and Evans, D.B.

Year: 2003

Title: **Health Systems Performance Assessment — Debates, Methods, and Empiricism**

Source: Geneva, Switzerland: World Health Organization

Abstract: This book is intended to strengthen the foundations for evidence-based policies aimed at health systems development. This has included work to develop a common conceptual framework for health systems performance assessment, to encourage the development of tools to measure its components, and to collaborate with countries in applying these tools to measure and then to improve health systems performance. It began with the enunciation of a framework that specified a parsimonious set of key goals to which health systems contribute, and the first set of figures on goal attainment and health system efficiency in countries that were Members of the Organization was published in The World Health Report 2000.

This book provides a uniquely comprehensive exploration of many different facets of health systems performance assessment. It is relevant for researchers, students, and decision-makers seeking a more detailed understanding of concepts, methods, and the latest empirical findings. While most authors in this volume take a global perspective, the findings have important implications for the development of national performance frameworks and the creation of a culture of accountability.

Available at <http://www.who.int/publications/2003/hspa/en/>.

Author: Ricca, J., and Valadez, J.

Year: 2008

Title: **Rapid Health Facility Assessment (R-HFA): Collecting and Using Data for Improvement of Access to and Quality of Primary Health Care Services**(Microsoft PowerPoint presentation) **Source:** Entebbe, Uganda: East African Community/IHFAN Regional Workshop on Pillars of HFA and Information Use

Abstract: The presentation describes basic analysis and reporting of R-HFA information in conjunction with the core indicators and the use of R-HFA information for making decisions for improvement of access and quality of primary health care services at district level.

Author: Turner, A.G., Angeles, G., Tsui, A.O., Wilkinson, M., and Magnani, R.

Year: 2001

Title: Sampling Manual for Facility Surveys for Population, Maternal Health, Child Health and STD Programs in Developing Countries

Source: Chapel Hill, North Carolina, USA: MEASURE Evaluation (MS-01-03)

Abstract: The manual presents a sampling methodology that can generate estimates of health facilities and their characteristics, and, when desired, tie the characteristics of the sampled facilities to those of the serviced population in a meaningful way. Two sampling designs are proposed and recommended in this manual. The first is for a stand-alone health facility survey, and the second is for a health facility survey linked to a household survey. The design for the latter requires adopting the same sample areas used to generate household data collected in surveys such as Demographic and Health Surveys or the Reproductive Health Surveys. Both recommended sampling designs provide unbiased estimates of facilities and their characteristics; the linked sampling design, however, provides additional information on the health service environment for resident populations in the household survey sample areas.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/ms-01-03.pdf>.

Author: World Health Organization (WHO)

Year: 2000

Title: The World Health Report, 2000 — Health Systems: Improving Performance

Source: Geneva, Switzerland: World Health Organization

Abstract: This report examines and compares aspects of health systems around the world. It provides conceptual insights into the complex factors that explain how health systems perform, and offers practical advice on how to assess performance and achieve improvements with available resources.

It uses five indicators: overall level of population health; health inequalities (or disparities) within the population; overall level of health system responsiveness (a combination of patient satisfaction and how well the system acts); distribution of responsiveness within the population (how well people of varying economic status find that they are served by the health system); and the distribution of the health system financial burden within the population (who pays the costs). For each one, WHO has used existing sources or newly generated data to calculate measures of attainment for the countries where information could be obtained.

Available at http://www.who.int/whr/2000/en/whr00_en.pdf.

Author: World Health Organization (WHO)

Year: 2007

Title: Everybody's Business. Strengthening Health Systems to Improve Health Outcomes. WHO's Framework for Action

Source: Geneva, Switzerland: World Health Organization

Abstract: The primary aim of this framework is to clarify and strengthen WHO's role in health systems in a changing world. There is continuity in the values that underpin it from its constitution, the Alma Ata Declaration of Health For All, and the principles of Primary Health Care. Consultations over the last year have emphasized the importance of WHO's institutional role in relationship to health systems. The General Programme of Work (2006-2015) and Medium-term Strategic Plan (2008-2013) focus on what needs to be done. While reaffirming the technical agenda, this framework concentrates more on how the WHO secretariat can provide more effective support to Member States and partners in this domain.

Available at http://www.searo.who.int/LinkFiles/Health_Systems_EverybodyBusinessHSS.pdf.

Service Provision Assessment (SPA)

Author: Barden-O'Fallon, J., Angeles, G., and Tsui, A.

Year: 2006

Title: Imbalances in the health labor force: an assessment using data from three national health facility surveys

Source: *Health Policy and Planning*, 21(2):80-90

Abstract: This study used health facility survey data to examine characteristics of the primary health care labor force in Nicaragua, Tanzania, and Bangladesh. The characteristics examined are those that are likely to affect service provision, including urban/rural distribution, demographic characteristics, and experience and in-service training, for three types of providers (physicians, nurses, and auxiliary nurses). The Nicaragua data come from the 2001 Encuesta de Establecimientos de Salud, carried out by the Nicaraguan Ministry of Health in conjunction with the MEASURE Evaluation project. The Tanzania data came from the 1999 Tanzania Reproductive and Child Health Facility Survey, conducted by the Tanzanian National Bureau of Statistics and MEASURE Evaluation. The Bangladesh data came from the 1999-2000 Bangladesh Service Provision Assessment Survey, conducted by the National Institute of Population Research and Training, Mitra and Associates, and ORC Macro, as part of the 1999-2000 Bangladesh Demographic and Health Survey.

Available on-line at <http://heapol.oxfordjournals.org/cgi/content/full/21/2/80>.

Author: Egypt Ministry of Health and Population; El-Zanaty Associates Cairo, Egypt; and ORC Macro

Year: 2003

Title: Egypt Service Provision Assessment Survey 2002

Source: Calverton, MD, USA: Ministry of Health and Population, El-Zanaty Associates, and ORC Macro

Abstract: The Egypt Service Provision Assessment (ESPA) was conducted in 2002. Through a representative sample of nongovernmental and public facilities, information was collected to provide a picture of the strengths and weaknesses of the service delivery environment for each assessed service. The primary objectives of ESPA were to describe the preparedness of government and nongovernment health facilities in Egypt to provide quality child, maternal, and reproductive health services; describe the preparedness of government and nongovernment health facilities in Egypt to provide quality services for specific infectious diseases (STIs, HIV/AIDS, and tuberculosis); identify gaps in the support services, resources, or the processes used in providing client services that may impact the ability of facilities to provide quality services; describe the processes used in providing child, maternal, and reproductive health services and the extent to which accepted standards for quality service provision are followed; provide comparisons on findings between regions in Egypt and, at a national

level, between different types of facilities, as well as those operated by different authorities (i.e. governmental or nongovernmental); and to describe the extent to which clients understand what they must do to follow up on the service received so that the best health outcome is achieved.

Available at <http://www.measuredhs.com/pubs/pdf/SPA5/00FrontMatter.pdf>.

Author: Egypt Ministry of Health and Population; El-Zanaty Associates Cairo, Egypt; and ORC Macro

Year: 2005

Title: Egypt: MCH SPA, 2004 – Final Report

Source: Calverton, MD, USA: Ministry of Health and Population, and ORC Macro

Abstract: The 2004 Egypt Service Provision Assessment (ESPA 2004) was conducted in a representative sample of 659 health facilities throughout Egypt. At the request of the U.S. Agency for International Development (USAID) and the Ministry of Health and Population (MOHP), seven governorates (Cairo, Alexandria, Fayoum, Beni Suef, Menya, Qena, and Aswan) that are part of a USAID-supported pilot project were over-sampled to provide key indicators for these areas. The survey covered general, district, and integrated hospitals (referred to in the report as “general service hospitals”), fever hospitals, maternal and child health/urban health units (MCH/urban HUs), rural health units (rural HUs), mobile units, health offices, and nongovernmental organization (NGO) facilities. The ESPA 2004 used interviews with health service providers and clients, as well as observations of provider-client consultations, to obtain information on the capacity of facilities to provide quality services and the existence of functioning systems to support quality services. The areas addressed were the overall facility infrastructure and resources; specific child health, family planning, and maternal health services; and services for specific infectious illnesses — reproductive tract and sexually transmitted infections (RTI/STIs) and tuberculosis. The objective was to assess the strengths and weaknesses of the infrastructure and systems supporting these services, as well as to assess the adherence to standards in the delivery of curative care for children, family planning, antenatal care (ANC), and consultations for RTI/STIs.

Available at <http://www.measuredhs.com/pubs/pdf/SPA7/00FrontMatter00.pdf>.

Author: Ghana Statistical Service, Health Research Unit, Ministry of Health, and ORC Macro

Year: 2003

Title: Ghana Service Provision Assessment Survey 2002

Source: Calverton, MD, USA: Ghana Statistical Service and ORC Macro

Abstract: This is a country report of the MCH SPA conducted in Ghana in 2002. From a representative sample of public and nongovernment facilities, information was collected to provide a picture of the strengths and weaknesses of the service delivery environment for each assessed service. The objectives of the 2002 Ghana SPA (GSPA) survey were to describe the preparedness of government and nongovernment health facilities to provide quality child and reproductive health services; to describe

the preparedness of government and nongovernment health facilities to provide quality services for sexually transmitted infections (STIs), including HIV/AIDS; to identify gaps in the support services, resources, or the processes used in providing client services that may affect the ability of facilities to provide quality services; to describe the processes used in providing child, maternal, and reproductive health services and the extent to which accepted standards for quality service provision are followed to provide comparisons on findings between regions and, at a national level, between different types of facilities as well as those operated by different authorities; and to describe the extent to which clients understand what they must do to follow up on the service received so that the best health outcome is achieved.

Available at <http://www.measuredhs.com/pubs/pdf/SPA6/00FrontMatter.pdf>.

Author: Girosi, F., Olmsted, S.S., Keeler, E., Hay Burgess, D.C, Lim, YW., Aledort, J.E., Rafael, M.E., Ricci, KA., Boer R, Hilborne, L., Derose, K.P., Shea, M.V., Beighley, C.M., Dahl, CA., and Wasserman, J.

Year: 2006

Title: Developing and interpreting models to improve diagnostics in developing countries

Source: *Nature*, 444:3-8

Abstract: The introduction of new diagnostic tools can help to reduce the large burden of disease in the developing world. New tests that can accurately discriminate between patients who do and do not need treatment will reduce mortality, morbidity, and the waste of scarce resources. Although high-performance tests are desirable, those that are more accurate usually require greater levels of infrastructure and are therefore accessible to fewer people. In this article, the authors outline an approach for estimating the health benefits of new diagnostic tools, and examining the trade-offs between accuracy and infrastructure requirements. The questionnaire used in this study was partially based on the Service Provision Assessment (SPA) surveys performed by ORC Macro, as part of the MEASURE DHS project. The questionnaire also draws on the draft WHO Service Availability Mapping (SAM) reports. The authors also cite the SPA and SAM reports as references. The results of the analysis indicated that a large portion of the population in each of the regions modeled has access to some form of health-care setting. However, in some cases, the capabilities of these settings are limited in terms of both infrastructure and level of staff training. The authors suggested that a method for improving health outcomes that could be approached in parallel to improving diagnostic tests would be enhancing the infrastructure and staffing available at these health-care settings

Available on line <http://www.bvsde.paho.org/bvsacd/cd59/developing.pdf>.

Author: Guyana Ministry of Health, Guyana Responsible Parenthood Association, and ORC Macro

Year: 2005

Title: Guyana: HIV SPA, 2004 — Final Report

Source: Calverton, MD, USA: Guyana Ministry of Health, Guyana Responsible Parenthood Association, and ORC Macro

Abstract: Guyana is located in the northwestern shoulder of South America and has a population of 751,223, according to the 2002 Guyana Population and Housing Census. The country covers about 215,000 square kilometers and is divided into 10 administrative regions. Regions along the coastal line are densely populated and include Guyana's major cities. Guyana is one of the poorest countries in the Caribbean and in the world, ranking 104 in the 2004 Human Development Index Report. According to the 1999 Guyana Survey of Living Conditions, 36 percent of the population was living in absolute poverty (below U.S. \$1.40 per day), 78 percent of whom were living in rural interior areas. Guyana is the only English-speaking country on the mainland of South America. The 2002 Population and Housing Census shows that from 1980 to 1990, the negative growth rate of the Guyanese population was reversed, but emigration remains a significant factor in the Guyana demographic profile. Guyana is still in an expansive phase of demographic transition, but there are signs of an aging population. There has been a decline in the proportion of the population age 0-4 and 5-9 years (indicating fertility decline, and/or migration of young children or high child mortality), and the population 65 years of age and over has risen from 3.9 percent in 1980 to 4.3 percent in 2002. Approximately 36 percent of the population is under age 15 and about 7 percent is over 60. The estimated rate of population growth for 2004 was 0.61 percent and the total fertility rate was estimated at 2.1 percent.

Available at <http://www.measuredhs.com/pubs/pdf/SPA10/SPA10.pdf>.

Author: Hong, R., Montana, L., and Mishra, V.

Year: 2006

Title: Family planning services quality as a determinant of use of IUD in Egypt

Source: *BMC Health Services Research* 6(79)

Abstract: The authors used data from the 2003 Egypt Interim Demographic and Health Survey (EIDHS) and the 2002 Egypt Service Provision Assessment (ESPA) survey to examine the relationship between quality of family planning services and use of intrauterine devices (IUD) in Egypt. The study linked the geographic information to data from a population-based survey with an independently sampled health facility survey. Using geographic information system (GIS) methods, individual women were linked to a facility located within 10 km of their community. A facility-level index was constructed to reflect the quality of family planning services. Four dimensions of quality of care were examined — counseling, examination room, supply of contraceptive methods, and management. The study found that IUD use among women who obtained their method from public sources was significantly positively associated with quality of family planning services (RRR = 1.36, $p < 0.01$), independent of distance to the facility, facility type, age, number of living children, education level, household wealth status, and residence. Quality of services related to counseling and examination room had strong positive effects on use of IUD (RRR = 1.61 for counseling and RRR = 1.46 for examination room). Obtaining IUD from a private source or using other contraceptive methods was not associated with quality of services. The authors concluded that service quality is an important determinant of use of clinical contraceptive methods in Egypt and suggested that improving quality of family planning services may help further increase use of clinical contraceptive methods and reduce fertility.

