Child Health

Background

Although child health has improved since 2000, many indicators are not yet back at the levels experienced in 1992. In an effort to strengthen child health services, the Government of Rwanda adopted in 1999 the Integrated Management of Childhood Illness (IMCI) approach, developed by WHO, which stresses integration of services, providing preventive and curative care whenever children come to health facilities. By the middle of 2007, IMCI had extended to about 23% of Rwandan districts with at least two IMCI staff trained per health center. The Ministry of Health (MOH) has also adopted the Expanded Program of Immunization (EPI) with a goal of immunization coverage of 90% of all children by their first birthday.

According to the 2005 Rwanda Demographic and Health Survey (RDHS), infant and under-five mortality rates have returned to 1992 levels (86 deaths per 1,000 live births and 152 deaths per 1,000 live births, respectively) after a significant increase in 2000. Three-quarters of children age 12-23 months were fully vaccinated. Rwandan children face serious, chronic malnutrition; almost half (45%) of children under age five are stunted, or too short for their age, and more than half of children under five are anemic. Treatment of childhood diseases is also in need of improvement. Only 17% of children with symptoms of an acute respiratory infection received treatment or advice from a health provider, and only 12% of children with diarrhea received any oral rehydration salts (ORS) packets.

The 2007 RSPA assessed the availability of three basic child health services in Rwandan health care facilities: curative care for sick children; immunizations; and growth monitoring. The RSPA also evaluated Rwanda’s adherence to the IMCI strategy and the EPI.

Findings from the Rwanda Service Provision Assessment (RSPA)

- About half (53%) of facilities offer all three basic child health services. Seventy-one percent of health centers and polyclinics provide all three services. Overall, childhood immunization is provided in 75% of facilities, growth monitoring in 55%, and outpatient curative care for sick children is available in 95% of facilities.
- Immunization services are offered in 96% of health centers and polyclinics and are most available in government and government-assisted facilities (85% and 84%, respectively). However, only a quarter of dispensaries, clinics, and health posts offer immunizations.
- Almost all facilities offering immunization services and storing vaccines had all EPI vaccines in stock on the day of the survey. Only 42%, however, had vitamin A stored with the vaccines, as recommended by EPI.
- First-line medications for sick child care—ORS packets, at least one oral antibiotic for respiratory infections, and at least one antimalarial medicine—are available in 82% of facilities treating sick children. Nine in ten governmental or government-assisted facilities have these medicines, compared to only 37% of private facilities and 47% of facilities in Kigali City.
- Only 24% of facilities providing ORT have all three necessary items: a cup and spoon, a jar for mixing, and ORS packets. However, ORS packets are available in 89% of sick child service areas or in the pharmacy.

Availability of Child Health Services

![Percent of facilities offering the following services (N=538)](chart)

- Curative care for sick children
- Growth monitoring
- Childhood immunization
- All 3 basic child health services
Only 37% of facilities providing child health services have the two types of scales needed to weigh younger and older children. This suggests that many prescriptions for sick children are based on crude weight estimates rather than actual weight.

The RSPA observed provider consultations with sick children. Observations noted whether providers followed the Rwanda IMCI guidelines. Major findings are listed below:

- Providers are not consistently assessing danger signs and symptoms or performing the expected basic exams on sick children. During sick child consultations, only 15% of cases had respiratory rate checked, 21% had ears checked for infection, and 42% had eating patterns assessed.

- Each child should be evaluated for cough or difficulty breathing, diarrhea, fever, and nutritional status. All four symptoms were evaluated in only 14% of consultations. Fever and cough or difficulty breathing were most commonly evaluated.

- Rwandan 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 diarrheal illnesses. According to the RSPA, however, 70% of children with a cough but no severe respiratory problem and 60% of children with diarrhea but no serious symptoms were treated with an oral or injectable antibiotic.

- Rwandan providers do not consistently educate and advise caretakers about ongoing care for their sick children. In half of consultations providers gave advice on dose, frequency and duration of medicines prescribed, and in only 25% of consultations did providers advise caretakers about symptoms for immediate return.

### Treatment of Children with Antibiotics

Percent of observed children who received antibiotics among those with indicated diagnosis

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia (N=342)</td>
<td>73</td>
</tr>
<tr>
<td>Bronchitis (N=7)</td>
<td>57</td>
</tr>
<tr>
<td>Non-severe cough or resp. problem (N=523)</td>
<td>70</td>
</tr>
<tr>
<td>Severe fever (N=305)</td>
<td>65</td>
</tr>
<tr>
<td>Malaria (N=750)</td>
<td>56</td>
</tr>
<tr>
<td>Severe/persistent diarrhea or dysentery (N=238)</td>
<td>49</td>
</tr>
<tr>
<td>Non-severe diarrhea (N=289)</td>
<td>60</td>
</tr>
</tbody>
</table>

