UGANDA DELIVERY OF IMPROVED SERVICES FOR HEALTH (DISH) FACILITY SURVEY 2002

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Foreword

On behalf of the Delivery of Improved Services for Health II (DISH II) project, we would like to present to you a copy of **Uganda Delivery of Improved Services for Health Facility Survey, 2002**. From 1999, DISH II project was refocused to be supportive and complementary of the government of Uganda (GOU) health sector strategic plan and districts' operational plans. The results presented in this report not only demonstrate the numerous contributions of the DISH II project, but most importantly the success resulting from the hard work and dedication of the leaders and staff from districts, the Ministry of Health (MOH), and other partners, under the leadership of Professor Francis Omaswa, the Director General of Health Services.

It is refreshing to note in this report that the quality of services in the government facilities has dramatically improved as compared to 1997. Over the last 2 years, one important DISH II contribution has been the introduction of a quality improvement system, Yellow Star (YS), to sustain this emerging trend in quality improvement of health services. The YS quality improvement system has also emerged as a critical management and team-building tool, on which district and subdistricts leaders can build to improve the performance of health facilities.

The report also highlights the many continuing challenges the public and private health delivery system face in Uganda, despite the increased investments in human and financial resources by the government of Uganda and development partners. Accordingly, this report can also act as a benchmark from which the future of positive health change in Uganda can be based. We hope that this document will benefit the GOU, MOH, and all districts and their collaborating development partners and organizations providing financial and technical support.

I would like to take this opportunity to express my highest appreciation for the spirit of collaboration demonstrated by the staff of the Johns Hopkins Center for Communication Programs (JHU/CCP) (the lead grantee), INTRAH, Management Sciences for Health (MSH) and the JHPIEGO Corporation over the past 3 years. These organizations and staff always placed the people of Uganda at the center of any decisionmaking, to the extent possible.

We are proud of the many contributions of the project and hope you find them easily accessible in the report. The DISH II Project is a great example of the achievements possible through increased effective partnerships.

Souleymane Martial Leonard Barry, M.D.
DISH II Chief of Party
April 2003

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Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ARH	Adolescent Reproductive Health
BCC	Behavior Change Communication
BCG	Bacille Calmette Guérin
CO	Clinical Officer
CQI	Continuous Quality Improvement
CYP	Couple Years of Protection
DCS	DISH Community Survey
DDCP	DISH Data Collection Points
DES	DISH Evaluation Survey
DFS	DISH Facility Survey
DHS	Demographic and Health Survey
DISH	Delivery of Improved Services for Health
DISH I	Delivery of Improved Services for Health (1st phase)
DISH II	Delivery of Improved Services for Health (2nd phase)
DMO	District Medical Officer
DMU	Dispensary and Maternity Unit
DPT	Diphtheria, Pertussis, and Tetanus vaccine
EAs	Enumeration Areas
ENT	Ear, Nose, and Throat
EOC	Emergency Obstetric Care
FLEP	Family Life Education Program
FP	Family Planning
FY	Fiscal Year
GMP	Growth Monitoring and Promotion
GOU	Government of Uganda
HC II	Health Center II (Dispensary)
HC III	Health Center III (Dispensary and Maternity Unit)
HC IV	Health Center IV (Referral Health Center)
HIV	Human Immuno-Deficiency Virus
HMIS	Health Management Information System
HSD	Health Subdistrict
HUMCs	Health Unit Management Committees
IEC	Information, Education, and Communication
IMCI	Integrated Management of Childhood Illnesses
IPC	Interpersonal Communication
IPT	Intermittent Presumptive Treatment
IRH	Integrated Reproductive Health
IUD	Intrauterine Device
LC	Local Council
LC I	Local Council 1 (Village)
LC V	Local Council 5 (District)

LSS	Life-Saving Skills
LTPM	Long-Term and Permanent Methods
MAP	Multi-Country AIDS Program (World Bank)
MCE	Multi-Country Evaluation Survey
MEASURE	Monitoring and Evaluation to Assess and Use Results
MoH	Ministry of Health
NA	Nursing Assistant
NGO	Nongovernmental Organization
NID	National Immunization Day
NSTG	National Standard Treatment Guidelines
OA	Operating Authority
OPD	Outpatient Department
ORS	Oral Rehydration Salts
PAC	Postabortion Care
PFP	Private For-Profit
PHC	Primary Health Care
PMTCT	Prevention of Mother to Child Transmission
PNC	Postnatal Care
QI	Quality Improvement
RH	Reproductive Health
RPR	Rapid Plasma Reaction (blood test for syphilis)
SP	Sulfadoxine-Pyramethamine
STD	Sexually Transmitted Disease (includes AIDS)
STI	Sexually Transmitted Infection (includes HIV but not AIDS)
SYSTIMS	Supervision, Yellow Star, and Training Information Management System
TL	Tubal Ligation
TT	Tetanus Toxoid
UDHS	Uganda Demographic and Health Survey
UNEPI	United Nations Expanded Program for Immunization
US	United States
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing for HIV
VDRLs	Venereal Disease Research Laboratories (blood test for Syphilis)
VSC	Voluntary Surgical Contraception
YS	Yellow Star
YSP	Yellow Star Program

Executive Summary

The 2002 DISH Facility Survey (DFS) survey was undertaken as part of a series of DISH Evaluation Surveys (DES) designed to measure changes in reproductive, maternal, and child health knowledge and behavior in DISH project districts. Results from these surveys are used both to monitor the progress of DISH activities and to evaluate project impact.

The first two rounds of population and facility-based surveys were conducted in 1997 and 1999. The 1997 DES included both a sample survey of men and women of reproductive age as well as an audit of health facilities. A second round of the DES was conducted in 1999 with expanded questionnaires for both the population and facility-based components. The 1997 and 1999 surveys collected information from a representative sample of 173 and 292 health facilities, respectively, in 11 of the 12 DISH districts. Kasese district was excluded from the surveys because of fieldwork security reasons. Fieldwork was conducted from September to November for both surveys.

The third and final round of the DES was conducted in 2002 to coincide with the end of the DISH II project in September 2002. This survey had a facility but not a population-based component, as population level data are available from the 2000/2001 Uganda Demographic and Health Survey (UDHS). The 2002 survey collected information from a representative sample of 316 public and private sector health facilities and from 355 and 532, respectively, observations of client-provider interactions for antenatal and curative child care services for children less than 2 years seen in the outpatient department (OPD). The primary objective of this survey was to provide further information on services and performance in the health sector to monitor progress of selected indicators of the DISH II project from 1997 to 2002.

Trends in Facility-Based Indicators Between 1997 and 2002

The sample of 316 facilities in 11 DISH-supported districts includes 109 government facilities, 45 nongovernmental (NGO) facilities, and 162 private for-profit (PFP) facilities. Among government and NGO facilities, the sample contains 13 hospitals, 16 health centers IV, 64 health centers III, and 61 health centers II. Health workers in each of these were interviewed to gather information about trends in the availability of services at health facilities in 11 of the 12 DISH districts. The following are some of the key findings related to trends in facility-based indicators.

- In 1997 virtually all of the government facilities offered family planning (FP) services; this remained unchanged during the project period. Similarly, the percent of PFP facilities offering FP services was high (76 percent) in 1999 and remained high throughout the next 3 years. Among NGO facilities, there was a decline in the percentage that offered FP services from 78 percent in 1997 to 62 percent in 2002.

- In 1997 almost all NGO and private facilities offered sexually transmitted disease (STD) services, while only 82 percent of government facilities did. During the project period, the percentage of government facilities offering these services increased substantially, while other types of facilities maintained the high levels seen in 1997. By 2002, most facilities, including government

facilities, offered STD management services.

- The percentage of facilities that offer voluntary counseling and testing (VCT) for HIV is greater than the percentage of facilities that offered HIV testing in 1997. In 1997, one in eight government facilities and one in four NGO facilities offered HIV testing. Currently, 35 percent of government and NGO facilities in DISH districts offer VCT. The percentage of private facilities in DISH districts that currently offer VCT is twice the percentage that offered HIV testing in 1999.

- Among government and NGO facilities, the percentage that offers antenatal care (ANC) and postnatal care (PNC) increased during the first-phase of the DISH project (1997–1999). Government facilities maintained these gains into 2002, but NGO facilities did not, and by 2002 the percentage of NGO facilities that offered ANC and PNC was similar to that of 1997. Between 1999 and 2002, the percentage of private facilities offering these maternal health services declined; however, because many new PFP facilities have appeared in DISH districts in the last 3 years, the actual number of PFPs offering these services likely has increased.

- At the beginning of the DISH project, stockout rates of family planning commodities increased sharply, particularly for condoms. During the second phase of the project, a focus on training in commodity management and the use of stock cards along with national-level policy changes seem to have resulted in a reversal of this trend. By 2002, stockout rates of family planning commodities fell below 1997 levels.

- There was a sharp decline in the availability of essential drugs for the treatment of STD (doxycycline, ciprofloxacin, and metronidazole) between 1999 and 2002. This may be due to the abolition of user fees, which likely resulted in an increase of STD management services and a decline in the funds available for drug procurement.

Quality of Antenatal Care

A total of 355 antenatal care consultations were observed at 108 public, NGO, and PFP facilities in 11 of the 12 DISH districts in Uganda.

The key findings from the antenatal care observations include the following:

- Most clients begin their antenatal care when they are between 17 and 36 weeks gestation. Only 10 percent of new clients were between 1 and 16 weeks gestation, as recommended by the Ministry of Health (MoH).

- Enrolled nurses and midwives saw most antenatal clients, and 38 percent of the consultations were by providers who had attended in-service training on integrated reproductive health (IRH), while 18 percent had attended interpersonal communication (IPC) training courses.

- Overall, providers were quite proficient at taking the client histories, regardless of training status.

- Similarly, the majority of consultations were rated either acceptable or excellent relative to the physical examinations, regardless of training status. There were, however, some notable findings with regard to specific actions that the MoH recommends be taken during ANC

physical examinations. Trained providers were more likely than untrained providers to examine the clients' breasts for lumps (86 percent trained versus 47 percent untrained). Hand washing before examining the patient was about two times more likely during consultations with trained providers than untrained providers. Few clients received pelvic examinations during their first visit or revisit at 36–40 weeks gestation, regardless of the training status of the provider.

- Clients seen by providers who had received training were more likely than those seen by untrained providers to be educated and counseled about some preventive and health-care-seeking practices during pregnancy, at birth, and after delivery. For example, breast-feeding and care were more discussed by trained providers (73 percent) compared with untrained providers (39 percent). Fifty-nine percent of clients seen by trained providers received counseling on STD prevention compared to 31 percent by untrained providers.

- Overall, providers' interpersonal skills were excellent whether or not they received training, except when it came to the use of visual aids during client education. Overall, few clients received counseling or education with the help of visual aids, regardless of a provider's training status.

- Virtually all clients received iron and folic acid (82 percent).

- Among antenatal client observations of 17–24 weeks and 28–36 weeks, few providers offered malaria prophylaxis and worm medication despite the availability of these forms of preventive treatment at most health facilities.

- Only 40 percent of the observed antenatal consultations with new clients who were between 16 and 36 weeks of gestation were rated as acceptable, and none complied with all the Ministry of Health standards on the survey checklist.

Quality of Sick-Child Care

A total of 533 sick-child consultations were observed at 192 public, NGO, and PFP health facilities. The following are some of the main findings from the sick-child observations:

- Overall, performance of health providers in assessing and managing sick children during consultations varied by a provider's training status. History-taking questions were asked more frequently if the provider had received in-service training rather than being untrained. Additionally, trained providers were much more likely than untrained providers to ask caretakers if the child experienced diarrhea or vomiting.

- With regard to the physical examination, providers examined the children for pallor in about three-quarters of the visits, but this did not differ by training status. Most providers also took the child's temperature with a thermometer, although children seen by trained providers were not much more likely than those seen by untrained providers to have their temperature taken with a thermometer (81 percent trained versus 61 percent untrained). However, few providers (about 10 percent or less) washed their hands before and after the consultation, regardless of training status.

- Treatment was generally prescribed or given by both trained and untrained providers. Slightly more caretakers of

sick children were told how to give the medication if they were seen by a trained provider than by an untrained provider.

- Children's immunization and vitamin A supplementation status were checked more frequently by trained providers; for example, trained providers assessed immunization and vitamin A status in 63 percent of the sick children they examined compared to 38 percent by untrained providers.

- Twice as many sick children seen by trained than by untrained providers had their weight taken and plotted on a growth chart, and their caretakers had explained to them the importance of monthly weighing. However, a child's weight was not plotted or discussed in the majority of cases.

- Counseling messages on feeding practices for sick children were much more likely to be given by trained providers than untrained providers.

- As with antenatal care, few caretakers were counseled using visual aids during sick-child consultations. Trained providers used visual aids in 21 percent of encounters, untrained providers in only 3 percent.

- Overall, only 16 percent of sick-child consultations were rated acceptable or excellent. However, having received training was significantly associated with better performance of a provider in the management of a sick child. About five times as many consultations of trained providers were rated excellent or acceptable as opposed to untrained providers (21 percent trained, 4 percent untrained).

Basic Standards Of Quality Health Care Services

DISH recently implemented the Yellow Star Program (YSP) in collaboration with the MoH (see chapter 5 for more detail about the YSP). The YSP includes an assessment of facilities based on their physical characteristics, the availability of equipment and supplies, and the interactions between clients and providers. This chapter draws on data from all three portions of the DFS (the facility audit, ANC observations, and SC observations) to calculate indicators measured during the YSP assessments and assigns a quality score for each facility. The findings related to the YSP basic standards of quality are presented below.

- Although the majority of facilities have a clean and protected source of water, only half of government and NGO facilities have adequate waste disposal mechanisms, while less than one in four PFP facilities do. Even fewer facilities, 31 percent of government and about one in five NGO and private facilities, have clean latrines. Facilities in first-phase districts were more likely than those in phase II districts to have clean latrines and rubbish pits.

- Less than one in five facilities had up-to-date stock cards for five selected drugs. However, the availability of the drugs on the day of the survey and in the month prior did not seem to be related to the use of these stock cards. The percentage of facilities with the drugs available on the day of the interview was much greater than the percentage with up-to-date stock cards.

- Almost all government and most NGO facilities complete the Health Management Information System (HMIS) form monthly. Few private

facilities do, and as a result they are excluded from distribution of many information, education, and communication (IEC) materials. While 40 percent of government facilities have trained records assistants responsible for completing the HMIS form, only about one in five NGO facilities and only 2 percent of PFP facilities do.

- Private facilities are less likely than others to sponsor weekly health education talks. However, providers at private facilities are much more likely than those at other facilities to encourage clients to discuss or ask questions about their treatment. Government and NGO facilities in first-phase districts are more likely than those in second-phase districts to encourage client discussion. Only about 1 in 10 facilities used teaching aids effectively, regardless of operating authority or Yellow Star (YS) phase.

- Few providers were seen washing their hands before any of the consultations, an observation that did not differ by district. Less than half of all facilities had adequate sharps disposal mechanisms and chlorine for disinfection. Government and NGO facilities were more likely to have chlorine and adequate sharps disposal if they were in first-phase rather than second-phase districts.

- Regarding clinical services, facilities performed well on the standards related to immunizations, namely, the ability to maintain a cold chain and minimizing missed opportunities by offering weekly immunizations. Facilities in first-phase districts were more likely to offer weekly immunizations. However, few facilities met the other clinical service standards. One in four government facilities, 16 percent of NGOs and only 1 percent of facilities met the standard for proper growth monitoring. Less than one in eight facilities met the standard for providing technically appropriate services; this did not differ by YS phase.

- Facilities performed very well on the client service standards of quality. Most facilities had clean waiting areas and treated clients in a friendly and respectful manner on a first-come, first-served basis. Most facilities also offered clients emergency referral services and had someone on staff 24 hours per day. Privacy remains an issue in many facilities, particularly NGO and private facilities, although only a slim majority of government facilities met this standard. Facilities in second-phase districts had clean waiting areas and provided private areas for physical examinations more often than those in first-phase districts. Government facilities are much more likely than others to have trained staff attending clients. Only 2 percent of NGO and PFP facilities met the training standard.

- Generally, facilities that have already participated in at least one YS assessment were more likely to achieve a "good" overall rating. About 30 percent of facilities in phase I districts achieved a "good" rating compared with 15 percent of those in phase I districts.

Chapter 1: Introduction

Uganda is located in the African Great Lakes region along the equator in the heart of Sub-Saharan Africa. It occupies 241,039 square kilometers and shares borders with Sudan in the north, Kenya in the east, Tanzania in the south, Rwanda in the southwest, and the Democratic Republic of the Congo in the west. Uganda enjoys access to bodies of water that include Lake Victoria and the River Nile among others. The effects of high altitude and vast bodies of water combine to give Uganda a favorable equatorial climate.

The population of Uganda, some 21 million inhabitants, consists of many tribes that belong to four major groupings, namely, the Bantu, Nilotics, Nilo-Hamitis, and people of Sudanese origin. Administratively, Uganda is divided into 56 districts, which are further subdivided into counties, subcounties, parishes, and villages. A local council (LC) politically and administratively oversees an area at each of these levels. The topmost council, at the district level, is designated LC-V, while the lowest at the village level is LC-I. The capital city is Kampala.

1.1 Demographic and Health Profile of Uganda

Uganda exhibits many of the demographic characteristics of some Sub-Saharan African countries, with a high total fertility rate of 6.9 lifetime children per woman. Infant mortality rate has increased by about 10 percent in the last 5 years, from 81 to approximately 88 deaths per 1,000 live births. Modern contraception use among currently married women is 18 percent, even though 96 percent of women reported knowing about family planning methods according to the 2000/2001 Uganda Demographic and Health Survey (UDHS).

Although recent reports from the Uganda MoH point to a declining trend in mortality, this society is still among those countries hardest hit by the AIDS epidemic. Life expectancy is 43 years and young adult mortality is high, primarily due to the AIDS epidemic. There has, however, been a marked decline in HIV prevalence during the past decade. Based on data from women attending antenatal care at sentinel surveillance sites, HIV prevalence in 2000 was estimated to be 6.1 percent. This is down from a peak prevalence of about 18 percent in 1992 (Uganda MoH).

Evidence from the 2000/2001 UDHS suggests that only 42 percent of women make four or more visits for antenatal care during pregnancy, while 50 percent of women make one to three visits, which is below the MoH recommendation. Immunization coverage is still low, with only 29 percent of children fully immunized by 12 months of age, as recommended. Similarly, about one in four children in Uganda are stunted, a condition that reflects failure to receive adequate food intake over a long period of time (UDHS).

Since 1989 the Government of Uganda (GOU) has made tremendous progress toward addressing national population and health issues, including reproductive health (RH). In 1989, the government established a Population Secretariat within the Ministry of Planning that coordinates all population policies and programs in the country. In 1994, and with the guidance of this secretariat, Uganda adopted its first population policy that emphasizes

reproductive health. Within this institutional framework, the government has commissioned numerous reproductive health projects. Implemented by various organizations, most have adopted the recommendation of the 1994 International Conference on Population and Development to provide integrated reproductive health (IRH) services. In 2000 the GOU launched its new 2000–2005 health sector strategic plan that provides the institutional policy and programmatic framework for increasing access to the integrated HIV/AIDS and reproductive health services.

In an effort to increase access to health services and improve equity, the government of Uganda abolished user fees in all government facilities (except for the private wings of a few hospitals) in March 2001. This decision resulted in an immediate increase in the number of clients attending outpatient department (OPD) services by up to 56 percent (WHO, 2002). To compensate for the loss of cost-sharing revenues and increased client attendance, the MoH instituted budgetary and administrative measures to release funds to health facilities and to increase staffing. Nonetheless, government health facilities experienced shortages of drugs and supplies and often lacked funds to pay for auxiliary staff such as cleaners, *askaris* (security staff), vaccinators, and nursing aides (WHO, op. cit.). Therefore, while client volume may have increased, the quality of care is likely to have suffered. Despite the recent abolition of user fees at health facilities, financial and geographical accessibility pose major constraints to health service use in Uganda. The World Bank reports that the average annual per capita income in Uganda is $310 U.S. (World Bank 2002). Many Ugandans strain to afford their medical care bills, and even when they can afford to pay, distance and poor means of transport can hinder a client's access to health services.

In addition, many health facilities have no doctor or medical assistant on staff and are operated by nurses and midwives, or nursing assistants. In many rural areas, nurses and midwives are poorly remunerated, and the quality of services may be affected accordingly. Until recently, the availability of some services depended on the day of the week, as different health services were offered on each day. This entailed rather limited opportunities for clients attending clinics to get a broad range of services, such as receiving family planning methods at the same time as treatment for sexually transmitted infections (STI).

1.2 The Delivery of Improved Services for Health II Project

The Delivery of Improved Services for Health II (DISH II) project began in October 1999 under the management of The Johns Hopkins University, the University of North Carolina, and Management Sciences for Health. It succeeded the 5-year DISH I project and provides assistance to the MoH in 12 districts: Luwero, Nakasongola, Jinja, Kamuli, Kampala, Masindi, Masaka, Rakai, Ssembabule, Mbarara, Ntungamo, and Kasese. The second-phase of the DISH project was designed to be more supportive of the GOU (DISH I also supported the GOU) and, accordingly, moved from its reproductive health focus to include child health and other critical areas related to health systems strengthening.

The 12 DISH-supported districts have approximately 650 health facilities from which the health management information system (HMIS) gathers service-provision-related information, using the health unit monthly report known as HMIS 105 Form. The information collected through HMIS mostly reflects government facilities, as NGO and private facilities do not regularly

submit this information, even though they are required to do so. Since the focus of DISH interventions was on health facilities that exist in the HMIS, it is likely that a larger number of government facilities benefited from the project, compared to NGO and private facilities. It is important to take this into account while interpreting results presented later in this report.

The overall goals of the DISH II project are to improve availability and sustainability of good-quality reproductive, maternal, and child health services, and to improve public health attitudes, knowledge and practices. The project had four major components: training and clinical services, health management and quality assurance, behavior change communication and community-based activities, and monitoring and evaluation.

Major DISH II Strategies. DISH II has focused much of its attention on four major interventions that integrate the four project components.

Yellow Star Program (YSP). The project supported the MoH in the collaborative development of the Yellow Star Program (YSP), which is designed to enhance the supervision system and improve quality through certification and recognition of facilities that meet and maintain basic standards of quality. The project worked closely with the MoH Quality Assurance Department and Health Promotion and Education divisions and the 12 project-supported districts to design a set of 35 basic standards of high-quality health services and a system for monitoring these standards quarterly, and for recognizing and rewarding health facilities that reach and maintain these standards. All of the 12 districts were oriented to the program in two phases separated by about 6 months as follows:

- Phase I districts: Luwero, Nakasongola, Jinja, Kamuli, Masaka, Mbarara

- Phase II districts: Masindi, Kampala, Rakai, Ssembabule, Ntungamo, Kasese

One of the reasons for phased implementation was to allow the MoH, Regional Center for Quality at Makerere University and the Population Council to conduct an independent evaluation of the quality of family planning services in two implementation and two control districts supported by DISH II prior to and after program implementation. The YS assessments began in October 2001 for the first six districts and May 2002 for the second-phase districts.

Adolescent-Friendly Reproductive Health Services. Based on a pilot intervention in four public health centers in Jinja during the DISH I Project, DISH II has expanded adolescent-friendly services to a total of 34 health centers in the 12 districts. Adolescent-friendly services are offered in government health centers at times when adolescents are most likely to access them and when there are few adult clients. To attract youth, these services offer indoor and outdoor games and publicize services through teams of peer educators, posters, leaflets, community meetings, signposts, interactive community shows, and visits to schools. Services provided include family planning, condoms, antenatal and postnatal care, STD treatment, counseling and education, and HIV voluntary counseling and testing (VCT) at selected facilities.

Long-Term and Permanent Methods (LTPM) Marketing and Services. To meet the unmet need for Norplant, tubal ligation (TL), and vasectomy (VSC), DISH II has developed a program of expanded service delivery coupled with intensive community and mass media education and mobilization

for these methods. In addition to training staff at seven hospitals to offer routine tubal ligation, vasectomy, and Norplant services, the project has also trained midwives and clinical officers to insert and remove Norplant and counsel about VSC. In 36 selected health centers, the project has assisted the districts to train teams of community health workers to educate the community about these methods and refer to the health centers for counseling and periodic TL and VSC outreach services.

Safe Motherhood Strategy. DISH II has also worked with the districts to increase the number of pregnant women who give birth at health facilities and to improve the quality of maternal health services. In addition to a radio and print campaign, the project has developed and distributed birth-planning cards to all health centers. These cards are completed during antenatal care and stimulate discussion with clients about their expected date of delivery, where they will deliver, and how they will get there when their labor begins. The project has designed and distributed a self-instructional manual for health workers on birth planning, client friendly maternal health services, and intermittent presumptive treatment of Malaria (IPT) to health centers with antenatal services. In 22 selected facilities, the project has trained community resource persons who follow up with ANC clients in their homes to discuss birth plans, and postnatal clients to encourage health center checkups. Midwives from these health facilities also organize community discussions to learn the reasons why women do not deliver at their facilities and to remove barriers to utilization of delivery services.

Other Key Activities Related to DISH II

The project also worked with the MoH and project-supported districts in a number of other important crosscutting areas.

Curriculum Development and Training for Health Workers. DISH II has assisted the MoH to develop modular curricula for nurses, midwives, and clinical officers and implement training programs on integrated reproductive health, including family planning, maternal health, STD management, HIV counseling, growth monitoring and promotion, postabortion care (PAC), life-saving skills (LSS), emergency obstetric care (EOC), and Norplant insertion and removal for midwives and clinical officers. The project worked with the districts to expand the availability of family planning, IMCI, PAC, and growth monitoring and promotion services, and it provided selected health facilities with essential equipment. The project also supported training and supervision of more than 1,000 service providers in both public and NGO facilities. In early 2002, the project successfully piloted a performance improvement course in IMCI for private-sector providers. In addition, DISH II has assisted the districts to prepare training and supervisory teams to conduct training and follow-up for all these courses, and piloted a 12-week distance-learning course in family planning for nursing assistants, as well as a 3-week distance-learning course in malaria control during pregnancy for health workers.

Behavior Change Communication (BCC). In addition to developing specific communication strategies in support of male involvement in family planning, infant nutrition, quality of care, LTPM, ARH, and safe motherhood strategies, the project produced centerpiece materials throughout the year. The project produced weekly radio programs and quarterly “Health Matters”

newsletters in English and local languages. All promoted family planning, male involvement, STD management, VCT, and improved infant nutrition while adding new messages on safe motherhood, malaria, immunization, ARH, and quality of care. DISH II also assisted the MoH to prepare a quarterly newsletter for health workers titled "The Health Worker" and a 13-part television series on the minimum health care package, released in August 2002. Finally, DISH II has worked closely with the MoH Malaria Control Program and United Nations Expanded Program for Immunization (UNEPI) to design national communication strategies for home-based management of fever in children under 5 years of age; malaria control in pregnancy; and revitalization of routine immunization in children. Implementation of these strategies began in February 2002.

Health Management Information System (HMIS). The project directed special attention to the quality of data collection and analysis to provide accurate information for decisionmaking and for quarterly monitoring of MoH and project indicators. This was achieved through periodic data utilization training and onsite support. It also upgraded two computerized database applications: One compiles and reports routinely collected HMIS data at the district and project levels; SYSTIMS compiles and reports in-service training data, health facility supervision data, and YS assessment scores at the district level.

Strengthening Drug Logistics and Management. Following the development of store management procedures and job aides, and the initial training of core logistics teams, the project facilitated onsite support for staff involved in logistics through regular support supervision or dedicated HMIS/logistics visits. The project worked on ensuring the availability of drugs and contraceptives by building capacity in stock management and, lately, on drug needs quantification.

Supporting Work Planning and Budgeting. The project has provided a total of about $1.5 million in direct subgrants to the 12 districts over a 2-year period to support the implementation of the minimum health care package and selected innovations related to quality of care improvement, safe motherhood, LTPM, and ARH. Working closely with the MoH planning department, the project contributed to building district capacity to design resource-sensitive work plans and budgets.

Networking with Family Life Education Program (FLEP). DISH II supports clinical services and community-based activities implemented by FLEP in four districts of Eastern Uganda, including Jinja, Kamuli, Iganga, and Bugiri. DISH II assistance focuses on supporting training and supervision of the 146 community health workers and about 50 qualified service providers, as well as strengthening organizational management administrative, financial, and monitoring systems. The project also worked with other selected NGOs while fostering public-private partnerships in the implementation of district-based activities.

Project Monitoring and Evaluation. In addition to this survey, the DISH II project monitoring and evaluation relied on the 2000/2001 UDHS, quarterly reporting of selected HMIS data, project activity reports, and selected surveys, including

- an internal evaluation of project interventions in the areas of HMIS, drug logistics, and supervision;

- a comprehensive case study of selected project interventions focusing on LTPM, safe motherhood, ARH; and

- small-scale tracking surveys to evaluate the reach of centerpiece materials and associations with health knowledge, attitudes, and practices.

1.3 Evaluation Surveys

The 2002 DISH Facility Survey (DFS) was undertaken as part of a series of DISH Evaluation Surveys (DES) designed to measure changes in reproductive, maternal, and child health knowledge and behavior in DISH project districts. Results from these surveys are used both to monitor the progress of DISH activities and to evaluate the project's impact.

The first two rounds of population- and facility-based surveys were conducted in 1997 and 1999. These surveys provided information on the reproductive health status of individuals and services in the DISH-supported districts, and each round consisted of a DISH Community Survey (DCS) of men and women of reproductive age and a DFS of selected health facilities. The 1997 DES included both a sample survey of men and women of reproductive age as well as an audit of health facilities in the public sector. A second round of the DES was conducted in 1999 with expanded questionnaires for both the population and facility-based components. The sampling strategy for the facility component was also modified to include both public and private sector facilities. The 1997 and 1999 surveys collected information from a representative sample of 173 and 292 health facilities, respectively, in 11 of the 12 DISH districts. Kasese district was excluded from the surveys because of fieldwork security reasons. Fieldwork was conducted from September to November for both surveys.

The third and final round of the DES was conducted in 2002 to coincide with the end of the DISH II project in September 2002. This survey had a facility- but not a population-based component, as population level data are available from the 2000/2001 UDHS. The 2002 survey covered the same sampling areas as in 1999, using a modified facility audit questionnaire. The facility audit instrument used in the 1999 survey was substantially revised to measure adherence to the Basic Standards of Quality, standards recently established by the MoH with assistance from DISH under the YSP (see section 5.2). Some of the questions from the 1999 audit instrument were maintained to allow comparisons between surveys on key indicators over time. The 2002 survey collected information from a representative sample of 316 public and private sector health facilities, and from 355 and 532, respectively, observations of client-provider interactions for antenatal and curative child care services for children less than 2 years seen in the outpatient department (OPD). The design and sampling procedures of the 2002 DFS are briefly described in section 1.5, and details are provided in appendix A; questionnaires are in appendix B. The results from the 1997 and 1999 DESs are available in the technical report, *Uganda Delivery of Improved Services for Health (DISH) Evaluation Surveys*, and information on the UDHS can be obtained in the report, "Uganda Demographic and Health Survey, 2000/2001."

1.4 Objectives of the 2002 DISH Facility Survey

The primary objective of this survey is to provide further information on services and

performance in the health sector in order to monitor progress of selected indicators of the DISH II project from 1997 to 2002. The other objectives are to assess the quality of care and adherence to the MoH basic standards guidelines of quality of care, and to describe the readiness of health facilities to provide quality reproductive, maternal, and child health services. As the DISH project involves a broad range of reproductive, maternal, and child health services, the study assesses the quality of antenatal and curative child health services in addition to assessing the refocused antenatal care services and missed opportunities.

The 1997, 1999 DISH Evaluation Surveys and the 2002 DISH Facility Survey gathered information from representative samples of facilities located in DISH districts on their readiness to offer reproductive, maternal, and child health services. Where data permit, results from these three surveys from facilities situated in DISH districts (except Kasese, which was omitted for reasons of security) are presented in this report. Tables or figures to illustrate changes in reproductive health outcomes over the course of implementation of the DISH-I and DISH-II project activities accompany the results.