Available on-line at <http://www.biomedcentral.com/content/pdf/1472-6963-6-79.pdf>.

Author: Kenya Ministry of Health, Kenya National Council for Population and Development, and ORC Macro

Year: 2000

Title: Kenya Service Provision Assessment Survey 1999

Source: Calverton, MD, USA: Ministry of Health, National Council for Population and Development, and ORC Macro

Abstract: The 1999 Kenya Service Provision Assessment Survey (KSPA) was conducted in a representative sample of 388 health facilities throughout the country. The survey covered all levels of facilities from dispensaries to hospitals and included both governmental and private facilities. The KSPA used interviews with health workers and clients as well as observations of provider-client consultations to obtain information on the functioning and quality of the services provided at these facilities in four key areas: family planning, sexually transmitted diseases and HIV/AIDS, child health, and maternity care. The objective was to assess the strengths and weaknesses of the delivery of these health services and to provide recommendations as to how to improve the provision of services in the future.

Available at <http://www.measuredhs.com/pubs/pdf/SPA1/00FrontMatter.pdf>.

Author: Kenya National Coordinating Agency for Population and Development, Kenya Ministry of Health, Kenya Central Bureau of Statistics, and ORC Macro

Year: 2005

Title: Kenya: HIV/MCH SPA, 2004 — Final Report

Source: Nairobi, Kenya: National Coordinating Agency for Population and Development, Ministry of Health, Central Bureau of Statistics, and ORC Macro

Abstract: The Kenya Service Provision Assessment of 2004 (KSPA 2004) survey is a follow-up of the Service Provision Assessment conducted in Kenya in 1999. The KSPA provides the government with information necessary to monitor trends in facility performance. This information can be used to assess strengths and weaknesses of current strategies to improve maternal, child, and reproductive health, as well as services for sexually transmitted infections (STIs) and HIV/AIDS. The survey was designed to extract information about the general performance of facilities that offer maternal, child, and reproductive health services, as well as services for specific infectious diseases (STIs, HIV/AIDS, and tuberculosis). The KSPA 2004 survey instruments are based on the KSPA 1999 instruments, but were designed to collect more comprehensive information. In addition, the KSPA 2004 added a complete module on HIV/AIDS. In effect, the KSPA 2004 is a combination of the maternal and child health (MCH) SPA, which has been conducted in several countries, and the more specialised HIV/AIDS SPA. Information to provide a picture of the strengths and weaknesses of the service delivery environment for each assessed service was collected from a representative sample of facilities managed by the public sector, the private sector, faith-based organisations (FBOs) and nongovernmental organizations (NGOs) from all eight provinces of the country. The KSPA 2004 provides national- and provincial-level representative information for all types of facilities. Findings can supplement household-based health information from the Kenya Demographic and Health Survey (KDHS) conducted in 2003, which provides information on health, fertility, nuptiality and utilisation of services by the overall population.

Available at <http://www.measuredhs.com/pubs/pdf/SPA8/00FrontMatter.pdf>.

Author: Kombe, G., Steffen, M., Holdaway, A., Srinath, K.P., Butera, D., Diarra, S., Kadjo, D., Landry, M., Seka, F., Kraffa, B., Laurence, E.A., Tuho, MZ., Soumahoro, O., and Boka, A.

Year: 2008

Title: Cote d'Ivoire: Service Provision Assessment 2008

Source: Bethesda, MD, USA: Health Systems 20/20 project, and Abt Associates Inc.

Abstract: The purpose of the SPA in Côte d'Ivoire was to assess HIV/AIDS-related service provision capacity in the public and private health sectors. A total of 300 randomly selected public and private health facilities throughout the country were surveyed to assess the current levels of HIV/AIDS service provision. HIV/AIDS services examined include ART, CT, PMTCT, TB, PEP, and care and support services (CSS) at all levels of the health care system. In addition, the survey examined the availability of equipment, drugs and supplies, national protocols, record keeping, and waste disposal methods. Based on the findings of the SPA, the report proposes several recommendations for strengthening HIV/AIDS service provision in both the public and private sectors.

Available at <http://www.healthsystems2020.org>.

Author: MEASURE Evaluation

Year: 2002

Title: Training Manual for Conducting the Service Provision Assessment (MS-02-09)

Source: Chapel Hill, NC, USA: MEASURE Evaluation

Abstract: This training manual is designed for the data collectors of SPA. The document includes the overall data collection procedures, planning the SPA fieldwork, organization of activities during facility visit, and tips for conducting interview and observations. It also includes explanation on how to read the questionnaires, how to correct mistakes and how to ensure quality of data.

Available at http://www.cpc.unc.edu/measure/publications/pdf/ms-02-09-tool06-training_manual.pdf.

Author: MEASURE DHS

Year: 2005

Title: Overview of the service provision survey

Source: Calverton, MD, USA: ORC Macro

Abstract: This is a two-page summary brochure of SPA. It explains the scope, coverage, indicators of SPA and provides example of Ghana SPA.

Available at <http://www.measuredhs.com/pdfs/SPA%20brochure%203-21-updated.pdf>.

Author: MEASURE DHS

Year: 2008

Title: SPA Tools (Audits: SPA Q1, Observation Protocol and Exit Interview Questionnaire:SPAQ2, Health Worker/Provider Interview:SPAQ3)

Source: Calverton, MD, USA: ORC Macro

Abstract: The Service Provision Assessment (SPA) is a national health facility survey designed to collect information on the functioning of maternal, child and reproductive health (family planning and STD/HIV) services. The survey provides information on the availability and quality of health services and identifies gaps in services provision. Survey instruments are designed in modular format so that services may be assessed individually if required. SPA consists of four principal data collection instruments — a facility inventory, a provider interview, a client observation, and a client exit interview. All the instruments are designed to assess whether facilities meet internationally accepted standards and indicators. The facility inventory and provider interview collect information on the facility infrastructure; the availability of equipment, supplies, medicines, staff, protocols, client teaching materials and health information records; staff training and supervision. They also collect information about the availability and functioning of facility support system services including management committees, quality assurance programs, pharmacy logistics, equipment maintenance, infection control practices, and various monitoring systems. The observation and client exit interview tools are to assess whether the services are delivered to internationally recognized and local standards.

Available at

http://www.measuredhs.com/pubs/search/search_results.cfm?Type=37&srchTp=type&newSrch=1

Author: Rwanda Ministry of Health, Rwanda National Population Office, and ORC Macro

Year: 2003

Title: Rwanda Service Provision Assessment Survey 2001

Source: Calverton, MD, USA: Ministry of Health, National Population Office, and ORC Macro

Abstract: The 2001 Rwanda Service Provision Assessment (RSPA) was conducted in a representative sample of 223 health facilities throughout Rwanda. The survey covered hospitals and health centers, and included both governmental (public) and nongovernmental health facilities that receive government support. The RSPA used interviews with health service providers and clients and observations of provider client consultations to obtain information on the capacity of facilities to provide quality services, and the existence of functioning systems to support quality services. It was undertaken to provide a picture of how the health facilities function and of the quality of the reproductive and child health services available. Service areas assessed were child health, family planning, maternal health, and services for sexually transmitted infections (STIs), including HIV/AIDS. The goal of the RSPA was to describe facility-based health services and to recommend improvements to service delivery.

Available at

http://www.measuredhs.com/aboutsurveys/search/metadata.cfm?surv_id=212&ctry_id=35&SrvyTp=type

Author: Saha, T.

Year: 2002

Title: Bangladesh Service Provision Assessment Survey 1999-2000

Source: Calverton, MD, USA: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ORC Macro

Abstract: This is a country report of the MCH SPA conducted in Bangladesh in 1998. Survey collected information on the provision of reproductive and child health services in Bangladesh. The Bangladesh Service Provision Assessment (BSPA) was carried out in conjunction with the 1999-2000 Bangladesh Demographic and Health Survey (BDHS), covering 341 clusters. The main objective of the BSPA was to assess the strengths and weaknesses of reproductive and child health service provision including 1) family planning and contraceptive options, 2) maternity and delivery care, and 3) treatment of childhood disease. The BSPA reveals that health services are widely available in the country, but quality of services and medications are often lacking. The BSPA collected information on the provision of reproductive and child health services in Bangladesh in conjunction with the BDHS. A modified SPA instrument from the MEASURE DHS+ program was used in the survey. It included questions on service provision and interviewed both service providers and field-workers. The survey provides information to program managers on the extent to which facilities have the equipment supplies and staff to deliver high quality services.

Available at

http://www.measuredhs.com/aboutsurveys/search/metadata.cfm?surv_id=136&ctry_id=1&SrvyTp=type

Author: St. George's University, Grenada; AID Inc., Barbados; Macro International

Year: 2007

Title: Antigua and Barbuda, Caribbean Region, HIV/AIDS Service Provision Assessment 2006 (TR-07-50)

Source: Calverton, MD, USA: St. George's University, Grenada; AID Inc., Barbados; Macro International; and MEASURE Evaluation

Abstract: This is a country report of the HIV SPA conducted in Antigua and Barbuda in 2006. Focusing on the formal public health sector in Antigua and Barbuda, the HSPA findings provide information on both basic and advanced level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-07-50.pdf>.

Author: St. George's University, Grenada; AID Inc., Barbados; Macro International

Year: 2007

Title: Barbados, Caribbean Region, HIV/AIDS Service Provision Assessment 2005 (TR-07-45)

Source: Calverton, MD, USA: St. Georges University, Grenada; AID Inc., Barbados; Macro International; and MEASURE Evaluation

Abstract: This is a country report of the HIV SPA conducted in Barbados in 2005. Focusing on the formal public health sector in Barbados, the HSPA findings provide information on both basic and advanced level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-07-45.pdf>.

Author: St. George's University, Grenada; AID Inc., Barbados; Macro International

Year: 2007

Title: Dominica, Caribbean Region, HIV/AIDS Service Provision Assessment 2005 (TR-07-48)

Source: Calverton, MD, USA: St. George's University, Grenada; AID Inc., Barbados; Macro International; MEASURE Evaluation project

Abstract: This is a country report of the HIV SPA conducted in Dominica in 2005. Focusing on the formal public health sector in Dominica, the HSPA findings provide information on both basic and advanced level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-07-48.pdf>.

Author: St. George's University, Grenada; AID Inc., Barbados; Macro International

Year: 2007

Title: St. Lucia, Caribbean Region, HIV/AIDS Service Provision Assessment 2005 (TR-07-47)

Source: Calverton, MD, USA: St. George's University, Grenada; AID Inc., Barbados; Macro International; MEASURE Evaluation

Abstract: This is a country report of the HIV SPA conducted in St. Lucia in 2005. Focusing on the formal public health sector in St. Lucia, the HSPA findings provide information on both basic and advanced level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-07-47.pdf>.

Author: St. George's University, Grenada; AID Inc., Barbados; Macro International

Year: 2007

Title: St. Vincent and Grenadines, Caribbean Region, HIV/AIDS Service Provision Assessment 2005 (TR-07-46)

Source: Calverton, MD, USA: St. George's University, Grenada; AID Inc., Barbados; Macro International; MEASURE Evaluation

Abstract: This is a country report of the HIV SPA conducted in St. Vincent and Grenadines in 2005. Focusing on the formal public health sector in St. Vincent and Grenadines, the HSPA findings provide information on both basic and advanced level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-07-46.pdf>.

Author: St. George's University, Grenada; AID Inc., Barbados; Macro International

Year: 2007

Title: Surinam, Caribbean Region, HIV/AIDS Service Provision Assessment 2006 (TR-07-53)

Source: Calverton, MD, USA: St. George's University, Grenada; AID Inc., Barbados; Macro International; MEASURE Evaluation

Abstract: This is a country report of the HIV SPA conducted in Surinam in 2006. Focusing on the formal public health sector in Surinam, the HSPA findings provide information on both basic and advanced level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-07-53.pdf>.

Author: St. George's University, Grenada; AID Inc., Barbados; Macro International

Year: 2007

Title: Trinidad and Tobago, Caribbean Region, HIV/AIDS Service Provision Assessment 2005 (TR-07-49B)

Source: Calverton, MD, USA: St. George's University, Grenada; AID Inc., Barbados; Macro International; MEASURE Evaluation

Abstract: This is a country report of the HIV SPA conducted in Trinidad and Tobago in 2006. Focusing on the formal public health sector in Trinidad and Tobago, the HSPA findings provide information on both basic and advanced level HIV and AIDS services and the availability of record keeping systems for monitoring HIV and AIDS care and support.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/tr-07-49B.pdf>.

Author: Tanzania National Bureau of Statistics and Macro International Inc.

Year: 2007

Title: Tanzania: HIV/MCH SPA, 2006 – Final Report

Source: Dar es Salaam, Tanzania: National Bureau of Statistics and Macro International Inc.

Abstract: The 2006 Tanzania Service Provision Assessment (TSPA 2006) survey collected data from a representative sample of 611 health facilities throughout Tanzania. The survey covered all levels of facilities, from dispensaries to hospitals, and sampled facilities operated by different managing authorities, including government, private for-profit, parastatal, and faith-based organisations. TSPA personnel collected information from facility inventories, interviews with health service providers, observations of client-provider consultations, and exit interviews with clients in order to assess the capacity of facilities to provide good quality services and the existence of functioning systems to support these services. The survey addressed overall facility infrastructure and resources as well as services for child health, family planning, maternal health, and specific infectious diseases, including sexually transmitted infections (STIs), tuberculosis (TB), malaria, and HIV/AIDS. One of the objectives of the survey was to assess the strengths and weaknesses of the infrastructure and systems supporting these services. The survey also sought to assess the adherence to standards in the delivery of curative care for sick children and adult STIs, family planning, and antenatal care (ANC).

Available at <http://www.measuredhs.com/pubs/pdf/SPA12/SPA12.pdf>.

Author: Waithaka, M., and Bessinger, R.

