

# **Child Health**

## Background

Although child health in Uganda has improved in recent years, many children continue to die of preventable diseases. To improve this situation, the Government of Uganda adopted the World Health Organisation's Integrated Management of Childhood Illness (IMCI) Strategy in 1996. IMCI provides guidelines for quality care of sick children as well as prevention of illness. The strategy also stresses integration of services, that is, providing both preventive care such as immunisation and growth monitoring and curative care, whenever children come to health facilities. At the time of the 2007 Uganda Service Provision Assessment (USPA) all districts in Uganda were supposed to be implementing IMCI at the health facility and community level. The Ministry of Health (MOH) has also adopted the Expanded Programme of Immunisation (EPI) with a target goal of immunisation coverage of 87 percent of all young children.

According to the 2006 Uganda Demographic and Health Survey (UDHS), infant mortality has declined from 89 deaths per 1,000 live births in 2000-01 to 75 deaths per 1,000 live births in 2006. However, in 2006 only 46 percent of children age 12-23 months were fully immunised. The UDHS also found that many sick children do not receive appropriate treatment for common childhood illnesses. Only 54 percent of children under age 5 with diarrhoea are treated with oral rehydration solution or increased fluids, for example. Ugandan children also continue to face malnutrition. Over one-third (38 percent) are stunted, or too short for their age, and another 16 percent are underweight.

The 2007 USPA assessed the availability of three basic child health services in Ugandan health care facilities: curative care for sick children; immunisations; and growth monitoring. The USPA also evaluated Uganda's adherence to the IMCI strategy and the EPI.

## Findings from the Uganda Service Provision Assessment (USPA)

- Almost all (98 percent) facilities provide curative care for sick children; fewer provide immunisation (88 percent) or growth monitoring (65 percent). Nationwide, only 64 percent of facilities provides all three basic child health services. Regional variation is substantial, ranging from a low of 31 percent of facilities in East Central providing all three services to a high of 89 percent in Central Region.
- While 88 percent of facilities offer immunisation services, the majority of these facilities (62 percent) provide immunisation only one or two days per week. Only 6 percent of facilities in Southwest Region and 19 percent in Western Region offer immunisation five days per week.
- Seventy-four percent of facilities providing immunisation had all EPI vaccines in stock on the day of the survey. However, between 13 to 18 percent of facilities are missing at least one of the recommended vaccines.
- Only 23 percent of all facilities treating sick children, mostly hospitals, have all three first-line oral medications for sick child care–oral rehydration solution, first-line antimalarials and at least one oral antibiotic. Almost 60 percent of private facilities have the essential medicines compared to only 12 percent of government facilities.





Pre-referral medicines—injectable antibiotics and intravenous solution and perfusion set—are available in 39 percent of facilities, and other medicines such as aspirin or paracetamol, iron tablets, and deworming drugs, are available in only 28 percent of facilities.











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- According to MOH policy, services for all children under age 5 should be free in public facilities. Only 2 percent of government facilities charge fees for child services compared to 85 percent of private facilities. In practice, this means that sick child services are not free at 44 percent of hospitals and 24 percent of HC-IIs (health centre-IIs).
- The USPA observed providers examining 762 sick children to determine how often basic IMCI guidelines are followed. The major findings are listed below:
  - Providers are not consistently assessing danger signs and symptoms or performing the expected basic exams on sick children. Providers asked about the child's ability to eat or drink anything during only 60 percent of the observed consultations, for example, and checked for dehydration, counted respirations, listened to the child's chest, and checked the child's ears in less than one-third of consultations. Overall,

providers in hospitals are most likely to follow the IMCI guidelines, and providers in HC-IIs are least likely to follow them.

- Ugandan providers appear to be overprescribing antibiotics for sick children. While antibiotics may be warranted for bacterial pneumonia or dysentery, they should not be prescribed for viral or minor respiratory or diarrhoeal illnesses. According to the USPA, however, 73 percent of all observed sick children, 90 percent of children with a cough but no severe respiratory problem, and 70 percent of children diagnosed with malaria were treated with an oral or injectable antibiotic.
- Ugandan providers do not consistently educate and advise caretakers, particularly in HC-IIs, about ongoing care for their sick children.