1.5 Summary of Survey Methodology, Instruments, and Fieldwork

Sample and Questionnaires

The DFS was conducted in March and April of 2002. The sample for the DFS was constructed to gather information on health facilities that serve the survey clusters included in the UDHS and DES samples. Gathering information in such a way provides a representative sample of health facilities in the target areas. This information will also enable researchers to analyze the impact of the health facilities on the health behavior of individuals using the UDHS data. To this end, all government (public) and NGO health facilities located within the boundaries of the cluster selected for the facility survey and in the two concentric rings of clusters surrounding this index cluster were included in the sample. A systematic sample of one-half of the private for-profit (PFP) health facilities was also included in the survey. All results are weighted to account for the sample design. As listings of health facilities were known to be incomplete, during the visit to the clusters, key informants in the community were asked to identify any other health facilities not listed so that they could be included in the survey.

A total of 316 public, NGO, and PFP health facilities were visited. The sample of facilities for the 1999 DES and the 2002 DFS differed somewhat from the sample selected for the 1997 DES. The 1999 DES used areal sampling and included all health facilities regardless of operating authority that serve the clusters included in the survey. The 2002 DFS also used areal sampling and included all public and NGO facilities and a sample of PFP facilities that serve the clusters included in the survey. The 1997 DES focused only on the most used health facilities and the DISH Data Collection Points (DDCP) within each cluster. Although the sample from the 1997 survey is not strictly equivalent to the 1999 DES and the 2002 DFS, the latter surveys have the advantage that they capture the entire service delivery environment in a defined geographic area.

The 2002 DFS used three main English questionnaires (Appendix B): a facility audit and an interview with the in-charge of the facility, an observation guide for client-

provider interaction for antenatal care services, and an observation guide for curative child care services. These questionnaires were designed to obtain information on facility infrastructure, services offered, staffing, inventories of equipment, supplies, and commodities, as well as provider competence in adhering to the refocused antenatal care guidelines and basic standards of quality of care and in assessing missed opportunities for growth monitoring and immunizations of children less than 2 years of age. In addition to the survey questionnaires, the survey produced other instruments, including the listing form used to list facilities in a cluster, the enumerator's manual, and the questionnaire tallying and control sheets.

1.6 Training, Fieldwork, and Data Processing

Training was conducted from March 3 to 12, 2002 in Kampala, Uganda, by Wilsken Agencies, the survey implementer, and DISH staff, with technical assistance from MEASURE *Evaluation*. Survey staff included 19 enumerators and 5 supervisors. All of the staff were female and had training in nursing or midwifery. Four editors from Wilsken Agencies and one independent supervisor appointed by DISH also took part in the training.

During training, the enumerators and supervisors pilot-tested the instruments. The pilot-testing included a 1-day visit to 12 health facilities not included in the final survey in Wakiso and Mukono districts to review equipment and supplies included in the facility audit and to evaluate the enumerators and the instruments. This gave the trainers an opportunity to evaluate the questionnaire, the survey personnel, and the entire fieldwork process. Three personnel who performed below the required standard were dropped from the survey team.

The survey was implemented by Wilsken Agencies. Data collection took place between March 15 and April 27. There were five survey teams; each had one supervisor and two enumerators. All teams started work in Kampala district and later split into different districts. The teams proceeded cluster by cluster with each team spending one working day at each facility. Clusters were canvassed to identify all facilities that were not in the 1999 DFS list.

While the enumerators conducted the interviews in the field, the supervisors edited and submitted questionnaires to research editors at Wilsken Agencies. Data entry took place between April 9 and May 12, 2002. Appendix A presents additional information on the survey methodology.

Chapter 2: Trends in Facility-Based Indicators Between 1997 and 2002

As mentioned in chapter 1, a primary objective of the DFS was to look at trends in selected indicators of service provision at health facilities in the DISH project districts. This chapter presents trends in facility-based indicators to assess whether improvements have been made in the availability of health services in DISH districts. Previous surveys relied heavily on community-based indicators for monitoring program progress and the number of facility-based indicators was small. Thus the facility-based indicators available for trend analysis in this report are somewhat limited. Subsequent chapters will take an in-depth look at the current situation of health facilities in DISH districts by exploring some indicators available only in 2002.

2.1 Samples of Health Facilities

To provide a contextual background for the presentation of facility-based indicators, the general characteristics of the health facilities are presented below. Health services in Uganda are provided by government, NGO, and PFP facilities. A representative sample of all three types of facilities was surveyed in 1999 and 2002 while the 1997 survey focused more heavily on government and NGO facilities. Appendix A describes the sampling methodology for the facility audit.

As table 2.1 shows, the compositions of the samples differ among surveys. The composition of the 1999 and 2002 samples are similar in terms of operating authority (and represents the facilities available to the communities), while the 1997 survey is heavily weighted toward government and NGO facilities. To avoid biases introduced by the differences in sample compositions, most trend data are disaggregated by operating authority.

The lower half of table 2.1 presents the distribution of the samples by type of facilities. For 1997 and 1999, the data include all facilities, regardless of operating authority. In the 2002 facility audit, information regarding the type of facility was not recorded for PFP facilities. Therefore, the 2002 data presented in the lower panel of table 2.1 excludes PFP facilities, which may alter the distribution by facility type. To avoid any bias introduced by excluding PFP facilities, we've chosen not to present trend analyses by type of facility. Additionally, due to the small number of hospitals and health centers IV audited, throughout the rest of the report, wherever data are presented by type of facility, these two types are grouped into one category. As the table shows, most of the facilities audited in 2002 were lower-level health centers.

Table 2.1. Distribution of Facilities Sampled in the Three DES Surveys by Operating Authority and by Type/Level

Operating Authority	*Number of facilities (Year)*		
	1997	1999	2002
Government	111 (65%)	75 (26%)	109 (20%)
NGO	36 (21%)	31 (11%)	45 (9%)
Private for-profit (PFP)[1]	25 (15%)	183 (63%)	162 (71%)
Total	172	289	316
Type of facility*			
Hospital	22 (13%)	15 (5%)	13 (11%)
HC IV (health center)	44 (26%)	37 (13%)	16 (8%)
HC III (DMU)	27 (16%)	37 (13%)	64 (41%)
HC II (dispensary, clinic)	74 (43%)	191 (66%)	61 (40%)
Other/don't know	5 (3%)	9 (3%)	0
Total	**172**	**289**	**154**

*The 2002 distribution by type of facility excludes PFP facilities because information about facility type was not collected from PFP facilities in 2002.

For a better understanding of the distribution of services by level of care, the following is a brief description of the current nomenclature of health facilities in the government and NGO sectors, along with the services they provide:

- A HC II is the smallest institutional facility located at parish level (the government's policy is to establish one HC II in every parish of the country). Managed by an enrolled or registered nurse, it provides basic preventive and curative ambulatory services, including well-child care (growth monitoring and immunization outreaches), antenatal care, family planning, adolescent reproductive health, and simple treatment of common diseases. It does not offer inpatient services, although it can temporarily host emergency patients before referral or conduct emergency deliveries.

- The HC III, at subcounty level, is managed, in principle, by a clinical officer and is staffed by a midwife assigned to the facility. Thus it offers, in addition to the services mentioned for HC II, antenatal and postnatal services, delivery, and postabortion care, as well as static immunization services. It usually has a few beds for short inpatient stays.

- The HC IV, often the headquarters of the health subdistrict, is designed to provide inpatient services, emergency surgery, blood transfusion, and laboratory services; it is headed by a medical officer. Upgrading of health centers IV with a functional theater, a trained anesthetics assistant, and housing for medical staff is ongoing. It constitutes the first level of referral in the PHC system.

- Hospitals at district level include specialist services such as X-ray; ear, nose, and throat (ENT) care; psychiatry; dentistry; and specialized medical and surgical departments. Regional followed by national referral hospitals constitute the highest level of health services.

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[1] *Private facilities were only included if they had at least one clinic room; smaller facilities such as drug vendors or traditional healers were excluded.*

Other general characteristics of health facilities are described below, and subsequent sections of this chapter explore trends in the availability of reproductive health, maternal health, and child health services. Later sections also present trends in the availability of commodities necessary for the provision of these services.

2.2 Other General Characteristics of Health Facilities

Most facilities (83 percent) operate 7 days per week, as indicated in table 2.2. Government facilities are the least likely to provide full-week coverage; only 64 percent of government facilities are open 7 days per week, whereas 81 percent and 89 percent, respectively, of NGO and private facilities are. Among government and NGO facilities, almost all hospitals and health centers IV (97 percent) provide services 7 days per week, but a large proportion of lower-level facilities do so as well (64 percent of HC III and 61 percent of HC II).

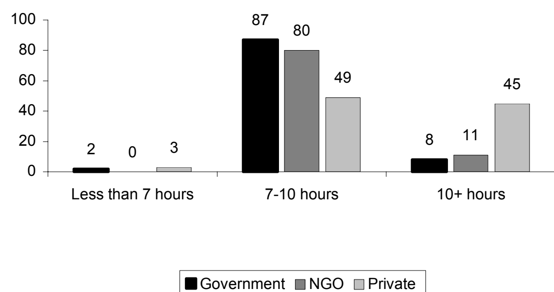
Table 2.2. Distribution of Facilities By Number of Days Per Week The Facility Is Open

Operating Authority	***Number of days per week the facility is open***			
	5 or less	6 days	7 days	n
Government	9%	26%	64%	109
NGO	3%	16%	81%	45
Private	2%	9%	89%	162
All facilities	4%	13%	83%	316
Type of facility*				
Hospitals/HC IV	0	3%	97%	29
HC III	12%	16%	71%	64
HC II	7%	40%	53%	61

*Excludes PFP facilities.

Figure 2.1 presents the distribution of facilities by the number of hours that the unit was open on the day of the facility audit. Most facilities (95 percent) are open at least 7 hours per day. Private facilities are more likely than government and NGO facilities to open for 10 hours or more. About 45 percent of PFP facilities opened 10 hours or more, this is more than four times the percentage of government facilities and NGO facilities that did so (8 percent government, 11 percent NGO). On the other hand, government and NGO facilities are more likely to have at least one staff member at the facility 24 hours per day, 7 days per week. About 80 percent and 70 percent of government and NGO facilities, respectively, have someone available around the clock. This is in contrast to the 55 percent of PFP facilities that do so (data not shown). Facilities may have staff on duty to treat emergency cases even when the facility is closed. This explains why the percentage of facilities with staff available 24 hours is much greater than the percentage of facilities that are open 10 hours or more.

Figure 2.1. Distribution of Facilities by the Number of Hours of Operation



2.3 Trends in the Percentage of Facilities Offering Selected Reproductive Health Services

This section describes trends in the percentages of facilities offering selected health services between 1997 and 2002. Trends in the availability of family planning services are presented first, followed by a discussion about the availability of selected family planning methods. Other reproductive health services of interest include management of sexually transmitted diseases (STDs) and voluntary counseling testing (VCT) for HIV.

Throughout the 5-year period, there has been an increase in the total number of facilities in DISH districts, particularly private facilities. So while the percentages of facilities offering some of these services may have remained the same or declined, the actual number of facilities may have increased. Similarly, a small increase in percentages may represent large increases in the number of facilities offering these reproductive health services. This should be taken into account while reviewing the results presented below.

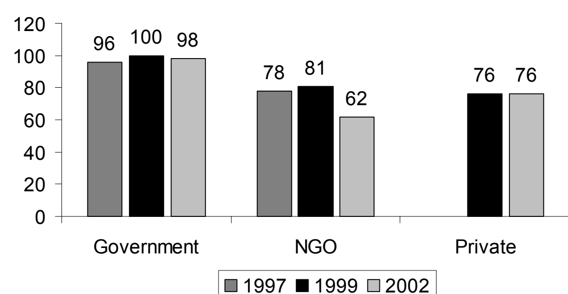
2.3.1 Family Planning Services

As shown in figure 2.2, the availability of family planning services in government facilities has been virtually universal since 1997 and probably even before then. There was little change in the percentage of PFP facilities offering FP services. In 1999, 76 percent of private facilities offered family planning services, and this remained virtually unchanged in the last 3 years. Among NGO facilities, however, there was a decline, from 78 percent to 62 percent, in the percentage that offer family planning services during the same period.

A closer look at the data provides some insight into what this decline represents. Twenty-four NGO facilities participated in both the 1999 and 2002 surveys. Of these, 19 offered family planning services in 1999 while only 14 did in 2002. This suggests that there may be a trend among NGO facilities

in DISH districts to discontinue FP services and that the decline in the indicator is probably not a result of new facilities that offer specialized services. However, this is difficult to verify because the number of NGO facilities that participated in both surveys is small.

Figure 2.2. Trends in Percentage of Facilities Offering FP Services by Operating Authority



To get a sense of the variety of family planning methods available to the public, health workers were asked to identify the family planning methods offered by the facility. Table 2.3 below shows the percentage of these facilities that offer different types of short-term family planning methods among facilities that offer family planning. Almost all facilities that provide family planning services provide the pill, injectables, and male condoms regardless of operating authority or level. Other short-term methods were less likely to be offered. For example, emergency contraception is offered primarily at hospitals and Health Centers IV, but rarely at lower-level facilities. NGO facilities were more likely than others to offer natural family planning methods.

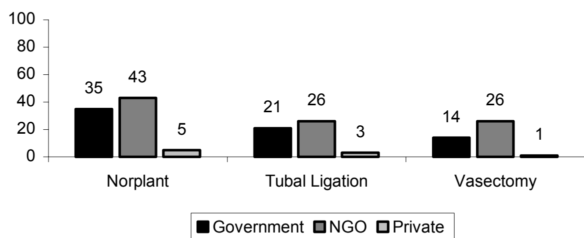
Table 2.3. Percentage of Facilities with Family Planning Services Offering Short-Term Methods by Level and Operating Authority[2]

Operating authority	*Pill*	*Injectables*	*Foam tablets*	*Natural methods*	*Male condoms*	*Female condoms*	*Emer. Contra-ceptives*	*n*
Government	100	100	62	64	100	55	28	105
NGO	100	100	71	89	100	57	38	28
Private	97	98	20	62	96	47	18	125
Type of Facility								
HC III	100	100	66	84	100	48	22	58
HC II	100	100	55	58	100	70	22	51

[2] Due to the small number of hospitals and HC IVs in the sample, the percentages of these facilities offering selected short-term methods are not presented. Of the 24 government and NGO hospitals and HC IVs that offer FP services, all of them offered the pill, injectables, and male condoms. Nineteen of the 24 offered foam tablets, 16 natural methods, 13 female condoms, and 14 emergency contraceptives.

Long-term and permanent methods of family planning include Norplant implants, tubal ligation, and vasectomy. These methods were offered in a much smaller percentage of family planning facilities than the short-term methods, as can be seen in figure 2.3. Of the three long-term and permanent methods, Norplant was offered in a large percentage of facilities. All three methods were more likely to be offered in government and NGO facilities, while few private facilities currently offer these long-term and permanent methods.

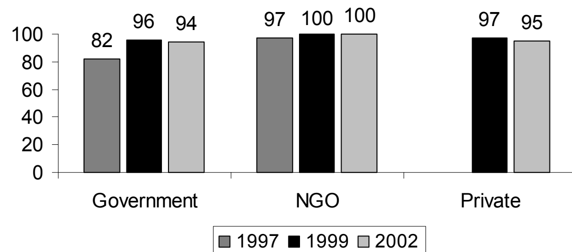
Figure 2.3. Percentage of Facilities with FP Services Offering Long-Term and Permanent Methods



2.3.2 STD Management

Almost all facilities provide STD management services, regardless of operating authority (Figure 2.4). Between 1997 and 2002, the percentage of government facilities offering STD management services increased from 82 percent to 94 percent, while the percentage of NGO facilities offering this service increased from 97 percent to 100 percent. During the same period, there was virtually no change in the percentage of private facilities that offered STD management services, as almost all offer these services.

Figure 2.4. Trends in Percentage of Facilities Offering STD Management by Operating Authority



2.3.3 Voluntary HIV Counseling and Testing

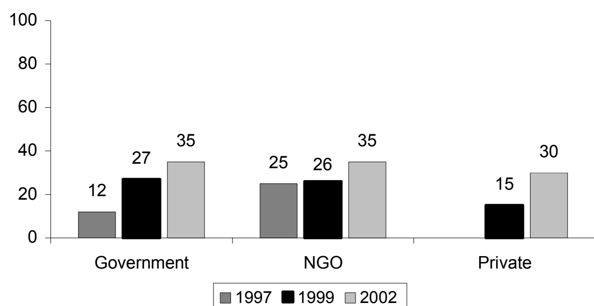
The questions related to HIV counseling and testing services were different in 2002 compared with 1997 and 1999. During the 1997 and 1999 surveys, two questions were asked: 1) Is HIV copunseling offered? 2) Is HIV testing offered? During the 2002 survey, however, only one question was asked: Does the facility provide VCT?

For this reason, in order to assess trends, we have assumed that any facility that offered HIV testing also offered counseling. This will probably overestimate the availability of VCT in the earlier surveys as compared to 2002, as facilities may have conducted HIV testing for diagnostic purposes. Despite this constraint, large increases in the availability of VCT are evident.

The percentage of government facilities that offer HIV testing nearly tripled from 12 percent in 1997 to 35 percent in 2002 (Figure 2.5). Similarly, the percentage of PFP facilities providing testing or VCT doubled from 15 percent to 30 percent between 1999 and 2002. Among NGO facilities, the percentage of facilities that offered VCT increased from 25 percent to 35 percent in the 5-year period. Significant improvements have been made in the last

5 years in making VCT more available to clients in the DISH districts.

Figure 2.5. Trends in Percentage of Facilities Offering VCT by Operating Authority



2.4 Trends in the Availability of Maternal Health Services

The survey also looked at the percentages of facilities that offer a range of maternal health services, including antenatal (ANC) and postnatal care (PNC), and delivery assistance. As shown in figures 2.6 and 2.7, government facilities are more likely than NGO and PFP facilities to provide ANC and PNC. The percentage of government facilities that offer ANC increased slightly during the first phase of the DISH project; the second phase of the project maintained these gains. The percentage of government facilities that offer PNC increased sharply between 1997 and 1999 and remained high throughout the following 3 years.

The trends were quite different for NGO and private facilities. Between 1997 and 1999, the percentage of NGO facilities offering ANC and PNC increased substantially. However, during the second-phase of the DISH project, the trend was reversed, resulting in virtually no net change in the percentage of NGO facilities offering ANC and PNC between 1997 and 2002. Private facilities were much less likely to provide these services than government and NGO facilities. Because data were not available for PFP facilities in 1997, it is only possible to assess changes in PFP facilities between 1999 and 2002. During that time, the percentage of PFP facilities offering ANC and PNC declined. However, because the total number of PFP facilities in DISH districts increased substantially, the total number of PFP facilities that offer ANC and PNC likely increased during the period.

Figure 2.6. Trends in Percentage of Facilities Offering ANC by Operating Authority

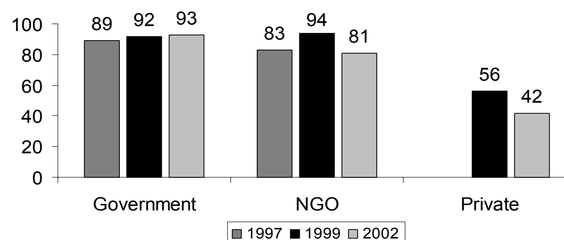
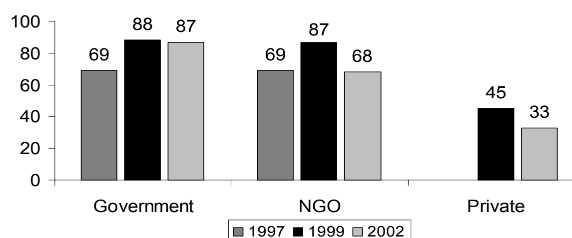


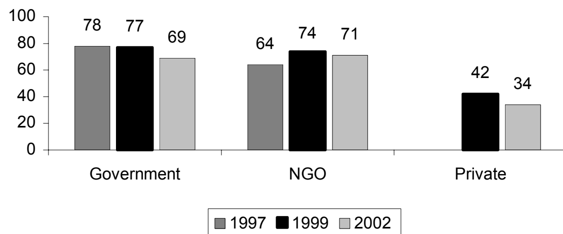
Figure 2.7. Trends in Percentage of Facilities Offering PNC by Operating Authority



Compared with ANC and PNC, fewer facilities offer delivery care: About 69 percent of government, 71 percent of NGO, and 34 percent of private facilities currently do (Figure 2.8). Compared with 1997, this represents a decline of about 9 percentage points among government facilities. Most of that decline occurred between 1999 and 2002. The percentage of private facilities offering delivery care declined from 42 percent to 34 percent

between 1999 and 2002. However, due to large increases in the number of PFP facilities, the actual number of these facilities that offer ANC and PNC may have either remained the same or even increased in the last 3 years. Among NGO facilities, however, the percentage offering delivery care increased from 64 percent in 1997 to 71 percent by 2002.

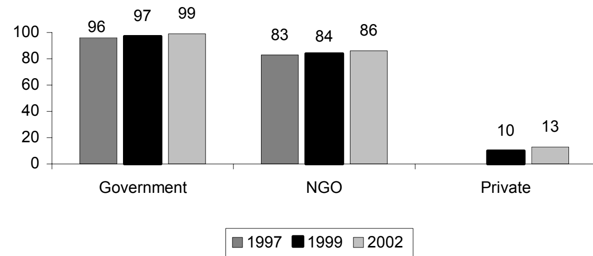
Figure 2.8. Trends in Percentage of Facilities Offering Delivery Care by Operating Authority



2.5 Trends in the Percentage of Facilities Offering Immunization Services

Immunization services are widely available in both government (99 percent) and NGO facilities (86 percent); however, private facilities are much less likely to offer these services (Figure 2.9). Between 1997 and 2002, the percentage of government and NGO facilities that offered this service remained virtually unchanged; however, levels were already very high in 1997 (96 percent government and 83 percent NGO), leaving little room for improvement. Among private facilities, the percentage offering immunization services increased slightly from 10 percent in 1999 to 13 percent in 2002.

Figure 2.9. Trends in Percentage of Facilities Offering Immunization Services by Operating Authority



2.6 Trends in the Availability of Supplies at Health Facilities

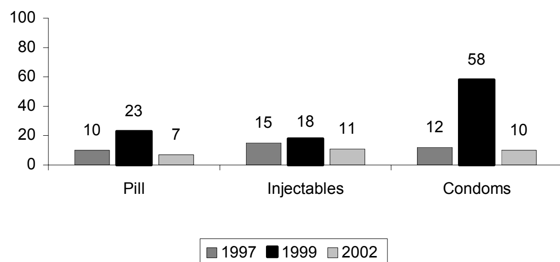
An important aspect of service delivery is the availability of drugs, contraceptives and medical supplies necessary for the provision of services. The DISH project did not directly purchase or provide drugs or supplies to health facilities. It did, however, work in collaboration with the MoH and the district and HSD teams to improve the requisition, storage, distribution and use of these essential supplies. The relevant strategies in this area included training and supervision for improved use of stock management practices (stock cards), information sharing between central and peripheral levels, and needs assessments (drug needs quantification). As in 1997 and 1999, the 2002 facility audit assessed the availability of these supplies at the time of the survey and during the preceding month (February 2002).

2.6.1 Stockout Rates of Family Planning Commodities

A particular effort was made to ensure an adequate supply of contraceptives through coordination with central-level procurement, improved stock management, and support to replenish stocks. Figure 2.10 shows the percentage of government facilities offering

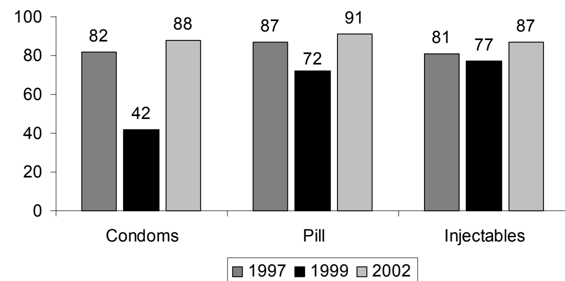
family planning services that experienced a stockout in selected contraceptive supplies in the month prior to the study. Perhaps the most positive accomplishment of the second-phase of the DISH project has been the reversal of the trends observed between 1997 and 1999, when stockouts of family planning commodities were quite frequent. By 2002, not only was the trend observed in 1999 reversed, but also stockout rates for the pill, injectables, and condoms all fell below those observed in 1997.

Figure 2.10. Percentage of Government Facilities Offering Family Planning that Experienced a Stockout of Selected FP Commodities in the Month Prior to the Survey



Stockout rates are only calculated among facilities that offer family planning services and provide information about logistics management. To determine whether these services are actually more readily available to the public, we looked at the uninterrupted availability of family planning commodities by calculating the percentage of all facilities that had family planning commodities continuously available during the month before the survey. This indicator captures two different aspects of availability: 1) whether facilities offer the methods and 2) whether facilities that do offer these methods are managing their stock in ways that ensure supplies are continually available to clients. Facilities were only considered as having the service available if they did not experience any stockouts of the supplies in the month preceding the survey (Figure 2.11).

Figure 2.11. Trends in Percentage of Government Facilities with Continuous Supplies of Commodities Necessary to Provide Selected FP Services



As figure 2.11 shows, between 1997 and 1999, the availability of these family planning commodities declined. Training in commodity management provided by DISH during the second-phase contributed to not only a reversal of the trends observed, but also to a net increase over the 5-year period in the percentage of facilities that have family planning commodities continually available.

2.6.2 Continuous Provision of Long-Term Planning Methods

Aside from providing training in logistics management, DISH also encouraged facilities to increase the availability of long-term and permanent methods. Figure 2.12 presents the percentage of facilities offering long-term planning methods (LTPM) on the day of the interview. Although the percentage of facilities that offer intrauterine devices (IUD) is declining, it seems this method is being replaced by Norplant® as a reversible long-term family planning method. The percentage of facilities continuously offering male sterilization remained virtually unchanged throughout the period, while provision of female

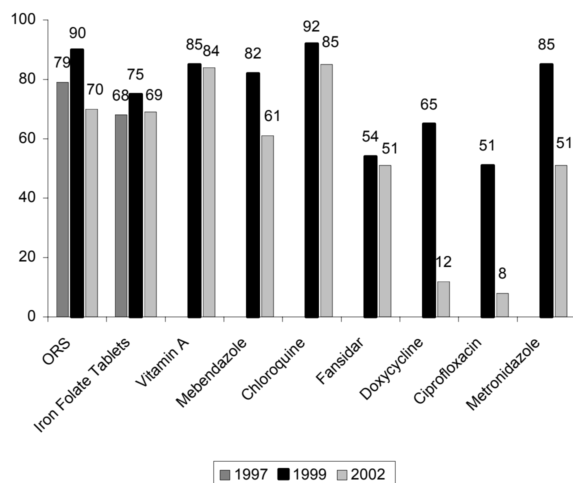
sterilization services increased from 14 percent to 20 percent of facilities between 1997 and 2002.

Figure 2.12. Trends in Continuous Availability of Selected LTPM in Government Facilities During the Month Before the Survey

2.6.3 Continuous Availability of Drugs and Medical Supplies

The availability of other essential drugs has been more problematic. Figure 2.13 shows the percentage of government facilities with availability of specific supplies across the different surveys. For most supplies, data are only available for 1999 and 2002.

Figure 2.13. Trends in the Availability of Selected Drugs/Supplies at Government Facilities



The only two supplies for which data are available for all 3 years are oral rehydration salts (ORS) and iron-folate tablets. Among government facilities, the availability of these increased between 1997 and 1999, but then declined during the second phase of the DISH project. By 2002, fewer government facilities had ORS available than in 1997 (70 percent in 2002 versus 79 percent in 1997) and there was, overall, no change in the percentage of government facilities with a continuous supply of iron folate tablets (68 percent in 1997 and 69 percent in 2002). Availability of this commodity peaked in 1999 when it was available at 75 percent of government facilities.

For most other maternal and child health and antimalarial drugs, between 1999 and 2002 the percentage of facilities with uninterrupted supplies either remained the same or declined slightly. However, the percentage of facilities with continuously available STD drugs, namely, doxycycline, ciprofloxacin, and metronidazole, declined significantly during the period.

The decrease in availability of these essential drugs between surveys probably results from a number of factors:

- Abolition of user fees in public-sector facilities in March 2001, which increased the number of clients seeking care at these facilities at the same time that it deprived health facilities of the readily available funds that could be used to purchase locally drugs whose stock would be getting dangerously low.
- Insufficient overall drug budget allocation, only covering one-third of the estimated needs, especially in light of the increase of outpatient department (OPD) attendance mentioned above, (which did not exist in NGO facilities).

- Exhaustion of the sexually transmitted infection (STI) project drugs for STDs, without overlap with the new MAP Project, resulting in an increase of the use of second-line treatment for those cases, particularly cotrimoxazole.

- Supplies of vitamin A have been sustained through National Immunization Day (NID) distribution until the recent adoption of the systematic biannual distribution to all children under five.

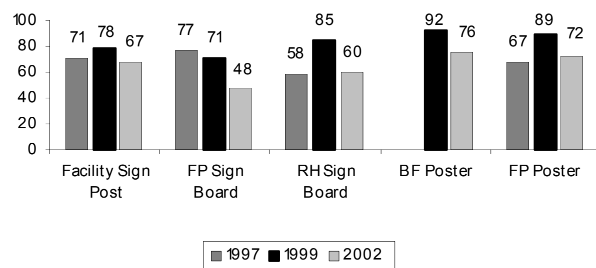
- The implementation of the new dual therapy policy for management of mild/moderate malaria cases may have stressed supplies of antimalarial drugs.

2.7 Trends in the Availability of Selected IEC Materials

DISH has made a significant contribution to the health system in Uganda by designing, producing, and disseminating IEC materials to educate health care providers and clients and to help providers improve the counseling and education process by providing them with visual aids. Data showing trends in the availability of these IEC materials are available for government facilities and are presented below. However, because this has been one of the key DISH inputs, IEC materials are also discussed in the chapters that follow. Sections of chapters 3 and 4 discuss the use of IEC materials during the ANC and sick-child visits observed. The topics of availability and use of IEC materials are also revisited in chapter 5, part of which presents data on the achievement of the YS standard for IEC and interpersonal communication (IPC).

As figure 2.14 shows, between 1999 and 2002 there was a decline in the availability of all selected IEC materials. The availability of facility signposts, family health signboards, and family planning posters all peaked in 1999 and declined during the second phase of the project to reach levels similar to those seen in 1997. DISH discontinued distribution of the family planning signboard in 1997. Without a resupply, there has been a steady decline in the percent of government facilities displaying a family planning signboard. In 1997, 77 percent of government facilities displayed one while in 2002 less than half (48 percent) of government facilities did. DISH distributed breast-feeding posters in 1999. However, while most facilities (92 percent) displayed the poster in 1999, availability declined substantially in the years that followed. By 2002 only about three-fourths of facilities (76 percent) displayed a breast-feeding poster.

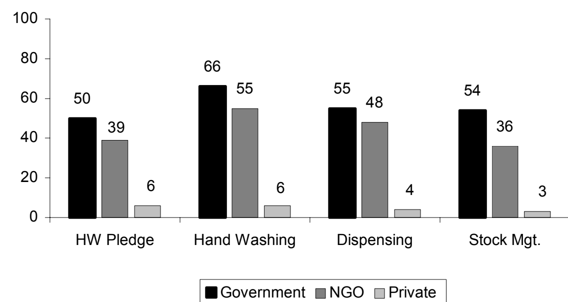
Figure 2.14. Percentage of Government Facilities with Selected IEC Materials



2.8 Availability of Additional IEC Materials During the 2002 DISH Facility Audit

With the implementation of the YSP, specific communication materials, such as the Health Workers' Pledge and three stickers on hand washing, dispensing drugs, and stock management have been developed and distributed to health units (Figure 2.15).