Year: 2001

Title: Sexual Behavior and Condom Use in the Context of HIV Prevention in Kenya (SR-01-07)

Source: Chapel Hill, NC, USA: Population Services International and MEASURE Evaluation

Abstract: This report presents an analysis of data on sexual behavior, condom knowledge, and condom use from the 1998 Kenya Demographic and Health Survey (KDHS). These results are supplemented with data from the Ministry of Health and PSI's social marketing program on the number of condoms distributed annually and with data on condom promotion and availability at health facilities from the 1999 Kenya Service Provision Assessment. The study found that there are large gender differences in the practice of high-risk sexual behavior with three times as many men as women practicing risky sex. A much greater percentage of men than women have multiple sexual partners, participate in payment for sex, or have had an STD in the past 12 months. Differences in risk among married men and women are particularly important as married women are often at risk for HIV infection based on their husbands' sexual practices rather than their own. While only a small percentage of married women are classified as having risky sexual practices, almost one in four married men fall into this category. While extramarital sex is relatively common among men, less than one-half of married men used a condom with other sexual partners than their wives.

Available on-line at <http://www.cpc.unc.edu/measure/publications/pdf/sr-01-07.pdf>.

Author: White, J.S., and Speizer, I.S.

Year: 2007

Title: Can family planning outreach bridge the urban-rural divide in Zambia?

Source: *BMC Health Services Research* 7:143

Abstract: This paper assesses family planning outreach as a tool to narrow the urban-rural gaps in accessing family planning services in Zambia. The authors used the Zambia Demographic and Health Survey (DHS) data, collected between 2001 and 2002. The Zambia SPA Country Report (2006) is referenced in this article to indicate the percentage of facilities that offer VCT and PMTCT of HIV/AIDS service in urban and rural areas. The authors found that the differences in modern contraceptive use between urban and rural areas persist (OR: 1.56, 95 percent CI: 1.24–1.96) even after adjusting for a number of demographic, socioeconomic, cognitive, and attitudinal factors. Household visits by a community health worker significantly increased the likelihood of modern contraceptive use among rural women (OR: 1.83; 95 percent CI: 1.29–2.58). If all rural women received at least one outreach visit per year, the prevalence rate for modern contraceptive methods would be expected to increase for this group by 5.9 percentage points, a marked increase but less than one-quarter of the total urban-rural differential. Based on these findings, the authors concluded that outreach in the form of health worker visits can improve access to family planning services, but it does not eliminate barriers to access or address continued high-fertility desires in Zambia.

Available at <http://www.biomedcentral.com/content/pdf/1472-6963-7-143.pdf>.

Author: Zambia Ministry of Health, Central Statistical Office, Zambia;, and ORC Macro

Year: 2006

Title: Zambia: HIV SPA, 2005 – Final Report.

Source: Calverton, MD, USA: Zambia Ministry of Health, Central Statistical Office, and ORC Macro

Abstract: Zambia is a landlocked country located in southern Africa. The country is bordered by Angola in the west; Botswana and Zimbabwe in the south; the Democratic Republic of Congo and Tanzania in the north; Malawi and Mozambique in the east; and Namibia in the southwest. Zambia covers an area of 752,612 square kilometers, which is divided into nine provinces and 72 districts. Zambia has an estimated population of about 11 million people and is one of the most urbanized countries in sub-Saharan Africa, with approximately 40 percent of its population living in urban areas, mostly in Lusaka and Copperbelt provinces. Zambia has a mixed economy consisting of an urban modern sector and a rural agricultural sector. Zambia inherited a strong mining-based economy after independence in 1964, which deteriorated in the mid-1970s following a sharp decline in copper prices, compounded by the global oil crisis. The country's attempt to diversify its economy to minimize dependency on copper exports did not achieve the desired results. The Structural Adjustment Programmes (SAP) implemented in the 1980s failed to substantially revitalize the country's economy. Zambia is one of the poorest countries in Africa and the world, ranking 166 out of 177 in the Human Development Index, according to the 2005 Human Development Report. According to the Human Development Report, 64 percent of the population is living in absolute poverty (less than US \$1 per day), and 73 percent is living under the national poverty line.

Available at <http://www.measuredhs.com/pubs/pdf/SPA11/SPA11.pdf>.

Service Availability Mapping (SAM)

Author: Chamla, D.D., Olu, O., Wanyana, J., Natseri, J., Mukooyo, E., Okware, S., Alisalad, A., and George, M.

Year: 2007

Title: Geographical information system and access to HIV testing, treatment and prevention of mother-to-child transmission in conflict affected northern Uganda

Source: *Conflict and Health* 1:12

Abstract: This paper attempts to use geographical information system (GIS) as a tool to determine access to and gaps in providing HIV voluntary counseling and testing (VCT), antiretroviral treatment (ART), and prevention of mother-to-child transmission (PMTCT) services in conflict affected northern Uganda. The authors conducted Service Availability Mapping (SAM) of health facilities located inside and outside the internal displaced persons (IDP) camps in three districts. The SAM consisted of a survey methodology whereby structured camp and health facility questionnaires were used to collect data in the field, and global positioning system (GPS) instruments to collect the coordinates of the camps and health facilities. These GPS readings were then uploaded to and processed by the GIS software to generate the maps.

The study found that there were 167 health facilities located inside and outside 132 IDP camps with VCT, PMTCT, and ART services provided in 32 (19.2%), 15 (9%), and 10 (6%) facilities, respectively. There was uneven availability and utilization of services and resources among districts, camps, and health facilities. Inadequate staff and stock-out of essential commodities were found in lower health facility levels. Provision of VCT was 100% of the HSSP II target at health centers IV and hospitals but 28% at HC III. For PMTCT and ART, only 42.9% and 20% of the respective targets were reached at the health centers IV. The authors concluded that access to VCT, PMTCT and ART services was geographically limited due to inadequacy and heterogeneous dispersion of these services among districts and camps. GIS mapping can be effective in identifying service delivery gaps and presenting complex data into simplistic results hence can be recommended in need assessments in conflict settings.

Available on-line at <http://www.conflictandhealth.com/content/pdf/1752-1505-1-12.pdf>.

Author: Institute of Public Health of Albania, WHO, and SouthEastern Europe Network.

Year: 2005

Title: Service Availability Mapping Albania

Source: Geneva, Switzerland: World Health Organization

Abstract The SAM Albania was conducted to 1) provide national planners and decision-makers with up-to-date information on the distribution of services within the country with a focus on the district level; 2) provide a snapshot of service availability for key interventions such as HIV/AIDS counseling and testing, maternal and child health, TB and other services national level; 3) provide information on the availability of services at private facilities, although it is likely that these facilities are under-reported; and 4) take SAM to the facility level, so that the district can be enabled to plan and monitor. The district questionnaire was applied in 36 districts, and the facility questionnaire was applied in all the facilities of the 12 districts, which were selected based on the 12 prefectures (counties) of Albania.

Available at <http://www.who.int/healthinfo/systems/samreportalbania.pdf>.

Author: Kenya Ministry of Health and WHO

Year: 2007

Title: Service Availability Mapping Kenya

Source: Geneva, Switzerland: World Health Organization

Abstract: The SAM Kenya was conducted to provide baseline data for the scale-up of key HIV/AIDS-related services such as antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT) of HIV, and HIV voluntary counselling and testing. The district-level questionnaire was applied in all 72 districts, while the facility-level questionnaire was carried out in three major urban centers in Nairobi, Mombassa, and Nakuru, as well as in three districts (Thika, Kilifi and Kisumu).

Available at <http://www.who.int/healthinfo/systems/samreportkenya.pdf>.

Author: Kintu, P., Nanyunja, M., Nzabanita, A., and Magoola, R.

Year: 2005

Title: Development of HMIS in poor countries: Uganda as a case study

Source: *Health Policy and Development Journal* 3(1):46-53

Abstract: The authors reviewed the implementation of a health management information system (HMIS) in Uganda. In the article, the information on the availability of computers as well as Internet was cited from the WHO SAM Uganda country report. They concluded that the main challenges are in-patient data collection and processing, regular availability of HMIS tools, data utilization, and electronic data management.

Available at <https://tspace.library.utoronto.ca/bitstream/1807/6076/1/hp05008.pdf>.

Author: Rwanda Ministry of Health, WHO, and UNAIDS

Year: 2007

Title: Service Availability Mapping Rwanda 2005

Source: Geneva, Switzerland: World Health Organization

Abstract The SAM Rwanda was conducted to 1) provide national planners and decision-makers with information on the distribution of services within the country, with a focus on the district level; 2) provide baseline monitoring information for the scale-up in the provision of key HIV/AIDS-related services such as antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT) of HIV and voluntary counseling and testing of those with HIV/AIDS SAM in Rwanda was implemented in two phases; and 3) assess whether a district-level SAM, in which all health facilities are visited, can become a useful and feasible planning and monitoring tool at the district level. The Rwanda SAM covered all 40 health offices and 436 health facilities, representing all public health and government-supported facilities. Private facilities were included for Kigali.

Available at <http://www.who.int/healthinfo/systems/samreportrwanda.pdf>.

Author: Tanzania Ministry of Health and Social Welfare, and WHO

Year: 2007

Title: Tanzania Service Availability Mapping 2005-06

Source: Geneva, Switzerland: World Health Organization

Abstract: The SAM Tanzania was conducted to complement existing information on health services and provide the United Republic of Tanzania with information on the distribution of facilities, human resources, and basic health services. The SAM included a national survey of all districts in the United Republic of Tanzania, a SAM of facilities in all districts of Dar es Salaam and Mwanza regions, Zanzibar, and the district of Kibaha in Pwani; and an HIV prevention-focused SAM of schools, workplaces, and priority prevention areas in Mwanza region.

Available at http://www.who.int/healthinfo/systems/SAM_CountryReport_Tanzania.pdf.

Author: Uganda Ministry of Health and WHO

Year: 2005

Title: Service Availability Mapping Uganda

Source: Geneva, Switzerland: World Health Organization

Abstract: The SAM Uganda was conducted to collect information on the availability and distribution of key health services by interviewing the district director of health services and his/her team and to

provide baseline monitoring information for the scale-up of the provision of key HIV/AIDS-related services such as ART, PMTCT of HIV, and counseling and HIV testing.

The district SAM covered all districts and facility SAM covered facilities in Jinja, Kiboga and Mbarara districts.

Available at <http://www.who.int/healthinfo/systems/samreportuganda.pdf>.

Author: World Health Organization

Year: ND

Title: Improving Service Availability Mapping: Data Use and Dissemination

Source: Geneva, Switzerland: World Health Organization

Abstract: Clear strategies for the use and dissemination of data are necessary to realize their full value, including the efforts that have gone into their collection. This paper summarizes the results obtained from a number of surveys as well as a series of interviews with decision makers at the global, regional, national, and subnational or district level conducted to identify the needs of potential data users.

Available at <http://www.who.int/healthinfo/systems/samintro/en/index.html>.

Author: World Health Organization

Year: ND

Title: Service Availability Mapping Facility Questionnaire

Source: Geneva, Switzerland: World Health Organization

Abstract: Service Availability Mapping (SAM) is a tool to collect and present basic information on health services: health infrastructure, human resources and services offered. Its main application is at the subnational or district level, where district health management teams can use the results of the SAM in conjunction with WHO's HealthMapper application, developed by the Public Health Mapping and GIS program, to map and monitor health services. SAM is made up of a survey methodology, remote field data collection devices, and WHO's HealthMapper application. The facility SAM requires a visit to a health facility and an interview of the health workers, using a brief questionnaire. This questionnaire could be administered during a regular supervisory visit. Data are collected on availability of the health equipment, staffing, drugs and commodities, and the services offered. A six-monthly cycle of data collection is recommended.

Available at http://www.who.int/healthinfo/systems/sam_fac_quest_en.pdf.

Author: World Health Organization

Year: ND

Title: **Service Availability Mapping Overview Presentation.** (Microsoft PowerPoint presentation)

Source: Geneva, Switzerland: World Health Organization

Abstract: This presentation provides the background and overview of the SAM. The content includes the objectives, implementation process, SAM tool, application, data use, findings and future vision, and implementation plans.

Available at http://www.who.int/healthinfo/sam_overview.ppt.

Author: World Health Organization

Year: 2006

Title: **Service Availability Mapping — Trainers Guide (Draft 2)**

Source: Geneva, Switzerland: World Health Organization

Abstract: This guide has been developed as a training aid for focal points at regional and country level for training national teams in the implementation of SAM. The guide aims specifically to provide an overall background and understanding of what SAM is, and provides guidelines and checklists for planning and conducting a SAM survey in a specific country. It also provides step by step guidance on using survey tools and instruments, including personal digital assistants (PDAs) and forms, global positioning systems (GPS), and the HealthMapper application. This document was prepared for the Training of Trainers Workshop, an orientation workshop of SAM, held in Bangkok in 2006.

Available at http://www.searo.who.int/LinkFiles/2006_Trainers_Guide.pdf.

Author: Zambia Ministry of Health and World Health Organization

Year: 2006

Title: **Service Availability Mapping Zambia**

Source: Geneva, Switzerland: World Health Organization

Abstract: The SAM Zambia was conducted to 1) provide national planners and decision-makers with information on the distribution of services within the country, with a focus on the district level; 2) provide baseline monitoring information for increasing the provision of key services such as antiretroviral therapy (ART), prevention of mother-to-child transmission (PMTCT) of HIV, and voluntary counseling and testing of HIV/AIDS; and 3) assess whether the facility SAM can become a useful and feasible planning and monitoring tool at the district level. The SAM covered all 72 district health offices and selected health facilities in Kabwe and Kafue districts.

Available at http://www.searo.who.int/LinkFiles/2006_SAM3_2.pdf.

Rapid Health Facility Assessment Tool (R-SPA)

Title: Rapid Health Facility Assessment Tools Child Survival Technical Support⁺ (CSTS⁺) Web site

Year: 2007

Source : <http://www.childsurvival.com>

Abstract: This Web page has a link to the information and tools to conduct the Rapid Health Facility Assessment. Following documents are accessible at this Web site.