Preventive care during sick child visits is not routine. Forty percent of observed sick children were not weighed, and about half did not have their feeding or immunisation status checked.



### Essential Advice Given to Caregivers









#### **Treatment of Children with Antibiotics** Percent of observed children who received antibiotics among those with indicated diagnosis

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### Implications for policy

- Many health care facilities and providers are not following IMCI guidelines and using every contact with children to provide preventive services as well as treatment for illnesses. This results in many missed opportunities to provide high quality care. Only 46 percent of children 12 to 23 months old are fully immunised in Uganda. Thus, it is particularly discouraging that during observed consultations of sick children under age two, immunisation status was checked in only about half (53 percent) of the children. Furthermore, only 33 percent of facilities offer immunisation services every day that sick child services are available. Until these barriers are removed, full immunisation coverage of Uganda's children is unlikely.
- Efforts are also needed to understand why health care providers are not following IMCI guidelines and to improve compliance.
- First-line medications for sick child treatment are inexpensive, and administering these medications requires no specialized equipment. Stocking all facilities with the recommended first-line and pre-referral medications should be a national priority.
- Unnecessary use of antibiotics should be reduced to the lowest possible levels through health provider training and supervision and through patient education. Overuse of antibiotics contributes to drug resistance, a growing problem worldwide. Antibiotics are used more often to treat sick children in Uganda than in Kenya (2004 SPA) and Tanzania (2006 SPA). This use is often unnecessary.
- At every level of the health care system in Uganda caretakers are not receiving essential information about follow-up treatment for their sick children. Providers need to communicate effectively with caretakers. In addition, appropriate visual aids and take-home materials should be developed to ensure that patients and caretakers of sick children understand the diagnosis and treatment regimens.

### What is the Uganda Service Provision Assessment (USPA)?

The 2007 Uganda Service Provision Assessment survey (USPA) describes how the formal health sector in Uganda provides services for family planning, maternal health, child health, malaria, HIV/AIDS, and other communicable diseases. The USPA was carried out by the Ministry of Health in collaboration with the Uganda Bureau of Statistics. Macro International Inc. provided technical assistance through the MEASURE DHS project, which is funded by the U.S. Agency for International Development (USAID) and the President's Emergency Plan for AIDS Relief (PEPFAR). All survey costs were funded through USAID, PEPFAR, and PMI. The USPA involved a nationally representative sample of 491 facilities, including all hospitals throughout Uganda (national referral hospitals, regional, general, and all other hospitals), about half of all Health Centre-IVs (HC-IVs), and a sample of HC-IIIs and HC-IIs. Facilities are also identified by managing authority; that is, facilities run by the Government of Uganda and by private organizations including NGOs. Trained interviewers collected the data through interviews with providers, clients, and observations at health facilities between July and October, 2007.

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# Family Planning

## Background

High quality family planning (FP) services are essential for improving the overall health of women, children, and families. Effective family planning services help reduce unwanted pregnancies and closely spaced births, which can increase risks to both mothers and children.

The Government of Uganda began formally providing family planning services in the 1980's. In the last decade, use of modern contraceptives increased from 8 percent of currently married women in 1995, to 14 percent in 2000-01 and to 19 percent in 2006. While family planning use is on the rise, Ugandan women still have about seven children, on average, one of the highest fertility rates in Africa. Fertility has decreased only slightly in the last decade. In addition, closely spaced pregnancies are common. Among children born in the five years before the 2006 Uganda Demographic and Health Survey (UDHS), 25 percent were born less than 24 months after the previous birth.

Quality family planning services include several important elements: availability of several types of short and long-term contraceptive methods; good screening and counselling to ensure proper use; client education on possible side effects to reduce discontinuation; skilled providers; and well equipped, safe facilities. Family planning services should also be an entryway for other reproductive

#### Family Planning: How does Uganda Compare?



Percent currently married women who are currently using any modern method

health services, particularly prevention and treatment of sexually transmitted infections (STIs) and HIV/AIDS.