Figure 2.15. Percentage of Facilities Where Selected Yellow Star Materials Were Observed, by Operating Authority

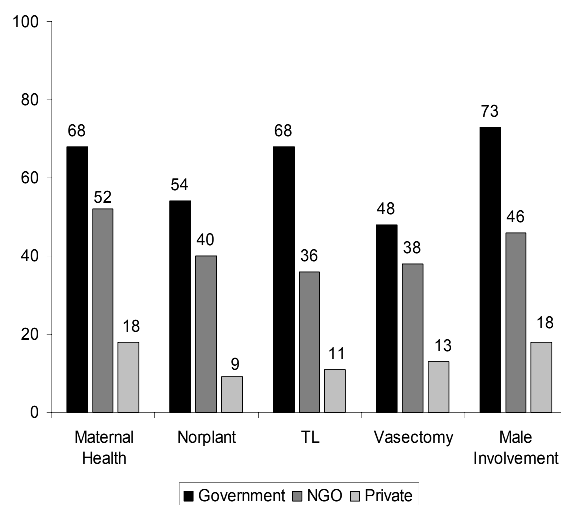


As shown in figure 2.15, these communication materials are more likely available at government and NGO facilities than in PFP facilities. Few PFP facilities had any of the items described above. Less than 1 in 10 PFP facilities had the health worker pledge or hand-washing stickers available, and only 4 percent and 3 percent, respectively, had the dispensing drug and stock management stickers.

The DISH project, in collaboration with the Central MoH and the districts, developed and produced a number of health education materials for diffusion through mass media and in health facilities and communities. It prepared communication strategies on family planning, and maternal and child health issues, such as male involvement in family planning, long-term and permanent FP, ANC attendance, STD prevention and management, VCT, and immunization among others. In addition, DISH assisted counterparts in designing, implementing, and evaluating these strategies.

Health education involves different aspects of communication—for instance, the availability of educational materials such as posters or flipcharts, or the scheduling of group education activities by the facility staff. The DISH project produced and distributed posters on maternal health and family planning to all government, NGO, and PFP facilities in its database. Figure 2.16 illustrates the percentage of facilities where these posters were observed, by operating authority. As the figure shows, government facilities are most likely to display each of these materials. Private facilities are much less likely than NGO and government facilities to do so. This may be because few (18 percent) private facilities complete the HMIS form, and it is through this reporting system that DISH identifies facilities for distribution of IEC materials.

Figure 2.16. Percentage of Facilities with Specific DISH/USAID Posters Displayed, by Operating Authority



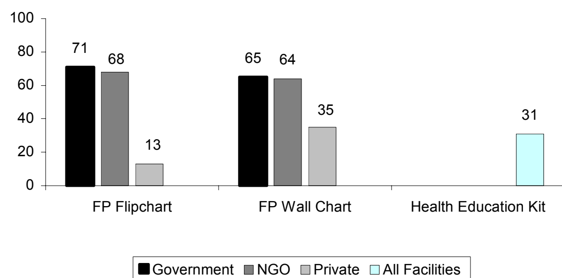
The DISH project also developed and distributed IEC materials to health facilities for use when counseling clients. During the survey, interviewers checked for the availability of IEC materials used to educate patients in the following areas: family planning, ANC, STD management, and child health.

2.8.1 Family Planning

The DISH project distributed family planning flipcharts and wall charts to be used to counsel FP clients as well as health

education kits for providers of long-term and permanent family planning methods. Data regarding the availability of these materials was collected during the DISH Facility Survey (DFS). As with other IEC materials, these were more likely available at government and NGO facilities than at PFP facilities. Family planning flipcharts were available at about 7 out of 10 government and NGO facilities providing family planning services, but they were only available in 13 percent of private facilities. Similarly, the family planning wall chart was available in almost two-thirds of government and NGO facilities but in only about one-third of PFP facilities. The Health Educators' Kit for Long-term and Permanent Methods was distributed to community health workers and health workers at facilities that provided Norplant, tubal ligation, and/or vasectomy. Interviewers found these kits in about 31 percent of facilities that offer long-term and permanent family planning methods (Figure 2.17). Because only 55 of the facilities audited offered long-term and permanent methods, results for this subset of facilities were not disaggregated by operating authority.

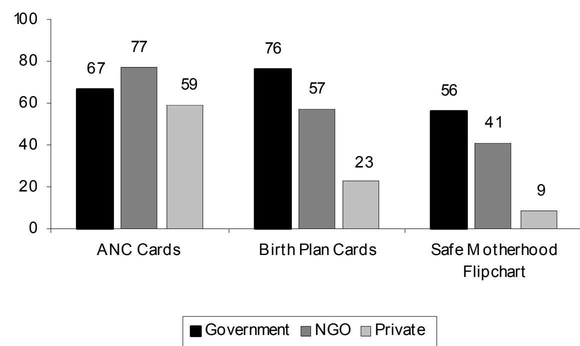
Figure 2.17. Percentage of Facilities Offering FP Services Where Selected IEC Materials Were Observed, by Operating Authority



2.8.2 *ANC Materials*

During DISH training, health workers are encouraged to complete antenatal cards and birth plans with clients and to use visual aids when counseling. Interviewers checked for the availability of these materials at facilities that provide antenatal care. Results are presented in figure 2.18.

Figure 2.18. Percentage of Facilities Offering ANC Services Where Selected IEC Materials Were Observed, by Operating Authority



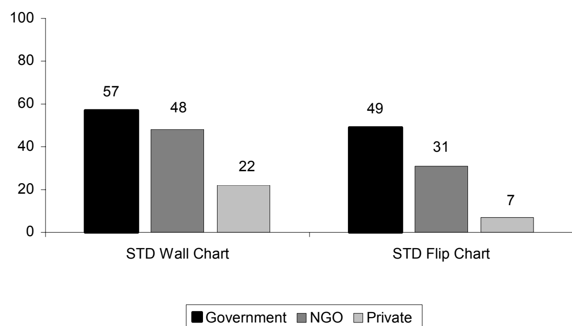
Generally, private facilities that offer ANC services were less likely than similar government and NGO facilities to have ANC-related IEC materials. Less than 1 in 4 private facilities had birth plan cards and less than 1 in 10 had the safe motherhood flipchart available on the day of the facility audit. Compared to other ANC IEC materials, safe motherhood flipcharts were least likely to be available; these were observed in 56 percent of government, 41 percent of NGO, and only 9 percent of PFP facilities. This may be because the safe motherhood flipcharts were distributed in 1998. Since then, no new flipcharts have been distributed.

2.8.3 *STD Materials*

In 1997, the DISH project produced and distributed desktop flipcharts reminding

health workers of the STD syndromes and treatment guidelines. Around that same time, the MoH distributed a wall chart showing STD treatment algorithms. Interviewers checked health facilities for these materials. These were much more likely to be available in government and NGO facilities than in PFP facilities. About one-half of government (57 percent) and NGO (48 percent) facilities displayed the STD wall chart. This was more than twice (22%) that of PFP facilities. Similarly, about one-half of government and 31 percent of NGO facilities displayed the STD flipchart, while only 7 percent of PFP facilities did so (Figure 2.19).

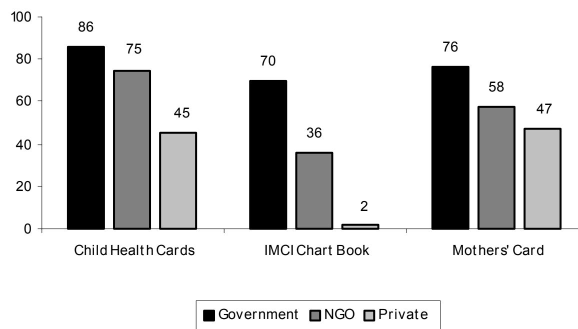
Figure 2.19. Percentage of Facilities Offering STD Services Where Selected IEC Materials Were Observed, by Operating Authority



2.8.4 Child Health Materials

One of the key IEC tools for providers of child health services is the child health card. This card serves not only as a record of the child's health history but also as a teaching tool for educating caretakers.[3] The survey found that 86 percent of government, 75 percent of NGO, and only 45 percent of private facilities had child health cards in stock on the day of the facility audit (Figure 2.20).

Figure 2.20. Percentage of Facilities Offering Child Health Services Where Selected Materials Were Observed, by Operating Authority



Mothers' cards were available in most government and NGO facilities—76 percent of government and 58 percent of NGO facilities. However, they were available in less than half (47 percent) of the PFP facilities. Of the three child health IEC items observed, integrated management of childhood illnesses (IMCI) chart books were least likely to be available. These were seen in 70 percent of government facilities but in fewer (36 percent) NGO facilities and in virtually none (3 percent) of the PFP facilities. These chart booklets were only distributed to providers trained in IMCI.

[3] A detailed description of the child health card is provided in chapter 4, which also presents data describing the percentage of SC observations in which providers correctly used the child health card.

Chapter 3: Quality of Antenatal Care

Antenatal care (ANC) services are designed for preventive care and treatment as well as, education and counseling. ANC also monitors risk factors for pregnancy complications. Client-provider interactions for antenatal consultations were observed during the 2002 DFS in Uganda to collect information about the quality of ANC in the facilities surveyed and to record whether or not the providers performed according to MoH standards.

Since 2000, the DISH II project has worked with the MoH to introduce four new approaches to improving maternal health care: goal oriented antenatal care, birth and emergency preparedness planning, intermittent presumptive treatment (IPT) of malaria in pregnancy, and client-friendly maternity services. This has been done through training, intensive supervision and onsite support, community mobilization, and provision of IEC materials. DISH II has continued to support training in integrated reproductive health (IRH) for nurses, midwives, and clinical officers, which has been modified to include these approaches. In 2000, DISH II also introduced a 3-day interpersonal communication (IPC) skills course for all cadres of service providers. At the same time, the MoH introduced a 3-month-training course for nursing assistants that includes modules on ANC. In 2001 the DISH project developed birth-planning cards for use during ANC and developed a self-instructional manual for health workers on birth planning, client-friendly maternal health services, and IPT. Also in mid-2001, the project launched a multichannel communication campaign to encourage couples to prepare birth plans and to deliver at health facilities.

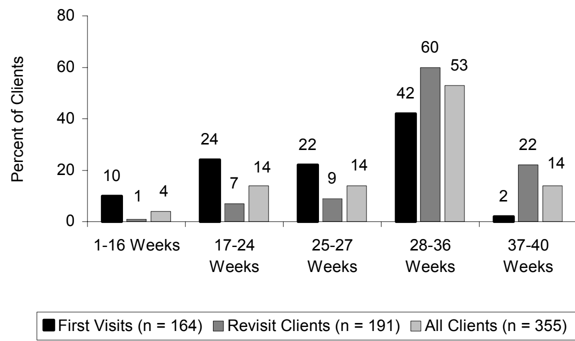
In this chapter, a comparison of consultations of providers who had attended various in-service training courses with those who had not was done to discover specific areas of performance that may have been influenced by training. It is possible that providers who attended IPC training had also attended IRH training. Likewise, providers who completed the self-instructional manual had also probably completed IRH and/or IPC training. As it is difficult to separate the effects of individual courses on provider practices, simply comparing consultations with trained versus untrained providers was considered adequate for the analysis. The providers were not asked specifically about training provided by DISH. The training, therefore, referred to in this report may or may not have been provided by DISH, although DISH has had a significant input in in-service training of health providers since 1997. The ANC data were weighted to ensure that results are representative of antenatal client visits in DISH districts.

3.1 Client Characteristics

A total of 355 antenatal client visits were observed for this study (Appendix A for sampling methodology). ANC visits were observed in 108 facilities. Of these, 164 (46 percent) were first-visit clients who had not received ANC previously during this pregnancy. As shown in figure 3.1, most of the first-visit clients were either between 28–36 weeks (42 percent) or 17–24 weeks pregnant (24 percent) Another 22 percent was between 25–27 weeks pregnant. Of the revisit clients, 60 percent were between 28–36 weeks pregnant and another 22 percent were between 37–40 weeks

pregnant. Only 10 percent of new clients were between 1 and 16 weeks pregnant, which is the recommended timing for the first antenatal visit by the Uganda MoH.

Figure 3.1. Percentage of Antenatal Care Visits by Type of Visit and Gestational Age



3.2 Provider Characteristics

Most clients were seen by enrolled nurses or midwives (61 percent) or registered nurses and midwives (30 percent), and nursing assistants saw 4 percent of clients. Only a few clients were seen by clinical officers and doctors (Figure 3.2). Female providers saw all but 6 percent of clients. Most of the observed consultations lasted less than 30 minutes (86 percent).

Figure 3.2. Percentage of Antenatal Clients by Type of Provider

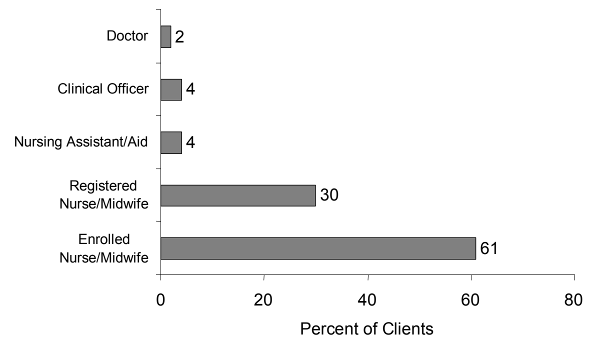
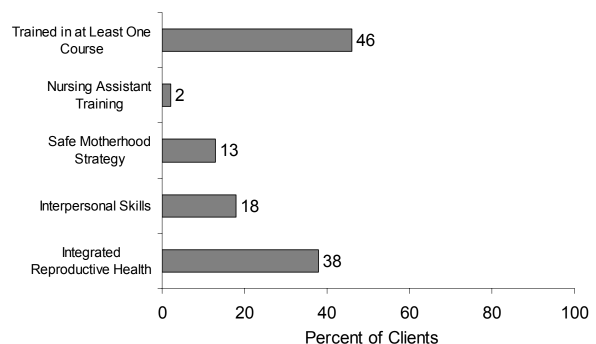


Figure 3.3 shows that more than one-third (38 percent) of the consultations observed was conducted by health workers who had taken the IRH in-service training course; 18 percent by providers trained in IPC; 13 percent by providers trained in the safe-motherhood self instructional manual; and 2 percent by providers who had attended the 3-month course for nursing assistants. Overall, 46 percent of consultations were with providers who had attended at least one in-service course.

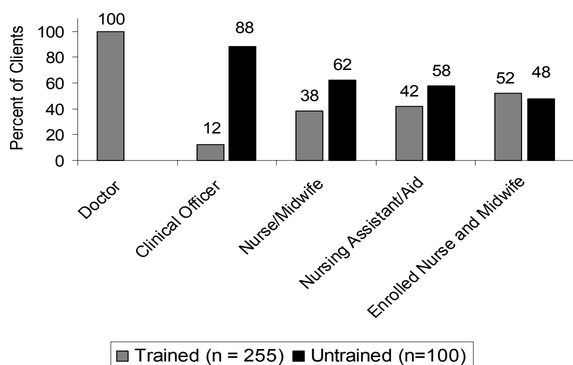
Figure 3.3. Percentage of Antenatal Clients by Providers' Training Status



Training status varied by type of provider (Figure 3.4). Of the providers observed, all the doctors had participated in at least one in-service training course and about one-half of the enrolled nurses and midwives had also done so. However, clinical officers,

nursing assistants, and registered nurses/midwives were less likely to be trained. About 42 percent and 38 percent of nursing assistants and registered nurses/midwives, respectively, had attended at least one training course, and only 4 of the 16 clinical officers had done so.

Figure 3.4. Training Status of Providers by Type of Provider. (NOTE: Small n's for Doctors and Clinical Officers)



3.3 Technical Competence

The influence of training on antenatal care received by clients is further examined in the next sections for the following skill areas: reproductive history taking, physical and obstetric examination, client counseling and education, birth planning, interpersonal skills, and refocused ANC for preventive drugs and immunizations. These results, however, need to be interpreted with caution due to a number of factors likely to influence provider performance. Better-performing providers may be more likely to have attended the courses and were bound to perform well anyway. The results could also be confounded by type of operating authority; data from the facility audit show that government facilities are more likely than NGO and private facilities to have staff who had attended in-service training (data not shown).

In addition to training, the service delivery environment can greatly influence provider performance. If providers who have received training are working at health facilities that provide other means to enhance provider performance (support supervision, for instance), then differences in quality of care by training status may reflect other factors besides training.

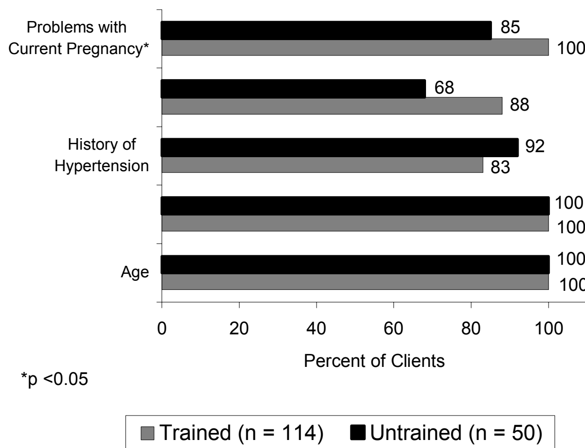
3.3.1 Reproductive History Taking

The Uganda MoH guidelines recommend that women make at least four visits during each pregnancy. As a result, the actual physical examination and history taking will vary according to the number of previous visits the woman has made and the gestational age of the fetus. Guidelines for goal-oriented ANC give providers detailed guidance on what procedures and treatments to implement at those different stages of pregnancy. For this reason, and depending on the relevance of each activity, some aspects of a provider's technical competence are examined only among first-visit clients and some among all clients observed on the day of the survey.

During the first antenatal visit, the health worker should ask for more information than during subsequent visits. It is during the first-visit that the health worker learns the client's age, parity, and past medical history including diabetes or hypertension. During all antenatal visits, the health worker should ask the client about any problems she is experiencing. Whether an antenatal client received services from a trained or untrained provider made little difference in aspects of reproductive history taking, except when obtaining information on problems with current pregnancy. Figure 3.5 shows every first-visit client was asked her age and parity. All clients seen by trained providers were asked whether they had problems with current pregnancy and more than 80 percent

of clients were asked about history of hypertension. Clients making their first visit were more likely to be asked by an untrained provider if they had any history of diabetes. This difference was large (88 percent trained versus 68 percent untrained) and marginally significant (p = .06); it is possible that the sample size limited our ability to detect a difference.

Figure 3.5. Topics Discussed During History Taking with First Visit Antenatal Clients by Training Status of Providers (n = 164)

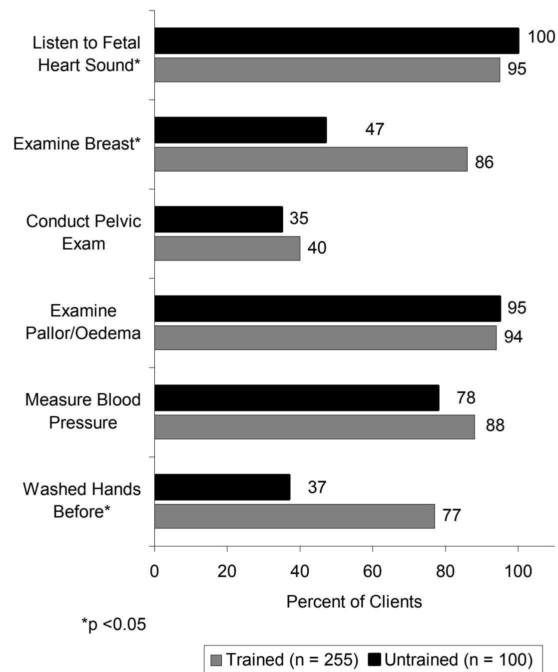


3.3.2 *Physical and Obstetric Examination*

During all antenatal visits, the client should be examined for signs of a complicated pregnancy. The examination should include blood pressure measurement, a check of the client's eyes and palms for pallor to detect possible anemia, and an examination of the client's face and hands for edema to assess the risk of pre-eclampsia. Health workers should also examine the client's breasts for lumps. During the first visit and later between 36 and 40 weeks gestation, health workers should also conduct pelvic examinations.[4] After 20 weeks, the health worker should check for fetal heart sounds during each antenatal visit.[5]

As seen in figure 3.6, most clients were more likely to be assessed appropriately during the visit by a trained rather than an untrained provider. Trained providers were significantly more likely than untrained providers to wash their hands before examining clients (77 percent versus 37 percent) and to examine clients' breasts (86 percent versus 47 percent). There was no difference by training status in the percentage of ANC clients who received pelvic examinations or had their blood pressure measured.

Figure 3.6. Provider Actions During Physical and Obstetric Examination for Antenatal Care Clients by Training Status



[4] Pelvic examination results are based only on the first visit and revisit clients at 36–40 weeks gestation.

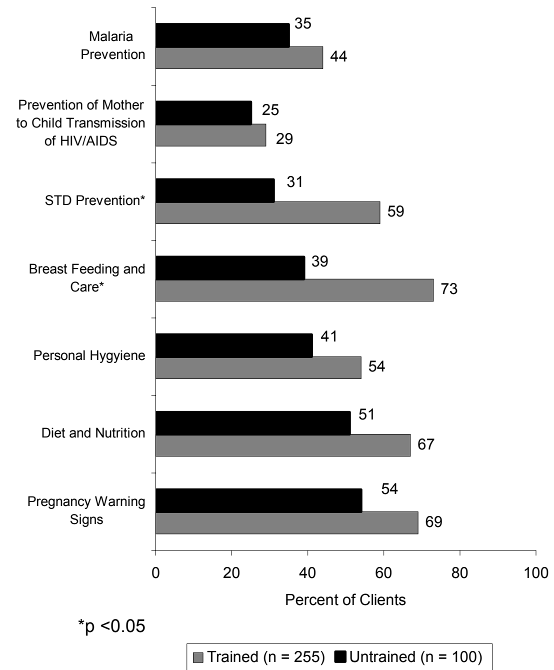
[5] Listening to fetal heart sound is assessed only among clients at 20–40 weeks gestation.

3.3.3 Client Counseling and Education

ANC offers an excellent opportunity to educate and counsel clients and accompanying family members about preventive and care-seeking practices that help protect the mother and fetus during pregnancy, labor, and delivery, as well as warning signs of problems requiring immediate medical attention. ANC providers should counsel all clients about the warning signs of complications, diet and nutrition, personal hygiene, care of the breasts and breast feeding, prevention of STIs and mother-to-child transmission of HIV, and malaria prevention.

As observed in figure 3.7, providers were more likely to comply with MoH guidelines on counseling and education if they were trained than not trained. Clients were significantly more likely to be counseled about breast feeding and breast care and STD prevention if seen by a trained than an untrained provider. There was no significant difference by training status in the percentage of providers that discussed prevention of mother-to-child transmission of HIV (29 percent trained versus 25 percent untrained), malaria prevention (44 percent versus 35 percent), and personal hygiene (54 percent versus 41 percent). Trained providers might be more likely than untrained ones to discuss warning signs of pregnancy and diet and nutrition. The differences were not statistically significant, but they were large and may be significant if calculated from a larger sample. It should be noted, however, that some clients may have been counseled on these topics during previous visits or general health talks, and providers may have chosen not to discuss them again.

Figure 3.7. Topics Discussed During Counseling and Education Session with Antenatal Clients by Training Status of Providers



3.3.4 Birth Planning and Emergency Preparedness

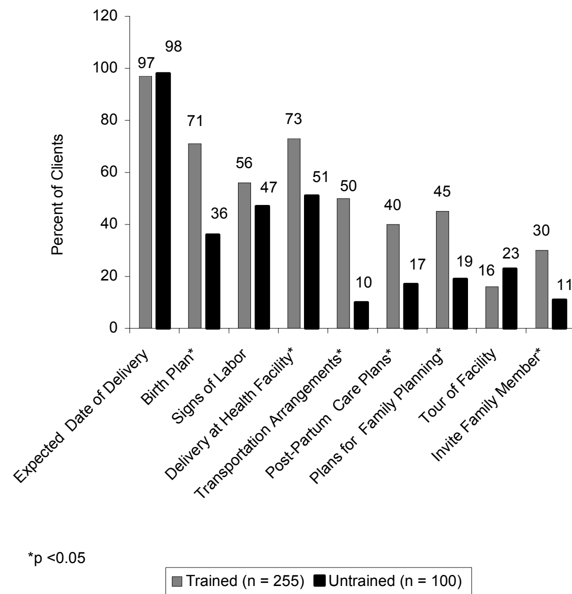
In late 2001, the DISH II project introduced a birth and emergency preparedness plan card for use during counseling of antenatal clients. The purpose of the plan is to better enable clients to deliver at health facilities and to return for care immediately if they have signs of complications during pregnancy. Among other things, the plan includes knowing the expected date of delivery, where the woman plans to deliver, and how she will move to the health facility during labor.

Figure 3.8 shows the percentage of observed antenatal client consultations during which health workers discussed various aspects of the birth plan. Overall, having received

training is associated with providers' discussion of birth planning and emergency preparedness. In 71 percent of antenatal consultations, trained providers talked to the client about the birth plan or helped the client to fill a birth plan as compared to 36 percent of antenatal consultations with providers who had not received training. More than 70 percent of clients were told the importance of delivering at the health facility if the provider were trained as compared to 51 percent of clients with untrained providers. About two to five times as many clients were told about transport arrangements, postpartum care, and family planning if the provider were trained than untrained. Almost all clients, regardless of providers training status, were told of the expected date of delivery.

One way to encourage clients to return to the health facilities for delivery assistance is to invite the client's family members to take part in the antenatal counseling session and to offer antenatal clients a tour of the maternity and labor wards. These actions are part of the client-friendly services that the DISH II project began promoting in early 2002. Few ANC clients were offered either of these—overall, only one in five clients were offered a tour of the facility by the providers and the same proportion were asked to invite a family member to join the counseling session. Significantly more clients were likely to be asked to invite a family member if seen by a trained provider than their untrained counterparts. Few clients were given a tour of the facility, regardless of training status of the provider. Even though it is possible that some providers could have chosen not to broach topics on delivery preparedness until later in the pregnancy, no difference is observed in discussion of delivery preparedness by gestational age.

Figure 3.8. Topics Discussed During Birth Planning Session with Antenatal Clients by Training Status of Providers

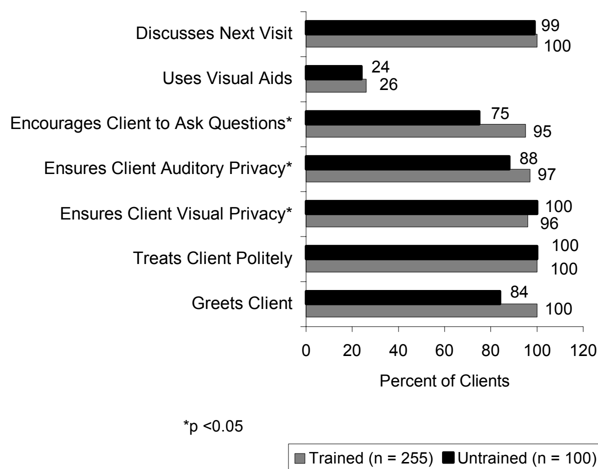


3.3.5 Interpersonal Skills

Quality ANC requires that the provider treat the client with respect, respond to her needs, encourage her to be an active participant in her care, and use visual aids to help clients better understand explanations and instructions. Whether or not a provider received in-service training made little difference in a provider's interpersonal relations with antenatal clients (Figure 3.9). With most clients, providers greeted clients, were respectful, saw the client in private, and encouraged the client to ask questions. Almost all clients were told of the date of the next antenatal visit. Having received in-service training made little difference in the use of visual aids among providers. Only about one-quarter of clients were counseled using visual aids. On the other hand, trained providers were much more likely than their untrained counterparts to encourage clients to ask questions (95 percent trained, 75 percent untrained).

There is a significant difference by training status in the percentages of providers who offered visual and auditory privacy; however, the magnitude of the differences is small, and almost all providers offered privacy regardless of training status. Most (80 percent) facilities have a separate room (with a door) available for ANC examinations, and an additional 6 percent of facilities have an area that is curtained off for privacy.

Figure 3.9. Provider Actions in Interpersonal Skills During Antenatal Care Consultations by Training Status



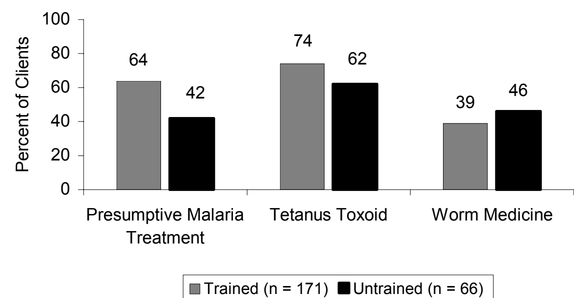
3.3.6 Drugs and Immunizations

According to the MoH guidelines, antenatal clients should receive iron and folic acid supplements during each of the four antenatal visits regardless of gestational age. Almost all the antenatal clients (81 percent) received iron and folic acid tablets.

Between 17 and 24 weeks gestation, and again between 28 and 36 weeks, the MoH recommends that antenatal clients receive malaria prophylaxis with sulfadoxine-pyramethamine (SP). Clients should also receive treatment for worms with antihelminthics and, initially, immunization with tetanus toxoid when they are between 17 and 24 weeks and again when they are between 28 and 32 weeks.

Analysis of preventive treatments by training status in figure 3.10 indicates that 64 percent and 74 percent of clients seen by trained providers received SP and tetanus toxoid, respectively, during the correct time, according to MoH guidelines as compared to 42 percent and 62 percent of clients by providers who had not received in-service training.[6] Compared to other forms of preventive treatment, worm medicine was less given or prescribed to clients by both trained and untrained providers.

Figure 3.10. Percentage of Antenatal Clients 17–24 Weeks or 28–36 Weeks Gestation Given or Prescribed Preventative Treatments by Training Status of Providers



Whether or not a provider gives a client drugs and immunizations depends not only on whether she is trained appropriately but also on whether the facility has the commodities on the day of the client's visit. Few providers offered malaria prophylaxis and worm medication despite the availability of these at most facilities. Both commodities were seen at about three-quarters of the facilities on the day of the

[6] *Assessed only among antenatal client observations of 17-24 weeks and 28–36 weeks gestation.*

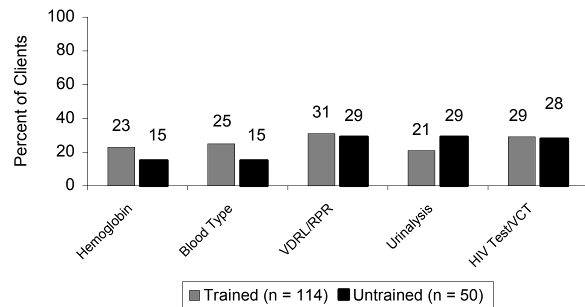
observations (77 percent malaria prophylaxis, 75 percent antihelminthics).

3.3.7 Laboratory Tests

According to MoH guidelines, ANC providers should conduct or refer clients during their first antenatal visit for blood tests to determine blood type, hemoglobin levels (an indicator of anemia), VDRL or RPR to screen for syphilis, and HIV serostatus. In addition, during all antenatal visits, providers should conduct or refer clients for urinalyses to check for sugar and protein. However, the analysis in this section is confined to first-visit clients, as they are more likely to receive or be referred for these tests.

During observed antenatal consultations, few first-visit clients received or were referred for any of the laboratory tests, regardless of providers' training status (Figure 3.11). It could be argued that the laboratories were not equipped to handle tests for a large number of antenatal clients, or may not have had the necessary equipment or reagents for these tests. The facility audit results show that just over one-half (52 percent) of surveyed facilities had laboratories. Out of these, 64 percent had RPR kits and only 43 percent had HIV testing kits.