R-HFA survey forms: These are the R-HFA survey forms in five modules (clinical observation, exit interview, health facility checklist, health worker interview, and community health worker form). All the questions needed to construct all core and optional indicators are included.

R-HFA introductory presentation: This presentation explains the development of the tool, what it measures, a brief description of the training and implementation of the R-HFA.

R-HFA data entry and analysis program: Data from the assessments can be entered in these Microsoft Excel sheets. The program automatically calculates tables for use in your report and calculates all the core and optional indicators, giving the “balanced score card” for child health and for maternal-neonatal health for facilities and community health workers.

R-HFA data entry and analysis example: This gives sample data (not actual project data) in the data entry and analysis program to give an idea of the output produced.

R-HFA data analysis presentation: This presentation describes the data analysis and dissemination plan for use of R-HFA data.

R-HFA report example – Rwanda 2007: This is a sample report from R-HFA version 1.0 (child health only). It shows how the data can be presented in disaggregated tabular format as well as in the form of the indicators.

R-HFA short tool description: This is a brief two-page description of the tool to give to interested stakeholders.

R-HFA manual: This is a brief manual describing how to implement the survey. There is an annex with a 3-4 day training agenda for surveyors.

R-HFA – IHFAN instructions on use of GPS: gives instructions for how to collect geographic positioning system information on health facilities. Instructions are provided by the International Health Facility Assessment Network (IHFAN). (Also available at <http://www.cpc.unc.edu/measure/publications/pdf/wp-07-91.pdf>.)

Logistics Indicators Assessment Tool (LIAT)

Author: Amenyah, J., Chovitz, B., Hasselberg, E., Karim, A., Mmari, D., Nyinondi, S., and Rosche, T.

Year: 2005

Title: Tanzania: Integrated Logistics System Pilot-Test Evaluation: Using the Logistics Indicator Assessment Tool

Source: Arlington, VA, USA: DELIVER/John Snow, Inc.

Abstract: The Tanzania Ministry of Health, in response to decentralization, was in the process of transferring responsibility for drug management from the central level, primarily through the kit system, to districts. A new system for drug ordering, called the Integrated Logistics System (ILS), was pilot tested in Dodoma and Iringa regions from April 2005 to September 2005. In October 2005, the Pharmaceuticals and Supplies Unit of the Ministry of Health, which is responsible for implementing the ILS, conducted an evaluation of the ILS using the JSI/DELIVER Logistics Indicator Assessment Tool (LIAT). The results show that the ILS is performing as expected and meets the needs of most facilities. Health care workers overwhelmingly prefer it to the previous system. Stockout rates are about the same or a little better than under the previous system, which is an accomplishment given that the transfer of responsibility to districts has taken place. Proposed recommendations are improvements to the ILS that can be applied as it is rolled out to additional regions. No major changes are proposed.

Available at http://deliver.jsi.com/dlvr_content/resources/allpubs/countryreports/TZ_InteLogiSystPilo.pdf.

Author: Bossert, T.J. Bowser, D.M., and Amenyah, J.K.

Year: 2007

Title: Is decentralization good for logistics systems? evidence on essential medicine logistics in Ghana and Guatemala

Source: *Health Policy and Planning* 22(2):73-82

Abstract: The authors developed a data collection instrument based on the LIAT for this study. This paper sets out a framework and methodology of a pioneering exploratory study that examines the experiences of decentralization in two countries, Guatemala and Ghana, and presents suggestive results of how decentralization affected the performance of their logistics systems. The study found that less choice (i.e. more centralized) was associated with better performance for two key functions (inventory control and information systems), while more choice (i.e. more decentralized) over planning and budgeting was associated with better performance. The authors concluded that logistics systems can be effectively decentralized for some functions while others should remain centralized.

Available at <http://heapol.oxfordjournals.org/cgi/content/full/22/2/73#RNT1>.

Author: Bossert, T.J., Bowser, D.M., Amenyah, J.K., and Copeland, B.

Year: 2004

Title: Ghana: Decentralization and Health Logistics Systems

Source: Arlington, VA, USA: John Snow, Inc./DELIVER

Abstract: Health sector reform in Ghana took place from 1998 to 2002, and it continued under another five-year medium-term health strategy for 2002-2006. To implement these reform packages, a number of health reform initiatives were put in place, one of which was decentralization of administration within the sector and the integration of supply systems to improve management efficiency. This country study assessed the impact of decentralization on the performance of health logistics systems and examined pre-defined functions within the health logistics system in order to measure the changes in performance indicators related to changes introduced by decentralization and integration. In order to assess the performance of the logistic system, the study team modified an existing LIAT and used it as a data collection tool.

Available at http://deliver.jsi.com/dlvr_content/resources/allpubs/policypapers/GH_DeceHealLogi.pdf.

Author: Bossert, T.J., Bowser, D.M., Amenyah, J.K., and Copeland, B.

Year: 2003

Title: Guatemala: Decentralization and Integration in the Health Logistics System

Source: Arlington, VA, USA: John Snow, Inc./DELIVER

Abstract: Decentralization has been one of the most far-reaching interventions in the health sector reform packages. Sectoral reform in Guatemala began in 1996 with the Health Services Improvement Program (HSIP), implemented by the Ministry of Health and Social Welfare. Among the goals of the reform were to expand health coverage with an emphasis on populations that lack access, increase the level of public expenditure, redirect resources based on efficiency and equity criteria, and generate an organized social response for mobilization and control of public resources. Another key objective was the development of a new health care model based on decentralization, provision of a basic services package, and community participation. Using the decision-space model, functions within the health logistics system were analyzed to measure the changes in performance indicators related to changes introduced by decentralization. The study's indicators for high decision space were related to better performance indicators for budgeting, needs quantification, procurement, and assignment of personnel to logistics tasks. These are major functions in a logistics system and, for effectiveness, it is important to be able to make adjustments to local conditions. Conversely, the findings also suggest that some functions may perform better if they remain more centralized.

Available at http://deliver.jsi.com/dlvr_content/resources/allpubs/policypapers/GT_DeceInteHeal.pdf.

Author: Bunde, E., Ronnow, E., and Kimondo, G.

Year: 2007

Title: Kenya: Stock Status and Logistics System Assessment 2006

Source: Arlington, VA, USA: DELIVER/John Snow, Inc.

Abstract: This document presents the results of the LIAT conducted in 2006 in Kenya to take stock of the performance of the logistic systems and to provide stock status information for key public health commodities. Results of the assessment revealed that nearly all systems were implemented as designed, but strengths and weaknesses continue to exist. The widespread availability of key commodities for each program was found throughout the logistic systems. In addition, both commodity availability and logistics management practices in the ARV program were performing well.

Available at <http://deliver.jsi.com/dhome>.

Author: Chimnani, J., Chirwa, V., and Ronnow, E.

Year: 2006

Title: Malawi Logistics System and Stock Status Report 2006: Comparison of 2004 and 2006 Assessment Results

Source: Arlington, VA, USA: DELIVER/John Snow, Inc.

Abstract: In March 2006, DELIVER conducted a nationally representative survey on the availability of selected health commodities at MoH and NGO facilities throughout Malawi to assist the MoH and its partners to monitor the effectiveness and efficiency of the health commodity logistics system and to make adjustments as necessary. The LIAT, which was tailored in Malawi in 2004, was used again in 2006 with minor adaptations to address current assessment needs. This document presents the comparative analysis between 2004 and 2006 to determine any change in the health commodity logistics system over the last two years.

Available at http://deliver.jsi.com/dlvr_content/resources/allpubs/countryreports/MW_MalaLogiSystStoc.pdf.

Author: Dana, A., Bieze, B., Felling, B., and Chandani, Y.

Year: 2006

Title: Assessing Supply Chains for HIV/AIDS Commodities

Source: Arlington, VA, USA: John Snow, Inc./DELIVER

Abstract: This paper serves as a technical resource for assessing supply chain management systems for HIV/AIDS programs in the context of system design, implementation, and monitoring and evaluation. While many tools and indicators for the various types of assessments will remain relatively

standardized across commodity groups, including forecasting and monitoring and evaluation for the purposes of system design, a number of key differences exist for HIV/AIDS commodities, notably in the types of assessments, the special considerations during the process, and the frequency and follow up of assessments. This paper serves as a guide for relevant stakeholders to understand the various types of assessments that are undertaken to measure or monitor system performance, the purpose behind the different assessments, and the tools that are appropriate and valuable to use in the different circumstances. LIAT (or a slight modification of LIAT) is recommended as one of the appropriate tools for supply chain of HIV/AIDS commodities.

Available at http://scms.pfscm.org/portal/pls/portal!/PORTAL.wwpob_page.show?_docname=678001.PDF.

Author: John Snow, Inc./DELIVER

Year: 2005

Title: Logistics Indicators Assessment Tool

Source: Arlington, VA, USA: John Snow, Inc./DELIVER

Abstract: This document contains various tools (user's guide, interviewer's guide, questionnaire, and description of indicators) to undertake the Logistics Indicators Assessment Tool (LIAT). LIAT is a quantitative data collection instrument developed by DELIVER and is used to conduct a facility-based survey to assess health commodity logistics system performance and commodity availability at health facilities. LIAT can be used to monitor the performance of certain processes involved in the logistics management of health commodities over time, to evaluate certain outcomes of logistics interventions, to provide ongoing supervision and performance monitoring, and to monitor commodity availability. The data collected using the LIAT can be used to calculate the following core logistics indicators: accuracy of logistics data for inventory management; percentage of facilities that receive the quantity of products ordered; percentage of facilities that maintain acceptable storage conditions; percentage of facilities whose stock levels ensure near-term product availability (stock status); percentage of facilities that experienced a stockout at any point during a given period or at the time of the visit. The DELIVER project also developed a set of core indicators and assessment tools (LIAT and LSAT) to monitor and evaluate logistics system performance and program outcomes. The five indicators, which can be measured using data collected from LIAT, are described in this document. These indicators are accuracy of logistics data for inventory management, percentage of facilities that receive the quantity of products ordered, percentage of facilities that maintain acceptable storage conditions, percentage of facilities that experienced a stockout at any point during a given period or at the time of the visit, and percentage of facilities whose stock levels ensure near-term product availability.

Available at http://pdf.usaid.gov/pdf_docs/PNADE735.pdf.

Author: John Snow, Inc./DELIVER

Year: 2005

Title: **Guidelines for Managing the HIV/AIDS Supply Chain**

Source: Arlington, VA, USA: John Snow, Inc./DELIVER

Abstract: This document includes a set of references for managers working to ensure a continuous supply of quality HIV/AIDS commodities to programs. It highlights lessons learned from JSI and DELIVER advisors' experience designing, implementing, and improving HIV/AIDS supply chains in resource poor settings. The recommendations and tools presented in this document have been developed specifically for programs where supply chain implementation is occurring within the context described above. LIAT (or a slight modification of LIAT) is recommended as one of the appropriate tools for data collection.

Available at http://pdf.usaid.gov/pdf_docs/PNADF424.pdf.

Author: McLaughlin, C., Ronnow, E., Shea, E., Edah, P., and Bruce, E.

Year: 2006

Title: **Ghana: Quantitative and Qualitative Logistics System Assessment (LIAT and LSAT) Report 2006**

Source: Arlington, VA, USA: DELIVER

Abstract: A Logistics System Assessment and Stock Status Survey was conducted to provide information to the MoH, USAID/Ghana, and other stakeholders in Ghana on the availability of health commodities and logistics information at the central, regional, district, and health facility levels. This comprehensive assessment of the logistics system consisted of both quantitative and qualitative data collection using two separate data collection tools: the LIAT and the Logistics System Assessment Tool (LSAT), respectively. This document summarizes the results of the survey.

Available at <http://deliver.jsi.com/dhome>.

Author: Nyenwa, J., Alt, D., Karim, A., Kufa, T., Mboyane, J., Ouedraogo, Y., and Simoyi, T.

Year: 2005

Title: **Zimbabwe HIV and AIDS Logistics System Assessment**

Source: Arlington, Virginia, USA: John Snow, Inc./DELIVER

Abstract: In July and August 2005, the Ministry of Health and Child Welfare, with technical assistance from the USAID-funded JSI/DELIVER project, conducted an assessment of the performance of the logistics management and supply chain systems for selected commodities used by HIV and AIDS

programs in Zimbabwe. The survey's overall objective was to assess how the logistics systems managed selected HIV and AIDS commodities at public health institutions. This report presents the findings of the assessment as well as the short- and long-term recommendations to improve the HIV/AIDS logistics systems in Zimbabwe. The study revealed high stockout rates for some antiretroviral drugs, cotrimoxazole, and rapid HIV test kits. There is no effective logistics management system in place for these commodities. Proposed recommendations include improving supervision, increasing the resource capacity for the AIDS and TB Unit, strengthening the coordination of multiple HIV and AIDS supply chains, and integrating components of the essential drugs and HIV/AIDS logistics management systems.

Available at <http://www.synergyaids.com/documents/ZIMBABWE-HIV-AIDS-LIAT1.pdf>.

Human Resources for Health (HRH) Survey

Author: Butera, D., Fieno, J.V., Diarra, S., Kombe, G., Decker, C., and Oulai, S.

Year: 2005

Title: Assessment of Human Resource Requirements to Deliver the President's Emergency Plan for AIDS Relief and Other Basic Health Services in Côte d'Ivoire

Source: Bethesda, MD, USA: The Partners for Health Reformplus Project, Abt Associates Inc.

Abstract: The purpose of this survey is to quantify the human resources currently available and that are required to achieve the HIV/AIDS service targets of the government and its partners, including the Global Fund to Fight Malaria, AIDS, and Tuberculosis; the U.S. President's Emergency Plan for AIDS Relief; the World Bank's Multi-Country HIV/AIDS Program for Africa; and WHO's "3 by 5" initiative. The assessment shows that meeting targets will require substantial human resources mobilization. The authors recommend Côte d'Ivoire to support the development of a long-term human resources plan and database, and make better use of its trained health professionals. They also suggest that an assessment of human resources in the private sector be conducted to provide a comprehensive picture of the entire health sector.