### Findings from the 2007 Uganda Service Provision Assessment (USPA)

- Almost 8 in 10 facilities in Uganda offer family planning counselling, referral, prescriptions, and/or contraceptive methods, and most of these facilities are open five days per week. In practice, however, the USPA found that most facilities actually have only about four family planning methods in stock—combined and progestin-only pills, injectables, and male condoms.
- Permanent methods are far less available. While over 20 percent of facilities say they counsel about and/or perform sterilisation, only 6 percent actually provide female sterilisation, and only 3 percent provide male sterilisation, also known as vasectomy. Hospitals are the main providers of these methods.
- Long-term reversible methods like implants and IUDs are just as hard to find. Only 6 percent of facilities, mostly hospitals and HC-IVs carry these highly effective methods. Only about half of the facilities that offer IUDs and implants, however, have all the basic items and a trained provider to insert them.
- Regional availability of contraceptive methods varies. In Northeast Region only 63 percent of facilities that provide combined oral contraceptives and only 71 percent that provide condoms had them in stock on the day of the USPA visit. In contrast, 84 percent or more of facilities in Central and

#### **Modern Methods Availablility**

Percent of facilities providing family planning services (N=395)



\*Althouth 7% had IUD, only 4% of facilitities reported providing it











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Western regions that provide these methods had them available for distribution.

• The USPA observed 85 client-provider consultations to assess the quality of family planning counselling. The results are encouraging. Almost all clients were counselled in an appropriately private room and also left with a method. Providers asked about 80 percent of the clients if they had any questions

or concerns about their method and also discussed a return visit. Surprisingly, providers used counselling aids in only 39 percent of the observed family planning visits, even though most facilities have them.

• Overall, about 8 in 10 facilities providing family planning say that FP providers routinely treat STIs. This varies by region, from only 62 percent of facilities in Northeast Region to 91 percent in Eastern Region. Many of these facilities do not have either appropriate medicines or written guidelines for diagnosing and treating STIs, however. Only 42 percent had at least one medicine to treat four common STIs—trichomoniasis, gonorrhea, chalmydia, and syphilis.



Half of private facilities charge some fees for family planning planning clients (N=85) compared to only 2 percent of government facilities. This means that some clients are forced to pay for family planning if they do not have access to public services. Overall, 19 percent of hospitals and 11 percent of HC-IIs charge some type of user fee for the family planning method and/or consultation.

### **Implications for Policy**

- According to the 2006 UDHS, about 41 percent of women have an unmet need for family planning, 25 percent for spacing pregnancies, and 16 percent for limiting pregnancies. Long-term and permanent methods are most appropriate for women who want to limit pregnancies. In Uganda, however, unless women have access to public hospitals, they will have great difficulty in securing a long-term or permanent method of contraception without charge. Making long-term methods more widely available, especially in public facilities should be a priority.
- Most facilities have male condoms in stock. This is a very positive finding in a country facing an HIV/AIDS epidemic. Still, there is room for improvement. All facilities providing family planning services should have condoms in stock every day.
- Family planning services are a good place to identify clients with other reproductive health problems. In Uganda, however, family planning facilities are not well prepared to treat STIs. Less than half of the family planning facilities have medicines on site to treat women with STIs. While women can always be referred to other services or given a prescription, each additional effort reduces their chances of getting appropriate care.

### What is the Uganda Service Provision Assessment (USPA)?

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**Family Planning Counselling** 



## Malaria

## Background

Malaria is the number one cause of morbidity and mortality in all of Uganda. It is the most frequent reason for visits to health care facilities and accounts for 15 to 20 percent of hospital admissions, and 9 to 14 percent of inpatient deaths. Apart from the immediate health risks, malaria contributes to major economic losses at the national and household levels due to the cost of care and lost time at work.

Uganda's National Malaria Control Programme is working to achieve national coverage of a package of treatment and prevention interventions, including use of insecticide treated mosquito nets (ITNs), use of the drug Coartem as first-line treatment for uncomplicated malaria, use of sulphadoxine-pyrimethamine (SP) for intermittent preventive treatment (IPT) during pregnancy, and free or subsidized ITNs provided to all women attending antenatal care clinics.