### Essential Advice Given to Caregivers

Percent of observed sick child consultations (N=1,741)

<table>
<thead>
<tr>
<th>Advice</th>
<th>Hospital</th>
<th>Health center/Polyclinic</th>
<th>Dispensary/Clinic/Health post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase fluids</td>
<td>21</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Continue feeding</td>
<td>23</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Symptoms for immediate return</td>
<td>27</td>
<td>25</td>
<td>23</td>
</tr>
<tr>
<td>Caretaker told how to administer medications (dose, frequency and duration)</td>
<td>40</td>
<td>31</td>
<td>52</td>
</tr>
</tbody>
</table>
Implications for policy

- Health care facilities and providers are not using every contact with children to provide preventive services. For example, vaccination rates in Rwanda have improved over the past few years, but they are below the national target goal of 90% immunization coverage. Thus, it is discouraging that during observed consultations of sick children under two, immunization status was checked in only 30% of cases. Additionally, only 15% of facilities offer immunization services every day that sick child services are available.

- First-line medications for sick child treatment are inexpensive, and administering these medications requires no specialized equipment. Stocking all facilities, particularly primary health care facilities which reach the population at the most basic level, with the recommended first-line medications should be a national priority. Private facilities and those in Kigali City are especially in need of first-line medications.

- 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.

- Although IMCI guidelines have been disseminated in Rwanda, adherence to them is low. Measures need to be taken to reinforce standard sick child procedures, including taking complete histories, performing a full examination, and counseling the caretaker about illness management and when to return for further care.

- At every level of the health care system in Rwanda, 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 and used.

What is the Rwanda Service Provision Assessment (RSPA)?

The 2007 Rwanda Service Provision Assessment survey (RSPA) describes how the formal health sector in Rwanda provides services for family planning, maternal health, child health, malaria, HIV/AIDS, and other communicable diseases. The RSPA was carried out by the National Institute of Statistics of Rwanda (NISR) in collaboration with the Ministry of Health (MOH). 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). Financial support for the survey was received from USAID. The RSPA involved a sample of 538 facilities, including all public health facilities and a sample of private facilities throughout Rwanda. Facilities are also identified by managing authority; that is, facilities run by the Government of Rwanda, Government-assisted facilities, and private, community, or NGO-run facilities. Trained interviewers collected the data through interviews with providers, clients, and observations at health facilities between June and August 2007.
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 and consistent use of methods help reduce unwanted pregnancies and closely spaced births, which can increase risks to both mothers and children.

Rwanda initiated its first population program, which included family planning, in 1982. After the 1994 United Nations International Conference on Population and Development (ICPD) in Cairo, which advocated the integration of FP into reproductive health services, the government of Rwanda revised its reproductive health policy to encourage the integration and provision of FP services in all health facilities nationwide.

Contraceptive use has fluctuated in Rwanda over the past two decades. In 1992, 21% of married women used any contraceptive method, of which 13% used modern methods. By the year 2000, all use dropped to 13%, due primarily to a significant decrease in use of modern methods. However, the 2005 RDHS showed an improvement: 17% of married women used any contraceptive method and 10% used a modern method. The most commonly used methods were injectables and pills.

Quality family planning services include several important elements: availability of several types of short- and long-term contraceptive methods; good screening and counseling 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 health services, particularly prevention and treatment of sexually transmitted diseases (STIs) and HIV/AIDS.

Findings from the 2007 Rwanda Service Provision Assessment (RSPA)

- Approximately three-fourths of Rwandan health facilities (71%) offer modern methods of FP, and two-thirds of these are open five days per week. Among facilities providing FP, the most common methods available are combined and progestin-only pills, injectables, and male condoms. Overall, temporary methods are less available in the South and in Kigali City. Among the facilities reporting they provide condoms for family planning (91%), only 69% actually had condoms available.
- Permanent methods, such as male and female sterilization, are far less available. Only 5% of facilities offer these methods, including less than half of hospitals.
- Less than a third of facilities offering temporary FP methods have all items necessary for infection control. Soap and running water are most commonly missing.
- Only 5% of facilities have all the furnishings and equipment for ensuring quality pelvic examinations, primarily due to the lack of exam lights and vaginal speculums.

Family Planning: How does Rwanda Compare?