Available at http://www.abtassociates.com/reports/PHRplus_cotedivoire_Tech072_fin.pdf.

Author: Chankova, S., Kombe, G., Muchiri, S., Decker, C., Kimani, G., and Pielemeier, N.

Year: 2006

Title: Rising to the Challenges of Human Resources for Health in Kenya: Developing Empirical Evidence for Policy Making

Source: Bethesda, MD, USA: The Partners for Health Reformplus Project, Abt Associates Inc.

Abstract: This report presents a comprehensive analysis of the human resources for health (HRH) currently available and required to reach the targets set by the U.S. President's Emergency Plan for AIDS Relief and the Millennium Development Goals (MDGs) in both the public sector and the faith-based organizations (FBOs) in Kenya. A stratified convenience sample of health facilities at all levels of care (primary, secondary, tertiary) in each of eight provinces was selected for the assessment, and detailed information on human resources and provision of services related to HIV/AIDS, tuberculosis (TB), malaria, maternal health, and child health was collected. The data from the study confirmed the commonly held perception that HRH poses a major challenge to scale up HIV/AIDS and other basic health services. The authors also found that the geographical distribution of skilled HRH in Kenya is heavily skewed towards urban areas.

Available at <http://www.healthsystems2020.org/content/resource/detail/1654/>.

Author: Chankova, S., Nguyen, H., Chipanta, D., Kombe, G., Onoja, A., and Ogungbemi, K.

Year: 2006

Title: A Situation Assessment of Human Resources in the Public Health Sector in Nigeria

Source: Bethesda, MD, USA: The Partners for Health Reform*plus* Project, Abt Associates Inc.

Abstract: This document reports the results of the assessment which measured the size, skills mix, distribution, and growth rate of HRH in the public health sector in Nigeria. The assessment also quantifies the increase in HRH requirements in the public health sector necessary for reaching key U.S. President's Emergency Plan for AIDS Relief targets and the Millennium Development Goals. The findings are based on a survey conducted in April and May, 2006, in 290 public health facilities representing all levels of care (primary, secondary, and tertiary). The study found that rural areas in particular appear much more disadvantaged compared to the urban areas in terms of availability of health personnel: on average, an urban resident has access to nearly three times more doctors and two times more nurses/midwives, compared to a rural resident. The study data enabled the authors to estimate the total number of doctors, nurses, midwives, lab and pharmacy staff, and community health workers currently employed in the public sector. The distribution of health workers by level of care, and HRH availability in rural and urban areas were also quantified. The authors determined the staff attrition rates, measuring the number of those leaving the public sector as percent of total staff among all staff categories. The annual growth in HRH in the public sector from new graduates was also measured.

Available at <http://www.healthsystems2020.org/content/resource/detail/1704/>.

Author: Kombe, G., Galaty, D., Gadhia, R., and Decker, C.

Year: 2004

Title: The Human and Financial Resource Requirements for Scaling Up HIV/AIDS Services in Ethiopia

Source: Bethesda, MD, USA: The Partners for Health Reform*plus* Project, Abt Associates Inc.

Abstract: Ethiopia is currently one of the countries most seriously affected by HIV/AIDS, with the sixth highest number of infections in the world. To combat this epidemic, the government of Ethiopia has launched a national HIV/AIDS program focused on decreasing the vulnerability of individuals and communities to the disease, providing care and support for people living with HIV/AIDS, and reducing the adverse socioeconomic consequences of the epidemic. As the country scales up HIV/AIDS services, increased attention is focused on identifying constraints to program expansion. One of the most important constraints is that of human resources, though this issue has received little attention nationally. The HRH survey in Ethiopia took place in 2004. The aim of this assessment was to estimate the financial and human resources requirements for the expanding HIV/AIDS services in the country. Towards this aim, the authors estimated (a) the available human resources required to reach the targets of major HIV/AIDS initiatives such as PEPFAR, the Global Fund, and the WHO "3 by 5" initiative, and (b) the financial costs of providing highly active antiretroviral therapy, prevention of mother-to-child transmission, and voluntary counseling and testing services. The findings of the

assessment highlight four key issues. First, there is already a clear shortage of human resources for health. The current doctor-to-patient and nurse-to-patient ratios are inadequate for the provision of basic health care — in fact, the doctor-to-patient ratio of 1:34,000 is less than a third of the WHO-mandated minimum of 1:10,000 for the provision of quality health care. Given this existing shortage of key human resources, the health care system is already strained and may not be well positioned to respond to the rapid scale-up of HIV/AIDS services. Of 77 HIV/AIDS staff observed during the assessment, only six (8 percent) work exclusively on HIV/AIDS services, raising concern over the number of trained staff dedicated to provide HIV/AIDS services.

Available at <http://www.healthsystems2020.org/content/resource/detail/1521/>.

Author: Kombe, G., Galaty, D., Mtonga, V., and Banda, P.

Year: 2004

Title: Human Resource Crisis in Zambia’s Health System: A Call for Urgent Action

Source: Bethesda, MD, USA: The Partners for Health Reform*plus* Project, Abt Associates Inc.

Abstract: Human resources are the cornerstone of a health system. Without a strong and skilled health workforce, the Zambian public sector health system cannot deliver adequate and appropriate care to its population. Over the past few years, the human resources situation in the Zambia public sector has reached a point of severe crisis and inability to provide basic health services. The authors present three main findings in the report. First, attrition rates for all health staff have increased dramatically compared to historical trends. Second, looking only at national human resources figures may obscure important trends *within* the country. Third, many facilities will soon start experiencing severe constraints in expanding their HIV/AIDS services. Such findings will assist policy makers to make decisions on how to handle the human resource crisis during this critical HIV/AIDS scale-up.

Available at <http://www.healthsystems2020.org/content/resource/detail/1535/>.

Author: Kombe, G., Rosensweig, F., and Taye, A.

Year: 2008

Title: Data Collection Training For HRH Assessment: Participant’s Manual

Source: Bethesda, Maryland, USA: Health Systems 20/20 project, Abt Associates Inc.

Abstract: In all discussions of health service performance, the impact of the workforce is generally seen to be of paramount importance. Periodic Human Resources for Health (HRH) assessments facilitate workforce strengthening and management, thus allowing health supply to meet ever-increasing health demand. The participant’s manual contains technical materials that are presented in the workshop as well as corresponding rationales for every step of the HRH assessment and processes.

Available at <http://www.healthsystems2020.org/content/resource/detail/1938/>.

Author: Kombe, G., Rosensweig, F., and Taye, A.

Year: 2008

Title: Data Collection Training for HRH Assessment Trainer's Guide

Source: Bethesda, MD, USA: Health Systems 20/20 project, Abt Associates Inc.

Abstract: In all discussions of health service performance, the impact of the workforce is generally seen to be of paramount importance. Periodic Human Resources for Health (HRH) assessments facilitate workforce strengthening and management, thus allowing health supply to meet ever increasing health demand. The trainer's manual contains a suggested workshop design for use by individuals and organizations planning HRH assessments. These materials can be used to train supervisors and data collectors to conduct an HRH assessment. It is intended to be used in conjunction with the participant manual.

Available at <http://www.healthsystems2020.org/content/resource/detail/1939/>.

Author: Lee, W.C., Kombe, G., Diarra, S.D., Butera, D., Holdaway, A., Bishop, A., Boci, K., and Souahoro, O.

Year: 2006

Title: Human Resources for Health in the Private Sector: Understanding the Capacity, Motivation and Skills Mix in Cote d'Ivoire

Source: Bethesda, MD, USA: Private Sector Partnerships-One Project, Abt Associates Inc.

Abstract: Cote d'Ivoire has a diverse mix of private health care providers, ranging from traditional to modern practitioners. As in many sub-Saharan African countries, private providers in Cote d'Ivoire can be classified by their for-profit or non-profit commercial orientation and by their type of ownership (for example, individual/group-owned practices and mission/charitable clinics). This assessment measures the size, skills mix, distribution, and growth rate of health care workers in the private sector. The findings are based on a comprehensive survey of 279 private health facilities representing all types of modern facilities. The report addresses four interrelated issues. First, it estimates total number of doctors, nurses, midwives, and laboratory and pharmacy staff currently employed in the private sector. Second, it presents the distribution of health facilities and availability of health services by region. Third, it estimates the number of health care workers entering and leaving the sector; and finally, it measures the average number of new graduates coming out training institutions per year.

Available at http://www.abtassociates.com/reports/PHRplus_cotedivoire_Tech072_fin.pdf.

Health Facility Census (HFC)

Author: Heard, N.J., Larsen, U., and Hozumi, D.

Year: 2005

Title: Investigating access to reproductive health services using GIS: proximity to services and the use of modern contraceptives in Malawi

Source: *African Journal of Reproductive Health* 9(1):166

Abstract: This paper attempts to identify whether access to reproductive health services partly explains use of modern contraception in Malawi. A geographic information system (GIS) was employed to integrate health facility data from the Malawi health facilities inventory and global positioning data from the 2000 Malawi Demographic and Health Survey. The authors attempted to find a plausible causal pathway by using distance to health services as a proxy variable for access to services. The authors conducted a multivariate logistic regression analysis, and concluded that, after controlling for background variables traditionally associated with use of modern contraception, access could not be shown to explain use of modern contraception in Malawi.

Available at <http://www.bioline.org.br/request?rh04037>.

Author: Zambia Ministry of Health and Japan International Cooperation Agency

Year: 2005

Title: Health Facility Census Questionnaire (Level 1 and Below Health Facilities)

Source: Lusaka, Zambia: Zambia Ministry of Health and Japan International Cooperation Agency

Abstract: This is a set of questionnaires for the HFC developed in Zambia. The objective of the HFC is to establish a database on the country's health facilities in terms of geographic location, medical equipment, infrastructure, services delivered, and human resources. Such knowledge would assist stakeholders in identifying facilities which do not meet national criteria for providing key health services. The questionnaires were designed to capture information on the condition of infrastructure (including utility), availability of medical equipment, availability of health care services, and human resource (head count) in the level 1 and below public health facilities in Zambia. If the HFC is conducted in other countries, these questionnaires should be adapted to the country's specific context.

Available from the Ministry of Health, Zambia (telephone 260-1-253040-45, fax 260-1-253344/253026, e-mail m&e@moh.gov.zm).

Author: Zambia Ministry of Health and Japan International Cooperation Agency

Year: 2005

Title: Health Facility Census Manual

Source: Lusaka, Zambia: Zambia Ministry of Health and Japan International Cooperation Agency

Abstract: This is a manual to be attached to the utility and infrastructure HFC questionnaire for all levels of facilities. The manual was developed to assist the data collector in undertaking the assessment of the condition of the building, room, water source, and power source using the standardized criteria. It also provides instruction on how to fill in the infrastructure and utility questionnaires.

Available from the Ministry of Health, Zambia (telephone 260-1-253040-45, fax 260-1-253344/253026, e-mail m&e@moh.gov.zm).

Author: Zambia Ministry of Health and Japan International Cooperation Agency

Year: 2006

Title: Health Facility Census Questionnaire (Level 2 and 3 Hospitals)

Source: Lusaka, Zambia: Zambia Ministry of Health and Japan International Cooperation Agency

Abstract: This is a set of questionnaires for the HFC developed in Zambia. The objective of the HFC is to establish a database on the country's health facilities in terms of geographic location, medical equipment, infrastructure, services delivered, and human resources. Such knowledge would assist stakeholders in identifying facilities which do not meet national criteria for providing key health services. These questionnaires were designed to capture information on the condition of infrastructure (including utility), availability of medical equipment, availability of health care services, and human resource (head count) in the level 2 and level 3 hospitals in Zambia. If the HFC is conducted in other countries, these questionnaires should be adapted to the country's specific context.

Available from the Ministry of Health, Zambia (telephone 260-1-253040-45, fax 260-1-253344/253026, e-mail m&e@moh.gov.zm).

Author: Zambia Ministry of Health and Japan International Cooperation Agency

Year: 2008

Title: Health Facility Atlas

Source: Lusaka, Zambia: Zambia Ministry of Health and Japan International Cooperation Agency

Abstract: The atlas was produced as one of the direct outputs of the HFA. The atlas includes the national, provincial, and district maps showing the location of health facilities. The map also presents the type of the health facility and name of the facility for easy reference. In addition, the map shows the

location of the district boundaries, main roads, rivers, national park, lake, and swamps as landmarks. It is a useful tool for health planners to understand the relationship between population density and health facilities and identify the areas where new facilities or rehabilitation/upgrade of facilities is needed.

Available from the Ministry of Health, Zambia (telephone 260-1-253040-45, fax 260-1-253344/253026, e-mail m&e@moh.gov.zm).

Author: Zambia Ministry of Health and Japan International Cooperation Agency

Year: 2008

Title: Health Facility Census Data Analysis Report

Source: Lusaka, Zambia: Zambia Ministry of Health and Japan International Cooperation Agency

Abstract: The Zambia Health Facility Census (HFC) was conducted by the Ministry of Health of Zambia, in technical and financial collaboration with Japan International Cooperation Agency (JICA). The main objective of the HFC was to provide evidence for policy, planning, and development of health services in Zambia. Following data were collected: location and other general information (i.e. ownership, type, etc); availability and status of medical equipment; infrastructure; service availability; and headcounts of human resources of health facilities in the country. The data collection targeting level 1 and below health facilities took place between February and July, 2005. The data collection targeting level 2 and 3 hospitals was undertaken from June to September, 2006. There are 1,419 health facilities in the current HFC database, out of which 84.3% belong to Ministry of Health, 8.0% belong to Churches Health Association of Zambia (CHAZ), and 5.6% are privately owned. When segregating the data by the type of facility, 67.4% of facilities were rural health centers (RHC), 15.6% were urban health centers (UHC), 7.5% was health posts, 5.0% were level 1 hospitals, 2.8% were hospital affiliated health centers (HAHC), 1.3% were level 2 hospitals, and 0.4% were level 3 hospitals. One of the notable findings was the relationship between delivery service and trained personnel. For safe delivery, it is necessary for the delivery to be assisted by trained personnel such as a medical doctor or midwife, and trained personnel should be available for 24 hours a day. However, the HFC data show that out of 1,108 health facilities that offer delivery service, only 45.4% responded that they had a doctor or a midwife on-site or on-call for 24 hours each day. Especially in Luapula and Western Provinces, even though the percentage of facilities that offered delivery service was high, the availability of doctor or midwife 24 hours a day on-site or on-call was very low, at 20.5% and 24.4% in Luapula and Western, respectively.