Achieving these goals will require concerted efforts. According to the 2006 Uganda Demographic and Health Survey (UDHS), only onethird of households have any kind of mosquito net, and only 16 percent have an ITN. While young children and pregnant women are most vulnerable to malaria, only 10 percent of each group slept under an ITN the night before the survey. In addition, only 16 percent of pregnant women received the two doses of IPT during antenatal care, and only 6 percent of pregnant women reported that they received an ITN at a government health care facility.

## Findings from the 2007 Uganda Service Provision Assessment (USPA)

- Malaria services and medications are almost universally available in Ugandan health care facilities. Just under 80 percent of all facilities have first-line antimalarial medications in stock on the day of the survey.
- Stockouts are fairly common, however. About 8 in 10 facilities experienced stockouts at some time during the six months preceding the survey.
- While 99 percent of facilities diagnose and/or treat malaria, only 26 percent, mostly hospitals, have laboratory capacity to test for malaria with blood smears, and only 2 percent have rapid tests.
- In-service training about malaria for practicing health care workers is fairly common for nurses in higher level facilities. At least one nurse in about 60 percent of hospitals and HC-IVs and 46 percent in HC-IIIs received malaria-related training in the 12 months before the



survey. Training is less frequent in HC-IIs, the most widely available facility type in Uganda. The same pattern holds for clinicians, although they are less likely than nurses to have received training in the past 12 months.

- The majority of health care facilities (76 percent) have ITNs in stock. Nonetheless, just 5 percent of health care facilities offered them to ANC clients. Hospitals are somewhat more likely to offer ITNs than other facilities. Thirty-five percent of facilities in North Central Region routinely provide free ITNs to ANC clients.
- The USPA observed the care of 373 clients at ANC facilities to assess the quality of counselling and treatment. Over 80 percent of first-visit clients (180 women) were given a dose of SP or a prescription, although only 48 percent took the











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dose at the facility as recommended. Providers were far less likely to explain the importance of taking a second dose of IPT.

### Implications for policy

• The USPA results indicate that the National Malaria Control Programme has made important strides towards achieving its national objectives. Almost all health care facilities are equipped to treat and to prevent malaria. Antimalarial



**Provision of ITNs** 

medication, including the recommended first-line drugs, is widely available. Over three-quarters of all facilities stock free or inexpensive ITNs. More than one-third of facilities have at least one nurse on staff who has received in-service training in the previous 12 months. Two-thirds of facilities have malaria treatment protocols in relevant service sites.

- At the same time, the USPA shows many missed opportunities for malaria prevention. Only 5 percent of facilities routinely provide pregnant women with free ITNs during antenatal care visits even though these nets are widely available. Providers are not routinely promoting ITN use or informing women about the need for a second dose of IPT. In addition, providers are not adequately educating caretakers of sick children when very basic information could reduce the risk of complications. While clinicians and nurses provide medication routinely, they are failing to provide potentially life-saving counselling and education.
- The USPA cannot provide reasons why health care workers are not promoting preventive practices nor provide solutions. It is not clear that training or greater distribution of national protocols and other guidelines will remedy this situation. Further research and prompt action is needed to ensure that prevention is given as much priority as treatment.
- Stockouts of first-line antimalarials are very common. Only 18 percent of facilities did not have a stockout in the six months before the survey. This means that many clients have to buy medication or go to another health care facility.

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# **Maternal Health**

### Background

As in many countries, pregnancy poses serious health risks for Ugandan women. According to the 2006 Uganda Demographic and Health Survey (UDHS), about 435 women die per 100,000 live births. Most of these deaths can be prevented by appropriate antenatal and obstetric care, emergency transport, and referral of complicated pregnancies and deliveries to higher levels of care.

Over 90 percent of all Ugandan women make at least one antenatal care visit. Just 41 percent of pregnant women give birth in health care facilities with assistance from a trained provider, however. In rural areas, where the majority of births occur, women are most likely to deliver at home.

The Government of Uganda is working to improve these statistics. *The Strategy to Improve Reproductive Health in Uganda 2005-2010* and the *National Road Map to Accelerate Reduction of Maternal and Newborn Deaths in Uganda 2007-2015* focus on making high quality comprehensive services widely available to pregnant women, including antenatal care, skilled care during childbirth, emergency obstetric care, and family planning. The 2006 USPA provides a baseline for measuring the availability and quality of these services.