Figure 3.11. Percentage of First-Visit Clients Receiving or Referred for Laboratory Tests by Training Status of Providers



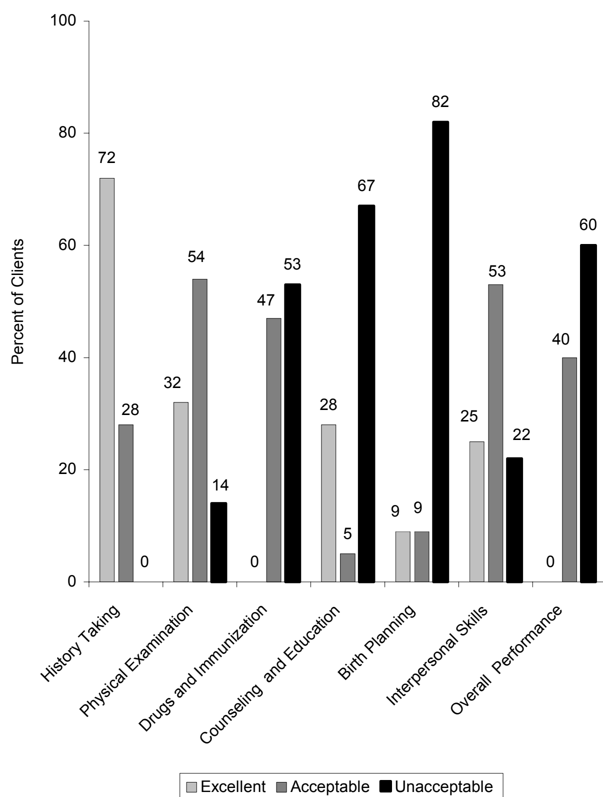
3.4 Overall Provider Performance and Association with In-Service Training

In order to assess the overall performance of ANC providers, a ratings system was developed to indicate the quality of care provided to clients between 16 and 36 weeks gestation for whom this was their first antenatal visit. Provider's performance was rated as "excellent," "acceptable," or "unacceptable" for each skill area and overall. An excellent score indicates that all the MoH guideline recommendations were conducted during the client observation, whereas an acceptable score indicates that all of the most critical actions were conducted during the client observation. An unacceptable score indicates that the ANC was not done according to assessed standards and that it neglected critical actions (Appendix C for further explanation of the scoring criteria).

Overall, 40 percent of the first-visit antenatal observations (16–36 weeks gestation) were rated acceptable and 60 percent were unacceptable; none of the antenatal visits scored excellent. Health workers seemed to excel in history taking (72 percent were excellent), physical

examination (54 percent acceptable and 32 percent excellent), and interpersonal skills (53 percent acceptable and 25 percent excellent). Providers performed particularly poorly in the areas of client counseling and education (67 percent unacceptable), birth planning (82 percent unacceptable), and drugs and immunization (53 percent unacceptable and none excellent) (Figure 3.12). Overall, weighted scores could not be compared by the facility's operating authority because less than 25 clients between 16 and 36 weeks gestation for whom this was their first antenatal visit were observed in NGO and private facilities.

Figure 3.12. Percentage of First-Visit Antenatal Client Consultations (16–36 weeks) by Rating Scores of Providers in Various Skill Areas (n = 141)



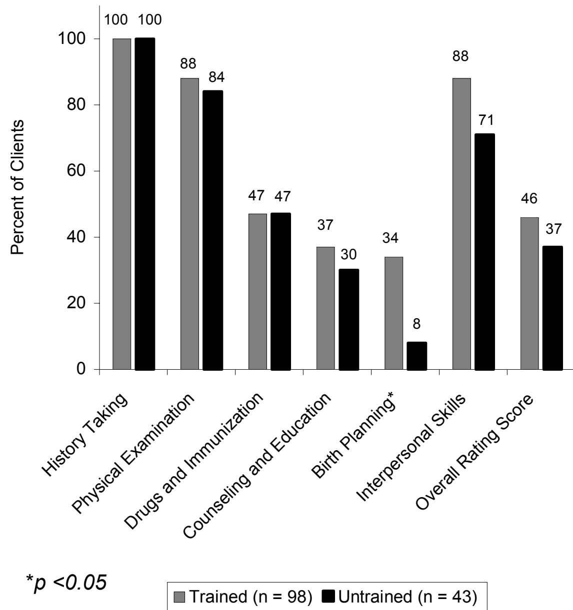
When overall scores are compared by level of facility, no significant differences exist, although ANC observations in Health Centres (HC) IVs and hospitals were more likely to be rated acceptable (46 percent) than observations in HC IIIs (31 percent) and HC IIs (19 percent).[7] Although these differences are not statistically significant, these results do suggest an association between provider performance and the level of the facility. It is possible that the lack of statistical significance in this case may be due to the limited number of government and NGO facilities relative to the level of disaggregation necessary for this analysis (data not shown).

As mentioned earlier, the DISH II project has assisted all the surveyed districts to conduct various training for health workers that should improve the quality of ANC skills. These courses include integrated reproductive health (IRH), interpersonal communication skills (IPC), a self-instructional manual on safe motherhood, and the 3-month MoH nursing assistants (NA) training course. To evaluate these training courses, ANC rating scores as well as the scores for each skill area were compared for those who had attended these courses and those who had not.

Figure 3.13 shows no significant difference by training status in the overall rating of ANC consultations (46 percent trained; 37 percent untrained). Consultations with trained providers were more likely to be rated acceptable or excellent in the area of birth planning (34 percent trained; 8 percent untrained). For all other skill areas, there was no significant difference in performance by training status.

[7] *Assessed only among public and NGO facilities because information on level of facility for private facilities is not available.*

Figure 3.13. Percentage of First-Visit Antenatal Client Consultations (16–36 weeks) Rated Acceptable or Excellent by Training Status of Providers and Skill Area



As mentioned earlier, the effects of training may be confounded by the type of facility in which the provider practices. To control for this, overall scores for each skill area were calculated separately for government facilities. The results for government facilities were compared to those for the entire sample and for most skill areas; the results were unremarkable. Below are the exceptions.

For the full sample, all of the ANC visits observed were rated either acceptable or excellent in the area of reproductive history taking, regardless of training status. However, within government facilities, trained providers were significantly more likely than untrained ones to have scored excellent; 83 percent trained versus 47 percent untrained in this skill area (data not shown).

About one-third of consultations were rated excellent or acceptable in the area of counseling and education. Within government facilities, however, trained providers were significantly more likely to score excellent or acceptable. In government facilities, only about 1 percent of ANC visits by untrained providers were rated acceptable and none excellent, compared with 19 percent of visits by trained providers rated acceptable or excellent (data not shown).

These results suggest that the impact of training on provider performance in some skill areas may vary depending on the environment in which the provider practices. To explore this in more detail would require analytical techniques that are beyond the scope of this report.

Chapter 4: Quality of Sick-Child Care

Health facilities offer two types of child health care services: preventive and curative. Preventive services include vaccination and growth monitoring, while curative services provide care for sick children. The DISH II project aimed at increasing the availability, demand, and use of quality child health services through support to districts in 1) implementing integrated management of childhood illnesses (IMCI) at the facility and community levels, 2) mobilizing communities/caretakers to take their children for preventive treatment and to seek for medical care, and 3) increasing capacity for health facilities to provide these services.

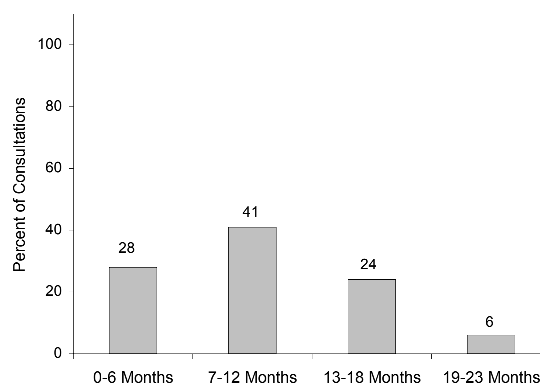
Observations were made during the sick-child consultations at the health facility on the day of the survey to assess the health workers performance on the quality of care given and the potential for minimizing missed opportunities for preventive treatment during this encounter. Health workers were observed managing sick children aged 0–23 months who did not have a severe life-threatening illness. The sick-child-client data were weighted to ensure that results are representative of client visits in DISH districts.

As with ANC results, a comparison of consultations by providers who had attended at least one in-service course with those who had not was done to discover specific areas of performance that may have been influenced by in-service training. Similarly, it may be possible that the contents of the different courses received overlapped and, because providers were not asked specifically about DISH training, they may have received in-service training under different projects or organizations. The training, therefore, referred to in this chapter may or may not have been provided by DISH, although training was a major component of the DISH project that would be expected to have a significant influence on a health worker's performance.

4.1 Client Characteristics

A total of 532 consultations were observed at 192 of the facilities surveyed (Appendix A for sampling methodology). Figure 4.1 shows a larger percentage of children (69 percent) were aged between 0-12 months of age and were, on average, 10 months of age.

Figure 4.1. Percentage of Sick-Child Consultations by Age in Months

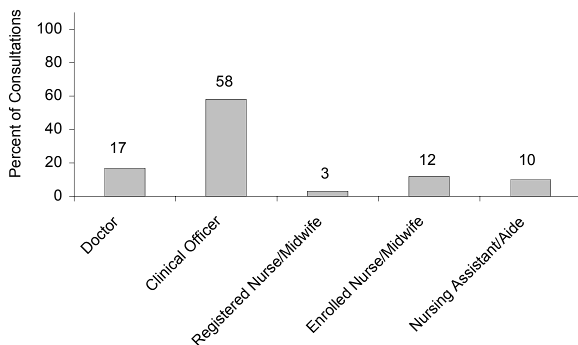


4.2 Provider Characteristics

The majority of sick-child consultations were by clinical officers (58 percent) and doctors (17 percent). About 1 in 10 consultations were by enrolled nurses/midwives and a similar percentage by nursing assistants, while 3 percent were seen

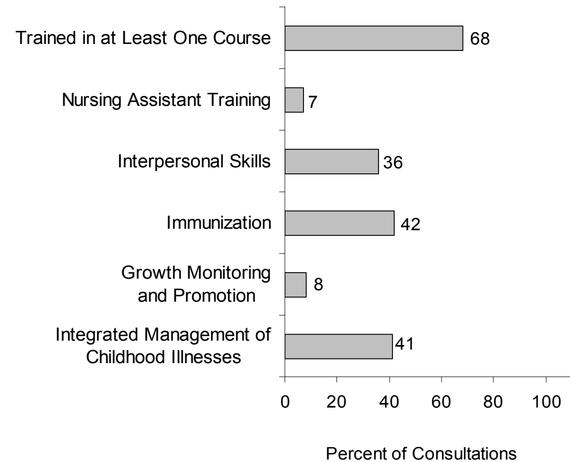
by a registered nurse/midwife (Figure 4.2). Unlike ANC clients, more of the consultations were by male health workers (73 percent males, 27 percent by females). Most consultations lasted less than 30 minutes (88 percent).

Figure 4.2. Percentage of Sick-Child Consultations by Type of Provider



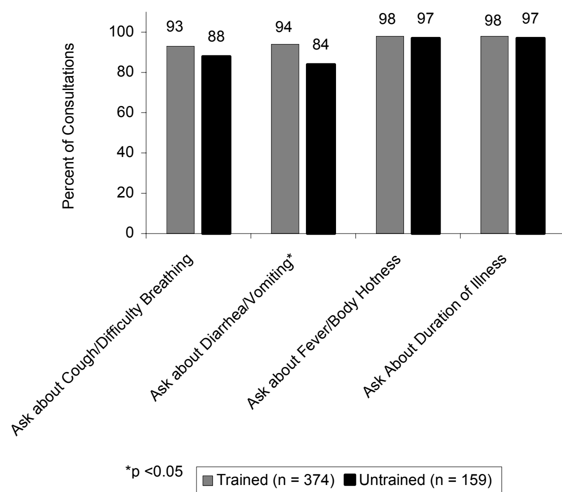
The DISH project assisted or conducted training of health workers to provide quality sick-child care for all cadres of staff. Health providers were trained in IMCI, immunization, growth monitoring and promotion (GMP), interpersonal communication (IPC), and a 3-month course for nursing assistants. As illustrated in figure 4.3, 68 percent of sick-child consultations were by a health worker who had attended at least one in-service course, and 42 percent and 41 percent had received training in immunization and IMCI, respectively. More than one-third of consultations were by providers trained in IPC, 8 percent on GMP, and 7 percent in a 3-month nursing assistant course.

Figure 4.3. Percentage of Sick-Child Consultations by a Provider's In-Service Training Status



The training status of providers differed by cadre (Figure 4.4). Few (14 percent) of the doctors had participated in any of the courses and about half of the registered nurses and midwives had done so. However, more than three-quarters of clinical officers, enrolled and comprehensive nurses and midwives, and nursing assistants and other health workers had attended at least one of the in-service training courses.

Figure 4.4. Training Status of Providers by Cadre



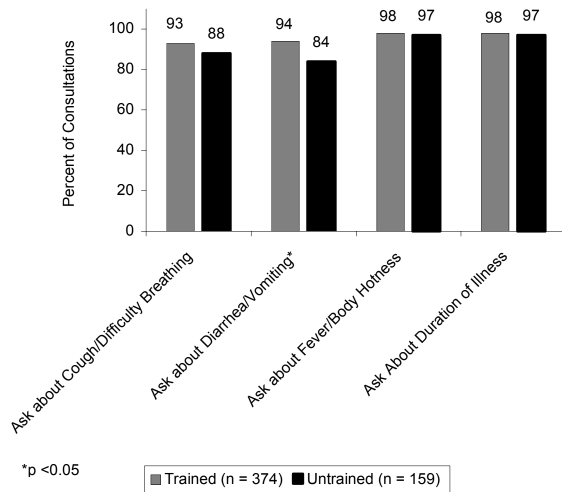
4.3 Technical Competence

A number of key technical competencies are important during the assessment and treatment of the sick-child. The DISH project supported the training of staff and provided equipment to health units to enable them to adequately handle sick children and to follow a series of procedures to ask symptom-specific questions, conduct a thorough physical examination, and assess missed opportunities for preventive treatments such as immunization and vitamin A supplementation. During the facility survey, health workers were observed to see if they performed according to these key tasks. The influence of training on management of sick-child presenting for curative services is examined in the next sections according to each observed skill area. Participation in any or all of these training courses is associated with better overall performance of providers as well as better performance in the areas of history taking and interpersonal skills. As noted in chapter 3, interpretation of the results in this chapter also needs to be cognizant of the lack of comparison data, the possibility of selection bias for providers who attended training, and the fact that providers in government health facilities are more likely to have received in-service training than their counterparts in NGO and private facilities.

4.3.1 History Taking

Providers were observed to see if they asked about key aspects of a child's illness in order to arrive at the correct diagnoses. Figure 4.5 shows the percentage of consultations during which the caretaker volunteered or was asked about the child's illness by providers' in-service training status. Key pieces for history were taken in the majority of cases. Sick-child consultations by trained providers were significantly more likely than those by untrained providers to be assessed for diarrhea or vomiting (94 percent versus 84 percent). There was little difference by training status in assessment of fever, cough, or difficulty breathing, or duration of illness; more than 90 percent of children were assessed for these conditions.

Figure 4.5. Provider Actions During History Taking for Sick-Child Care Consultations by Training Status

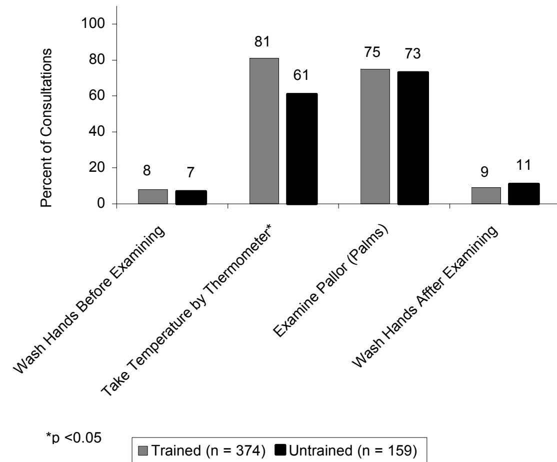


4.3.2 *Physical Examination and Infection Prevention*

IMCI is designed to assist providers to carry out key physical examinations to arrive at the correct classification and diagnosis of the child's illness. Infection control was one of the quality standards supported by the DISH YSP. Transmission of a number of childhood illnesses like measles, diarrhea, and skin and eye diseases can be prevented if health workers practice infection prevention and control procedures. Health workers were observed to see if they carried out key physical examination and infection control practices such as checking for palmar pallor, washing hands, and taking temperatures.

A significantly larger percentage of children receiving care from a trained provider had their temperature taken (81 percent versus 61 percent). There was no difference in the percentage of children examined for pallor by a provider's training status. Providers performed poorly in the area of infection control. Few providers, regardless of training status, washed their hands before or after examining the sick child (Figure 4.6). Availability of soap and water does not appear to be the reason for poor hand washing practices. On the day of the observations, soap and water were observed in 84 percent of outpatient departments that offer sick-child services.

Figure 4.6. Provider Actions During Physical Examination for Sick-Child Care Consultations by Training Status



4.3.3 *Medications*

Getting medication is probably the main reason why sick children are brought to health facilities. Of particular importance is the communication with the caretaker about the medications given (type, dose, how often, and for how long). Both trained and untrained providers prescribed medicine in almost all encounters. Caretakers were offered explanations why treatment was given or how to give medication more often if seen by trained providers than untrained providers (93 percent versus 80 percent).

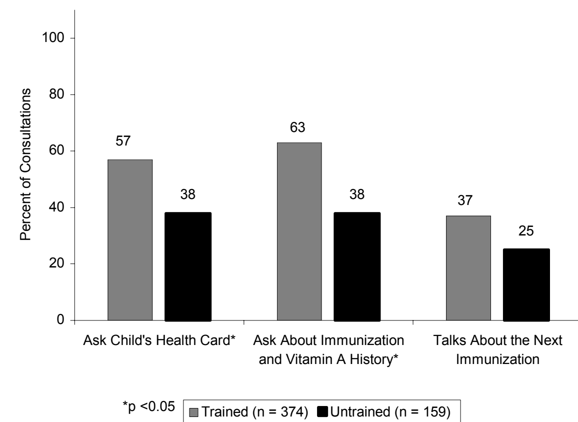
4.4 Minimizing Missed Opportunities

Seeing children for sickness at a health facility is an opportunity for providing essential preventive services like immunization and GMP. Training was designed to equip providers with skills to assess all sick children with regard to the need for preventive services. Health workers managing sick children on the day of the survey were observed to determine if they provided the required preventive services.

4.4.1 Immunization and Vitamin A Supplementation

All sick children are supposed to be assessed for their immunization and vitamin A supplementation status. Whether or not a provider had received training made a significant difference in assessment of a child's immunization and vitamin A supplementation status. Trained providers asked for the child's health card in 57 percent of consultations as compared to 38 percent by untrained providers. Similarly, about one and one-half times as many children were assessed for immunization and vitamin A status if the provider was trained than untrained. There was no difference by training status in the percentage of caretakers told of the need to return to the health facility for the next immunization (Figure 4.7).

Figure 4.7. Provider Actions for Ascertaining Immunization and Vitamin A Supplementation Status During Sick-Child Care Consultations by Training Status



4.4.2 Growth Monitoring and Feeding Practices

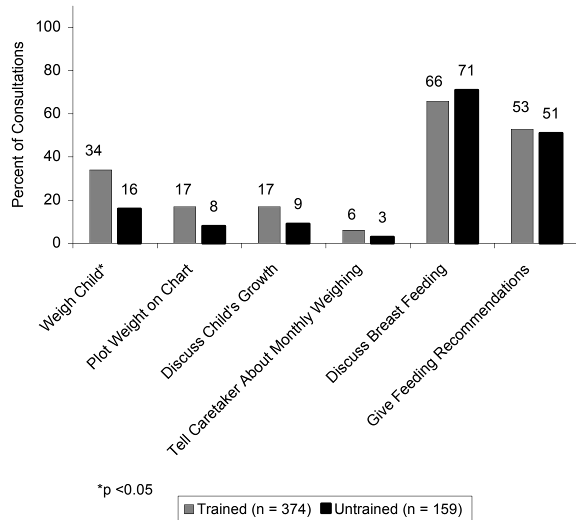
Apart from the need for immunization and vitamin A supplementation preventive services, children less than 2 years are supposed to be weighed monthly and have their weight plotted on the growth chart, with the graph discussed with the caretaker. This is supposed to happen not only in the well-child clinic but also every time the child is brought to the facility for curative services.

Figure 4.8 illustrates that there was little difference by training status in the area of growth monitoring and feeding practices. The only difference was in the percentage of children weighed during the visits. Trained providers weighed 34 percent of children, whereas, untrained providers weighed 16 percent of children. However, the majority of children did not have their weights plotted or discussed. The lack of child health cards appears not to be a major

issue because results from the facility audit show that they were observed in 71 percent of the facilities. It is possible that caretakers of sick children may not have taken the child's health card during the sick visit. This could be a reason for the discrepancy between weight taking, on one hand, and the plotting and discussing the implications on the other hand.

IMCI, which is the main management strategy and tool for the sick children, emphasizes weight for determining the nutritional status of a child and as a basis for determining treatment. It appears health workers place more emphasis on child feeding practices than on growth monitoring during sick-child visits. In more than two-thirds of the visits, the provider discussed breast feeding and, in more than one-half of the visits, the provider gave feeding recommendations regardless of the training status of the provider.

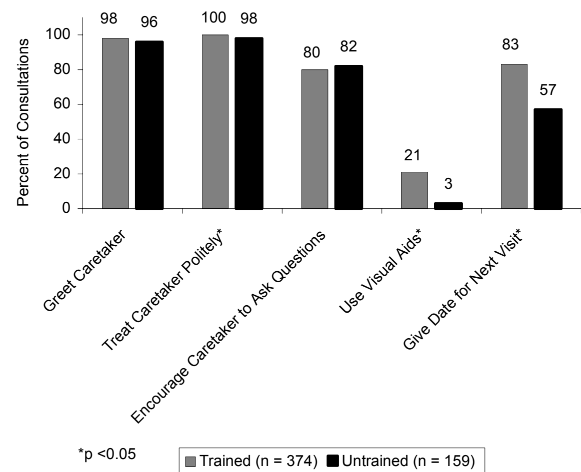
Figure 4.8. Provider Actions for Growth Monitoring and Feeding Practices During Sick-Child Care Consultations by Training Status



4.5 Interpersonal Communication

A conducive environment where the health worker communicates well with the caretaker is essential for effective management of a sick-child. As seen in figure 4.9, sick-child consultations by trained providers were significantly more likely to be counseled using visual aids (21 percent) and to be given a return date (83 percent). Only 3 percent of sick-child encounters by untrained providers was counseled using visual aids, and 57 percent of similar consultations were given a return date. The way a sick-child caretaker was greeted or encouraged to ask questions did not differ by training status. Almost all caretakers of sick children were greeted and treated respectfully by both trained and untrained providers and more than 80 percent were encouraged to ask questions during the consultation.

Figure 4.9. Provider Actions in Interpersonal Communication During Sick-Child Care Consultations by Training Status

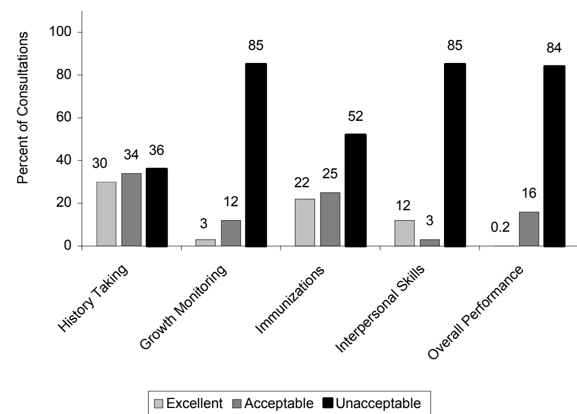


4.6 Overall Provider Performance and Association with In-service Training

The overall performance of health providers during sick-child visits is based on the way they handle key areas in the management process of the sick child. These include history taking of the child's illness, physical examination, growth monitoring and immunization, and interpersonal communication. In order to assess the overall performance in management of sick children, a rating system similar to ANC was developed to indicate the quality of care provided. The performance is rated as "excellent," "acceptable," or "unacceptable." An excellent score indicates that all the actions of the health provider were according to the recommended guidelines, while the acceptable score means the provider correctly performed at least all of the critical steps. An unacceptable score, however, means the provider's performance was not according to standards or it missed critical steps (Appendix C for further explanation of the scoring criteria).

Overall, only 16 percent of sick-child consultations were rated acceptable or excellent. Two out of three sick-child observations were rated acceptable or excellent in the area of history taking; only 15 percent were excellent or acceptable in the area of growth monitoring and promotion; 47 percent scored excellent or acceptable in immunization; and 15 percent were acceptable or excellent in interpersonal communication (Figure 4.10).

Figure 4.10. Percentage of Sick-Child Care Consultations by Rating Scores of Providers in Various Skill Areas

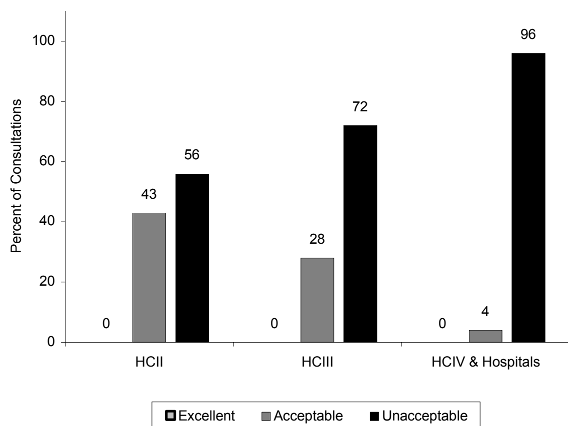


Comparison of overall performance by operating authority shows no significant differences, although one in five consultations in government facilities were rated acceptable compared with 15 percent in private and 7 percent in NGO facilities. Sick-child consultations observed in HC IIs and HC IIIs are significantly more likely to be rated acceptable than observations in HC IV and hospitals (Figure 4.11).[8] This could be because of differences in performance by each skill area. Health workers in HC II and HC III were significantly more likely than those in HC IV and hospitals to be rated excellent or acceptable in immunization and interpersonal communication. In addition, an examination of in-service training by level of facility shows that lower-level facilities are significantly more likely than higher level facilities to send providers to training. Similarly, doctors and clinical officers attended to fewer consultations at lower-level facilities than nurses or nursing

[8] *Assessed only among public and NGO facilities because information on level of facility for private facilities is not available.*

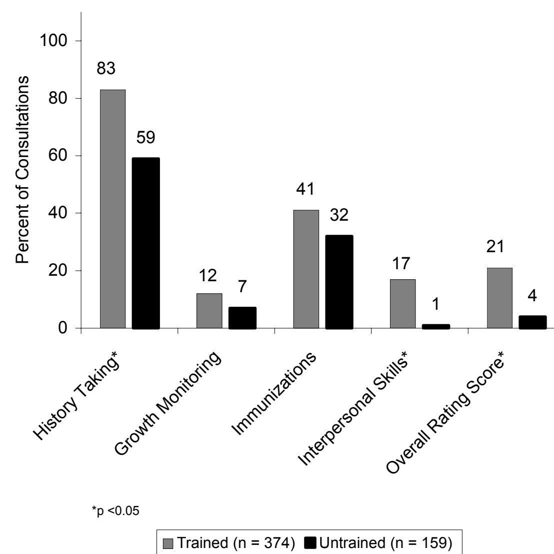
assistants. Differences in provider performance by level of the facility may be a function of the degree of the child's illness. At a higher level or referral facility, one may expect to see sicker children. If a child is more seriously ill, a provider may devote less attention to missed opportunities such as immunization, and it may not be appropriate to use visual aids, which are really for health promotion. To avoid this issue, seriously ill children were excluded from being observed.

Figure 4.11. Percentage of Sick-Child Care Consultations Rated Acceptable or Excellent by Level of Facility



Provider performance in management of sick children is strongly associated with training status. Overall, 21 percent of sick-child consultations by trained providers were rated acceptable compared with only 4 percent by untrained providers. Sick-child-consultations by providers who had received in-service training were between one and one-half to 10 times as likely to score excellent or acceptable in all skill areas as by untrained providers. However, the majority of sick children were unacceptably handled for growth monitoring and in interpersonal relations (Figure 4.12), indicating that much more work is needed.

Figure 4.12. Percentage of Sick-Child Consultations Rated Acceptable or Excellent by Training Status of Providers and Skill Area



To determine the effect of training independent of operating authority, we calculated the percentage of visits rated acceptable or excellent in each skill area by operating authority and compared the results to the full sample. In the areas of history taking and immunizations, the results by operating authority were similar to those described above.

In the area of growth monitoring, there was no difference by training status in the percentage of consultations that scored acceptable or excellent (for the full sample). However, training did make a difference in government facilities. Within these facilities, visits with trained providers were rated better than those by untrained providers. One-fifth (19 percent) of government facility visits with trained providers were rated acceptable or excellent in this area compared with only 3 percent of visits with untrained providers.

For the full sample, there was a significant difference by training status in the area of interpersonal skills. This was not the case in private facilities where few visits were rated acceptable or excellent in this skill area; this did not differ by training status. Results for government and NGO facilities in regard to interpersonal skills were similar to those presented above for the full sample.

Almost all (93 percent) of the visits in NGO facilities were rated unacceptable overall, and this did not differ by training status. However, training was associated with better overall performance in government and PFP facilities. These findings suggest that the effect of training may vary according to the environment in which the provider practices. Further analysis is required to explore the interrelationship between in-service training and the service delivery environment and their joint impact on performance.

Chapter 5: Basic Standards of Quality Health Care Services

This chapter reviews findings related to readiness of facilities to provide services with the goal of informing future programming decisions. It draws on data collected from all three portions of the DISH Facility Survey (DFS): the facility audit, the antenatal care (ANC) observations and the SC observations. Because many of the indicators presented in this chapter are based on the Yellow Star (YS) assessment basic standards of quality, a description of the Yellow Star Program (YSP) precedes the discussion of results. Moreover, the chapter also presents some indicators that are not part of the YS assessment but are relevant because they describe the current state of readiness in facilities and may serve to inform follow-on projects. A number of the areas assessed in this chapter have been directly affected by DISH-supported activities in the last 3 years (and sometimes before that under the DISH I project), but efforts toward quality improvement also include important inputs from the central MoH, the districts, and other development partners.

5.1 The Yellow Star Program

Beginning in July 2000, DISH supported the MoH in the collaborative development of the YSP, which is designed to enhance the supervision system and improve quality through certification and recognition of facilities that meet and maintain 35 basic standards of quality. These standards cut across the Uganda minimum health care package and are divided into six main categories: infrastructure and equipment; management systems; infection control; information/education/communication and interpersonal communication; client services; and clinical services. Appendix C describes each of these standards as well as the methodology used to measure them during the DFS.

As part of the YSP, an assessment team conducts visits to health facilities with the following objectives: 1) determine whether the basic standards of quality are being met; 2) identify key areas for quality improvement; and 3) recognize facilities that consistently meet all the standards. These YS assessments take place periodically, and facilities that achieve and maintain all standards for two consecutive quarters are certified as YS facilities. They are given the Yellow Star Award—a wall plaque whose meaning the community will be educated to appreciate, namely, in these facilities one can find services you can trust.

Implementation of the program was phased, and the first assessments took place in October 2001 at facilities in six of the DISH districts (Kamuli, Jinja, Luwero, Nakasongola, Mbarara, and Rakai). By the time of the survey, facilities in phase I districts had already participated in at least one YS assessment.[9] Assessments of facilities in phase II districts did not begin until May 2002—after the DFS. Only government and NGO facilities participate in these assessments; private facilities do not.

The DFS assessed whether facilities met these YSP standards. The methods used to measure some of the standards during the DFS varied slightly from those used during the YS assessments (details of these

[9] Facilities in four of the phase I districts (Luwero, Rakai, Kamuli, and Jinja) had already participated in two YS assessments at the time of the DFS.

differences are provided in appendix C) and not all YSP basic standards were measured during the DFS. In addition, some standards were not measured in all facilities because some standards are specific to a particular service and, therefore, only measured in facilities that offer the service. For example, one basic standard measures whether men's and women's inpatient wards are separated; this was only assessed in facilities that offer inpatient services.