Available from the Ministry of Health, Zambia (telephone 260-1-253040-45, fax 260-1-253344/253026, e-mail m&e@moh.gov.zm).

Author: Zambia Ministry of Health and Japan International Cooperation Agency

Year: 2008

Title: Health Facility Census Database.

Source: Lusaka, Zambia: Zambia Ministry of Health and Japan International Cooperation Agency

Abstract: The Zambian HFC database is in Microsoft Access format to enable the users to import any major statistical software, such as STATA and SPSS. Selected data (i.e., selected services, infrastructure, and medical equipment) are also be soon available online.

Author: Zambia Ministry of Health and Japan International Cooperation Agency

Year: 2008

Title: Health Facility Census Technical Report (Final Draft)

Source: Lusaka, Zambia: Zambia Ministry of Health and Japan International Cooperation Agency

Abstract: This is a technical report of the Zambia HFC and Health Capital Investment Plan Supporting Project (HCIP). The document contains the description of the survey methodology, data items, and data collection methods for undertaking the HFC. Each step of the capacity development workshop for capital investment planning is also explained in this report. During the capacity building workshop, district health officers in a participatory process interactively analyse various data sources (i.e. ZHFC data, health management information system data, and population data) to identify health facilities which do not meet the criteria to provide the basic health services, and discussed the types of capital investment required. Based on the results of this exercise, the evidence-based Health Capital Investment Plan was developed by the MoH.

Available from the Ministry of Health, Zambia (telephone 260-1-253040-45, fax 260-1-253344/253026, e-mail m&e@moh.gov.zm).

Evaluation of Long-Acting and Permanent Methods Services (ELMS) Suite

Author: Bradley, J., and Mursagulova, N.

Year: 2006

Title: **Reproductive Health and Services in Azerbaijan, 2005: Results of a Baseline Survey in Five Districts** (E&R Study #6)

Source: New York, USA: EngenderHealth/The ACQUIRE Project

Abstract: The baseline study was conducted by the ACQUIRE Project in five districts in Azerbaijan to 1) identify problems and barriers to services specific for each district, 2) provide data that could assist with project implementation, and 3) allow determination of benchmarks and targets to measure success. The project started with a baseline assessment of facilities, providers, and community members in the five core districts. The objectives of the assessment were to evaluate factors contributing to the current use of family planning services, including: the supply of these services in the public and private sectors, the demand for family planning, and the population's knowledge of, attitudes toward, and practice of pregnancy prevention. Data collection took place between March and June, 2005. The survey tools used for this study were 1) audit of sample pf public health facilities in the area of infrastructure, equipment, and PF supplies and services; 2) structured interviews with health care providers; and 3) audit and interview with pharmacist for contraceptive provision.

Available at

http://www.acquireproject.org/fileadmin/user_upload/ACQUIRE/Publications/Azer-baseline-report-final.pdf.

Author: EngenderHealth

Year: 2004

Title: **The ACQUIRE Project Health Facility Survey Tools**

Source: New York, NY, NC, USA: EngenderHealth

Abstract: The ACQUIRE Project's Evaluation of Long Acting and Permanent Methods Services (ELMS) suite is an adaptation of MEASURE Evaluation's Facility Audit of Service Quality (FASQ). ELMS includes general family planning information, with a focus on gathering information on long-acting and permanent methods, and uses multiple methods and respondents to provide triangulation of assessment of facility-based provision of family planning and other reproductive health services. Triangulation in ELMS facilitates the collection of actionable data that are responsive to the needs of key stakeholders.

More information is available at <http://www.acquireproject.org>, or by e-mail at hsearing@engenderhealth.org or njohri@engenderhealth.org.

Author: Goldberg, R., Durán, R., Mielke, E., Monterrey, J., Searing, H., and Viscarra, M.

Year: 2006

Title: **Bolivia Baseline Survey, 2005: Technical Report**

Source: New York, NY, USA: The ACQUIRE Project/EngenderHealth

Abstract: This baseline survey was conducted by the ACQUIRE Project in 2005 in Bolivia. The objective is to measure the extent to which ACQUIRE program activities in Bolivia have affected the availability and quality of services at the facilities it supports. This study encompasses the technical areas of family planning (including its integration into other reproductive health services), maternal health, and related care. The cross-cutting areas of reproductive health services for men, male involvement (i.e., “men as partners” or MAP), intercultural issues, quality, counseling, and infection prevention were also addressed in the study tools. The baseline fieldwork was conducted between June and August, 2005, at 234 health facilities, including public-sector primary-level health centers, secondary-level network hospitals, and tertiary-level referral hospitals, as well as various levels of sites operated by two NGO entities. The study found that the vast majority of facilities surveyed offer contraceptive methods. However, the study revealed significant gaps in the supply of short-acting and long-acting methods (male condoms, the pill, injectables, and IUDs), both on the day of the survey and in the six months preceding the survey. Providers surveyed at the health centers were less likely than providers at the higher-level facilities to report having an on-site supervisor; however, health center providers reported more frequent supervision by external supervisors.

Available at http://67.96.133.10/fileadmin/user_upload/ACQUIRE/Publications/Bolivia_English_final.pdf.

Author: Jain, A., Makawia, A., Searing, H., Schlecht, J., Pile, J.M., Lusiola G., Wickstrom, J., Ntabaye, M., Kanama, J., and Manongi, L.

Year: 2006

Title: **Tanzania Baseline Survey Report 2004–2005: Technical Report (E&R Study #4)**

Source: New York, NY, USA: EngenderHealth/The ACQUIRE Project

Abstract: This baseline study was conducted in 2004-2005 to measure the situation of reproductive health and family planning services in 10 regions of Tanzania where The ACQUIRE Project intends to focus its interventions. The survey used a random probability sample of hospitals, health centers, and dispensaries in the focus regions. The survey assessed facilities’ capacity to provide family planning and related care; the extent to which providers received up-to-date training in related clinical procedures; and clients’ experiences with and perceptions of the quality of care offered. The study found that fewer than two out of five facilities were prepared to provide any one of the long-acting and permanent family planning methods. For example, 28% of hospitals were able to provide intrauterine contraceptive devices (IUCD), and 15% of hospitals were able to provide no-scalpel vasectomy (NSV) on the day of the visit. It also revealed that a high proportion of providers knew the duration of the effectiveness of long-acting methods, such as the IUCD (78%) and Norplant implants (75%). When asked by the interviewers, most clients reported that they were satisfied with the services provided at facilities (97%) and would recommend the services to family and friends (94%).

The baseline study provides information on the current state of facility-based reproductive health services in Tanzania. This information will enable the Tanzania national reproductive health/family planning program to develop appropriate interventions to address the issues identified.

Available at

http://www.acquireproject.org/fileadmin/user_upload/ACQUIRE/Publications/Tanzania_Baseline_final.pdf.

Author: Mahboob-E-Alam, Searing, H., Jain, A., Ali, L., Goldberg, R.

Year: 2006

Title: **Strengthening Delivery of Long-Acting and Permanent Family Planning Methods in Bangladesh. Baseline Survey Report 2004** (E&R Study #3)

Source: New York, NY, USA: EngenderHealth/The ACQUIRE Project

Abstract: This study was conducted by The ACQUIRE Project from April to July, 2004, in Bangladesh. The study data was to provide a primarily quantitative assessment of the status of family planning service delivery in 2004 (an endline study was planned for 2008). The objectives of the baseline and endline surveys are to assess the service provider's performance, health facility infrastructure and supplies (in terms of providing full range of family planning services), and the extent to which The ACQUIRE Project affected the quality of services, availability of service, and use of service. The four tools used in this survey include a facility audit, a client-provider observation, a client exit interview, and a provider interview. The sample includes 121 facilities in four districts. Site selection was based on levels of contraceptive use and logistics. The study found that, on the day of the survey, basic infrastructure was more often in place at Upazila Health Complex (UHC)/Mother and Child Welfare Center (MCWC) than at Family Welfare Center (FWC) facilities. All UHC/MCWC facilities had working electricity, compared with 40% of FWC facilities. On-site telephones were present and working at about one of every two UHC/MCWC facilities, but very rarely at FWC facilities. The majority of UHC/MCWC facilities had piped water, compared with about one-third of FWC facilities. Supplies and equipment were available universally for short-term methods, including condoms, the pill, and injectables, irrespective of location and facility type.

Available at

http://www.acquireproject.org/fileadmin/user_upload/ACQUIRE/Publications/Bangladesh-baseline-final.pdf.

Health Facility Survey (by WHO)

Author: Family and Community Health Cluster, Department of Child and Adolescent Health and Development, World Health Organization

Year: 2003

Title: Health Facility Survey. Tool to evaluate the quality of care delivered to sick children attending outpatients facilities (using the Integrated Management of Childhood Illness clinical guidelines as best practices)

Source: Geneva, Switzerland: World Health Organization

Abstract: This manual presents a survey tool for evaluating the quality of care delivered to sick children at health care facilities. The tool is based on the clinical guidelines developed for the Integrated Management of Childhood Illness (IMCI) as the clinical standard against which health worker practices are compared. The survey is designed to assess the quality of care delivered to sick children attending outpatient health facilities; caregivers' understanding of home treatment and key messages after visiting these facilities; health system supports for quality care; and facility utilization by sick children. Survey forms, question-by-question explanations, training manual for survey staff, indicators for IMCI in the first level health facilities are included in the annexes.

Available at <http://whqlibdoc.who.int/publications/2003/9241545860.pdf>.

Author: Regional Office for the Eastern Mediterranean, Child and Adolescent Health Unit, World Health Organization

Year: 2003

Title: Health Facility Survey on the Quality of Outpatient Child Care Services. Survey Procedures and Question-by-Question Explanations. Adaptation for the survey in Sudan

Source: Cairo, Egypt: World Health Organization, Regional Office for the Eastern Mediterranean

Abstract: This document is designed to assist the implementers of the Health Facility Survey on the Quality of Outpatient Child Care (IMCI Health Facility Survey). It explains each step of the data collection procedure and provides explanation of each question. In the annexes, following data collection tools are included: 1) observation checklist for the sick child, 2) caretaker exit interview, 3) re-examination of child 2 month to 5 years, 4) facility equipment and supply checklist, and 5) observation sheet.

Available at <http://www.emro.who.int/cah/pdf/IMCSurvey/SUD/SurveyProcedure03.pdf>

Author: Regional Office for the Eastern Mediterranean, Child and Adolescent Health Department, World Health Organization and Egypt Ministry of Health and Population

Year: 2002

Title: IMCI Health Facility Survey, Egypt

Source: Cairo, Egypt: World Health Organization, Regional Office for the Eastern Mediterranean

Abstract: IMCI was introduced in Egypt in 1997 to integrate vertical child health care programs under the primary health care program. It has since expanded to cover some 600 health facilities in 10 governorates. The IMCI Health Facility Survey was planned to measure outcome indicators (quality of care) at IMCI health facilities. The study found that caretakers highly appreciated the child health care services provided. The management of sick children seen by providers trained in IMCI followed a systematic approach in most cases and drugs were used rationally. Key supportive elements of the health system were in place in the IMCI facilities visited. The report concluded that the IMCI strategy seems to act as a powerful channel to improve the quality of services. Better links should be established between IMCI and mother care.

Available at <http://www.emro.who.int/cah/pdf/imcisurey/egy/report02.pdf>.

Author: Regional Office for the Eastern Mediterranean, Child and Adolescent Health Department, World Health Organization and Sudan Ministry of Health and Population

Year: 2004

Title: Health Facility Survey on Quality of Outpatient Child Health Services, IMCI Health Facility Survey, Sudan

Source: Cairo, Egypt: World Health Organization Regional Office for the Eastern Mediterranean

Abstract: Integrated Management of Childhood Illness (IMCI) was introduced in Sudan in 1996 as a strategy to address the most important causes of under-five mortality and morbidity using an integrated approach in line with the primary health care policy. It has since expanded to cover about 500 health facilities in 71 (30%) of 240 districts located in 10 states. The IMCI Health Facility Survey was planned to measure outcome indicators on quality of care at IMCI health facilities. The survey revealed that performance by providers not trained in IMCI was often rather poor, raising the issue about pre-service training and in-service supervision. For example, 74% of children were prescribed antibiotics unnecessarily, none of the caretakers of diarrhoea cases given ORS was advised on its preparation and administration, and often no advice on home care was given by providers not trained in IMCI. The survey enabled the collection of health facility data on child health service indicators, useful to monitor progress towards the achievement of the Millennium Development Goals. The results on case management clearly show a better performance for tasks carried out by providers trained in IMCI than those untrained, evidence that IMCI training can improve quality of care.

Available at <http://www.emro.who.int/cah/pdf/imcisurey/sud/report03.pdf>.

Quick Investigation of Quality (QIQ)

Author: Bertrand, J. and Sullivan, T.

Year: 2000

Title: Quick Investigation of Quality (QIQ: Monitoring quality of care in clinic-based family planning programs

Source: *MEASURE Evaluation Bulletin* 1:1-3

Abstract: The Quick Investigation of Quality (QIQ) was developed in response to the need for a low-cost, practical tool to monitor quality of care routinely in clinic-based family planning programs. In this article, the authors described the three steps in the development of the QIQ tools: (1) selection of indicators, (2) development of protocol and data collection instruments, and (3) field testing. The selected 25 quality of indicators are included in this paper.

Available at http://pdf.usaid.gov/pdf_docs/PNACN334.pdf and <http://www.cpc.unc.edu/measure/publications>.

Author: Bessinger, R.E. and Katende, C.