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### Findings from the Uganda Service Provision Assessment (USPA)

Availability of maternal health services:

• Just over 70 percent of facilities nationwide provide antenatal care (ANC); normal delivery services are available in 53 percent of facilities. Overall only 5 percent of facilities can perform Caesarean sections—84 percent of hospitals and 24 percent of HC-IVs. Provision of other obstetric services varies among regions, as shown in the table below:

#### Availability of Maternal Health Services

Percentage of facilities offering specific services, by region (N=491)

Region	ANC	Normal delivery	C-section	Transportation support for mater- nity emergencies	Postnatal or Postpartum care
Central	93	65	5	41	39
Kampala	76	63	26	69	67
East Central	72	58	4	51	31
Eastern	66	52	7	29	19
Northeast	51	46	4	46	33
North Central	67	60	6	80	39
West Nile	78	56	5	85	34
Western	59	43	6	34	21
Southwest	61	39	4	38	27
TOTAL	71	53	5	47	31











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#### Quality of ANC services:

- Up to 35 percent of facilities that offer ANC are missing some of the basic supplies for ANC, specifically iron tablets, folic acid tablets, and tetanus toxoid vaccine. One-third of HC-IVs and HC-IIIs and 15 percent of hospitals do not have equipment for measuring blood pressure at the service site.
- Less than 30 percent of facilities that offer ANC can perform routine diagnostic tests for anaemia, urine protein, urine glucose, and syphilis. These tests can alert providers to potentially serious pregnancy complications.
- More than three-fourths of facilities that offer ANC have essential ANC medications including antibiotics, antimalarials, and medicines to treat some STIs. Only 10 percent, however, have aldomet to manage high blood pressure, a potentially life-threatening complication of pregnancy.
   Counselling Topics Discussed During ANC Visits First visit
- The USPA observed 373 ANC client-provider interactions. With first-visit clients, providers gave or prescribed iron tables to 80 percent of the clients and gave or prescribed tetanus toxoid to 76 percent. With all clients, providers discussed warning signs of pregnancy complications in only 40 percent of interactions. Breastfeeding and postpartum family planning were discussed in only one-fourth of the consultations.



#### **Delivery services:**

- Normal delivery services are available in 53 percent of all facilities, ranging from 39 percent in Southwest to 65 percent in Central Region. Only one-half of facilities offering normal delivery services have a trained provider on site 24 hours a day, however.
   Availability of Medicines and Supplies for Delivery
- Only 33 percent of facilities providing delivery services have all necessary supplies to support routine delivery services—scissors or blade, cord clamp, suction apparatus, antibiotic eye ointment for newborns, and skin disinfectant. Even fewer—only 11 percent—have additional medicines and supplies to manage common obstetric complications.
- Health care facilities should be prepared to provide emergency support for newborns. On average, only 45 percent of hospitals, HC-IVs, and HC-IIIs that provide delivery services have a newborn respiratory support system, and only 11 percent have an external heat source. Unnecessary and potentially harmful practices



(scissor or blade, cord clamp, suction, antibiotic eye ointment for newborn, skin disinfectant) Medicines and supplies for common complications (needle and syringes, IV solution with infusion set, injectable oxytocic, suture material and needle holder, oral antibiotic)

often occur. For example, over 35 percent of hospitals routinely suction babies with a catheter, and 38 percent also give the newborn a full immersion bath within 24 hours of delivery. Despite the well known benefits for breastfeeding, 10 percent of hospitals and 14 percent of all facilities bottle-feed newborns. On the positive side, the majority of facilities do give newborns BCG and oral polio vaccines.









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#### Infection Control

• Infection control is particularly critical in obstetrics to protect the mother and newborn. Overall, only 44 percent of delivery facilities have all items needed for infection control at the service site, primarily because running water is available in only two-thirds of facilities. About 20 percent of facilities also lack latex gloves, putting both patients and providers at risk.