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent of currently married women who are currently using any modern method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya 2003</td>
<td>32</td>
</tr>
<tr>
<td>Malawi 2004</td>
<td>28</td>
</tr>
<tr>
<td>Mozambique 2003</td>
<td>21</td>
</tr>
<tr>
<td>Tanzania 2004-05</td>
<td>19</td>
</tr>
<tr>
<td>Uganda 2006</td>
<td>14</td>
</tr>
<tr>
<td>Ethiopia 2005</td>
<td>19</td>
</tr>
<tr>
<td>Rwanda 2005</td>
<td>10</td>
</tr>
<tr>
<td>Eritrea 2002</td>
<td>7</td>
</tr>
</tbody>
</table>

Percent of currently married women who are currently using any modern method

Modern Methods Availability

<table>
<thead>
<tr>
<th>Method</th>
<th>Percent of facilities providing family planning services (N=394)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined oral contraception</td>
<td>69          24   1</td>
</tr>
<tr>
<td>Progestin-only oral pill</td>
<td>64          24   2</td>
</tr>
<tr>
<td>Progestin-only injectable</td>
<td>67          24   2</td>
</tr>
<tr>
<td>Male condom</td>
<td>64          26   1</td>
</tr>
<tr>
<td>Female condom</td>
<td>22          9    4</td>
</tr>
<tr>
<td>Implant</td>
<td>27          19   5</td>
</tr>
<tr>
<td>Emergency contraceptive pill</td>
<td>59         2</td>
</tr>
</tbody>
</table>

- Method provided and available
- Method provided, not available
- Only prescribed
2007 Rwanda Service Provision Assessment Survey
Policy Brief: Family Planning

- Overall, more than half of facilities offering FP report that FP providers routinely treat STIs. This ranges from only 44% in the West to 61% in Kigali City. However, many of these facilities do not have either appropriate medicines or written guidelines for diagnosing and treating STIs. Less than three-quarters had at least one medicine to treat four common STIs—trichomoniasis, gonorrhea, chlamydia, and syphilis.
- The RSPA observed 680 consultations between the client and the provider. More than 80% of FP clients were assured that their consultations were conducted in privacy. Additionally, the concerns about FP methods and return visits were discussed during the majority of consultations. Visual aids were only used in 56% of consultations.
- Among the 133 new family planning clients with observed consultations, only 20% received information about using condoms to prevent STIs. An essential component to family planning is to know if the client wishes to delay their next pregnancy or limit pregnancies altogether. It is encouraging that desired timing for subsequent birth was discussed 85% of the time.

Implications for Policy
- According to the 2005 RDHS, about 4 in 10 women have an unmet need for family planning with 13% of women wanting to limit family size. These women need to have access to permanent family planning methods, yet these are offered in less than half of all hospitals. More hospitals should be equipped to provide permanent FP methods.
- About two in three FP facilities have male condoms in stock. This is a very positive finding in a country facing the HIV/AIDS epidemic. Still, there is room for improvement. All facilities throughout Rwanda 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 Rwanda, family planning facilities are not well prepared to treat STIs. Less than three-quarters of the family planning facilities have medicines on site to treat women with STIs. While clients can always be referred to other services or given a prescription, each additional effort reduces their chances of getting appropriate care.

First-time Family Planning Visits
Percent of first-time FP visits at health centers and clinics that discussed the following: (N=133)

- Desired timing for subsequent birth: 85%
- Symptoms of STIs: 63%
- Chronic illnesses: 76%
- Using condoms to prevent STIs: 20%
- Using condoms as dual method to prevent pregnancy: 15%

What is the Rwanda Service Provision Assessment (RSPA)?
The 2007 Rwanda Service Provision Assessment survey (RSPA) describes how the formal health sector in Rwanda provides services for family planning, maternal health, child health, malaria, HIV/AIDS, and other communicable diseases. The RSPA was carried out by the National Institute of Statistics of Rwanda (NISR) in collaboration with the Ministry of Health (MOH). 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). Financial support for the survey was received from USAID. The RSPA involved a sample of 538 facilities, including all public health facilities and a sample of private facilities throughout Rwanda. Facilities are also identified by managing authority; that is, facilities run by the Government of Rwanda, Government-assisted facilities, and private, community, or NGO-run facilities. Trained interviewers collected the data through interviews with providers, clients, and observations at health facilities between June and August 2007.

Photo at top right: Courtesy of Rathavuth Hong, Macro International
Background

Malaria is a major public health problem in Rwanda, compromising both the health of the population and the nation’s economic development. The government of Rwanda is highly committed to combating the disease with the National Malaria Control Program (or Programme National Intégré de Lutte contre le Paludisme, [PNILP]) established in 1999 and a comprehensive five-year strategy plan for 2005-2010.

According to the Health Management Information System (HMIS), malaria was the leading cause of illness and death in Rwanda in 2006; it represented 37% of outpatient visits and 41% of hospital deaths, of which 42% were children under five years of age. In 2007, the Global Fund and the World Health Organization performed an impact assessment in nine district hospitals and 10 health centers selected from 10 districts (two districts per province). According to the assessment’s report, which is based on HMIS data and data from patients’ registration, there was a significant reduction in diagnosed malaria cases and hospital deaths due to malaria in recent years (WHO 2008). These results may be partly due to the national malaria campaign’s mass distribution of more than 1.4 million long-lasting insecticidal nets (LLINs) and to the implementation of the artemisinin-based combination therapy (ACTs) nationwide in 2006.