Year: 2000

Title: The quality of family planning and antenatal care services in DISH and comparison districts in Uganda

Source: *MEASURE Evaluation Bulletin* 1:13-16

Abstract: A survey of the quality of care of family planning and antenatal care services was conducted in Uganda as part of the field test of the QIQ, in collaboration with the Delivery of Improved Services for Health (DISH) project. The project aimed to improve the quality, use, and sustainability of reproductive health services in 12 of Uganda's 45 districts. One objective of the survey was to compare the quality of care in DISH project and non-project districts for program evaluation and improvement. Some key findings include 1) a fairly adequate level of care in DISH and in comparison districts; 2) most family planning and antenatal clients were satisfied with the services received; 3) more new family planning clients received their preferred method in DISH districts than in comparison districts; 4) family planning and antenatal clients in DISH districts were more likely to have their problems addressed than in comparison districts; and 5) Integration of STD and HIV prevention activities into antenatal visits occurred more frequently in DISH districts than in comparison districts.

Available at <http://www.cpc.unc.edu/measure/publications>.

Author: Gordillo, A. and Pinto, E.

Year: 2000

Title: Assessing the quality of care of NGO family planning services in Ecuador

Source: *MEASURE Evaluation Bulletin* 1:5-7

Abstract: A survey of the quality of care at NGO facilities in Ecuador was conducted as part of the QIQ field test. The two major NGOs in Ecuador, *Asociacion Pro-bienestar de la Familia Ecuatoriana* (APROFE) and *Centro Medico de Orientacion y Planificacion Familiar* (CEMOPLAF), operate a total of 43 health facilities in urban areas. A facility audit was performed at all 43 facilities. Two types of providers — doctors and *obstetricas/nurses* — were observed, and client exit interviews were conducted at each facility. The key findings suggest that it would be useful to: 1) review the counseling guidelines used at the facilities with the aim of better integrating the activities of clinical service providers and counselors in counseling new and follow-up clients; 2) encourage counselors and other health professions to provide information on HIV/AIDS to their clients during counseling sessions, given the growing spread of the epidemic in the country; 3) promote continuous education for clinical service providers in infection control and clinical procedures; 4) create a committee at each clinic to develop mechanisms to identify suggestions for making quality improvements and strategies to carry them out; and 5) maintain continuous monitoring of quality of care throughout the network of clinics.

Available at http://pdf.usaid.gov/pdf_docs/PNACN334.pdf and <http://www.cpc.unc.edu/measure/publications>.

Author: McCarrier, M., Moyo, I., and Williams, T.

Year: 2000

Title: Quick Investigation of Quality (QIQ) in SEATS-supported family planning clinics in Zimbabwe

Source: *MEASURE Evaluation Bulletin* 1:17-19

Abstract: Ensuring quality family planning services has been one of the main objectives of the Service Expansion and Technical Support (SEATS) project in Zimbabwe. All 39 facilities that received SEATS support were included in the QIQ study conducted in the next-to-last year of the project. Overall, the study revealed many areas in which quality is acceptably high; however, improvements are still needed in a number of areas. The findings of this field test will be a part of a long-term and ongoing process for improving quality of care.

Available at http://pdf.usaid.gov/pdf_docs/PNACN334.pdf and <http://www.cpc.unc.edu/measure/publications>.

Author: Sullivan, T. and Bertrand, J. (eds)

Year: 2000

Title: **Monitoring Quality of Care in Family Planning by the Quick Investigation of Quality (QIQ): Country Reports (TR-00-05)**

Source: Chapel Hill, NC, USA: MEASURE Evaluation

Abstract: The country reports from the QIQ field test have been compiled in an effort both to describe the results of the field test and to make recommendations for future applications based on the lessons learned. This compilation of reports includes an overview of the QIQ country reports from four countries (Ecuador, Turkey, Uganda, and Zimbabwe), methodological lessons learned, cost and practicality of the methodology, and recommendations for future applications.

Available at www.cpc.unc.edu/measure/publications/pdf/tr-00-05.pdf.

Author: Topcuoglu, E. and Curtis, S.

Year: 2000

Title: **Quick Investigation of Quality (QIQ) provides data for family planning and reproductive health program monitoring in Turkey**

Source: *MEASURE Evaluation Bulletin* 1:9-11

Abstract: The USAID/Turkey reproductive health program emphasizes the expansion of high quality family planning/reproductive health (FP/RH) services. To monitor the program's progress, a series of indicators had been selected, and a low-cost, rapid assessment tool was needed to collect the relevant data. The QIQ methodology was implemented in the USAID/Turkey focus province of Istanbul in October 1998. The Istanbul QIQ indicated that more than half of all public facilities of all types had the national FP guidelines and the FP pocket book. The survey also found that all private hospitals and 97% of the MCH/FP centers in the Istanbul QIQ either provided or prescribed at least three modern methods, as did over 80% of public hospitals. In contrast, only 41% of health centers provided or prescribed at least three modern methods. Regarding contraceptive storage, 83% of facilities had adequate contraceptive storage conditions, but only 21% of facilities met all of the four infection prevention standards. The results of the Istanbul QIQ have been used extensively to redefine program priorities and direct limited resources, and the QIQ methodology has become an integral part of the USAID/Turkey performance monitoring plan. Following successful implementation of the survey in Istanbul, it has been used to provide baseline data for new programs in two other provinces in Turkey.

Available at http://pdf.usaid.gov/pdf_docs/PNACN334.pdf and www.cpc.unc.edu/measure/publications.

Author: MEASURE Evaluation project

Year: 2001

Title: **Quick Investigation of Quality (QIQ). A User's Guide for Monitoring Quality of Care in Family Planning.**

Source: Chapel Hill, NC, USA: MEASURE Evaluation project (MS-01-02)

Abstract: QIQ was created in response to the need for a low-cost, practical means to routinely measure quality of care (QC) in family planning services. Developed with support from the USAID Office of Population, the QIQ has benefited from the input of numerous cooperating agencies in identifying a “short list” of QC indicators, developing the set of instruments to measure them, and field-testing the instruments in four countries: Ecuador, Turkey, Uganda, and Zimbabwe. This guide is intended to make the QIQ methodology accessible to program managers, evaluation specialists, and others interested in monitoring quality of care in family planning programs. The experience of the field tests indicates that it is also adaptable to other areas of reproductive health. The guide contains an overview of the methodology used, sampling guidelines, tips for training field staff, copies of the actual instruments (with modifications based on the field test experience), and guidelines for field personnel in collecting the data. It also includes an approach to presenting the results: a concise summary in numeric and graphic form of the short list of 25 indicators appropriate for policy makers and program staff.

Available at www.cpc.unc.edu/measure/publications/pdf/ms-01-02.pdf.

Assessment of Injection Safety

Author: Department of Vaccines and Biologicals, World Health Organization

Year: 2001

Title: Tool for the Assessment of Injection Safety

Source: Geneva, Switzerland: World Health Organization

Abstract: The first step towards evaluating the frequency of unsafe injection practices in countries is an injection safety assessment. In 2001, WHO, together with the Safe Injection Global Network (SIGN) and Basic Support for Institutionalizing Child Survival (BASICS) published a tool that provides a standard methodology for such assessments. The tool is designed to determine how injections given in a health facility, a district, or a country depart from the national standard. The tool allows the users to 1) determine whether a facility where injections are given meets necessary requirements for staff competence, equipment, supplies, and waste disposal; 2) determine whether the critical steps of an infection administration are executed according to recommended best practices; 3) identify the unsafe practices that may lead to infections and that should be targeted by interventions to improve injection safety; and 4) estimate the proportion of health care facilities where injection practices are safe.

Available at <http://who.int/vaccines-documents/DocsPDF01/www576.pdf>.

Author: Fitzner, J., Aguilera, J.F., Yameogo, A., Duclos, P., and Hutin, Y.J.F.

Year: 2004

Title: Injection practices in Burkina Faso in 2000

Source: *International Journal for Quality in Health Care* 16:303-308

Abstract: Unsafe delivery and overuse of injections can result in the spread of hepatitis B virus, hepatitis C virus, and HIV. The aim of the present survey was to estimate the frequency of safe injection practices in Burkina Faso. Using the new standardized World Health Organization tool to assess injection practices, the authors selected 80 primary health facilities with a two-stage cluster sampling method, collected information using structured observations and provider interviews, and analyzed the data using Epi-Info software. The results show that in 50 facilities (96%; 95% confidence interval [CI] 85-99%) injections were given with a new, single-use syringe and needle. In 29 facilities (56%; 95% CI 36-74%), staff recapped needles using two hands. All 80 facilities visited had a stock in the community to provide new, single-use syringes and needles. In 61% (95% CI 54-79%) of facilities, staff reported needlestick injuries in the last 12 months. Used needles were discarded in open containers in 66 facilities (83%; 95% CI 55-96%) and observed in the surroundings of 46 facilities (57%; 95% CI 32-80%). The authors concluded that most of the health facilities in Burkina Faso were using sterile injection equipment. However, practices were still observed that could expose patients, health care workers, and communities to risks, and that required specific interventions.

Available at <http://intqhc.oxfordjournals.org/cgi/content/full/16/4/303>.

Author: Murhekar, M.V., Rao, R.C., Ghosal, S.R., and Sehgal, S.C.

Year: 2005

Title: Assessment of injection-related practices in a tribal community of Andaman and Nicobar Islands, India

Source: *Public Health* 119(7):655-658

Abstract: A survey to assess injection related practices was carried out among the Nicobarese, a mongoloid tribe of Andaman and Nicobar Islands, India. The survey was carried out using the rapid assessment and response guide of Safe Injection Global Network of the World Health Organization and included review of randomly selected prescriptions of patients attending outpatient clinic of district hospital, interview and observation of injection providers in the district hospital and sub-centres, and interview of the general population. The findings of the survey showed that 18.8% of prescriptions included at least one injection. The per capita injection rate was three per year. Majority of injections were administered with disposable syringe and needle and in hospital setting. All the injection providers were aware about possibility of HIV transmission through unsafe injections. However, the awareness among the general population was low. More than half of the individuals had a preference for injections. The results of the survey suggest that remedial measures, such as education of prescribers to reduce the number of injections to a bare minimum, maintaining regular supply of disposable injection equipment, provision of adequate sharps containers with safe disposal facilities, and community education be undertaken to avoid future spread of blood-borne pathogens.

Author: Vong, S., Perz, J.F., Sok, S., Som, S., Goldstein, S., Hutin, Y., and Tulloch, J.

Year: 2005

Title: Rapid assessment of injection practices in Cambodia, 2002

Source: *BMC Public Health* 5:56

Abstract: To estimate the magnitude and patterns of such practices, a rapid assessment of injection practices was conducted. The data collection forms were adapted from the WHO Safe Injection Assessment Guidelines. The survey covered a random sample of the general population in Takeo Province and convenience samples of prescribers and injection providers in Takeo Province and Phnom Penh city regarding injection related knowledge, attitudes, and practices. Injection providers were observed administering injections. The results of the survey show that among the general population sample (n = 500), the overall injection rate was 5.9 injections per person per year, with 40% of participants reporting receipt of ≥ 1 injection during the previous six months. Prescribers (n = 60) reported that 47% of the total prescriptions they wrote included a therapeutic injection or infusion. Among injection providers (n = 60), 58% recapped the syringe after use and 13% did not dispose of the used needle and syringe appropriately. Over half (53%) of the providers reported a needlestick injury during the previous 12 months. Ninety percent of prescribers and injection providers were aware HBV, HCV, and HIV were transmitted through unsafe injection practices. The survey results suggest that Cambodia has one of the world's highest rates of overall injection usage, despite general awareness of associated infection risks.

Available at <http://www.biomedcentral.com/1471-2458/5/56/abstract>.

Hospital Assessment Tool by Making Medical Infection Safer (MMIS) Project

Author: Making Medical Infection Safer (MMIS) Monitoring & Evaluation Team

Year: 2006

Title: Health Facility Assessment Training Materials

Source: Arlington, VA, USA: MMIS Project/John Snow, Inc.

Abstract: This resource contains materials that are designed to provide a comprehensive three-day training of data collectors for use in health facility assessments. Materials include an agenda, presentations, and exercises for each section of the health facility assessment tool.

Available at

[http://portalprd1.jsi.com/portal/page/portal/MMIS_WEBSITE_PGG/MMIS_HOMEPAGE_PG/MMIS_RESOURCES_TAB?p_url=MMIS_RESOURCES_TAB&p_render=SUBPAGE&p_pg=MMIS_RES_SURVEY_TOOLS_PG&p_key=.](http://portalprd1.jsi.com/portal/page/portal/MMIS_WEBSITE_PGG/MMIS_HOMEPAGE_PG/MMIS_RESOURCES_TAB?p_url=MMIS_RESOURCES_TAB&p_render=SUBPAGE&p_pg=MMIS_RES_SURVEY_TOOLS_PG&p_key=)

Author: Making Medical Infection Safer project

Year: 2007

Title: Analysis Plan for Making Medical Injections Safer Health Facility Surveys.

Source: Arlington, VA, USA: Making Medical Infection Safer (MMIS) project, John Snow, Inc.

Abstract: This document guides the data analyst on how to analyze each question of the health facility assessment and how to include the results in the final report. This document is organized by each section of the health facility assessment tool.

Available at

http://portalprd1.jsi.com/portal/page/portal/MMIS_CONTENT_PGG/MMIS_RESOURCES_PG/MMIS_RES_SURVEY_TOOLS_PG/Analysis%20Plan%20for%20HFAs%20in%20general_April%202007.doc

Author: Making Medical Infection Safer project.

Year: 2007

Title: MMIS Guidelines for Field Work.

Source: Arlington, VA, USA: Making Medical Infection Safer (MMIS) project, John Snow, Inc.

Abstract: This document provides specific guidelines on the entire data collection process of the MMIS project Hospital Assessment Survey. The guidelines include instruction on gaining access to facilities, selections of facilities and procedure for replacements, selecting and interviewing respondents, obtaining informed consent, deciding which tool to use, and dealing with dangerous situations and emergencies.