### **Implications for Policy:**

- Quality antenatal care can prevent serious pregnancy complications. Less than 30 percent of facilities can test for anaemia, a condition affecting almost half of pregnant women in Uganda. Increasing the diagnosis and treatment of anaemia as well as other conditions during pregnancy should be a priority for all antenatal health care services.
- Basic tests for pregnancy complications and many of the medications to treat them are inexpensive and easy to procure. Making them widely available depends less on money and more on good management and organisational systems. Health unit managers and district health teams need to focus on ensuring that ANC and delivery services have the basic supplies for preventive care.
- When serious health problems occur during pregnancy and childbirth, a few minutes can mean the difference between life and death. Increasing the availability of emergency transport and 24-hour emergency services can greatly reduce maternal and newborn illness and death. Facilities should have skilled birth attendants, emergency transport, and pre-referral medications to manage complications available at all times.
- Preventing infection during childbirth is a basic expectation of health facilities, and yet many facilities delivering babies do not have running water or other infection control items. Every effort should be made to ensure that running water, soap, and latex gloves are available in delivery services.

### What is the Uganda Service Provision Assessment (USPA)?

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## **HIV/AIDS**

## Background

The Government of Uganda recognized the threat of HIV/AIDS early. The Uganda AIDS Commission was established in 1992. In 2003 the government established guidelines for voluntary HIV counselling and testing, and in 2004 began providing antiretroviral treatment free of charge to eligible persons. The National Strategic Framework for Expansion of HIV/AIDS Care and Support (2000/01-2005/06) focused on scaling up access to comprehensive care, including treatment of opportunistic infections and antiretroviral therapy (ART).

According to the 2004-05 Uganda HIV/AIDS Sero-Behavioural Survey (UHSBS), 6.4 percent of women and men 15-49 are infected with HIV, ranging from 2.3 percent in West Nile and 3.5 percent in Northeast to 8.5 percent in Central and Kampala regions. More recently, the 2006 Uganda Demographic and Health Survey (UDHS) showed that only 25 percent of women and 21 percent of men had ever been tested for HIV and received their results. Among women who gave birth in the two years before the survey, 39 percent had been counselled about HIV during ANC visits, but only 18 percent had been counselled, tested, and received their results.

The 2007 Uganda Service Provision Assessment (USPA) survey assessed the availability of several HIV prevention and treatment services: HIV counselling and testing; care and support services for people living with HIV; diagnosis and treatment of tuberculosis and sexually transmitted infections (STIs); ART; prevention of mother-to-child transmission (PMTCT); post-exposure prophylaxis (PEP); and youthfriendly counselling and testing services.

### Findings from the Uganda Service Provision Assessment (USPA)

- Just under one-third (29 percent) of health care facilities in Uganda report providing HIV testing services. Availability of testing services vary widely among regions, from only 13 percent of facilities in Northeast to 98 percent in Kampala. Almost all hospitals and HC-IVs offer testing compared with 46 percent of HC-IIIs and 9 percent of HC-IIs. Government facilities are slightly less likely to provide testing than private faith-based facilities.
- Sixty-one percent of facilities provide care and support services (CSS) for people living with HIV. Tuberculosis is one of the most common infections among people living with HIV. Among

Availability of HIV/AIDS Services among All Facilities (N=491)



the facilities that provide CSS, 55 percent can diagnose and/or treat tuberculosis, and 41 percent follow the directly-observed short course treatment (DOTS) strategy.

- Only 28 percent of percent of facilities providing CSS have at least one provider trained within the last three years to
  treat opportunistic infections, and only 9 percent have a provider trained to treat AIDS in children. Furthermore, the
  availability of medicines to treat common infections and other conditions among people with HIV/AIDS varies widely.
  Only 20 percent of facilities have drugs for managing chronic diarrhoea; 10 percent have drugs for treating Cryptococcal
  fungal infections; and 38 percent can manage pain. Only 2 percent of facilities can treat Herpes Simplex virus type 2
  (HSV-2) although 44 percent of Ugandans 15-49 have HSV-2 (2004-05 USHBS).
- The Uganda national treatment guidelines include the use of co-trimoxazole prophylaxis (CPT) for people living with HIV. Overall, only three-fourths of facilities providing CSS offer CPT although not all of these facilities had co-trimoxazole on site on the day of the survey. Hospitals and HC-IVs are most likely to have co-trimoxazole in stock.