The following sections present the results for each basic standard that was measured. One objective is to provide some information about the percentage of facilities that currently meet the YSP standards. The results are presented by operating authority. Because private facilities did not participate in the YSP, DISH did not previously have any data about their performance. The data for private facilities are provided for descriptive purposes only. The final objective of this analysis is to determine the effect of the YSP thus far by comparing the performance of government and NGO facilities in phase I districts with that of similar facilities in phase II districts that had not yet begun participation in the YSP. It also reviews some indicators that are not YSP basic standards but are related to the overall readiness of a facility to provide quality services. Overall scores representing the percentage of basic standards achieved by the facility are presented at the end of the chapter. These are based on the number of standards assessed in each facility.

5.2 Infrastructure and Equipment Standards

Although no major input was provided through the DISH project in terms of improvement of infrastructure, these aspects of the facilities' readiness to provide services are essential for the provision of quality services and therefore are measured during the YS assessment. The YSP also assesses facilities based on the availability of selected examination equipment. The project provided a limited amount of equipment needed for the delivery of maternal, reproductive, and child health services, such as: examination and delivery couches; baby, infant, and adult scales; and instruments. The six infrastructure and equipment standards assessed by the YSP are the following: clean water supply, safe waste disposal, clean latrines/toilets, a functional examination couch, basic examination equipment, and separate wards for men and women in the inpatient areas.

Figure 5.1. Percentage of Facilities with Adequate Infrastructure by Operating Authority

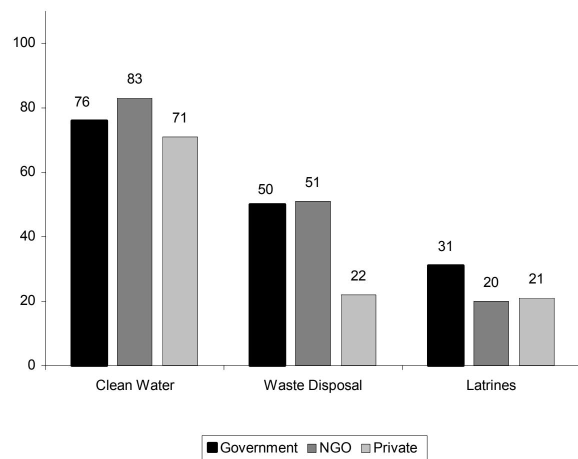


Figure 5.1 presents the percentage of facilities that met each of the first three standards, all of which are related to infrastructure. As the figure shows, most facilities had a clean water supply from a protected source regardless of operating authority. About one-half of government and NGO facilities had adequate waste disposal

practices, but only 22 percent of PFP facilities did. Private facilities are often smaller and sometimes located within private housing. Many of them rely on private or town garbage collection system or use plastic bags or latrines to dispose of medical waste. Less than one-third of the facilities had clean latrines, regardless of operating authority.

Government and NGO facilities in the second-phase districts were more likely than those in first-phase districts to have access to a clean water source. However, facilities in phase I districts were more likely to have adequate waste disposal mechanisms and clean latrines or toilets (Figure 5.2).

Figure 5.2. Percentage of Facilities with Adequate Infrastructure by YS Phase

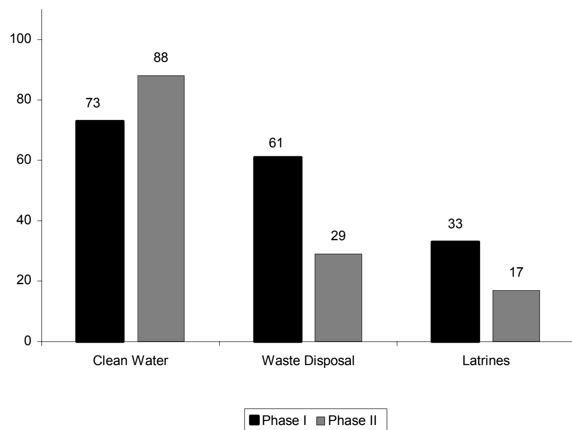


Figure 5.3 shows the percentage of facilities that met each of the remaining infrastructure and equipment standards. About 59 percent of government, 40 percent of NGO, and 28 percent of PFP facilities had a clean and functional examination couch. This did not differ much by district; however, among facilities that offer inpatient services, PFP and NGO facilities were much more likely than government facilities to have separate wards for men and women. About 84 percent of PFP facilities and almost all (97 percent) NGO facilities that offer inpatient services had separate wards for men and women. Among similar government facilities, however, only 60 percent did so. Surprisingly, the second-phase districts were more likely than first-phase districts to have separate inpatient wards for men and women (Figure 5.4); 83 percent of facilities in second-phase districts had them while only 67 percent of first-phase districts did. This may be because the YSP had not been in place long enough for facilities to have undertaken major infrastructure changes such as construction of additional rooms or partitions.

Figure 5.3. Percentage of Facilities with Adequate Equipment by Operating Authority

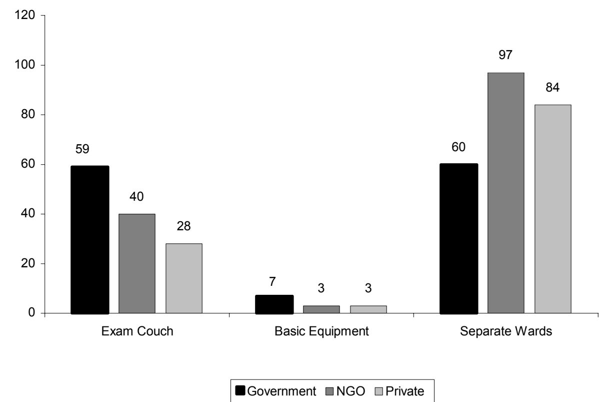
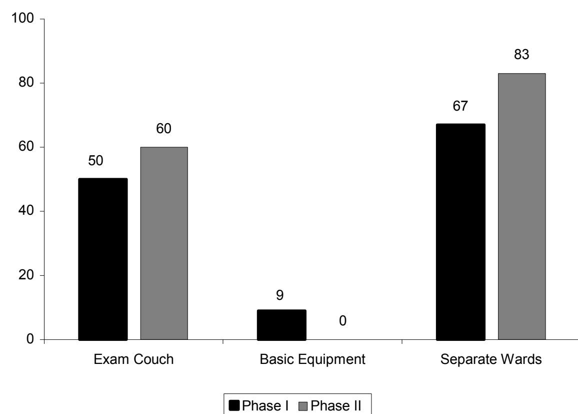


Figure 5.4. Percentage of Facilities with Adequate Equipment by YS Phase



Very few facilities had the basic examination equipment required to meet the YS basic standard. To achieve the equipment standard, facilities were required to have several pieces of equipment and instruments available on the day of the facility audit. Furthermore, facilities with several units were required to have selected instruments available in each unit. The absence of even one piece of equipment resulted in the facility not meeting the standard. As a result, few facilities met this basic standard regardless of operating authority or YS phase.

5.3 Supervision, Management Systems, and Reporting

5.3.1 Supervision

Support supervision is an essential activity for the delivery of quality health services. Increased use of information collected at the facility level was promoted in terms of quality of data collection, ease of compilation and analysis through computerization, and explicit use of information for decision-making. The MoH has developed a revised national supervision system that was initiated in 2000. The project provided support to district and health subdistrict (HSD) supervision activities through its financial grants and the implementation of the YSP. Although indicators of supervision are not assessed during the YS assessments, they are presented here because one of the objectives of the YSP is to enhance the impact of supervision activities on quality improvement. In turn, a well-functioning supervision system is critical to the success of the YSP. Indicators related to the timing of the last supervisions are presented below.

About 58 percent of government facilities had been visited by their immediate supervision team within 1 month of the survey; 23 percent within the last quarter (excluding the last month); and 9 percent within the 6 months (excluding the last quarter). Only 5 percent of the units had received their last visit more than 6 months before the survey or not at all. In addition to these external supervision visits, many government facilities also conduct regular internal supervision. Of those that do, about 72 percent had done so within the last month. Few (2 percent) government facilities reported that the last internal supervision took place more than 6 months before the survey.

5.3.2 Management Systems Basic Standards of Quality

The indicators in this section all correspond to YSP standards for management systems. In all, the program measures the following four management system standards: updated stock cards, availability of selected drugs and contraceptives, functioning health unit management committee (HUMC), and the availability of guidelines and standards required for management of clients/patients.

Stock cards were developed to help unit managers ensure a steady supply of drugs and contraceptives. DISH offered training on the use of these stock cards as well as in logistics and drug management. Despite these efforts, few facilities properly used stock cards for five selected drugs. Government facilities were most likely to have updated stock cards; however, this did not seem to improve the likelihood that the drugs would be available. Government facilities were least likely to have the drugs in stock on the day of the audit and continually available during the prior month. On the other hand, while only few NGO and PFP facilities had updated stock cards, many had the commodities available on the day of the audit as well as in the previous month (Figure 5.5). There was no difference by YS phase in the percentage of facilities using stock cards or the percentage with selected drugs available on the day of the interview (Figure 5.6). Chapter 2 provides more detailed information about trends in stockout rates of selected drugs and contraceptives.

Figure 5.5. Percentage of Facilities Meeting Each Management Systems Standard by Operating Authority

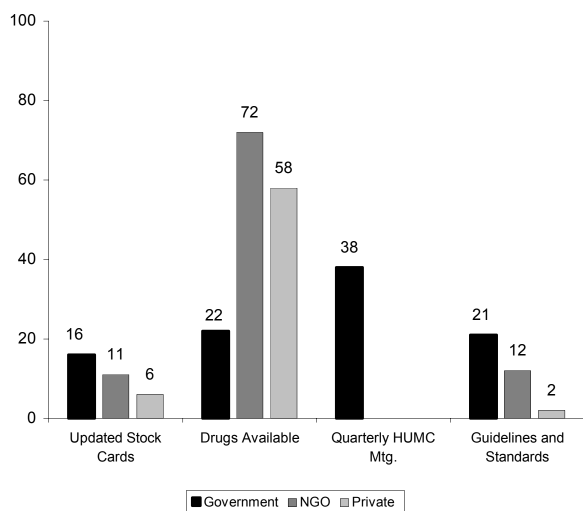
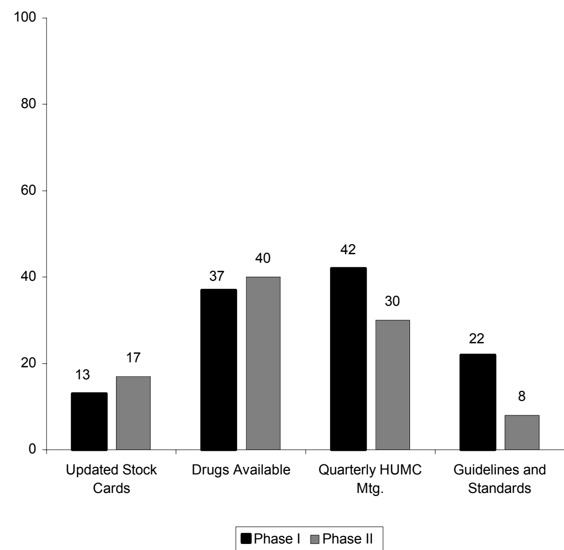


Figure 5.6. Percentage of Facilities Meeting Each Management Systems Standard by YS Phase



The YSP advocates for the HUMCs at government facilities to act as stakeholders in steering quality improvement (QI) activities within facilities and in the community. This will promote ownership of the program and enlist community support in QI activities, since some HUMC members are from the community itself. However, only 38 percent of government facilities met the YSP standard for a functional HUMC (Figure 5.5). This basic standard was not assessed in NGO and PFP facilities. Government facilities in first-phase districts were slightly more likely than those in second-phase districts to have a functioning HUMC (42 percent versus 30 percent).

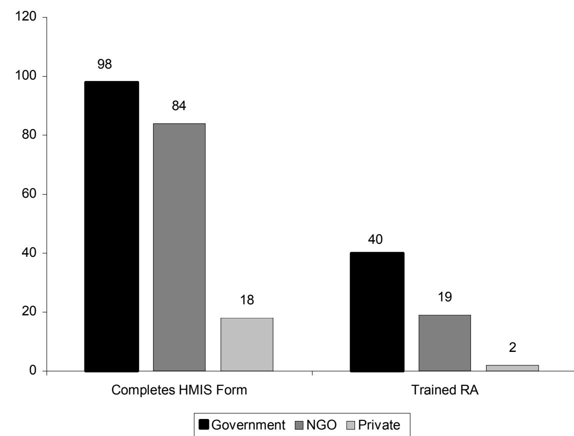
The MoH and individual departments within the ministry are responsible for disseminating standards and guidelines to improve health worker practices. The DISH project participated in the dissemination of these guidelines, which are given to health workers during training workshops or

directly distributed to health facilities. The National Standards Treatment Guidelines (NSTG), distributed during the dissemination process conducted in the 2000-01 fiscal year, were found in 29 percent of facilities. These were observed in 47 percent of government, 36 percent of NGO and 23 percent of PFP facilities. However, because the YSP standard required that both the NSTG and immunization guidelines be available in outpatient departments, few facilities met this standard. About one in five (22 percent) government and NGO facilities in first-phase districts met this standard compared with 8 percent of those in second-phase districts.

5.3.3 *Reporting and Information Collection*

Collecting and compiling information on the health situation and health services delivery in the area of responsibility of the facility is an important management function. The timely use of quality information improves the process of planning and decision making. Although these indicators are not part of the YS assessment, they provide us with information about facilities' participation in the HMIS, which was developed to gather information about the health system in Uganda and to provide feedback to health providers. As figure 5.7 shows, most government and NGO facilities participate in the data-collection process by completing the HMIS 105 Form (Health Unit Monthly Report); however, only 18 percent of PFP units do so. Facilities that receive public primary health care (PHC) funds are required to complete this form. Because private facilities do not receive these funds, they are not required, although they are encouraged to do so. Exploring incentives for involving the private sector in the gathering and analysis of information, both for its own and for the good of the community, is still a challenge.

Figure 5.7. Percentage of Facilities with Trained Records Assistants and Completing HMIS Forms



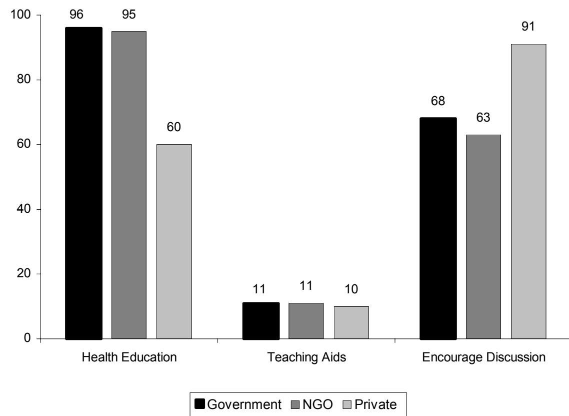
In order to strengthen the HMIS, facilities were encouraged to recruit and train records assistants to compile the information recorded in various facility registers and to transcribe it into relevant monthly or quarterly reports. Despite this effort, most facilities have not done so. Overall, 40 percent of government, 19 percent of NGO, and 2 percent of PFP facilities have a records assistant who has received training in either the revised HMIS or data utilization (Figure 5.7).

5.4 IEC/IPC YSP Standards

The YSP assessments rate facilities' provision of health education and the quality of IPC between providers and clients. The three standards of IEC/IPC developed by the YSP and measured during the DFS are the following: 1) regular that is weekly, health education sessions to clients in the waiting area, 2) use of teaching aids during ANC and sick-child consultations, and

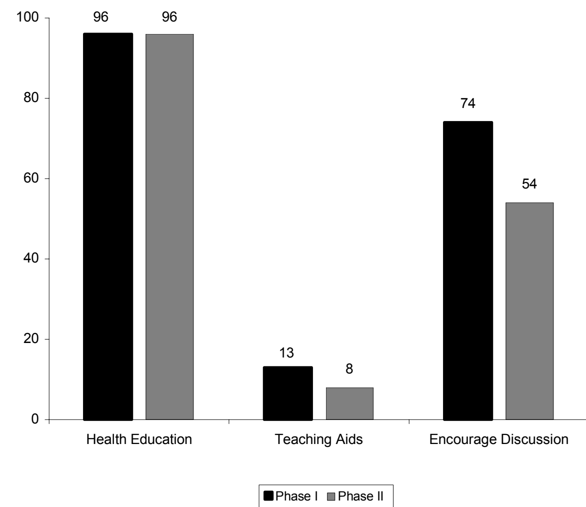
3) encouragement of client discussion. The occurrence of health education sessions was measured during the health facility audit, and the use of teaching aids and whether the provider encouraged client discussion were measured during the ANC and SC observations, and results were aggregated by facility. For facilities in which ANC and SC observations did not occur, only the health education standard was assessed in this category. The results are discussed below.

Figure 5.8. Percentage of Facilities Meeting Each of the IEC/IPC Standards by Operating Authority



A high percentage of public facilities (96 percent of government and 95 percent of NGO) take advantage of time clients spend in the waiting area to provide health education (Figure 5.8). About 60 percent of private facilities provide this service. This did not differ by whether the facility was in a first- or second-phase district.

Figure 5.9. Percentage of Facilities Meeting Each of the IEC/IPC Standards by YS Phase



Despite DISH efforts to develop and distribute teaching aids, the use of visual aids during client visits remains low. This was reflected in the overall scores for ANC and sick-child observations (discussed in chapters 3 and 4). Using visual aids is a skill that needs to be appreciated by the health workers as an important method of better communicating health messages and should be reinforced during supervision. This result should be interpreted with caution, however. The number of ANC and SC observations varied among facilities. Because the standard requires this interaction take place during *all* of the observations, it was more difficult for facilities with a greater number of ANC and SC observations to meet this standard. There was no difference by YS phase in the percentage of government and NGO facilities that met this standard.

During the ANC and SC observations, observers recorded whether the provider encouraged the client/caretaker to discuss health problems or concerns about their health or their treatment. Providers at PFP facilities were much more likely to

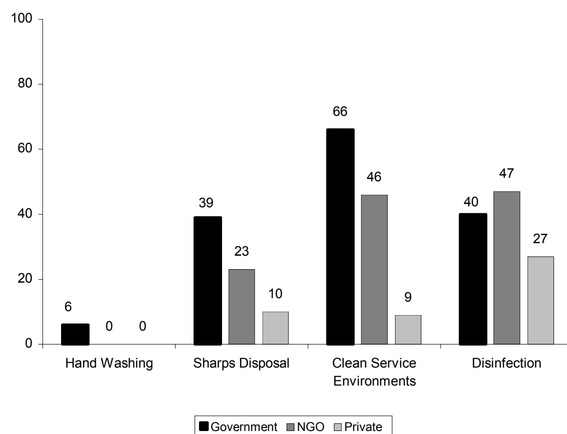
encourage patients to discuss their health and treatment during the ANC and SC visits. This interaction took place during each of the observations in about 9 out of 10 private facilities, while about two-thirds (68 percent) of government and NGO facilities met this standard (Figure 5.8). Facilities in first-phase districts were more likely to encourage client discussion compared with those in second-phase districts (Figure 5.9). These results should also be interpreted with caution due to the varying number of ANC and SC observations among facilities.

5.5 Infection-Prevention Standards

The YSP developed five infection-prevention standards, which are related to supplies and practices that help keep patients and providers free from infection. This measures not only the availability of installations and equipment needed to ensure infection control but also the practices of staff in that area. Four of the five standards from the YSP assessment were measured during the DFS. They are hand washing, disposal of sharps and needles, clean service environments, and facilities for disinfection.

During training of health workers on the YSP and continuous quality improvement (CQI), the importance of supervision in quality improvement was emphasized. Health workers are encouraged to be their own watchdogs to reduce poor practices. The program has also developed wall stickers to remind health workers of important practices such as hand washing (discussed in chapter 2). Despite these efforts, few facilities met the infection-prevention standards. Only 6 percent of government facilities and none of the NGO and private facilities met the hand-washing standard (Figure 5.10). This did not differ by YS phase. As noted in chapters 3 and 4, few providers followed infection-control procedures during the observed ANC and SC visits. Providers washed their hands before 45 percent of the ANC visits observed but only before 8 percent of the SC visits observed. This indicator was based on the observations, and compliance must have been observed during *all* of the observations, both ANC and SC, for facilities to meet the standard. Similar to other standards based on observations, this standard was more difficult to achieve for facilities with many observations.

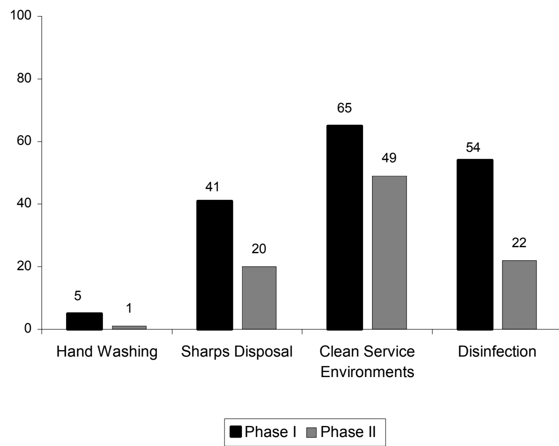
Figure 5.10. Percentage of Facilities Meeting Each of the Infection Prevention Standards by Operating Authority



Health workers have been encouraged to improvise and ensure that their facilities have containers for the disposal of sharps. As figure 5.10 shows, few facilities (39 percent government, 23 percent NGO, and 10 percent private) had puncture-resistant containers for the disposal of sharps. Government and NGO facilities in first-phase districts were about twice as likely as those in second-phase districts to meet the sharps disposal standard (41 percent versus 20 percent). Clean service environments were observed in 66 percent of government and 46 percent of

NGO facilities. As Figure 5.11 shows, these facilities were slightly more likely to meet this standard if they were in a first-phase district than second-phase (65 percent first-phase, 49 percent second-phase). Less than 1 in 10 (9 percent) PFP facilities achieved the “clean service environment” standard.

Figure 5.11. Percentage of Facilities Meeting Each of the Infection Prevention Standards by YS Phase



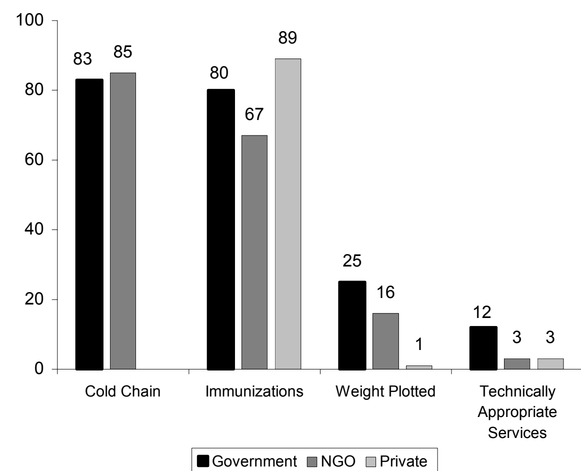
Although many facilities were clean, the lack of disinfectant makes it impossible for facilities to provide sterile service environments. About two in five (40 percent) government facilities and almost one-half (47 percent) of NGO facilities had a bucket with chlorine available in each of the units. A little more than one-fourth (27 percent) of PFP facilities did. Government and NGO facilities in first-phase districts were more than twice as likely to meet this standard: 56 percent first-phase, 22 percent second-phase.

5.6 Clinical Service Standards

In all, five standards of clinical services are assessed during the YS assessment. However, the scope of the DFS, which did not include a record review, prevented the assessment of one of these. The four standards that were assessed measure the ability of facilities to provide routine health services such as immunization as well as the technical competence of health workers providing routine medical care. These standards are: 1) maintaining a proper cold chain, 2) offering immunizations regularly, 3) plotting every child’s weight on the health card, and 4) providing technically appropriate services.

As shown in figure 5.12, most government and NGO facilities (83 percent and 85 percent, respectively) that offer immunization services were able to maintain a cold chain. Among government and NGO facilities, this did not differ by YS phase (Figure 5.13). Few of the private facilities sampled offered immunization services; the small size of this subsample prevents us from calculating the percentage of private facilities that met this standard.

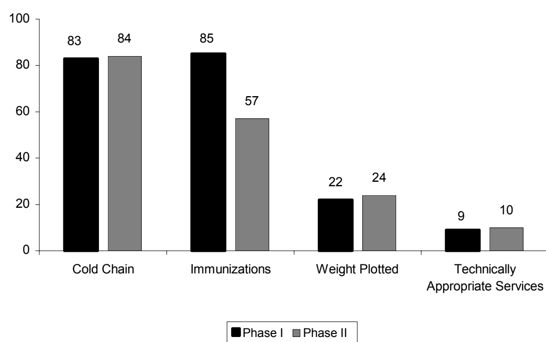
Figure 5.12. Percentage of Facilities Meeting Each of the Clinical Services Standards by Operating Authority



Among the clinical service standards, the best-kept ones relate to immunization services, which were met by between

67 percent and 89 percent of facilities, depending on the operating authority. As figure 5.13 shows, government and NGO facilities in first-phase districts were more likely to meet this standard than those in second-phase districts (85 percent phase I versus 57 percent phase II). On the other hand, the worst-kept was proper growth monitoring of children; few facilities, regardless of operating authority or YS phase, achieved this standard. Observations made during sick-child visits and supervision visits demonstrate that although most children are weighed during their visits to health facilities, health workers do not plot the weights in child health cards nor do they take time to explain the children's growth performance to caretakers. Common reasons for this are heavy workloads and poor organization of flow of patients within the facilities. Inclusion of this practice as a quality standard will work toward its diffusion to all facilities for every opportunity of seeing young children in the facility.

Figure 5.13. Percentage of Facilities Meeting Each of the Clinical Services Standards by YS Phase



To determine whether facilities are providing technically appropriate services, the overall performance score of providers during ANC and SC observations (discussed in chapters 3 and 4) was aggregated by facility. Only facilities where providers of all the ANC and SC visits observed achieved an "acceptable" or "excellent" rating were considered to provide technically appropriate services. Very few facilities achieved this standard regardless of operating authority or YS phase. Clinical skills are best maintained by regular support supervision, especially internal supervision within facilities. However, it should be noted that the technical evaluation of this standard is probably the most difficult, involving observation and checking of several clinical steps in a procedure. Assessment using YS guidelines is also slightly different from the survey methodology.

5.7 Client Service Standards

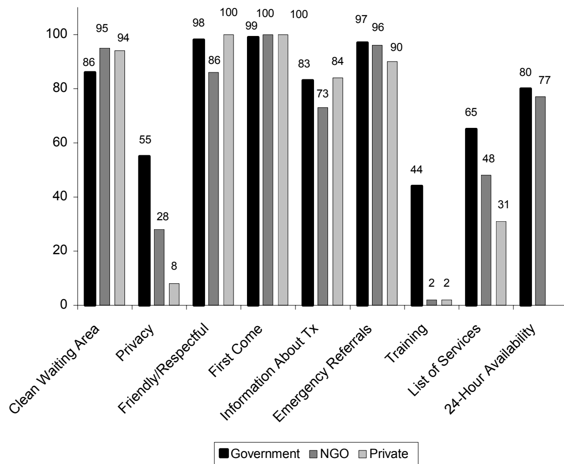
The client service standards assess how both the facility and health workers receive and handle patients and clients. In all, there are 10 standards of client service measured during the YS assessments. Nine of these were observed during the DFS:

- Clean waiting area
- Private area for physical examinations
- Patients received in a friendly and respectful manner
- Clients seen on a first-come, first-served basis
- Providers dispense appropriate information regarding treatment compliance
- Plan for referring emergencies
- At least one trained staff member

- ♦ List of services posted
- ♦ Health provider available at all times (HC III and above)

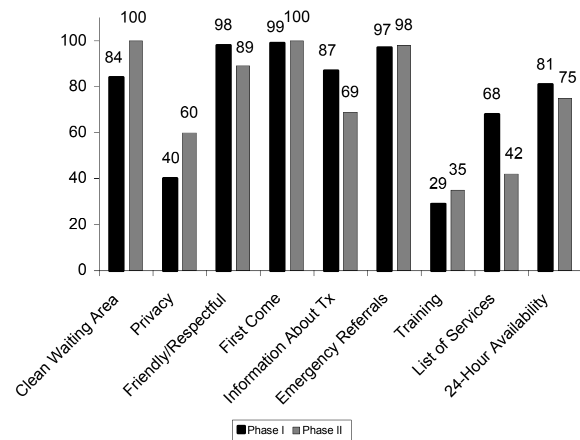
The percentage of facilities that met each of these standards is presented in figure 5.14. Not all of the standards in this category were assessed in all facilities. For example, standards based on sick-child visits were only assessed in facilities where at least one sick-child observation took place. Furthermore, because data about the level of the facility were not available for private facilities, the last standard (someone on staff 24 hours per day), which was only assessed in Health Centers (HC) III and higher level facilities, was only assessed for government and NGO facilities. The percentages presented are among facilities where the standards were assessed, not all facilities.

Figure 5.14. Percentage of Facilities Meeting Each of the Client Services Standards by Operating Authority



In general, facilities performed well on most of the standards in this category. More than 85 percent of all facilities had clean waiting areas, received their clients in a friendly manner, saw clients on a first-come, first-served basis, and had a plan for referring patients, regardless of operating authority. This is similar to assessment results from the districts so far but contrary to the negative perceptions that communities have of health worker attitudes. Surprisingly, clean waiting areas were observed in a larger percentage of facilities in second-phase districts (Figure 5.15). Virtually all the facilities in second-phase districts met this standard compared with 84 percent of facilities in first-phase districts.

Figure 5.15. Percentage of Facilities Meeting Each of the Client Services Standards by YS Phase



The two standards on which the facilities scored poorly were the privacy and the training standards. Privacy during consultations was evident in only a little more than half (55 percent) of government facilities, 28 percent of NGO, and 8 percent of private facilities. In general, lower-level facilities were less likely to meet the privacy standard compared with higher level units. Only 25 percent of HCs II achieved this standard compared with 72 percent of hospitals and HC IV (data not shown). Many lower-level and private facilities are small in size with few rooms, and this may be the reason why few facilities met this standard. Facilities in second-phase districts performed better than those in first-phase districts (60 percent ver-

sus 40 percent). As part of the drive to meet this standard, the YSP encourages facility managers to plan for screens or partitioning of available space if funds are not available for constructing new wards/rooms. However, because the YSP had only been in place for a few months, it is likely that facilities where this standard was identified for improvement may not have had enough time to act on the recommendations to come from the YS assessments. About 44 percent of government facilities had at least one trained provider on staff, but only 2 percent of NGO and PFP facilities did; this did not differ by operating authority or YS phase.

Facilities are expected to have a list of available services posted in the waiting area. This list was observed in 65 percent of government and 48 percent of NGO facilities. Slightly less than one-third of PFP facilities displayed a list of services. Government and NGO facilities in first-phase districts were more likely to meet this standard (68 percent versus 42 percent) than those in second-phase districts. There was little difference by operating authority or YS phase in the percentage of facilities that offered services 24 hours per day.

5.8 Overall Facility Quality Score

During the assessment process, each of the standards is given a score of "1" if the facility meets the standard or "0" if it does not. The scores are then aggregated to calculate an overall facility score expressed as the percentage of standards achieved by the facility. The facility score is based on the number of standards assessed in the facility, not on the total number of standards of the YSP.

The overall facility scores ranged from 11 percent to 80 percent. In other words, facilities audited achieved between 11 percent and 80 percent of the standards assessed. On average, facilities met 40 percent of the standards. As figure 5.16 shows, on average, government and NGO facilities met about half of the standards assessed (53 percent government and 48 percent NGO). PFP facilities achieved a little more than one-third of the standards assessed (36 percent). As figure 5.17 shows, the average overall facility score in phase I districts was 54 percent, slightly higher than the 48 percent achieved by facilities in phase II districts (among government and NGO facilities).