Available at

http://portalprd1.jsi.com/portal/page/portal/MMIS_CONTENT_PGG/MMIS_RESOURCES_PG/MMIS_RES_SURVEY_TOOLS_PG/GUIDELINES%20FOR%20FIELD%20WORK_April%202007.doc

Author: Making Medical Infection Safer project

Year: 2007

Title: MMIS Project Hospital and Lower Level Assessment Tool

Source: Arlington, VA, USA: Making Medical Infection Safer (MMIS) project, John Snow, Inc.

Abstract: The MMIS project Hospital Assessment Tool, adapted from a WHO tool, was developed by the MMIS project for use in assessing injection safety and waste management practices in project-area facilities. It contains questions on injection safety commodities and their management, injection administration practices by staff, waste handling and equipment, and patient experiences. The tool is used to provide data for calculating key indicators of injection safety. The hospital assessment tool and lower-level assessment tool have been combined into one tool with specific instructions for each type of facility. In addition, questions specifically relating to phlebotomy have been added for observation of phlebotomy procedures. Also, behavior change communication questions for the provider and patient have been added to evaluate effectiveness of project BCC materials.

Available at

http://portalprd1.jsi.com/portal/page/portal/MMIS_CONTENT_PGG/MMIS_RESOURCES_PG/MMIS_RES_SURVEY_TOOLS_PG/General%20MMIS%20hospital%20and%20lower%20level%20tool_April%202007.doc

Author: Making Medical Infection Safer project

Year: 2007

Title: MMIS Supportive Supervision Checklist for Hospitals and Lower-Level Facilities

Source: Arlington, VA, USA: Making Medical Infection Safer (MMIS) project, John Snow, Inc.

Abstract: This tool is designed to provide data to assess the progress of the country in improving injection safety and waste management by focusing brief interviews and observations on key indicators. The tool includes a spreadsheet for summarizing the findings as well as the questions.

Available at

http://portalprd1.jsi.com/portal/page/portal/MMIS_CONTENT_PGG/MMIS_RESOURCES_PG/MMIS_RES_SURVEY_TOOLS_PG/MMIS%20Supportive%20Supervision%20Checklist%20Dec%202007.xls

Author: Making Medical Infection Safer project

Year: 2007

Title: Survey Preparation Guide for Country Directors

Source: Arlington, VA, USA: Making Medical Infection Safer (MMIS) project, John Snow, Inc.

Abstract: This document is a guide for the MMIS country teams for implementing the Health Facility Assessments. Guidance is given on what advance preparations are necessary in making the questionnaire, data analysis, and protocol country-specific sampling, getting local institutional review board and ministry of health approvals, hiring local consultants for the survey, planning the survey logistics, planning for the data entry and the survey report, training data collectors, and supervising the fieldwork teams.

Available at

http://portalprd1.jsi.com/portal/page/portal/MMIS_CONTENT_PGG/MMIS_RESOURCES_PG/MMIS_RES_SURVEY_TOOLS_PG/Survey%20preparation%20notes%20for%20CDs_April%202007.doc.

Author: Making Medical Infection Safer project

Year: 2007

Title: Wide Performance Indicators for MMIS Project

Source: Arlington, VA, USA: Making Medical Infection Safer (MMIS) project, John Snow, Inc.

Abstract: This table includes the indicators required for U.S. Agency for International Development and U.S. Centers for Disease Control and Prevention reporting as part of the standardized set of indicators developed by the U.S. President's Emergency Plan for AIDS Relief program partners implementing injection safety projects. MMIS project-specific indicators are used for cross-country comparison. The table gives the definition, data source and data collection method, and method of calculation for each indicator.

Available at

http://portalprd1.jsi.com/portal/page/portal/MMIS_CONTENT_PGG/MMIS_RESOURCES_PG/MMIS_RES_SURVEY_TOOLS_PG/MMIS%20Indicator%20table_April%202007.doc.

Other Facility Assessment Tools and Supporting Documents

Author: Population Council and Pubcomm Group, Inc.

Title: **Computer-Based Tools to Improve Supervision, Monitoring, and Evaluation of Reproductive Health Programs**

Source: New York, NY, USA: Population Council

Abstract: The Population Council and the Pubcomm Group, Inc. have developed simple, inexpensive, user-friendly computerized tool to assist supervisors in improving the quality of family planning, maternity care, and post-abortion care services. The programs are written (and are easily modifiable) in Microsoft Excel, and have been used to monitor provider knowledge, behavior, and capacity to provide reproductive health services. The tools are divided into several categories including family planning services, obstetric services, post-abortion care, and maternal and child health services.

The software is free and is available at <http://www.popcouncil.org/rh/palmtops.html>.

Author: MEASURE Evaluation

Title: **Facility Audit of Service Quality**

Abstract: The purpose of the Facility Audit of Service Quality (FASQ) is to facilitate local (e.g., project-level or district-level) and low-cost monitoring of availability and quality of facility-based reproductive and child health services at all government and private facilities, including private clinics. The key areas that FASQ provides information including 1) range of services offered, staffing and staff qualifications, operating hours, community linkages, selected administrative and quality control procedures; 2) facility infrastructure (i.e. electricity, water, telephone, lighting, vehicles, privacy/capacity, emergency, transportation, laboratory); 3) readiness to provide quality care in the areas of family planning; STI management, antenatal care, maternal/delivery care and post-abortion care, child health/welfare, and HIV prevention, treatment, and care; and 4) digital maps of facilities and services available.

More information is available in *Profiles of Health Facility Assessment Method* (2006, IHFAN/MEASURE Evaluation) at <http://www.cpc.unc.edu/measure/publications/pdf/tr-06-36.pdf>.

Author: Population Council

Title: **Health Facility Assessment**

Abstract: This assessment approach builds on the situation analysis methodology and provides a descriptive picture of the range of reproductive health services offered at health facilities and the resources used in their production. Program managers and policy-makers can use the data generated for

diagnosis or needs assessment, and for monitoring and evaluation. This methodology can also be used to test hypotheses when piloting interventions to improve service quality. The key areas covered by this approach are: 1) the availability of services, level of integration of services, infrastructure, equipment, supplies and commodities, management information system (MIS) and logistics systems; 2) provider attitudes, training, and behavior; and 3) client experiences, costs and service fees, and community perceptions of services and providers.

Available at <http://www.popcouncil.org>.

Author: Management Sciences for Health

Title: Integrated Health Facility Assessment Tool

Source: Cambridge, MA, USA: Management Sciences for Health

Abstract: This facility assessment tool is for planning the integration of health programs for infants and children at outpatient facilities. The assessment collects information on the case management of acute respiratory tract infections, diarrhea, malaria, measles, and malnutrition and on drug supply, equipment, supervision and training. It is designed to measure elements of Integrated Management of Childhood Illnesses (IMCI). District staff conduct all survey activities in three weeks and use data to help program planners and health workers design strategies and to monitor and evaluate progress toward integrated health worker practice.

Available at http://erc.msh.org/mainpage.cfm?file=2.45.htm&module=toolkit&language=English_

Author: Management Sciences for Health

Title: Inventory Management Assessment Tool (IMAT)

Source: Cambridge, MA, USA: Management Sciences for Health

Abstract: The Inventory Management Assessment Tool (IMAT) produces indicators to assess the effectiveness of record-keeping and stock management practices in a warehouse and provides suggestions for improvement. The tool guides users through the process of collecting data (based on the stock levels of a group of representative products over a 100 day period), calculating indicators, analyzing and interpreting the results, and identifying appropriate strategies for improvement. The IMAT can be conducted at a single warehouse, health facility, or other institution that manages stock. It can also be used at different levels of the health system to examine record-keeping and stock management practices throughout the country. Evaluators should plan for a half-day to implement the IMAT at each site.

Available at <http://www.msh.org/resource-center/inventory-management-assessment-tool.cfm>.

Author: Suh, S., Moreir, P., and Ly. M.

Year: 2007

Title: Improving quality of reproductive health care in Senegal through formative supervision: results from four districts

Source: *Human Resources for Health* 5:26.

Abstract: Management Sciences for Health (MSH) has implemented a program of formative supervision. This problem-solving approach collects data on quality of care, improves technical competence, and engages the community in improving reproductive health care. The IMAT tool developed by MSH was used in this program to assess the accuracy of stock registration and the effectiveness of drug supply management. The authors conducted a study to evaluate changes in service quality and community involvement after two rounds of supervision in 45 health facilities in four districts of Senegal. The authors used checklists to assess quality in four areas of service delivery — infrastructure, staff and services management, record-keeping, and technical competence. The authors concluded that formative supervision can improve the quality of reproductive health services, especially in areas where there is on-site skill building and refresher training.

Available at <http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=2217524&blobtype=pdf>.

Author: Reproductive Health Response in Conflict Consortium

Title: RHRC Monitoring and Evaluation Toolkit

Source: Reproductive Health Response in Conflict (RHRC) Consortium

Abstract: The RHRC Monitoring and Evaluation (M&E) Toolkit presents a decision-oriented model for program monitoring and evaluation. The toolkit is tailored specifically to the information and decision-making needs of managers of reproductive health programs serving refugees and other war-affected persons. One of many tools in the toolkit is the facility assessment protocol. This is designed to help users assess existing capacity of health facilities to meet the reproductive health needs of conflict-affected populations. This tool is meant to be used in conjunction with other tools, as this tool alone will not sufficiently determine what services are needed by a particular refugee population. Other tools in this kit address client record review, client exit interview, and training assessment.

Available at <http://www.rhrc.org/resources/general%5Ffieldtools/toolkit/protocols.html>.

Mapping Resources

Fact Sheets and Brochures

Author: MEASURE DHS

Title: GIS and Demographic and Health Surveys

Source: Calverton, MD, USA: MEASURE DHS

Overview: This is a brochure on MEASURE DHS's work on GIS and DHS.

Available at www.measuredhs.com/pdfs/GIS-updated.pdf.

Author: MEASURE Evaluation

Title: Improving global M&E programs for orphans and vulnerable children (FS-07-19)

Source: Chapel Hill, NC, USA: MEASURE Evaluation

Overview: This fact sheet is about global M&E of programs serving orphans and vulnerable children.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/fs-07-19.pdf>.

Author: MEASURE Evaluation

Title: Using maps to better understand populations, programs, and health (FS-07-20)

Source: Chapel Hill, NC, USA: MEASURE Evaluation

Overview: This fact sheet involves the use of maps in evaluating programs.

Available at <http://www.cpc.unc.edu/measure/publications/pdf/fs-07-20.pdf>.

Tools and Data

Author: World Health Organization

Title: Global Health Atlas

Source: Geneva, Switzerland: World Health Organization

Overview: The World Health Organization's Global Health Atlas allows analysis and comparison of standardized data and statistics for infectious diseases at country, regional, and global levels. It also provides information on essential support services, such as the network of communicable diseases collaborating centers and the Global Outbreak Alert and Response Network, among others.

Available at <http://www.hwo.int/globalatlas>. Global Atlas of the Health Workforce is available at <http://www.who.int/globalatlas/default.asp>.

Author: Google

Title: Google Earth

Source: Mountain View, CA, USA: Google

Overview: Google Earth software allows you view satellite imagery, maps, terrain, and buildings via an Internet connection.

Available at <http://earth.google.com>.

Author: World Health Organization

Title: HealthMapper

Source: Geneva, Switzerland: World Health Organization

Overview: The HealthMapper is a surveillance and mapping application, developed by WHO, that aims to address critical surveillance information needs across infectious disease programs at national and global levels. The HealthMapper also packages a database of core baseline geographic, demographic and health information, including the location of communities, health care and education facilities, accessibility by road, access to safe water and demography. The system is currently in operation to support a range of infectious diseases in over 60 countries in all regions of WHO. Key infectious disease programs currently using the system include those addressing malaria, lymphatic filariasis elimination, buruli ulcer, guinea worm eradication, onchocerciasis, and polio.

Available at http://www.who.int/health_mapping/tools/healthmapper/en/index.html.

Author: U.S. Agency for International Development

Title: HIVmapper

Source: Washington, DC, USA: U.S. Agency for International Development

Overview: The HIVmapper is an interactive GIS mapping tool that allows users to create maps quickly based on MEASURE DHS data found in the HIV/AIDS Survey Indicators Database Indicators Database. The indicators are primarily derived from the *UNAIDS National AIDS Programmes: Guide to Monitoring and Evaluation*.

Available at <http://www.hivmapper.com/>.

Author: U.S. President's Emergency Plan for AIDS Relief

Title: HIV Spatial Data Repository

Source: Washington, DC, USA: HIV Spatial Data Repository, U.S. President's Emergency Plan for AIDS Relief

Overview: The HIV Spatial Data Repository is a Web site especially designed for geographic information system (GIS) users interested in mapping HIV indicators. The site is one of the first to provide HIV data, primarily from developing countries, for GIS purposes. The HIV Spatial Data Repository features data from Demographic and Health Surveys (DHS) and from the U.S. Census Bureau. The repository provides geographically-linked HIV-related data for mapping in a GIS. Data are provided in a form that allows GIS users to integrate their own GIS data to produce new analyses and mapping of HIV data. In addition, the repository includes a gallery where GIS users can post maps they have created using data from the repository. On this interactive page, people can post maps they have created and comment on other HIV-related maps. The gallery is intended to be an online forum for collegial support and professional critiques.

Available at www.hivspatialdata.net.

GIS and Mapping Related Articles

Author: VanWey LK, Rindfuss RR, Gutmann MP, Entwisle B, and Balk DL.

Year: 2005

Title: Confidentiality and spatially explicit data: Concerns and challenges

Source: *PNAS* 102:43

Overview: Maps are indispensable for the display of results but also reveal information on the location of respondents and sampling clusters that can then be used in combination with shared data files to identify respondents. This paper presents four sometimes conflicting principles for the conduct of ethical and high-quality science using such data: protection of confidentiality, the social-spatial linkage, data sharing, and data preservation.

Available at <http://www.pnas.org/cgi/reprint/0507804102v1.pdf>.

Conclusion

This document is a compilation of relevant resources for the HFA surveys around the world. The types of health facility-based surveys included in this document ranged from the nationwide census to program-based or theme-specific surveys. We hope readers find this document useful in quickly identifying and reaching the needed information for research or program planning, monitoring and evaluation.