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- Condoms are available in 9 out of 10 facilities offering CSS for HIV and treatment for STIs in Uganda. Government facilities are more likely than private facilities to have condoms (96 versus 73 percent). **Availability of ART**
- 84 percent of hospitals and 52 percent of HC-IVs provide ART. Overall, however, only 8 percent of facilities provide ART. ART is most available in Kampala.
- Inconsistent use of ART compromises patient health and increases the chances of drug-resistant strains of HIV. In the six months preceding the USPA, more than 80 percent of facilities providing ART had stockouts of first-line drugs. Government facilities are more likely to report stockouts than private facilities.
- Only 15 percent of health care facilities nationwide offer the full package of PMTCT . services: HIV counselling and testing; counselling on child feeding and family planning; and provision of prophylactic antiretroviral drugs to HIV positive women and their newborns within 72 hours of birth.
- Availability of the full PMTCT package ranges from a low of 10 percent in Western, West Nile, and Northeast regions to a high of 34 percent in Kampala. Government facilities are more likely to offer the full PMTCT package than private facilities.



Central

12%

Kampala 68%

- Post exposure prophylaxis (PEP) is the provision of prophylactic antiretroviral drugs to persons who have been exposed to HIV infection. Only 6 percent of facilities nationwide, mostly hospitals, have PEP services available to their staff.
- Running water and latex gloves, essential items for infection control, are not available in many health care facilities. In . HIV service sites only 56 percent of facilities have running water; only 45 percent of hospitals, which treat most people with HIV infection, have latex gloves at all HIV service sites.

#### **Implications for Policy**

- The absence of running water and latex gloves puts everyone in the health care system at risk. Infection prevention should be a national priority to safeguard people living with HIV, other clients, and health care providers.
- Stockouts of first-line ARVs contribute to drug resistant strains of the virus, threatening the welfare of many Ugandans. . Efforts to ensure a steady supply of these life-saving drugs are essential.
- Preventive services, particularly testing and PMTCT, need to be more widely available, particularly in lower-level facilities and outside of Kampala.
- Health care providers are on the forefront of preventing HIV transmission and caring for people already infected. Postexposure prophylaxis should be made more widely available to health care providers. Together with proper infectionprevention practices, PEP can keep health care providers safe.
- More health professional training in critical areas, such as treating opportunistic infections, should be made available to health care providers. In addition, treatment guidelines should be posted in every treatment site, particularly in hospitals, to ensure appropriate and effective care.

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# **Facility-Level Infrastructure and Resources**

### Background

Safe, well-equipped, and well managed health care centers are more likely to provide quality services and increase use. The USPA looked at several essential components of facility level infrastructure including the availability of: basic package of health services, client amenities, water, electricity, infection control, and storage capacity for medicines and vaccines.

While some facilities specialise in preventive or curative care, Ugandan hospitals and health centres are expected to offer the full range of basic services. According to the Uganda Service Provision Assessment (USPA), this includes outpatient curative services for sick children and for adult STIs, temporary methods of family planning, antenatal care, immunisation, and child growth monitoring.

Availability of services does not guarantee quality. Clients and staff are more satisfied when a basic level of comfort and infrastructure is maintained, and basic administrative and management systems are in place to ensure a consistent supply of essential drugs. Infection control systems must also be in place to ensure the safety of both clients and staff. Funding mechanisms can decrease financial barriers to use of health care, and infection control systems must be in place to ensure that health care facilities are equipped to prevent cross-infection. The 2007 USPA assessed the facility-level infrastructure, resources, and systems in the 491 facilities included in the survey.

### Findings from the Uganda Service Provision Assessment (USPA)

- Less than half (46 percent) of facilities provide all basic services (outpatient curative services for sick children and for adult STIs, temporary methods of family planning, antenatal care, immunisation, and child growth monitoring). Child growth monitoring is least available. Half of government facilities offer all services compared to only one-third of private facilities.
- Only one in four facilities offers all the basic services at minimum frequencies (curative care for children 5 days per week; STI services 1 day per week; FP, ANC, immunisation, and growth monitoring 1 day per week), plus facility-based 24-hour delivery services. HC-IVs are most likely to provide the basic package plus 24hour delivery services.