Figure 5.16. Mean Facility Scores by Operating Authority

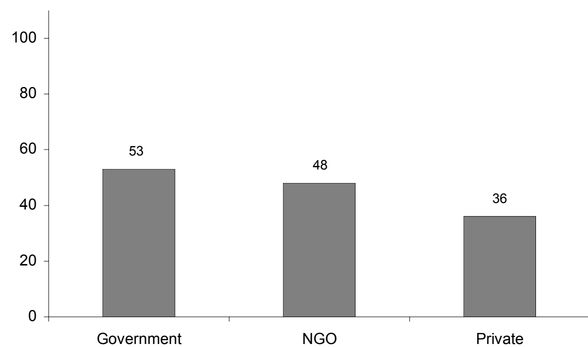
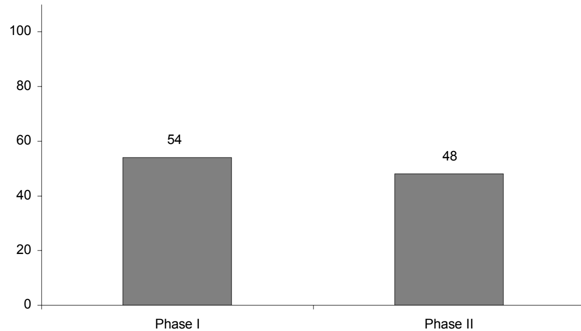


Figure 5.17. Mean Facility Scores by YS Phase



These overall scores were then translated into ratings of “poor,” “fair,” “good,” and “excellent.” A poor rating means that the facility met less than 30 percent of the standards assessed. Fair refers to facilities that met at least 30 percent but less than 60 percent of the standards. A good rating requires that facilities meet at least 60 percent but less than 100 percent of the standards. Only facilities that met 100 percent of the standards assessed were to have been rated excellent. The results are presented below.

Figure 5.18 shows the ratings achieved by facilities. Thirty-one percent of private facilities received a poor rating while only 3 percent and 2 percent of government and NGO facilities, respectively, did so. Among government and NGO facilities, this did not differ by YS phase (Figure 5.19). Almost all government (97 percent) and NGO (98 percent) facilities were rated either fair or good while 70 percent of PFP facilities achieved the same ratings. The majority of facilities were rated fair, regardless of operating authority. Less than one-third (29 percent) of the government facilities, 16 percent of NGO, and 3 percent of private facilities achieved a good quality score. Among government and NGO facilities, those in first-phase districts were more likely to be rated good compared with second-phase districts (30 percent first-phase; 15 percent second-phase). None of the facilities was rated excellent.

Figure 5.18. Percentage of Facilities Achieving “Poor,” “Good,” and “Fair” Ratings by Operating Authority

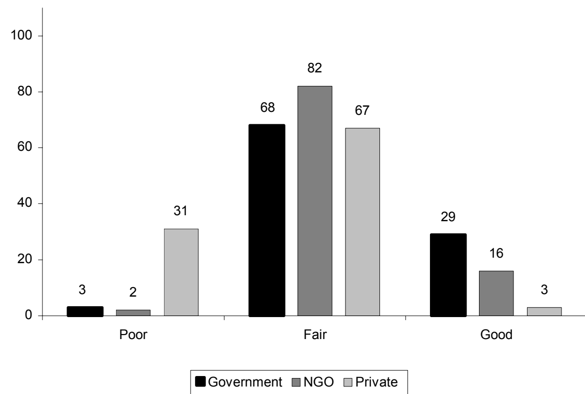
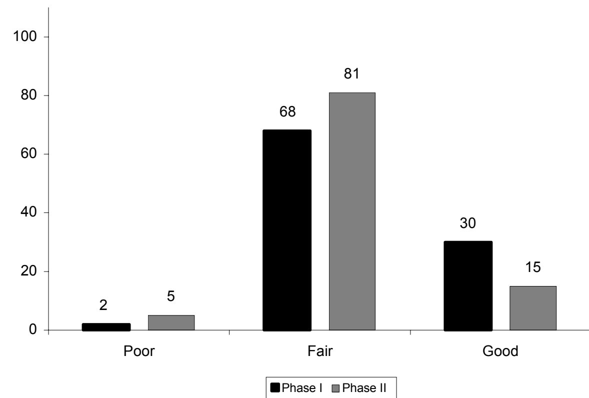
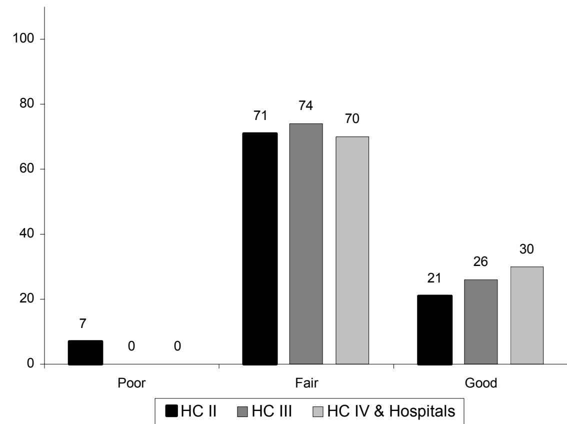


Figure 5.19. Percentage of Facilities Achieving “Poor,” “Good,” and “Fair” Ratings by YS Phase



Health Centers III and higher-level facilities performed better than HC II facilities (Figure 5.20). While 7 percent of HC II facilities achieved a poor rating, none of the HC III or higher level facilities did. None of the HCs III, HCs IV, or hospitals scored poor and higher level facilities were more likely to score good. Of the HCs II, about one in five (21 percent) scored good while 26 percent of HCs III did. Health Centers IV and hospitals were the most likely to achieve a good quality score—30 percent of these high level facilities did so.

Figure 5.20. Percentage of Facilities Achieving "Poor," "Good," and "Fair" Ratings by Level of Facility



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Appendix A: Survey Methodology

A.1 Adaptation of the Survey Instruments to the DISH Project Needs

Modifications to the 1999 DES instruments were made for the 2002 DFS to meet the needs of the DISH project to measure adherence to the Basic Standards of Quality, standards recently established by the MoH with assistance from DISH. Many of the questions from the 1999 survey were maintained to allow comparisons between surveys on key indicators.

The facility interview/audit was expanded to include more questions on DISH project outputs such as the availability of informational materials, community outreach activities, and supervision, as well as other factors affecting service delivery, such as presence of staff and availability of funds.

DISH also requested observations of antenatal visits to assess provider adherence to the "re-focused" ANC guidelines, and observation of sick-child visits at the outpatient departments (OPD) to assess missed opportunities for growth monitoring and immunization. In addition, a record review was requested to capture more detailed data on client volume. Although the interviewers were trained on completing the record review form, this instrument was dropped from the survey because it was not feasible to collect the information that DISH wanted. Additionally, there was concern that the interviewers may have difficulty completing all of the survey instruments during the visit to the facility, particularly if the facility was large.

A community survey, another component of quality of care methodology, was not implemented in the 2002 DFS survey as population level data are available from the 2000/2001 Uganda Demographic and Health Survey (UDHS).

A.2 Survey Design

This study draws data from a sample of health facilities, antenatal and curative childcare clients visiting health facilities in 11 of the 12 DISH project districts (Kampala, Luwero, Nakasongola, Jinja, Kamuli, Masaka, Mbarara, Masindi, Rakai, Ssembabule, and Ntungamo. Kasese is excluded for security reasons).

A.3 Selection of Health Facilities

The health facilities in this survey were carefully identified in order to be representative of the public and private sector facilities in 11 of the 12 DISH districts. All government and NGO and a half of the private for-profit (PFP) health facilities within a defined geographic area were included in the survey. The sampling scheme for health facilities was modified in order to reduce the sample size of private health facilities by half, thus avoiding their over-representation. The listing of the health facilities that were included in the 1999 DES was used as a basis for identifying facilities. The list was updated during fieldwork to include any new facilities in the defined geographic areas. The procedure used to identify the health facilities included in the 2002 survey was as follows:

- A total of 73 census enumeration areas (EAs) or clusters were sampled from a list of all the EAs in 11 of the 12 DISH districts. An EA or cluster can be thought of as a village or an urban block.

- These clusters were located on a map. We refer to these as the "index" clusters. Next, the set of clusters that border the index cluster were identified, creating a ring around the index cluster. Finally, the set of clusters that border this first ring of clusters was identified, creating a second ring of clusters around the first.

- All health facilities located within the boundaries of the index cluster or within the boundary of any of the clusters that make up the two rings were identified. Facilities were identified using information from the District Medical Officers' (DMO) office as well as from key informants in the communities.

- All government and NGO health facilities on the list were included in the survey.

- Only one-half of the PFP clinics on the list were included in the sample in order to avoid their over-representation. All private health facilities of other types (e.g., hospitals, maternities) were included in the survey. Drug stores and pharmacies, included in the 1999 survey, were excluded from the 2002 survey. The end result for the facility audit/interview questionnaire was a sample of 316 facilities (109 public, 45 NGO, 162 private).

A.4 Identification of the Health Facilities

It was the primary responsibility of the supervisor to identify the facilities to be surveyed.

Maps of the areas were prepared that identify the clusters where health facilities were located with index clusters depicted in the center of the map (green-ringed space) and the first and second concentric rings of clusters around the index cluster identified by the blue and red ringed space, respectively.

A list of facilities located within these clusters was available from the 1999 DISH survey. All of the health facilities on this list were to be visited in this survey, with the exception of the private clinics where only one-half were to be included. The list was updated during fieldwork as follows:

- Comparing the list with the list of health facilities available at the DMO's office in each district. The DMO staff was also asked if they knew of any facilities, public or private, that have opened in the last 3 years.

- The survey team asked the staff at each health facility they visited whether they knew of any other health facilities in the area that had opened in the last 3 years. Any new facilities were reported to the supervisor.

- Any other potential informants, such as local guides or community leaders, were asked if they knew of any health facilities that had opened in the past 3 years. When new facilities were identified, the supervisor, with assistance from the field team and local informants, made every effort to identify the facility location on the map.

- All new public and NGO health facilities that fell within the rings of clusters were included in the survey.

- One-half of all new private clinics were included in the survey. Clinics to be surveyed were selected by systematic sampling of these clinics in each index cluster and its associated rings by flipping a coin to determine the starting number (heads for first on the list, tails

for second on the list) and then surveying every other private clinic on the list given the starting number.

A.5 Selecting the Provider for Observation

It was the interviewer's job to identify the provider and clients for observation. Only one ANC provider and one sick-child provider were observed at each health facility. In health facilities where more than one provider was seeing ANC clients or more than one provider was seeing sick-child clients on the day of the visit, interviewers randomly selected the ANC and sick-child provider to be observed. The steps followed for selecting the ANC and sick-child providers were the following:

- Finding how many providers were seeing ANC or sick-child clients on the day of the survey.
- Writing down the names on separate pieces of paper of the providers seeing the clients.
- Folding the papers and mixing them up.
- Without looking, selecting one of the papers.
- Observing the name of the provider on the paper picked.

A.6 Selecting the Clients for Observation

An average of three ANC clients and three sick children under 2 years of age were to be observed at each health facility. A representative sample of clients for the day, and not just the first three clients that came to the health facility, was selected using the following steps for both ANC and sick-child clients. Looking at the ANC or OPD register from the previous 2 weeks and noting the number of ANC or OPD clients seen on the same day of the week as the day of the survey. For example, if a team visited the facility on a Tuesday, they looked at the ANC/sick-child client volume for the last two Tuesdays, taking an average of these two figures to obtain the estimated client volume. If there were multiple providers, they took the average number seen by the selected provider.

- It was sometimes difficult to determine the daily client load for some facilities, particularly private ones, as no records for the previous 2 weeks were available. In such cases, the interviewers relied on estimates made by the providers at the facility to determine their sampling interval.
- Confirming with the provider that this was the approximate number of ANC clients that she expected to see on the day of the visit and revising the number if necessary. If the expected client volume was four ANC/sick-child clients or less, an observation was done of all ANC/sick-child clients who arrived at the health facility that day.
- If there were five or more ANC/sick-child clients expected, the table shown below was provided for selecting the sampling interval. For example, if the expected number of ANC/sick-child clients was nine, the sampling interval was three; hence, an observation of every third ANC/sick-child visit seen by the provider.

Table A.1. Sample Selection Rates for Client Sampling Within Facilities

Average Expected Client Volume	*Sampling Interval*
4 or less	1 (observe all)
5–7	2
8–10	3
11–13	4
14–16	5
17–19	6
20–22	7
23–25	8
26–29	9
30–33	10

- Next a random starting point for the observation was determined. This may or may not have been the first ANC/sick-child client of the day. To do this, the sampling interval was taken and a number was randomly selected between one and the sampling interval. For example, if the sampling interval for ANC clients was three, a number between one and three was randomly selected. Each number was written on a piece of paper, mixed up, then one paper was blindly selected. If the selected number was two, observations started with the second ANC client of the day.

- Tracking of the number of clients that came was maintained so that the sampling interval was applied correctly.

As the observations were for an average of three ANC and three sick-children visits at each health facility, at some facilities slightly more than three and at others slightly less than three clients of each type were observed. This resulted in 356 ANC and 532 sick-child observations.

A.7 Training of Personnel and Pretesting the Survey Process

The training of the survey staff (observers/interviewers and supervisors) was held in Kampala on March 3–12, 2002. All the survey staff were trained on interviewing and observation techniques so that they could change roles easily whenever necessary. The topics covered included an overview of the survey objectives and design, completion of the data-collection instruments, tips for interviewers and observers, sampling of health facilities, sampling of providers and clients for observation within facilities, conducting client-provider observations of ANC and sick-child visits, conducting a facility audit, completing the record review form, role playing for all the instruments, a one-day field pretest, a review of the pretest, and fieldwork organization and logistics. The DISH staff also made available to the survey staff the essential equipment and supplies for reproductive, maternal, and child health care to be inspected for the facility audit in order for the survey staff to become familiar with the equipment.

A pretest of the survey instruments was conducted over one day in 12 health facilities not included in the final survey in Wakiso and Mukono districts. The questionnaires were finalized based on the training and the pretest results.

A.8 Fieldwork

The fieldwork was implemented by Wilsken Agencies, a private research firm, under

contract with the DISH II project. The survey was conducted from March 15 to April 27, 2002, by five research teams of qualified nurses and midwives. Four teams consisting of two observers/interviewers and one supervisor handled smaller facilities with low client volume. One team handling larger facilities had three observers/ interviewers and one supervisor. All of the staff were female and were trained nurses or midwives. Interviewers could swap roles for observation or interviewing, since all of them had been trained on both activities. The teams spent a day at each facility visited. Observers obtained informed verbal consent from both the provider and the client for observation.

The supervisors edited and submitted the questionnaires to Wilsken research coordinators who traveled to the field to collect the completed questionnaires from each of the teams. An independent field supervisor was hired by DISH to oversee the overall fieldwork.

A.9 Data Entry and Management

Data entry began as soon as the first batch of questionnaires arrived at Wilsken's offices. Data entry took place between April 9 and May 15, 2002. The data entry included recoding of a few open-ended responses, consistency checks, and data cleaning for inconsistent data.

Data entry and initial cleaning and production of preliminary tables were performed by Wilsken Agencies in Kampala under contract with the DISH II project. Final data files were sent to MEASURE *Evaluation* staff at ORC Macro in Washington, DC, for further analysis.

A.10 Data Analysis and Report Writing

Once the data arrived from Wilsken, MEASURE *Evaluation* staff conducted further analysis, drafted the report outline, and organized the report-writing tasks with DISH II staff. A preliminary analysis was initially conducted in June and July 2001 to respond to the immediate need for producing a report to coincide with the end of the DISH project in September 2002. MEASURE *Evaluation* team continued with in-depth analysis with input from DISH staff. DISH and MEASURE *Evaluation* staff produced this final report in September 2002.

Appendix B: SURVEY QUESTIONNAIRES

2002 DFS Interview and Audit Questionnaire

2002 DISH ANC Observation Questionnaire

2002 DISH Sick-Child Observation Questionnaire

MARCH 9, 2002

DELIVERY OF IMPROVED SERVICES FOR HEALTH SURVEY
FACILITY QUESTIONNAIRE
SPRING 2002

IDENTIFICATION

NAME OF FACILITY:____________________

DISTRICT . . . .

LCR/ZONE:____________________

INDEX CLUSTER CODE . . . .

RELATIONSHIP TO INDEX CLUSTER
0=INDEX CLUSTER, 1=1ST RING, 2=2ND RING

IF FACILITY WAS VISITED ALREADY FOR A DIFFERENT INDEX CLUSTER, RECORD OTHER INDEX CLUSTER NUMBER AND TERMINATE INTERVIEW.

INTERVIEWER VISIT

DATE:	DAY
	MONTH
	YEAR 2 0 0 2
INTERVIEWER'S NAME:	INTER. ID NO.
	RESULT*

*RESULT CODES:
1 COMPLETED
2 CANNOT LOCATE FACILITY
3 CANNOT LOCATE SENIOR STAFF
4 REFUSED
5 PARTLY COMPLETED
6 OTHER (SPECIFY)

TIME FACILITY OPENED	HOUR . . . .
	MINUTES . . . .
TIME FACILITY CLOSED	HOUR . . . .
	MINUTES . . . .

SUPERVISOR		OFFICE EDITOR	KEYED BY
NAME DATE			

SECTION 1
GENERAL FACILITY INFORMATION

Interv	FIND THE PERSON PRESENT AT THE FACILITY WHO IS IN CHARGE OR SENIOR STAFF ON DUTY THAT DAY. READ THAT PERSON THE MESSAGE BELOW.
	Hello. I am representing the DISH project. We are working with the Ministry of Health on activities aimed at improving the delivery of maternal, reproductive, and child health services. To help with this work, we are carrying out a survey of health facilities. As part of the survey, I would like to ask you and your staff questions about the services provided at this facility. Please be assured that all information will be kept strictly confidential. I also would like to assure you that this is not a supervisory visit. You may chose to stop the interview at any time. Do you have any questions for me? Do I have your permission?

	______________________________ Interviewer's Signature (Indicates respondent's willingness to participate	________________ Date	

NO.	QUESTION	CODING CATEGORIES	SKIP
	Permission received to continue	YES . . . . 1 NO 2	 →STOP
101	RECORD THE TIME INTERVIEW STARTED	HOUR . . . . [ ][ ] MINUTES . . . . [ ][ ]	
102	Are you the in-charge who usually manages this health facility?	YES . . . . 1 NO 2	
103	What is your job title or cadre?	DOCTOR . . . . 1 CLINICAL OFFICER . . . . 2 NURSING OFFICER/ REGISTERED MIDWIFE . . . . 3 ENROLLED NURSE . . . . 4 ENROLLED MIDWIFE . . . . 5 COMPREHENSIVE NURSE . . . . . 6 NURSE ASSISTANT/AID . . . . 7 ADMINISTRATOR . . . . 8 OTHER (Specify) 9	
104	Under what authority is this facility operated?	**GOVERNMENT:** MOH . . . . 1 OTHER GOVN'T . . . . 2 **NGO:** MARIE STOPES . . . . 3 FPAU . . . . 4 RELIGIOUS . . . . 5 OTHER NGO . . . . 6 PRIVATE-FOR-PROFIT . . . . 7 EMPLOYER BASED CLINIC . . . . . 8 OTHER (Specify) 9	 →107 →107 →107
105	What is the level of this facility? *[Circle only one.]*	HC II . . . . 1 HC III . . . . 2 HC IV . . . . 3 GENERAL HOSPITAL . . . . 4 REGIONAL HOSPITAL . . . . 5 NATIONAL HOSPITAL . . . . 6 PRIVATE HOSPITAL . . . . 7 OTHERS . . . . 8 DO NOT KNOW 98	

NO.	QUESTION	CODING CATEGORIES	SKIP
106	Has this facility been designated as any of the following: (A) DISH HMIS sentinel site? (B) Safe motherhood focused site? (C) Adolescent Reproductive Health site? (D) A static LTPM or outreach site? (E) Practicum training site?	YES NO DON'T KNOW 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8	
107	How many days per week is the facility open?	DAYS . . . . ☐	
108	Do you know the estimated catchment population for this facility?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	
109	ASK TO SEE THE MAP OF THE CATCHMENT AREA OF THE FACILITY POSTED IN THE FACILITY	SEEN . . . . 1 NOT SEEN 2	
110	What is the main source of water for this facility?	RUNNING PIPED WATER . . . . . . 1 WATER TANK . . . . 2 PROTECTED WATER SOURCE . 3 UNPROTECTED SOURCE . . . . . . 4 OTHER . . . . 5 NO REGULAR SOURCE 6	
111	Is water from this main source available in the facility today?	YES . . . . 1 NO 2	
112	ASK TO SEE SOURCE OF WATER AND VERIFY THAT THE WATER IS AVAILABLE AND THAT THE SOURCE IS WITHIN APPROXIMATELY 200 METERS	AVAILBLE . . . . 1 NOT AVAILABLE 2	
113	What is your main source of lighting for the facility?	ELECTRICITY . . . . 1 GENERATOR . . . . 2 SOLAR LAMPS . . . . 3 LANTERN . . . . 4 OTHER (Specify) 5	
114	Is this source of lighting available and working today? VERIFY IF WORKING TODAY	YES . . . . 1 NO 2	
115	What is your backup source of lighting? [CIRCLE ALL MENTIONED]	ELECTRICITY . . . . 1 GENERATOR . . . . 2 SOLAR LAMPS . . . . 3 LANTERN . . . . 4 OTHER (Specify) 5	
116	Are there latrines or toilets within the facility or the facility compound?	YES . . . . 1 NO 2	
117	Do patients at the facility have access to at least one latrine or toilet 24 hours per day?	YES . . . . 1 NO 2	
Interv	ASK TO SEE THE LATRINE OR TOILET FOR PATIENTS.	SEEN . . . . 1 NOT SEEN 2	 →121
118	INDICATE IF THE TOILET/LATRINE FOR PATIENTS IS KEPT LOCKED.	LOCKED . . . . 1 NOT LOCKED 2	→120
119	INDICATE WHETHER THE TOILET BOWL IS CLEAN AND EMPTY, OR IF THE LATRINE SLAB IS CLEAN [CLEAN MEANS THERE ARE NO DROPPINGS OR OTHER HUMAN WASTE]	CLEAN . . . . 1 NOT CLEAN 2	

NO.	QUESTION	CODING CATEGORIES	SKIP
120	INDICATE WHETHER OR NOT SOAP AND WATER ARE AVAILABLE AT THE WASHING POINT OR NEAR THE TOILET OR LATRINE.	Both soap & water available . . . . . 1 Soap mixed in water available . . . . 2 Only water available . . . . 3 Only soap available . . . . 4 Not available 5	
121	Where do you dispose of refuse and medical waste? (CIRCLE ALL MENTIONED)	RUBBISH PIT . . . . A INCENERATOR . . . . B BURNING . . . . C OTHERS (Specify) . . . . D	
Interv	ASK TO SEE THE RUBBISH PIT.	SEEN . . . . 1 NOT SEEN . . . . 2 NO RUBBISH PIT 3	 →124 →124
122	INDICATE WHETHER THE RUBBISH PIT IS OVERFLOWING.	OVERFLOWING . . . . 1 NOT OVERFLOWING 2	
123	INDICATE IF ANY SHARPS ARE VISIBLE	SEEN . . . . 1 NOT SEEN 2	
124	What is the method **most** frequently used for the sterilization of medical instruments (not linens)? CIRCLE ONLY ONE	ELECTRIC STERILIZER . . . . 1 AUTOCLAVE . . . . 2 STEAM STERILIZER . . . . 3 BOILING . . . . 4 NONE . . . . 5 OTHER (Specify) 6	 →126 →126 →126
125	INDICATE IF THE STERILIZER OR AUTOCLAVE IS FUNCTIONING	SEEN . . . . 1 NOT SEEN 2	
126	Does the facility have a placenta pit?	YES . . . . 1 NO 2	 →128
Interv	ASK TO SEE THE PLACENTA PIT		
127	INDICATE WHETHER OR NOT THE PLACENTA PIT IS COVERED WITH A CONCRETE SLAB OR OTHER AIRTIGHT SEAL.	COVERED . . . . 1 NOT COVERED . . . . 2 NOT SEEN 3	

STAFF INFORMATION

128	How many permanent staff of each types (cadre) does this facility have? DON'T KNOW=98		**129**. How many of CADRE are <u>not</u> present for duty today?
	(A) Doctors	☐☐	☐☐
	(B) Clinical officer	☐☐	☐☐
	(C) Nursing officers (Registered nurse/ midwives)	☐☐	☐☐
	(D) Enrolled nurses	☐☐	☐☐
	(E) Enrolled midwives	☐☐	☐☐
	(F) Comprehensive Nurse	☐☐	☐☐
	(G) Nursing Assistant/Aid	☐☐	☐☐
	(H) Lab tech/assistant	☐☐	
	(I) Other medical staff	☐☐	
	(J) Other non medical staff	☐☐	

Interv	CHECK Q104 FOR OPERATING AUTHORITY	GOVERNMET . . . . 1 OTHER 2	 →134
Interv	CHECK Q105 FOR LEVEL OF FACILITY AND MARK THE APPROPRIATE BOX BELOW		
	☐ HCIV, General, National, Regional: CHECK 129 TO SEE IF ANY DOCTOR OR CLINICAL OFFICERS WERE NOT ON DUTY ☐ HCIII: CHECK 129 TO SEE IF ANY ENROLLED MIDWIVES WERE NOT ON DUTY TODAY ☐ HCII: CHECK 129 TO SEE IF ANY MEDICAL STAFF WERE NOT ON DUTY TODAY LIST THE STAFF NOT AVAILABLE FOR DUTY TODAY IN THE TABLE BELOW. FOR EACH STAFF, ASK FOR THE MAIN REASON THAT SHE/HE IS NOT ON DUTY TODAY.		

Coding for CADRE (Qes 130):

DOCTOR 1
CLINICAL OFFICER 2
NURSING OFFICER (REGISTERED MIDWIFE) 3
ENROLLED NURSE 4
ENROLLED MIDWIFE 5
COMPREHENSIVE NURSE 6
NURSE ASSISTANT/AID 7

Coding for REASON staff absent from duty (Qes 131):

OUTREACH SERVICES 1
COMMUNITY MEETINGS 2
TRAVEL TO DISTRICT HQ 3
TRAVEL TO MOH HQ 4
TRAINING 5
OFF DUTY 6
SICK LEAVE 7
ANNUAL LEAVE 8
BURIAL 9
OTHER (Specify) 10
DON'T KNOW 98

	STAFF NOT ON DUTY TODAY	**130**. CADRE	**131**. REASON
	(A)	☐	☐☐
	(B)	☐	☐☐
	(C)	☐	☐☐
	(D)	☐	☐☐
	(E)	☐	☐☐
	(F)	☐	☐☐

NO.	**QUESTION**	**CODING CATEGORIES**	**SKIP**
132	How many medical staff at the facility have received an appointment letter from the district or any service commission?	NUMBER . . . . ☐☐	

133	For the month of January 2002, when did the staff actually receive their salaries?	BEFORE END OF JANUARY . . . . 1 WITHIN 1 WEEK AFTER END OF MONTH . . . . 2 WITHIN 4 WEEKS . . . . 3 MORE THAN 4 WEEKS . . . . 4 NOT YET RECEIVED 5	

134-135	In the last two years, please tell me the number of health care providers or medical staff who work in the MCH and Outpatient Departments who have received in-service training in the following: (if you have any staff working in both departments, please include them only once for each training category I read out). DON'T KNOW=98	**134** Number of MCH Staff	**135** Number of OPD Staff
	(A) IMCI		
	(B) Growth monitoring and promotion		
	(C) Immunization		
	(D) Family Planning (includes Norplant, TL, distance learning, or general family planning)		
	(E) Integrated Reproductive Health/ reproductive health update		
	(F) Life saving skills		
	(G) Post-abortion care		
	(H) STD Case Management		
	(I) Malaria Case Management		
	(J) Drug Quantification		
	(K) VCT (Voluntary Counseling and Testing for HIV)		
	(L) Revised HMIS		
	(M) Interpersonal Communication		
	(N) Continuing Quality Improvement		

NO.	QUESTION	CODING CATEGORIES	SKIP
136	Do you have any full-time record assistants at this health facility?	YES . . . . 1 NO 2	 →138
137	In the last two years, how many record assistants have received in-service training in the following?		
	(A) Data Utilization	NUMBER . . . . [ ]	
	(B) Revised HMIS	NUMBER . . . . [ ]	
138	Is there a nurse, midwife, clinical officer, or medical officer available at the facility 7 days per week, 24 hours per day	YES . . . . 1 NO 2	
139	IS THERE STAFF HOUSING NEAR THE HEALTH FACILITY OR A DUTY ROOM WITH SLEEPING ACCOMMODATIONS (INTERVIEWER ASK TO SEE AND VERIFY)	SEEN . . . . 1 NOT SEEN 2	
	INFORMATION, EDUCATION, AND COMMUNICATION		
140	Does the staff conduct heath education talks for waiting clients?	Yes . . . . 1 No 2	 -> 142
141	How many times a WEEK does the staff conduct these talks?	NUMBER . . . . [ ][ ] DON'T KNOW..................98	
142	Has this facility ever received any of the following materials: (A) The "Health Worker" newsletter? (B) Health Matters?	YES NO 1 2 1 2	
143	Does the facility have the following: (A) Cue cards for health education? (B) Stickers to promote Handwashing? (C) Stickers for stock management? (D) Stickers for dispensary Instructions?	SEEN NOT SEEN 1 2 1 2 1 2 1 2	
	OUTREACH		
144	Does the facility conduct outreach activities?	YES . . . . 1 NO 2	 →150
145	ASK TO SEE A SCHEDULE FOR OUTREACH ACTIVITIES POSTED IN THE FACILITY	SEEN . . . . 1 NOT SEEN 2	
146	How many immunization outreach activities were planned in February 2002? [IF THE SCHEDULE IS AVAILABLE, COUNT THE NUMBER OF UTREACH ACTIVITIES SCHEDULED)	NUMBER . . . . [ ][ ] DON'T KNOW=98	
147	How many immunization outreach activities were actually conducted in February 2002? [IF SCHEDULE IS AVAILABLE, VERIFY BY CROSS CHECKING IN THE OUTREACH SCHEDULE]	NUMBER . . . . [ ][ ] DON'T KNOW=98	

NO.	QUESTION	CODING CATEGORIES	SKIP
148	What was the **main** reason why the full number of planned outreaches was not completed? IF ALL PLANNED ACTIVITIES WERE CONDUCTED, CIRCLE 9 FOR NOT APPLICABLE AND GO TO NEXT QUESTION.	LACK OF TRANSPORT . . . . 1 LACK OF ALLOWANCES . . . 2 VACCINES NOT AVAILABLE 3 BAD WEATHER . . . . 4 OTHER STAFF COMMITMENTS . . . . 5 STAFF SHORTAGE . . . . 6 OTHER (Specify) . . . . 7 DON'T KNOW . . . . 8 NOT APPLICABLE 9	
149	Do community health workers or peer educators work with this facility on the following:	YES NO DON'T KNOW	
	A) Adolescent friendly services?	1 2 8	
	B) Safe motherhood?	1 2 8	
	C) Long-term and permanent family planning methods?	1 2 8	
	D) Other services?	1 2 8	
150	Has the facility conducted any health education activities with schools in the past year?	YES . . . . 1 NO 2	
	SUPERVISION		
Interv	CHECK Q104 FOR OPERATING AUTHORITY	GOVERNMENT . . . . 1 OTHER 2	 →164
151	When was the last support supervision visit by your immediate supervision team to this facility?	WITHIN LAST MONTH . . . . . 1 WITHIN LAST 3 MONTHS . . . 2 WITHIN LAST 6 MONTHS . . . 3 MORE THAN 6 MONTHS . . . 4 NEVER VISITED . . . . 5 DON'T KNOW 8	 →155 →155
152	How many members of the supervision team visited the facility for this last visit?	NUMBER . . . . [ ][ ] DON'T KNOW........................98	
153	How many hours did the supervision team spend at this facility at the last visit?	HOURS . . . . [ ][ ] DON'T KNOW........................98	
154	ASK TO SEE THE FINDINGS OF THE SUPERVISION TEAM [FROM THE SUPERVISION BOOK]	SEEN . . . . 1 NOT SEEN 2	
155	Does the facility conduct internal supervision?	YES . . . . 1 NO . . . . 2 DON'T KNOW..........................8	 →158 →158
156	When was the last time the facility conducted internal supervision?	WITHIN LAST MONTH . . . . . 1 WITHIN LAST 3 MONTHS . . . 2 WITHIN LAST 6 MONTHS . . . 3 MORE THAN 6 MONTHS . . . 4 NEVER DONE . . . . 5 DON'T KNOW 8	
157	ASK TO SEE THE MINUTES OF THE LAST INTERNAL SUPERVISION ACTIVITY	SEEN . . . . 1 NOT SEEN 2	