- Less than one-third (31 percent) of facilities have a regular water supply. Only one in four (24 percent) have regular electricity or a generator.
- About 4 in 10 facilities have the full range of client comfort amenities, including a functioning client latrine, a protected waiting area, and a basic level of cleanliness.
- Very few facilities (12 percent) have all the components necessary to provide basic 24-hour emergency services, including at least two qualified providers assigned to the facility, observed duty schedule indicating that staff are on-site or on call 24 hours a day, overnight beds, a client latrine, 24-hour emergency communication, and on-site water at least part of the year. Half of hospitals and one-third of HC-IVs have all of these components.
- One-quarter of facilities have documented quality assurance (QA) systems. More than half of hospitals and HC-IVs have documented quality assurance activities. Medical audits and supervisory check-lists are the most common QA systems.









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- Three in four facilities have routine staff training, and more than 90 percent have routine supervision. Routine training is most common in Kampala and North Central Region (100 percent each) and lowest in Northeast Region (62 percent) and Southwest Region (65 percent). Supervision ranges from 76 percent in Kampala to 99 percent in West Nile Region.
- Very few government facilities (3 percent) charge any fees for adult curative care, compared to 93 percent of private facilities. Overall, 25 percent of facilities have user fees for adult curative care. Almost all facilities had an external source of funding during 2006-07 financial year.
- Seventy percent of facilities that store vaccines have all the necessary components for temperature monitoring. Most facilities storing vaccines store them by expiration date; however, only 37 percent had an up-to-date inventory.
- Less than 40 percent of facilities meet all three criteria for stock monitoring of vaccines, contraceptive, medicines, or ARVs—no expired items present, items stored by expiration date, and an up-to-date inventory.
- Only 6 percent of facilities have all relevant infection control items available in all assessed service delivery areas. Disinfectant is the most commonly missing item.
- Sixty percent of facilities have functioning equipment for high-level disinfection processing, as well as staff members who know the correct processing time. Boiling or steaming is the most commonly used method for disinfecting equipment.

#### **Implications for Policy**

- It is not expected that all facilities will offer all services, but clients should not have to visit many facilities to satisfy their families' basic health care needs. As many facilities as possible should provide the basic package of services five days per week to improve health care delivery and increase use.
- Appropriate care during emergencies can make the difference between life and death. All higher-level facilities should be able to provide 24-hour emergency services.
- The lack of regular running water and electricity has serious implications for provision of quality health care services. Improved access to water and electricity will increase infection control, quality of care, and overall client and provider comfort.
- While most Ugandan health facilities have vaccines, medicines, and contraceptives in stock, these supplies are less effective if they are not stocked and monitored appropriately. Simple management practices to improve stock and monitoring of supplies such as storing medicines by expiration date and maintaining an up-to-date inventory will ensure a ready supply of essential drugs.

### What is the Uganda Service Provision Assessment (USPA)?

The 2007 Uganda Service Provision Assessment survey (USPA) describes how the formal health sector in Uganda provides services for family planning, maternal health, child health, malaria, HIV/AIDS, and other communicable diseases. The USPA was carried out by the Ministry of Health in collaboration with the Uganda Bureau of Statistics. Macro International Inc. provided technical assistance through the MEASURE DHS project, which is funded by the U.S. Agency for International Development (USAID) and the President's Emergency Plan for AIDS Relief (PEPFAR). All survey costs were funded through USAID, PEPFAR, and PMI. The USPA involved a nationally representative sample of 491 facilities, including all hospitals throughout Uganda (national referral hospitals, regional, general, and all other hospitals), about half of all Health Centre-IVs (HC-IVs), and a sample of HC-IIIs and HC-IIs. Facilities are also identified by managing authority; that is, facilities run by the Government of Uganda and by private organizations including NGOs. Trained interviewers collected the data through interviews with providers, clients, and observations at health facilities between July and October, 2007.









**Availability of Infection Control Items** 



solution Clean latex

gloves

41

58