158	Do you have a copy of the National Supervision Guidelines? ASK TO SEE A COPY	SEEN . . . . 1 NOT SEEN 2	

NO.	QUESTION	CODING CATEGORIES	SKIP
159	Has this facility ever participated in a Yellow Star Assessment?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	 →161 →161
160	What was the score that the facility received after the last Yellow Start Assessment? [LOOK IN THE YELLOW STAR ASSESSMENT REPORT FOR THE SCORE]	NUMBER . . . . [ ][ ] DON'T KNOW.......................98	
161	Is there a Health Unit Management Committee for this facility?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	 →164 →164
162	Does the Health Unit Management Committee or board meet once every quarter?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	
163	MAY I PLEASE SEE THE MINUTES OF THE LAST MEETING	SEEN . . . . 1 NOT SEEN 2	
	REFERRALS AND CLIENT FLOW		
164	Does the facility refer emergency cases?	YES . . . . 1 NO 2	 →166
165	Does this facility provide any of the following kind of assistance when refering cases (A) communication to the referral facility? (B) ambulance? (C) arrange community transportation? (D) provide funds for fuel or public transport? (E) Other assistance [specify] ____________________________	YES NO DON'T KNOW 1 2 8 1 2 8 1 2 8 1 2 8 1 2 8	
166	Do you have a system in place that allows you to serve non-emergency clients in the order in which they arrive?	YES . . . . 1 NO 2	 →168
167	What system do you use?	GIVE NUMBERS . . . . 1 SEATING ARRANGEMENT . 2 ORDERING OF FORMS/RECORDS . . . . 3 OTHER (Specify) 4	
	FINANCIAL INFORMATION		
168	Do you receive PHC funding?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	 →174 →174
169	For the last completed quarter, October to December 2001, did you receive all of the PHC funds that you requested ?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	
170	At any time between October and December 2001, were you unable to purchase paraffin, jik, or soap due to non-availability of funds?	YES . . . . 1 NO . . . . 2 DON'T KNOW 8	
171	For the last quarter, October to December 2001, how were you informed when your funding became available? CIRCLE ALL MENTIONED	RADIO CALL . . . . 1 TELEPHONE . . . . 2 SUPERVISION VISIT . . . . . . 3 TRAVEL TO DISTRICT HEAD 4 OTHER . . . . 5 (Specify)___________________	

NO.	QUESTION	CODING CATEGORIES	SKIP
172	During the last quarter, October to December 2001, how many times did you travel to district headquarters to inquire about funds?	TIMES . . . . [ ][ ] DON'T KNOW=98	
173	The last time that you filled a requisition, how many days were there between filling the requisition and accessing the funds?	DAYS . . . . [ ][ ] DON'T KNOW=98	
174	Do you provide credit services to clients? IF THIS IS A GOVERNMENT FACILITY, CIRCLE 9 FOR NOT APPLICABLE AND CONTINUE TO NEXT QUESTION.	YES . . . . 1 NO . . . . 2 NOT APPLICABLE 9	
MANAGEMENT AND REPORTING			
175	Does this facility conduct drug quantification exercises?	YES . . . . 1 NO . . . . 2 DO KNOW 8	
176	Does the facility complete monthly Health Unit Reports (HMIS 105)?	YES . . . . 1 NO . . . . 2 DO KNOW 8	 →178 →178
177	Has the facility received feedback on health information in the last quarter, October to December 2001, through:		
	(A) HMIS Bulletin or newsletter?	YES . . . . 1 NO . . . . 2 DO KNOW 8	
	(B) Participation in a review or dissemination meeting?	YES . . . . 1 NO . . . . 2 DO KNOW 8	
KNOWLEDGE OF GUIDELINES			
Now I would like to ask you a few questions about national guidelines in Maternal Child Health.			
178	According to national guidelines, at what age do you begin giving Vitamin A supplements to children?	AT SIX MONTHS . . . . 1 OTHER ANSWERS . . . . 2 DON'T KNOW 8	
179	According to national guidelines, when should the first dose of preventive SP/ Fansidar for malaria be given to pregnant women?	16-24 WEEKS . . . . 1 OTHER ANSWERS . . . . 2 DON'T KNOW 8	
180	According to the schedule, at what age is a child supposed to receive DPT1 Immunization?	6 WEEKS . . . . 1 OTHER ANSWERS . . . . 2 DON'T KNOW 8	
181	According to guidelines, what drug or drugs should you give to a child to treat uncomplicated malaria?	SP/FANSIDAR AND CHLOROQUINE . . . . 1 CHLOROQUINE ALONE. . . . . 2 OTHER (Specify) . . . . 3 DON'T KNOW 8	

182 I now need to ask some questions about specific services offered at the health facility. Are you the person that I should talk to today about the following services? If not who should I talk to today:				
A.	Family Planning	YES . . . . 1 NO . . . . 2 NOT APPLICABLE 9	→	Name__________________________
B.	Maternal Child Health Services	YES . . . . 1 NO 2	→	Name__________________________
C.	Delivery Services	YES . . . . 1 NO 2	→	Name__________________________
D.	Outpatient Services	YES . . . . 1 NO 2	→	Name__________________________
E.	Inpatient and Surgical Services	YES . . . . 1 NO 2	→	Name__________________________
F.	Pharmacy	YES . . . . 1 NO 2	→	Name__________________________

SECTION 2
FAMILY PLANNING SERVICES

No.	QUESTIONS	CODING CATEGORIES	SKIP
201	Does this facility offer family planning services?	YES . . . . 1 NO 2	 –> 301
201B	Are family planning services being offered today? [IF OFFERED ON SPECIFIC DAYS, BUT A CLIENT CAN BE SERVED TODAY, MARK 'YES']	YES . . . . 1 NO 2	
202	How many days per week are family planning services generally available?	DAYS . . . . ☐	
203	Which of the following family planning methods can clients obtain at this facility?	YES NO	
	(A) Pill	PILL 1 2	
	(B) Injectable	INJECTABLE 1 2	
	(C) IUD	IUD 1 2	
	(D) Female Sterilization	FEM STER 1 2	
	(E) Male Sterilization	MALE STER 1 2	
	(F) Norplant	NORPLANT 1 2	
	(G) Foaming Tablets	TABLETS 1 2	
	(H) Natural Methods	NATURAL 1 2	
	(I) Male Condoms	CONDOMS 1 2	
	(J) Female condom	FEM CONDOM 1 2	
	(K) Emergency Contraceptive Pill (ECP)	ECP 1 2	

ASK QUESTION 204 FOR METHODS AVAILABLE IN QUESTION 203

204. May I please see where you keep contraceptive supplies? ASK TO SEE WHERE CONTRACEPTIVE SUPPLIES ARE KEPT AND DETERMINE IF THE FOLLOWING CONTRACEPTIVE METHOD IS CURRENTLY IN STOCK.			**205**. In FEBRUARY 2002, were there any stock outs for any of the following CONTRACEPTIVE?		**206**. In the past three months, were there any stock outs for any of the following CONTRACEPTIVE?
(A) Pill	SEEN . . . . . . 1 NOT SEEN . . . . 2 Not Applicable . 9	 -> (B) -> (B)	YES . . . . . 1 NO 2		
(B) Injectable	SEEN . . . . . . 1 NOT SEEN . . . . 2 Not Applicable . 9	 -> (C) -> (C)	YES . . . . . 1 NO 2	->(C)	YES . . . . 1 NO 2
(C) IUD	SEEN . . . . . . 1 NOT SEEN . . . . 2 Not Applicable . 9	 -> (D) -> (D)	YES . . . . . 1 NO 2		
(D) Male Condom	SEEN . . . . . . 1 NOT SEEN . . . . 2 Not Applicable . 9	 -> (E) -> (E)	YES . . . . . 1 NO 2	->(E)	YES . . . . 1 NO 2
(E) Norplant	SEEN . . . . . . 1 NOT SEEN . . . . 2 Not Applicable . 9	 -> (F) -> (F)	YES . . . . . 1 NO 2		
(F) Foaming Tablets	SEEN . . . . . . 1 NOT SEEN . . . . 2 Not Applicable . 9	 -> 207 -> 207	YES . . . . . 1 NO 2		

207	ASK TO SEE WHERE FAMILY PLANNING CLIENTS ARE EXAMINED	SEPARATE ROOM WITH DOOR OR CURTAIN 1 CURTAINED AREA . . . . 2 SAME ROOM AS OTHERS . . . . 3 OTHER (Specify) . . . . 4 NOT SHOWN AREA 9	→212
208	INDICATE IF THE FLOOR OF THE EXAM ROOM IS FREE OF SOILED MATERIALS	YES . . . . 1 NO 2	

No.	QUESTIONS	CODING CATEGORIES	SKIP
209	Is there an examination couch?	SEEN . . . . . . 1 NOT SEEN 2	→21 2
210	INDICATE WHETHER THE EXAMINATION COUCH IS COVERED WITH AN UNTORN MACINTOSH OR PLASTIC SHEET.	COVERED . . . . . . 1 NOT COVERED 2	
211	INDICATE IF THE EXAMINATION COUCH IS CLEAN.[NO VISIBLE STAINS, DUST, BLOOD]	CLEAN . . . . . . 1 NOT CLEAN 2	

212 Do you have the following materials available where family planning services are delivered? VERIFY BY VISUAL INSPECTION

ITEM	Yes, Observed	Yes, Reported	No	Not Determined
(A) Family Planning Cards/Books	1	2	3	9
(B) Family Planning Methods Wall Chart	1	2	3	9
(D) Family Planning Flip Chart	1	2	3	9
(E) National Reproductive Health Service Delivery Guidelines	1	2	3	9

213 Which of the following items are available for infection prevention in the unit where family planning services are delivered? VERIFY BY VISUAL INSPECTION

ITEM	Yes, Observed	Yes, Reported	No	Not Determined
(A) Puncture resistant container for sharps	1	2	3	9
(B) Bucket with chlorine solution	1	2	3	9
(D) Soap and water for hand washing	1	2	3	9
(E) Dustbin	1	2	3	9

No.	QUESTIONS	CODING CATEGORIES	SKIP
Interv	CHECK Q203 TO SEE IF ANY LTPM ARE OFFERED. LTPM INCLUDES IUD, MALE AND FEMALE STERILIZATION, NORPLANT.	OFFERED . . . . . . 1 NOT OFFERED 2	→30 1
214	Is this a fixed or an outreach site for LTPM?	FIXED . . . . . . 1 OUTREACH . . . . . . 2 BOTH FIXED AND OUTREACH 3	

215 Do you have the following materials available where LTPM are delivered? VERIFY BY VISUAL INSPECTION

ITEM	Yes, Observed	Yes, Reported	No	Not Determined
(A) Client Record for permanent contraception	1	2	3	9
(B) Client record for Norplant	1	2	3	9
(C) Health Education Kit for LTPM	1	2	3	9
(D) Visiting card for Norplant	1	2	3	9
(E) Consent Form	1	2	3	9

SECTION 3
MATERNAL HEALTH SERVICES

No.	QUESTIONS	CODING CATEGORIES	SKIP
301	Are the following services available to clients at this facility?	YES NO	
	(A) Ante-natal care?	1 2	
	(B) Post-natal care?	1 2	
	(C) Delivery?	1 2	
	(D) Post Abortion care?	1 2	
Interv	CHECK RESPONSE TO Q301A TO SEE IF ANC SERVICES ARE AVAILABLE.	YES . . . . 1 NO 2	 →312
	ANTENATAL CARE SERVICES		
301B	Are ANC services being offered today?	YES . . . . 1 NO 2	
302	May I please see where antenatal clients are examined?	SEPARATE ROOM WITH DOOR/CURTAIN . . . . 1 CURTAINED AREA . . . . 2 SAME ROOM AS OTHERS . . 3 OTHER (Specify) . . . . 4 NOT SHOWN AREA 9	 →307
303	INDICATE IF THE FLOOR OF THE EXAM ROOM IS FREE OF SOILED MATERIALS	YES . . . . 1 NO 2	
304	Is there an examination couch?	SEEN . . . . 1 NOT SEEN 2	 →307
305	INDICATE WHETHER THE EXAMINATION COUCH IS COVERED WITH AN UNTORN MACINTOSH OR PLASTIC SHEET.	COVERED . . . . 1 NOT COVERED 2	
306	INDICATE IF THE EXAMINATION COUCH IS CLEAN.(NO VISIBLE STAINS)	CLEAN . . . . 1 NOT CLEAN 2	

307 Do you have the following materials available in the unit where antenatal care services are provided? VERIFY BY VISUAL INSPECTION

	Yes, Observed	Yes, Reported	No	Not Determined
(A) Antenatal Care Cards	1	2	3	9
(B) Birth Plan Cards	1	2	3	9
(C) Safe Motherhood Flip Chart	1	2	3	9
(D) The National Policy Guidelines and Service Standards for Reproductive Health Services	1	2	3	9
(E) Health Worker Self Instruction Manual	1	2	3	9

308 Do you have the following items available in the unit where antenatal services are provided? VERIFY BY VISUAL INSPECTION

	Yes, Observed	Yes, Reported	No	Not Determined
(A) BP machine	1	2	3	9
(B) Stethoscope	1	2	3	9

	(D) Thermometer	1	2	3	9	
	(E) Syringes and needles (3 or 5 ml with 19-21 gauge needles).	1	2	3	9	
	(F) Disposable gloves	1	2	3	9	
	(G) Fetal stethoscope (fetoscope)	1	2	3	9	
	(H) Adult weighing scale	1	2	3	9	
	(I) RPR kits	1	2	3	9	
309	Do you have the following items available for infection prevention in the unit where antenatal care services are provided. VERIFY BY VISUAL INSPECTION					
		Yes, Observed	Yes, Reported	No	Not Determined	
	(A) Puncture resistant container for sharps	1	2	3	9	
	(B) Bucket with chlorine solution	1	2	3	9	
	(D) Soap and water for hand washing	1	2	3	9	
	(E) Dustbin	1	2	3	9	

310	IS THERE A GRAPH WITH TARGETS FOR ANC VISITS DISPLAYED IN PLAIN VIEW AT THE FACILITY?	SEEN . . . . 1 NOT SEEN 2	 →311B
311	CHECK THE GRAPH AND INDICATE IF THE FACILITY IS MEETING ESTABLISHED TARGETS FOR ANC VISITS.	YES . . . . 1 NO . . . . 2 NOT DETERMINED 9	
	DELIVERY SERVICES		
Interv	CHECK RESPONSE TO Q301C TO SEE IF DELIVERY SERVICES ARE AVAILABLE.	YES . . . . 1 NO 2	 →401
311B	Are delivery services available at this facility today?	YES . . . . 1 NO 2	
312	Please may I see where deliveries take place?	SEPARATE ROOM WITH DOOR/CURTAIN . . . 1 CURTAINED AREA . . . . 2 SAME ROOM AS OTHERS . . . . 3 OTHER (Specify) . . . . 4 NOT SHOWN AREA 5	 →317
313	INDICATE IF THE FLOOR OF THE EXAM ROOM IS FREE OF SOILED MATERIALS	CLEAN . . . . 1 NOT CLEAN 2	
314	IS THERE A DELIVERY COUCH?	SEEN . . . . 1 NOT SEEN 2	 →317
315	INDICATE IF THE DELIVERY COUCH IS COVERED WITH AN UNTORN MACINTOSH OR PLASTIC SHEET.	COVERED . . . . 1 NOT COVERED 2	
316	INDICATE IF THE DELIVERY COUCH IS CLEAN.	CLEAN . . . . 1 NOT CLEAN 2	

317	Do you have the following materials available in the unit where delivery services are provided? VERIFY BY VISUAL INSPECTION				
	ITEM	Yes, Observed	Yes, Reported	No	Not Determined

	ITEM	Yes, Observed	Yes, Reported	No	Not Determined	
	(A) Partograph	1	2	3	9	
	(B) The National Policy Guidelines and Service Standards for Reproductive Health Services	1	2	3	9	

318	Do you have the following equipment and supplies available in this facility and in working order for delivery services? VERIFY BY VISUAL INSPECTION					
	ITEM	Yes, Observed	Yes, Reported	No	Not Determined	
	(A) Sterile gloves	1	2	3	9	
	(C) Injectable ergometrine	1	2	3	9	
	(D) Syringes and needles	1	2	3	9	
	(E) Needle holder	1	2	3	9	
	(F) Sterile scissors or blade	1	2	3	9	
	(G) Suture material	1	2	3	9	
	(H) Cord ties	1	2	3	9	
	(I) Neonatal weighing scale	1	2	3	9	
	(J) Vacuum extractor	1	2	3	9	
	(K) MVA	1	2	3	9	
319	Do you have the following items available for infection prevention in the delivery unit? VERIFY BY VISUAL INSPECTION					
	ITEM	Yes, Observed	Yes, Reported	No	Not Determined	
	(A) Puncture resistant container for sharps	1	2	3	9	
	(B) Bucket with chlorine solution	1	2	3	9	
	(D) Soap and water for hand washing	1	2	3	9	
	(E) Dustbin	1	2	3	9	

320	IS THERE A GRAPH WITH TARGETS FOR DELIVERIES DISPLAYED IN PLAIN VIEW AT THE HEALTH FACILITY?	SEEN . . . . 1 NOT SEEN 2	→401
321	CHECK THE GRAPH AND INDICATE IF THE FACILITY IS MEETING ESTABLISHED TARGETS FOR DELIVERIES.	YES . . . . 1 NO . . . . 2 NOT DETERMINED 9	

SECTION 4
WELL CHILD SERVICES

No.	QUESTIONS	CODING CATEGORIES	SKIP
401	Does this facility offer any well child health services?	YES . . . 1 NO . . . 2	 →501
401B	Are well child health services being offered today?	YES . . . 1 NO . . . 2	

SERVICE	402. Are the following SERVICES available to clients at this facility?		403. How Many Days per Week is SERVICE offered?
(A) Immunization	YES . . . 1 NO . . . 2	 -> (B)	DAYS . . . ☐
(B) Growth monitoring and nutrition counseling	YES . . . 1 NO . . . 2	 -> 404	DAYS . . . ☐

No.	QUESTIONS	CODING CATEGORIES	SKIP
404	Where are well child services offered?	IN THE OPD . . . 1 IN THE MCH . . . 2 BOTH . . . 3 OTHER (Specify) . . . 4	
Interv	CHECK Q402A ABOVE TO SEE IF IMMUNIZATIONS ARE OFFERED.	YES . . . 1 NO . . . 2	 →416
405	Is this a static immunization point?	YES . . . 1 NO . . . 2	 →416
406	Please may I see the refrigerator where vaccines are kept	SEEN . . . 1 NOT SEEN . . . 2 NO REFRIGERATOR . . 3	 →411 →414
407	INDICATE IF THERE IS A TEMPERATURE MONITORING CHART FIXED TO THE REFRIGERATOR.	SEEN . . . 1 NOT SEEN . . . 2	 →405
408	INDICATE IF THE TEMPERATURE WAS MONITORED TWICE DAILY EVERY Day for the past seven days	SEEN . . . 1 NOT SEEN . . . 2	
409	CHECK IF THE TEMPERATURE WAS MAINTAINED BETWEEN +2˚ and +8˚ C DURING THE PAST SEVEN DAYS	SEEN . . . 1 NOT SEEN . . . 2	
410	INDICATE IF THERE IS A WORKING THERMOMETER IN THE REFRIGERATOR.	SEEN . . . 1 NOT SEEN . . . 2	

VACCINE	411. Is VACCINE available now ? [CHECK VACCINE CONTROL BOOK TO VERIFY]		412. In FEBRUARY 2002, were there any stock outs for VACCINE? [IF YES, SKIP Q413]	413. In the last three months were there any stock outs for VACCINE?
(A) Measles	AVAIL . . . 1 NOT AVAIL . . 2	 -> (B)	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
(B) Polio	AVAIL . . . 1 NOT AVAIL . . 2	 -> (C)	YES . . . 1 NO . . . 2	
(C) BCG	AVAIL . . . 1 NOT AVAIL . . 2	 -> (D)	YES . . . 1 NO . . . 2	
(D) DPT	AVAIL . . . 1 NOT AVAIL . . 2	 -> (E)	YES . . . 1 NO . . . 2	YES . . . 1 NO . . . 2
(E) Tetanus Toxoid (TT)	AVAIL . . . 1 NOT AVAIL . . 2	 -> 414	YES . . . 1 NO . . . 2	

No.	QUESTIONS	CODING CATEGORIES	SKIP
414	IS THERE A GRAPH WITH TARGETS FOR DPT3 DISPLAYED IN PLAIN VIEW AT THE HEALTH FACILITY?	SEEN . . . . . 1 NOT SEEN 2	→416
415	CHECK THE GRAPH AND INDICATE IF THE FACILITY IS MEETING ESTABLISHED TARGETS FOR DPT3.	YES . . . . . 1 NO . . . . . 2 NOT DETERMINED 9	

416 Are the following materials available where well child health services are provided? VERIFY BY VISUAL INSPECTION

	Yes, Observed	Yes, Reported	No	Not Determined
(A) IMCI chart booklet	1	2	3	9
(B) Child Health Cards	1	2	3	9
(C) Mothers Cards	1	2	3	9
(D) Vitamin A Guidelines Poster	1	2	3	9
(E) Immunization Guidelines	1	2	3	9

417 Do you have the following equipment and supplies available in this facility and in working order for well child health services? VERIFY BY VISUAL INSPECTION

	Yes, Observed	Yes, Reported	No	Not Determined
(A) Weighing scale for babies	1	2	3	9
(B) Vaccine carriers with ice packs	1	2	3	9

418 Do you have the following items available for infection prevention in the unit where well child services are provided? VERIFY BY VISUAL INSPECTION

	Yes, Observed	Yes, Reported	No	Not Determined
(A) Puncture resistant container for sharps	1	2	3	9
(B) Bucket with chlorine solution	1	2	3	9
(C) Soap and water for hand washing	1	2	3	9
(D) Dustbin	1	2	3	9

SECTION 5.
OUTPATIENT DEPARTMENT

No.	QUESTIONS			CODING CATEGORIES	SKIP
501	Are the following services available to clients at this facility?			**502**. How Many Days per Week is SERVICE offered?	
	(A) Sick Child Care	YES . . . . 1 NO 2	-> (B)	DAYS . . . . ☐	
	(B) STD treatment	YES . . . . 1 NO 2	-> (C)	DAYS . . . . ☐	
	(C) HIV/AIDS counseling & testing	YES . . . . 1 NO 2	-> (503)	DAYS . . . . ☐	
503	Please may I see where outpatients patients examined?			SEPARATE ROOM WITH DOOR/CURTAIN . . . . 1 CURTAINED AREA . . . . . . 2 SAME ROOM AS OTHERS 3 OTHER (Specify) . . . . 4 NOT SHOWN AREA 9	→509
504	INDICATE IF THE FLOOR OF THE EXAM ROOM IS FREE OF SOILED MATERIALS			CLEAN . . . . 1 NOT CLEAN 2	
505	IS THERE AN EXAMINATION COUCH?			SEEN . . . . 1 NOT SEEN 2	→509
507	INDICATE IF THE EXAMINATION TABLE IS COVERED WITH AN UNTORN MACINTOSH OR PLASTIC SHEET.			COVERED . . . . 1 NOT COVERED 2	
508	INDICATE IF THE EXAMINATION COUCH IS CLEAN. (FRESH STAIN,DUST OR BLOOD)			CLEAN . . . . 1 NOT CLEAN 2	

No.	Which of the following materials are available where outpatient services are provided? VERIFY BY VISUAL INSPECTION	Yes, Observed	Yes, Reported	No	Not Determined
509	(A) STD Wall chart	1	2	3	9
	(B) STD Flip Chart	1	2	3	9
	(C) National Standard Treatment Guidelines	1	2	3	9
	(D) Mother’s Card	1	2	3	9
	(E) Child Card	1	2	3	9
	(F) IMCI Chart Booklet	1	2	3	9
	(G) Immunization Guidelines	1	2	3	9
	(H) Vitamin A Guidelines Poster	1	2	3	9

510	Which of the following equipment and supplies are available where outpatient services are provided? VERIFY BY VISUAL INSPECTION					
		Yes, Observed	Yes, Reported	No	Not Determined	
	(A) Stethoscope	1	2	3	9	
	(B) BP machine	1	2	3	9	
	(C) Thermometer	1	2	3	9	
	(D) Functional watch, clock, or timer	1	2	3	9	
	(E) ORS corner	1	2	3	9	
	(F) Child weighing scale	1	2	3	9	
511	Do you have the following items available for infection prevention in the outpatient department? VERIFY BY VISUAL INSPECTION					
		Yes, Observed	Yes, Reported	No	Not Determined	
	(A) Puncture resistant container for sharps	1	2	3	9	
	(B) Bucket with chlorine solution	1	2	3	9	
	(C) Soap and water for handwashing	1	2	3	9	
	(D) Dustbin	1	2	3	9	

SECTION 6.
OTHER SERVICES

INPATIENT SERVICES

NO.	QUESTION	CODING CATEGORIES	SKIP
601	Does this facility have an in-patient department or beds for overnight observation?	YES . . . . 1 NO 2	 ──▸606
602	Are there separate wards for men and women?	YES . . . . 1 NO 2	──▸604
603	Are there screens or curtains or walls to separate the men's from the women's beds?	YES . . . . 1 NO 2	
Interv	MAY I PLEASE SEE THE WOMEN'S INPATIENT WARD		
604	INDICATE IF THE BEDS IN THE WOMEN"S WARD HAVE MATTRESSES.	MATTRESSES . . . . 1 NO MATTRESSES . . . . 2 NOT DETERMINED . . 9	

605 Which of the following equipment and supplies are available where inpatient services are provided.? VERIFY BY VISUAL INSPECTION IN THE FEMALE MEDICAL WARD.

	Yes, Observed	Yes, Reported	No	Not Determined
(A) Stethoscope	1	2	3	9
(B) BP Machine	1	2	3	9
(C) Thermometer	1	2	3	9

SURGICAL SERVICES

NO.	QUESTION	CODING CATEGORIES	SKIP
606	Does this facility have an operating theater?	YES . . . . 1 NO 2	 ──▸608

607 Do you have the following equipment and supplies available in the theater? VERIFY BY VISUAL INSPECTION. IF THERE IS MORE THAN ONE THEATER, GO TO THE THEATER WHERE CEASAREAN SECTIONS ARE PERFORMED.

	Yes, Observed	Yes, Reported	No	Not Determined
(A) Anaesthesia Machine	1	2	3	9
(B) C-section sets (2 sets)	1	2	3	9
(C) Laparotomy sets (2 sets)	1	2	3	9
(D) Blood	1	2	3	9
(E) Refrigerator for blood	1	2	3	9
(D) Cross-matching equipment	1	2	3	9

LABORATORY SERVICES

NO.	QUESTION	CODING CATEGORIES	SKIP
608	Does this facility have a laboratory?	YES . . . . 1 NO 2	 ──▸701
609	Do you have the following equipment and supplies available in the laboratory? VERIFY BY VISUAL INSPECTION		

	(A) A functioning microscope	SEEN . . . . 1 NOT SEEN 2	
	(B) Reagents for syphilis	SEEN . . . . 1 NOT SEEN 2	
	(C) HIV Test Kits	SEEN . . . . 1 NOT SEEN 2	

SECTION 7. PHARMACY					
DRUGS FOR COMMON INFECTIONS	**701**. Is MEDICINE available now?		**702**. In February 2002, were there any stock outs for MEDICINE?		**703**. In the last three months were there any stock outs for MEDICINE?
(a) Mebendazole	SEEN . . . . 1 NOT SEEN . . . 2	-> (b)	YES . . . . 1 NO 2		
(b) Amoxiccillin oral	SEEN . . . . 1 NOT SEEN . . . 2	-> (c)	YES . . . . 1 NO 2		
(c) Cotrimoxazole	SEEN . . . . 1 NOT SEEN . . 2	-> (d)	YES . . . . 1 NO 2	->(d)	YES . . . . 1 NO 2
(d) Naladixic Acid	SEEN . . . . 1 NOT SEEN . . 2	-> 704	YES . . . . 1 NO 2		
DRUGS FOR STD TREATMENT	**704**. Is MEDICINE available now?		**705**. In February 2002, were there any stock outs for MEDICINE?		**706**. In the last three months, were there any stock outs for MEDICINE?
(a) Doxycycline	SEEN . . . . 1 NOT SEEN . . 2	-> (b)	YES . . . . 1 NO 2		
(b) Ciprofloxacin	SEEN . . . . 1 NOT SEEN . . . 2	-> (c)	YES . . . . 1 NO 2		
(c) Metronizadole	SEEN . . . . 1 NOT SEEN . . . 2	-> (707)	YES . . . . 1 NO 2		
MALARIA DRUGS	**707**. Is ANTI-MALARIAL available now?		**708**. In February 2002, were there any stock outs for MEDICINE?		**709**. In the last three months, were there any stock outs for MEDICINE?
(a) Chloroquione	SEEN . . . . 1 NOT SEEN . . . 2	-> (b)	YES . . . . 1 NO 2	->(b)	YES . . . . 1 NO 2
(b) Fansidar	SEEN . . . . 1 NOT SEEN . . . 2	-> (710)	YES . . . . 1 NO 2		
OTHER	**710**. Is ITEM available now?		**711**. In February 2002, were there any stock outs for ITEM?		**712**. In the last three months, were there any stock outs for ITEM?
(a) ORS	SEEN . . . . 1 NOT SEEN . . . 2	-> (b)	YES . . . . 1 NO 2	->(b)	YES . . . . 1 NO 2
(b) Vitamin A	SEEN . . . . 1 NOT SEEN . . . 2	-> (c)	YES . . . . 1 NO 2		
(c) Iron Folate Tablets	SEEN . . . . 1 NOT SEEN . . . 2	-> (713)	YES . . . . 1 NO 2		

Interv	ASK TO SEE STOCK CARDS OR REGISTER BOOKS FOR THE FOLLOWING PRODUCTS . DETERMINE WHETHER IT IS UP-TO DATE AND WHETHER STOCK LISTED ON CARD CORRESPONDS WITH STOCK IN FACILITY. [COUNT THE NO. OF CASES & BOXES THEN MULTIPLY WITH THE NO. OF UNITS]

ITEM	**713**. Is stock card or register for ITEM available?		**714**. Stock card/register is up-to-date?	**715**. Amount on register matches physical stock?
(a) Cotrimoxazole	SEEN . . . . . . 1 NOT SEEN . . 2	-> (b)	YES . . . . 1 NO 2	YES . . . . 1 NO . . . . 2 Not Determined 3
(b) Chloroquine	SEEN . . . . . . 1 NOT SEEN . . 2	-> (c)	YES . . . . 1 NO 2	YES . . . . 1 NO . . . . 2 Not Determined 3
(c) Injectable contraceptives	SEEN . . . . . . 1 NOT SEEN . . 2 Not Applicable.3	-> (d) -> (d)	YES . . . . 1 NO 2	YES . . . . 1 NO . . . . 2 Not Determined 3
(d) ORS	SEEN . . . . . . 1 NOT SEEN . . 2	-> (e)	YES . . . . 1 NO 2	YES . . . . 1 NO . . . . 2 Not Determined 3
(e) Doxycycline	SEEN . . . . . . 1 NOT SEEN . . 2	-> (801)	YES . . . . 1 NO 2	YES . . . . 1 NO . . . . 2 Not Determined 3

SECTION 8. OBSERVATIONS

BEFORE LEAVING THE FACILITY, RECORD INFORMATION ABOUT THE FOLLOWING:

No.	QUESTIONS	CODING CATEGORIES				SKIP
801-802	INDICATE IF THERE ARE DISH/USAID POSTERS OR POSTERS FROM OTHER PROJECTS DISPLAYED IN THE MCH\AND/OR OPD AREAS.	**801** DISH/USAID POSTERS		**802** OTHER POSTERS		
		SEEN	NOT SEEN	SEEN	NOT SEEN	
	(A) Maternal health	1	2	1	2	
	(B) Breast-feeding	1	2	1	2	
	(C) Norplant	1	2	1	2	
	(D) Vasectomy	1	2	1	2	
	(E) Tubal Ligation	1	2	1	2	
	(F) Male Involvement Campaign	1	2	1	2	
	(G) Malaria	1	2	1	2	
	(H) Immunization	1	2	1	2	
	(I) Health workers' pledge	1	2	1	2	
	(I) Yellow Star Poster	1	2	1	2	

No.	QUESTIONS	CODING CATEGORIES	SKIP
803	RECORD WHETHER OR NOT THERE IS A WAITING AREA.	YES . . . . 1 NO 2	 -> 807
804	RECORD WHETHER SITTING HAS BEEN PROVIDED FOR IN THE WAITING AREA	YES . . . . 1 NO 2	
805	RECORD WHETHER OR NOT THE FLOOR IS CLEAN OF DEBRIS OR TRASH.	CLEAN . . . . 1 NOT CLEAN 2	
806	RECORD WHETHER A LIST OF SERVICES OFFERED AT THE FACILITY IS POSTED IN THE WAITING AREA.	POSTED . . . . 1 NOT POSTED 2	
807	RECORD WHICH OF THE FOLLOWING ARE DISPLAYED IN PLAIN VIEW AT THE FACILITY.		
	(A) Facility signpost	YES . . . . 1 NO 2	
	(B) Yellow Flower signboard	YES . . . . 1 NO 2	
	(C) Family Health (rainbow) signboard	YES . . . . 1 NO 2	
808	RECORD THE TIME INSTRUMENT COMPLETED	HOUR . . . . [ ][ ] MINUTES . . . . . . [ ][ ]	

SECTION 9 ALL FACILITIES		
901		USE THE PATIENT REGISTERS TO RECORD THE TOTAL NUMBER OF ANC AND SICK CHILD VISITS AT THE HEALTH FACILITY ON THE DAY OF THE SURVEY.
A	ANC	[ ][ ][ ][ ]
B	SICK CHILD <2 YEARS	[ ][ ][ ][ ]

Antenatal Care Observation

FACILITY IDENTIFICATION

`

Name of the facility_____________________________

DISTRICT [ ][ ][ ]

INDEX CLUSTER [ ][ ][ ][ ][ ][ ][ ][ ][ ]

Health Worker Information

Health worker category:
(1=Doctor; 2=Clinical Officer; 3=Registered Nurse/Midwife; 4=Comprehensive nurse, 5=Enrolled Nurse; 6=Enrolled midwife; 7=Nursing Assistant/Aid)

HEALTH WORKER CATEGORY......... .... [ ]

Sex of health worker: (1=female; 2=male)

SEX OF HEALTH WORKER............ [ ]

INFORMATION ABOUT OBSERVATION

NAME OF THE OBSERVER_____________________________

INTERVIEWER CODE........ [ ][ ]

OBSERVATION NO.
[1= 1st, 2=2nd, 3=3rd, 0= No Client] [ ]

TIME OBSERVATION STARTED: [ ][ ] [ ][ ]

TIME OBSERVATION ENDED: [ ][ ] [ ][ ]

SUPERVISOR		OFFICE EDITOR	KEYED BY
NAME ______________________________	[ ][ ]	[ ][ ]	[ ][ ]
DATE ______________________________			

Observation of Antenatal Consultation

OBSERVER: OBTAIN PERMISSION FROM BOTH THE CLIENT AND THE PROVIDER BEFORE OBSERVING THE CONSULTATION.

BE AS DISCREET AS POSSIBLE DURING THE ASSESSMENT, AND DO NOT TAKE PART IN THE INTERACTION IN ANY WAY. MAKE SURE THAT THE SERVICE PROVIDER KNOWS THAT YOU ARE NOT THERE TO EVALUATE HIM/HER AND THAT YOU ARE NOT AN "EXPERT" TO CONSULT DURING THE SESSION.

TRY TO SIT BEHIND THE CLIENT, BUT IN A POSITION NOT DIRECTLY IN FRONT OF THE PROVIDER. DO NOT MAKE EYE CONTACT WITH THE PROVIDER DURING THE CONSULTATION.

FOR EACH OF THE ITEMS, CIRCLE THE ANSWER THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION.

READ TO PROVIDER (BEFORE CLIENT ENTERS): Hello. I am representing the DISH Project. We are working with facilities in this district with the goal of improving delivery of maternal, reproductive, and child health services. As part of this activity, we are carrying out a survey of selected facilities that provide antenatal care services. I would like to observe your consultation with this client to better understand how antenatal care is provided in this facility.

This information will remain completely confidential. This is not a supervisory visit. You may choose to stop the observation at any time. Do you have any questions for me? May I be present at this consultation?

____ _________________________

Interviewer's Signature *Date*

(indicates Provider's willingness to participate)

100	Permission received from Provider	Yes ....1 No 2	 ➔**STOP**

READ TO CLIENT Hello. I am representing the DISH Project. We are working with facilities in this district with the goal of improving delivery of maternal, reproductive, and child health services. As part of this activity, we are carrying out a survey of selected facilities that provide antenatal care services. I would like to observe your consultation with this Provider in order to better understand how antenatal care services are provided at this facility.

This information will remain completely confidential and will not affect the level of care you receive here now or in the future.

You may tell me to stop the observation at any time if you feel uncomfortable.
Do you have any questions for me? May I stay?

____ _________________________

Interviewer's Signature *Date*

(indicates Client's willingness to participate)

102	Permission received from Client	Yes ....1 No 2	 ➔**STOP**
103	Is this your first antenatal care visit for this pregnancy?	Yes ....1 No 2	➔201
104	How many previous antenatal care visits have you had for this pregnancy?	NUMBER [ ][ ]	

OBSERVE THE CLIENT-PROVIDER INTERACTION AND NOTE WHETHER ANY OF THE FOLLOWING OCCUR OR WHETHER THE TOPIC IS DISCUSSED. RECORD THE TIME THE OBSERVATION BEGAN ON THE FIRST PAGE OF THE GUIDE

2. HISTORY AND CLINICAL EXAMINATION

NO.	QUESTIONS	OBSERVED		
		YES	**NO**	**NOT DETERMINED**
201	HISTORY TAKING			
	a. **Age** of Client	Y	N	ND
	b. Number of **prior pregnancies** /births	Y	N	ND
	c. History of **hypertension**	Y	N	ND
	d. History of **diabetes**	Y	N	ND
	e. **Problems** with current pregnancy	Y	N	ND
202	PHYSICAL EXAM			
	a. **Washes hands** before examining client	Y	N	ND
	b. Take **blood pressure**	Y	N	ND
	c. Examine for **pallor** and **oedema**	Y	N	ND
	d. Conduct **pelvic examination**	Y	N	ND
	e. Conduct **breast exam**	Y	N	ND
203	OBSTETRIC EXAM			
	a. Measures **Fundal** Height	Y	N	ND
	b. Listens to Fetal **Heart** Sounds	Y	N	ND
204	DRUGS AND IMMUNISATIONS			
	a. **Iron/Folic Acid** prescribed	Y	N	ND
	b. **Fansidar/SP** (Presumptive malaria treatment) given	Y	N	ND
	c. **Tetanus** Toxoid given	Y	N	ND
	d. **Mebendazole** prescribed	Y	N	ND

NO.	QUESTIONS	DONE ON SITE	REFERR-ED	NOT DONE	NOT DETERMIN ED
205	LABORATORY EXAMINATION				
	a. **Haemoglobin**	D	R	N	ND
	b. **Blood grouping** and rhesus factor	D	R	N	ND
	c. VDRL or RPR for **syphilis**	D	R	N	ND
	d. **HIV** Test/VCT	D	R	N	ND
	e. **Urinalysis** for protein/sugar	D	R	N	ND

NO.		
207	RECORD THE GESTATIONAL AGE. IF THIS IS NOT CLEAR FROM THE OBSERVATION, CHECK THE PATIENT REGISTER OR CLIENT CARD AFTER THE END OF THE OBSERVATION.	
	Weeks pregnant	[ ][ ]

3. COUNSELING, BIRTH PLANNING, AND INTERPERSONAL SKILLS				
NO.	**QUESTIONS**	**OBSERVED**		
		YES	**NO**	**NOT DETERMINED**
301	COUNSELING/EDUCATION			
	a. **Warning signs** of pregnancy complications	Y	N	ND
	b. Diet and **Nutrition**	Y	N	ND
	c. Personel **Hygeine**	Y	N	ND
	d. **Breastfeeding** /care of breasts	Y	N	ND
	e. Prevention of **STI**	Y	N	ND
	f. Prevention of **mother to child transmission** of HIV/VCT	Y	N	ND
	g. **Malaria** prevention	Y	N	ND
302	BIRTH PLANNING			
	a. Expected date of delivery	Y	N	ND
	b. Asks for **birth plan**/discusses elements of birth plan	Y	N	ND
	c. Symptoms/**signs of labor**	Y	N	ND
	d. Importance of delivery **at health facility**	Y	N	ND
	e. **Transportation** plans at onset of labour/if complications	Y	N	ND
	f. Plans for **Post-partum** care	Y	N	ND
	g. Plans for **family planning**	Y	N	ND
303	INTERPERSONAL SKILLS			
	a. **Greets** client	Y	N	ND
	b. Treats client **politely**	Y	N	ND
	c. Assure **visual privacy**	Y	N	ND
	d. Assure **auditory privacy**	Y	N	ND
	e. **Encourage** client to ask questions	Y	N	ND
	f. Use **visual aids**	Y	N	ND
304	OTHER			
	a. Discuss **next visit**	Y	N	ND
	b. **Invites husband**/family member to be present at any time	Y	N	ND
	c. Offers client **tour** of the facility	Y	N	ND

AFTER COMPLETING THE OBSERVATION, RECORD THE TIME THAT THE SESSION ENDED ON THE FIRST PAGE OF THE GUIDE.

4. PROVIDER TRAINING		
	THANK THE PROVIDER AND CLIENT FOR ALLOWING THE OBSERVATION. IF THIS IS THE LAST OBSERVATION OF ANTENATAL CLIENTS, ASK THE PROVIDER THE FOLLOWING QUESTIONS:	
401	Have you ever had in-service training on any of the following:	
	a. Integrated reproductive health (IRH) or IRH Update	Yes ....1 No 2
	b. Nursing Assistant 3 month training	Yes ....1 No ....2 Not Applicable 3
	c. Interpersonal skills	Yes ....1 No 2
	d. Safe mother strategy-" A health worker's self instructional manual "	Yes ....1 No 2
	AFTER COMPLETING THE INTERVIEW WITH THE PROVIDER, COPY THE INFORMATION FOR QUESTION 401 ONTO THE FIRST TWO COMPLETED ANC OBSERVATION GUIDES FOR THIS PROVIDER.	

Sick Child Observation

FACILITY IDENTIFICATION

`

Name of the facility______________________________

DISTRICT [ ][ ][ ]

INDEX CLUSTER [ ][ ][ ][ ][ ][ ][ ][ ][ ]

Health Worker Information

Health worker category: (1=Doctor; 2=Clinical Officer; 3=Registered Nurse/Midwife; 4=Comprehensive nurse, 5=Enrolled Nurse; 6=Enrolled midwife; 7=Nursing Assistant/Aid)	HEALTH WORKER CATEGORY......... .... [ ]
Sex of health worker: (1=female; 2=male)	SEX OF HEALTH WORKER............ [ ]

INFORMATION ABOUT OBSERVATION

Name of the observer________________________________ INTERVIEWER CODE........ [ ][ ]

OBSERVATION NO.
[1=1st, 2=2nd, 3=3rd…. 0= No Client]
TIME OBSERVATION STARTED: [ ][ ] [ ][ ]

TIME OBSERVATION ENDED: [ ][ ] [ ][ ]

SUPERVISOR		OFFICE EDITOR	KEYED BY
NAME ________________________________	[ ][ ]	[ ][ ]	[ ][ ]
DATE ________________________________			

Observation of Sick Child Consultation			
	OBSERVER: OBTAIN PERMISSION FROM BOTH THE CLIENT AND THE PROVIDER BEFORE OBSERVING THE CONSULTATION. BE AS DISCREET AS POSSIBLE DURING THE ASSESSMENT, AND DO NOT TAKE PART IN THE INTERACTION IN ANY WAY. MAKE SURE THAT THE SERVICE PROVIDER KNOWS THAT YOU ARE NOT THERE TO EVALUATE HIM/HER AND THAT YOU ARE NOT AN "EXPERT" TO CONSULT DURING THE SESSION. **TRY TO SIT BEHIND THE CLIENT, BUT IN A POSITION NOT DIRECTLY IN FRONT OF THE PROVIDER. DO NOT MAKE EYE CONTACT WITH THE PROVIDER DURING THE CONSULTATION.** FOR EACH OF THE ITEMS, CIRCLE THE ANSWER THAT MOST APPROPRIATELY REFLECTS YOUR ASSESSMENT OF WHAT HAPPENED DURING THE INTERACTION. **READ TO PROVIDER (BEFORE CLIENT ENTERS):** Hello. I am representing the DISH Project. We are working with facilities in this district with the goal of improving delivery of maternal, reproductive, and child health services. As part of this activity, we are carrying out a survey of selected facilities that provide child health services. I would like to observe your consultation with this Client in order to better understand how child care is provided in this facility. This information will remain completely confidential. This is not a supervisory visit. You may choose to stop the observation at any time. Do you have any questions for me? May I be present at this consultation? ____ _________________________ *Interviewer's Signature* *Date* (indicates Provider's willingness to participate)		
101	Permission received from Provider	Yes ....1 No 2	→**STOP**
	READ TO CARETAKER: Hello. I am representing the DISH Project. We are working with facilities in this district with the goal of improving delivery of maternal, reproductive, and child health services. As part of this activity, we are carrying out a survey of selected facilities that provide child health services. I would like to observe your consultation with this Provider to better understand how child health services are provided at this facility. This information will remain completely confidential and will not affect the level of care you receive here now or in the future. You may tell me to stop the observation at any time if you feel uncomfortable. Do you have any questions for me? May I stay? ____ _________________________ *Interviewer's Signature* *Date* (indicates Caretaker's willingness to participate)		
102	Permission received from Caretaker	Yes ....1 No 2	→**STOP**

OBSERVE THE CLIENT-PROVIDER INTERACTION AND NOTE WHETHER ANY OF THE FOLLOWING OCCUR OR WHETHER THE TOPIC IS DISCUSSED. RECORD THE TIME THE OBSERVATION BEGAN ON THE FIRST PAGE OF THE GUIDE

2. CLINICAL EXAM AND INTERPERSONAL SKILLS

ONLY CHILDREN UNDER TWO YEARS OF AGE SHOULD BE OBSERVED. DO NOT OBSERVE THE HEALTH WORKER MANAGING A CHILD WITH OBVIOUSLY SEVERE DISEASE.

NO.	QUESTIONS	OBSERVED		
		YES	***NO***	
201	AGE			
	a. Ask about the child's **age**	Y	N	
	b. **RECORD AGE** OF CHILD IN MONTHS	☐☐		
202	DID THE PROVIDER ASK OR CLIENT VOLUNTEER INFORMATION ABOUT THE FOLLOWING			
	a. **Cough**/Difficulty in breathing	Y	N	
	b. **Diarrhea**/Vomiting	Y	N	
	c. **Fever**/Body hotness	Y	N	
	d. **Duration** of child's illness	Y	N	
203	HEALTH/PHYSICAL EXAM			
	a. **Washes hands** before examining child	Y	N	
	b. Take **temperature** with thermometer	Y	N	
	c. Check for **pallor** by looking at palms	Y	N	
	d. **Washes hands** after examining child	Y	N	
	e. **Tell** the caretaker what the child is suffering from	Y	N	
	f. **Talk about dangers signs** for immediate return to health facility	Y	N	
	g. Talk about **malaria prevention**	Y	N	
204	MEDICATION			
	a. **Prescribes** medicines	Y	Y	
	b. **Gives** oral medication/injection	Y	N	
	c. **Tell** caretaker how to give medication or why oral medication/injection was ordered	Y	N	
205	INTERPERSONAL SKILLS			
	a. **Greets** caretaker	Y	N	
	b. Treats caretaker **politely**	Y	N	
	c. **Encourage** caretaker to ask questions	Y	N	
	d. Use **visual aids**	Y	N	
	e. Give date for **next visit**	Y	N	ND

3. GROWTH MONITORING AND IMMUNISATION STATUS				
NO	**QUESTION**	**OBSERVED**		
		YES	***NO***	
301	GROWTH MONITORING			
	a. **Weigh** child	Y	N	
	b. RECORD CHILDS WEIGHT IN GRAMMES DON'T KNOW=99998	☐☐☐☐		
	c. **Plot** the child's weight on a growth chart	Y	N	
	d. Talk to caretaker about child's growth	Y	N	
	e. Talk to caretaker about **monthly weighing**	Y	N	
	f. Ask about **breastfeeding** practices and child **nutrition**	Y	N	
	g. Talk to caretaker about **feeding recommendations**	Y	N	
302	IMMUNISATION AND VITAMIN A			
	a. Ask for child's health/**immunization card**	Y	N	
	b. Look at the immunization card or ask about **immunization history**	Y	N	
	c. Talk to caretaker about **next immunisation**	Y	N	
	MARK WHETHER VACCINATION AND VITAMIN A SUPPLEMENTS WERE GVEN TODAY, REFERRED FOR ANOTHER DAY, NOT REFERRED, OR WHETHER IMMUNISATIONS WERE UP-TO-DATE.			
	d. Immunisation	1. Yes, Today 2 Yes, Another Day 3 Not Referred 4 Up-to-date 5 Not Determined		
	e. Vitamin A	1. Yes, Today 2 Yes, Another Day 3 Not Referred 4 Up-to-date 5 Not Determined		

AFTER COMPLETING THE OBSERVATION, RECORD THE TIME THAT THE SESSION ENDED ON THE FIRST PAGE OF THE GUIDE.

4. PROVIDER TRAINING		
	THANK THE PROVIDER AND CLIENT. IF THIS IS THE LAST OBSERVATION OF SICK CHILD VISITS, ASK THE PROVIDER THE FOLLOWING QUESTIONS:	
401	Have you ever had in -service training on any of the following:	
	(A) IMCI	Yes ....1 No 2
	(B) Growth Monitoring and Promotion	Yes ....1 No 2
	(C) Immunisation	Yes ....1 No 2
	(D) 3 Month Nurse Aid Training [for nursing aids only or refer to cover page]	Yes ....1 No ....2 Not Applicable 3
	(E) Interpersonal Communication Skills [IPC]	Yes ....1 No 2
	AFTER COMPLETING THE INTERVIEW WITH THE PROVIDER, COPY THE INFORMATION FOR QUESTION 401 ONTO THE FIRST TWO SICK CHILD OBSERVATION GUIDES FOR THIS PROVIDER.	

Appendix C: Calculation of the Basic Standards Indicators and Ratings for Antenatal and Sick-Child Observations

The Yellow Star assessment scores facilities based on up to 35 standards, depending on the level of the facility and the services provided. The observations of ANC and sick-child visits and the facility audit attempted to measure as many of the basic standards as does the Yellow Star assessment. However, some standards, such as whether providers are giving technically appropriate inpatient care, were beyond the scope of the 2002 DISH Facility Survey. As a result, 30 of the 35 basic standards were assessed during the facility audit and ANC and sick-child observations. Most of these basic standards are composite indicators based on responses to several questions of the facility audit or the observations of several key aspects of the client-provider interaction.

C.1 Facility Basic Standards Indicators

The facility basic standards are grouped into six categories, each composed of between 3 and 9 related basic standards (Table C.1).

Table C.1. Number of Basic Standards Measured During the 2002 DFS, by Category

Basic Standard Category	Number of basic standards
Category 1: Infrastructure and Equipment	6
Category 2: Management Systems	4
Category 3: Infection Prevention	4
Category 4: IEC/IPC	3
Category 5: Clinical Services	4
Category 6: Client Services	9

A percentage score was calculated for each category by dividing the total number of basic standards in the category that the facility achieved by the total number of basic standards within that category that were measured for that facility. For example, the category one percentage score was the total number of infrastructure and equipment basic standards achieved divided by 6, the total number (in this case, all basic standards were measured in all facilities audited). Because some basic standards depend on the delivery of specific services (e.g., immunizations, inpatient services), not all the standards were measured in all facilities. For example, Category 4: IEC/IPC, is composed of three basic standards. However, two of the basic standards in this category measure the interpersonal skills of providers. Because observations of provider-client interactions were not completed in every facility, these two were measured only in facilities that had a facility audit and an ANC or sick child observation. So, for Category 4: IEC/IPC, in facilities where observations were not completed only one basic standard from this category was measured whereas in facilities where client-provider observations were made all three basic standards in this category were measured. For this reason, the results for each of the categories should be interpreted with caution. Facilities where no observations took place achieved a score of 100% (excellent) in this category if they achieved the one standard measured. However, if a facility where observations were made achieved the same single standard, and none of the other two, this facility scored a 33% (poor). This problem is particularly stark first because it is based on such few basic standards.

An overall percentage score was also calculated for each facility by dividing the total number of basic standards achieved by the number of standards that were measured in that facility. Of the 30 standards measured during the facility audit, 20 were assessed in all facilities. Because most of the basic standards were measured in all facilities, the overall basic standards percentage scores were stable despite differences in the denominators used to calculate the score for each facility.

C.1.1 Basic Standards Category 1: Infrastructure and Equipment

This group of basic standard focused on the physical readiness of a facility to provide services. These standards determined whether a facility had a clean water supply, clean latrines or toilets, adequate waste disposal, a functional examination couch, other basic equipment, and separate inpatient wards for men and women. The first four standards in this category were measured in all facilities, and the last was only measured in facilities that offer inpatient services (143 facilities).

C.1.2 Basic Standards Category 2: Management Systems

All four of the basic standards in this category were measured in all facilities. They focused on management issues within a facility, particularly the use of stock cards, stockouts of specific drugs and contraceptives, Health Management Committee meetings and whether the facility has guidelines and standards for managing clients/patients.

C.1.3 Basic Standards Category 3: Infection Prevention

All the basic standards in this category were measured in all facilities. These standards measured cleanliness as well as whether the facility had the equipment necessary to prevent the spread of infection, such as soap and water for hand washing, chlorine for

disinfections, and a puncture-resistant container for disposal of sharps and needles.

C.1.4 Basic Standards Category 4: IEC/IPC

This category of standards measured whether a facility was providing health education and assessed the quality of education by observing whether the providers use visual aids and encourage clients to ask questions. As mentioned earlier, the first of these standards was measured in all facilities while the other two were only measured in facilities where client-provider interactions were observed (208 facilities). For this reason, the basic standards category 4 score was calculated based on the result of only one basic standard for about one-third of the facilities.

C.1.5 Basic Standards Category 5: Clinical Services

Three of the four clinical services were based on child health services such as immunizations and growth monitoring. The additional standard was based on the observations of client-provider interactions. Because some facilities (mostly private) do not offer child health services and because observations were not conducted in all the facilities that participated in the audit, only 35 facilities were assessed on this standard.

C.1.6 Basic Standards Category 6: Client Services

These basic standards aimed to measure the quality of services given to the patients, the quality of clinical services notwithstanding. Six of the nine standards in this category were measured in all the facilities. These included a clean and protected waiting area, privacy for physical examinations, friendly and respectful treatment of clients, first-come first-serve treatment, treatment compliance information, referral of emergency cases, training of staff, list of available services and 24-hour service (for HC III and above).

C.2. Rating for the Antenatal Care Observations

In order to assess the overall performance of antenatal care providers, a rating system was developed to indicate the quality of care provided to clients between 16 and 36 weeks gestation for whom this was their first antenatal visit. The assessment of providers' performance was done only in facilities that offered antenatal care services on the day of the survey. Provider's performance was rated for six skill areas: reproductive history taking, physical and obstetric examination, client counseling and education, birth planning, interpersonal skills, and refocused antenatal care for preventative drugs and immunization. Each skill area had between four to seven key aspects that were observed (Table C.2). The observations were scored '1' if the provider performed a specified action during a consultation and '0' otherwise.

Table C.2. Number of Actions Observed and Rated During the ANC Consultations by Skill Area

Skill Areas	Number of actions
History taking	5
Physical and obstetric examination	6
Client counseling and education	7
Birth planning	7
Preventative drugs and immunization	4
Interpersonal skills	6

An aggregate score for each consultation was calculated for each skill area by adding the total number of key actions performed by the provider in that skill area. Provider's performance was rated as excellent, acceptable, or unacceptable depending on the total score. For example, in history taking, a score of '5' was rated excellent and indicates that all key aspects specified were performed during the client-provider observation, whereas an acceptable score (3–4) indicates that all of the most critical actions were conducted during the consultation. Any other score was rated unacceptable and indicates that the antenatal care was not done according to assessed standards, and neglected critical actions in history taking.

An overall provider performance score was then calculated based on the scores for the six skill areas in each consultation by scoring two marks for an excellent performance, one mark for an acceptable performance and zero mark for an unacceptable performance in each of the skill areas (history taking, physical/obstetric examination, drugs and immunization, client counseling and education, birth planning and interpersonal skills). Therefore since the skill areas are 6, the overall performance was scored as follows: excellent: 12 marks; acceptable: 6–11 marks; unacceptable 0–5 marks

C.2.1 History Taking

The key aspects observed and rated in this skill area were intended to assess the extent to which providers learn about past reproductive and medical history of a client. The 5 questions included asking about the client's age, number of previous pregnancies and births, history of hypertension, history of diabetes, and if a client had problems with the current pregnancy. A score of 5 marks was considered excellent, a score of 3–4 was rated acceptable only if the provider asked about a client's age, prior pregnancies/births, and problems with current pregnancy; any other score was rated unacceptable.

C.2.2 Physical and Obstetric Examination

This skill area aimed to assess a provider's technical competence during antenatal care consultations. Six key aspects observed included: washing hands before examining a client, measuring blood pressure, examining for pallor and oedema, conducting pelvic examination, conducting breast examination, and measuring fundal height. Similarly, a score of 6 was rated excellent, 3–5 was rated unacceptable only if a provider measured blood pressure, examined for pallor and oedema and measured fundal height. Any other score was rated unacceptable.

C.2.3 Client Counseling and Education

This skill area assessed a provider's actions in educating and counseling a client and accompanying family members about preventive and care-seeking practices. Providers were assessed in seven areas: talking about warning signs of pregnancy complications, diet and nutrition, personal hygiene, breast feeding and care of breasts, prevention of STIs, prevention of mother-to-child transmission of HIV/VCT, and malaria prevention. A provider scored excellent if a client was counseled on all the seven aspects; acceptable if the four to six aspects mentioned included warning signs of pregnancy complications, diet and nutrition, prevention of STIs and prevention of malaria; and unacceptable for any other score.

C.2.4 Birth Planning

This component aimed to assess a provider's actions in enabling clients to deliver at health facilities and to return for care immediately if they have signs of complications during pregnancy. The seven key areas assessed were: talking about the expected date of delivery, the birth plan, signs of labor, importance of delivery at a health facility, plans for transportation, post-partum care, and family planning. A provider scored excellent if a client was counseled on all the seven aspects; covering four to six aspects was considered acceptable only if the aspects mentioned included the expected date of delivery, birth plan, signs of labor, importance of delivery at a health facility, and plans for family planning; unacceptable was for any other score.

C.2.5 Preventative Drugs and Immunization

Providers were assessed in four areas of minimizing missed opportunities for preventive medication and immunization for antenatal clients. The areas included prescribing iron/folic acid, presumptive malaria treatment, tetanus toxoid, and worm medicine. A score of 4 was rated excellent, a score of 3 was acceptable only if a provider did the first three actions listed above; any other score was rated unacceptable.

C.2.6 Interpersonal Skills

Six indicators of interpersonal relations during client-provider interaction were assessed. They included greeting the client, treating the client with respect, assuring visual privacy, assuring auditory privacy, encouraging clients to ask questions, and using visual aids during counseling. A score of 6 was considered excellent, 3–5 acceptable only if a provider greeted the client, assured visual privacy, and encouraged a client to ask questions. Any other score was rated unacceptable.

C.3 Rating of the Sick-child Observations

The scoring adopted for the sick child observations followed the same principle as for antenatal care, except for differences in the type and number of key aspects observed in each skill area. As mentioned in chapter 4, health workers were observed managing sick children aged 0–23 months who did not have a life-threatening illness. Similar to antenatal care, the assessment of the quality of care for the management of the sick child was done only in facilities that received sick children on the day of the survey. Providers were rated in four skill areas: management of the sick child, growth monitoring, immunization, and interpersonal

communication. The key aspects observed in each skill area were between 4 and 6 (Table C.3). The observations were scored '1' if the provider performed a specified action during a consultation and '0' otherwise.

Table C.3. Number of Actions Observed and Rated During the SC Consultations by Skill Area

Skill Areas	Number of actions
Management of the sick child	4
Growth monitoring	4
Immunization	5
Interpersonal communication	6

An aggregate score for each consultation was calculated for each skill area by adding the total number of key actions performed by the provider in that skill area. Provider's performance was rated as excellent, acceptable, or unacceptable, depending on the total score. For example, in the management of the sick child, a score of '4' was rated excellent and indicates that all key aspects specified were performed during the client-provider observation, whereas an acceptable score of "3" indicates that all of the most critical actions were conducted during the consultation. Any other score was unacceptable and indicates that the management of the sick child was not done according to assessed standards, and that the provider neglected critical actions.

Similar to antenatal care, an overall provider performance score was then calculated based on the scores for the four skill areas by scoring two marks for an excellent performance, one mark for an acceptable performance and zero mark for an unacceptable performance in each of the skill areas (management of the sick child, growth monitoring, immunization and interpersonal communication), and aggregating the total marks scored. Therefore since there are four skill areas, the overall performance was scored as follows: 8 marks for excellent; 4-7 marks for acceptable; 0-3 marks for unacceptable.

C.3.1 Management of the Sick Child

This component aimed to assess the provider's competence in managing a sick child. The four key areas observed and rated were: asking or caretaker volunteering information about the key signs of childhood illness (cough/difficulty breathing, diarrhea/vomiting, and fever/body hotness); taking the temperature with a thermometer; talking about danger signs for immediate return to a health facility; and giving a prescription for medication. A score of 4 was rated excellent, 3 was acceptable only if a provider asked about key signs of the child's illness and prescribed medication.

C.3.2 Growth Monitoring

This skill area aimed to assess a provider's actions in assessing the child's growth, discussing growth with the caretaker, and providing recommendations for feeding practices. Six areas observed included weighing the child, plotting the weight, talking to caretaker about monthly weighing, and giving feeding recommendations. A consultation was scored excellent if a provider did all the four actions, acceptable if three actions that were done included weighing and plotting the weight on the growth chart; all other scores were rated unacceptable.

C.3.3 Immunization

Similar to antenatal care, providers were assessed on five areas of minimizing missed opportunities for preventive health care and treatments, namely immunization and vitamin A supplementation. The areas observed include asking to see the child's health card, asking about the immunization history, talking about the next immunization, actions on recommendations on the next immunization and vitamin A supplementation. A score of 5 was rated excellent, 4 was acceptable only if it included asking about immunization history, and all other scores were rated unacceptable.

C.3.4 Interpersonal Communication

Six areas of interpersonal communication during client-provider interaction were assessed are the following: greeting the caretaker, treating caretaker with respect, encouraging caretaker to ask questions,

using visual aids, giving a date for next visit, and telling the caretaker how to give medication or why medication was given. A consultation was rated excellent if all six actions were performed, acceptable if the score was 4–5 and only if the actions performed included giving explanations for medication, greeting the caretaker, encouraging the caretaker to ask questions, and using visual aids during counseling; all other scores were rated unacceptable.