Findings from the 2007 Rwanda Service Provision Assessment (RSPA)

- Malaria diagnosis and treatment are almost universally available in Rwandan health care facilities.

- While all hospitals and 94% of health centers and polyclinics that treat malaria provide first-line antimalarial medicines, stock-outs are common. Four in ten facilities offering malaria services experienced stock-outs in the six months preceding the survey. Stock-outs are most frequent in dispensaries, clinics, and health posts.

- Among the facilities that provide malaria treatment, only one-third have the ability to confirm the diagnosis with a blood smear. Six percent have introduced the rapid test for malaria, mostly among the private, NGO and community facilities (11%), and in Kigali City (13%) where a large proportion of these non-governmental facilities are located.

- Around 70% of government and government-assisted facilities have ITNs in stock, but they are found in only 19% of non-governmental facilities. ITNs are found most commonly in health centers and polyclinics (76%) with ITN supply lower in hospitals (34%), dispensaries, clinics, and health posts (17%), and Kigali City (18%). These percentages follow the trends for availability of antenatal care (ANC), with ITNs least available in regions and categories for facilities with lower percentages offering ANC.
Among ANC clients whose consultations were observed, two-thirds of first-visit clients (n=346) and half of follow-up clients (n=363) were noted to take their first-dose of IPT prior to leaving the facility.

### Implications for policy

- Free distribution of insecticide-treated mosquito nets (ITNs) is crucial for preventing malaria. However, only one in five dispensaries, clinics, and health posts are able to distribute mosquito nets, compared to almost all health centres and polyclinics. Increasing distribution of mosquito nets at this level will significantly increase their use across the country.
- While over 90% of facilities offer malaria treatment services, only 37% of these facilities have lab capacity for diagnosing malaria and far fewer have rapid tests for diagnosing malaria. Proper diagnosis can prevent unnecessary treatment and save resources.
- Effective and swift treatment of malaria is necessary to prevent serious illness and death, the spread of the disease to others, and the development of drug-resistant strains of malaria. Over 40% of facilities that offer malaria diagnosis and treatment experienced stock-outs of first-line antimalarials in the past six months. Preventing stock-outs is essential for improving rapid and effective treatment of malaria.

### Provision of ITNs

<table>
<thead>
<tr>
<th></th>
<th>Percent of facilities among those offering malaria diagnosis and/or treatment (N=498)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>2 34 93 76</td>
</tr>
<tr>
<td>Health center/ Polyclinic</td>
<td>22 17 82 71</td>
</tr>
<tr>
<td>Dispensary/ Clinic/ Health Post</td>
<td>84 70 23 19</td>
</tr>
<tr>
<td>Government</td>
<td></td>
</tr>
<tr>
<td>Government-assisted</td>
<td></td>
</tr>
<tr>
<td>Private/NGO/ Community</td>
<td></td>
</tr>
</tbody>
</table>

What is the Rwanda Service Provision Assessment (RSPA)?

The 2007 Rwanda Service Provision Assessment survey (RSPA) describes how the formal health sector in Rwanda provides services for family planning, maternal health, child health, malaria, HIV/AIDS, and other communicable diseases. The RSPA was carried out by the National Institute of Statistics of Rwanda (NISR) in collaboration with the Ministry of Health (MOH). 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). Financial support for the survey was received from USAID. The RSPA involved a sample of 538 facilities, including all public health facilities and a sample of private facilities throughout Rwanda. Facilities are also identified by managing authority; that is, facilities run by the Government of Rwanda, Government-assisted facilities, and private, community, or NGO-run facilities. Trained interviewers collected the data through interviews with providers, clients, and observations at health facilities between June and August 2007.

Photo at top right: Courtesy of Rathavuth Hong, Macro International
Maternal Health

Background

Complications of pregnancy and childbirth are among the leading causes of illness and death for Rwandan women. According to the 2005 Rwanda Demographic and Health Survey (RDHS), about 750 women die per 100,000 live births due to pregnancy-related causes. Most of these deaths can be prevented by appropriate antenatal and obstetric care, emergency transport, and referrals of complicated cases to higher levels of care.

Over 90% of Rwandan women receive at least one visit for antenatal care (ANC) from a health professional. Less than 40% deliver with the assistance of a trained provider, however, and only 28% deliver at a health facility.

The Government of Rwanda is working to improve these statistics. In 2003, the MOH developed a national reproductive health policy that focused on improving maternal health care, which includes improving ANC consultations, strengthening health providers’ skills, increasing number of deliveries in health centers, and improving postpartum services. To reduce the rate of maternal and infant mortality, the Ministry of Health has adopted strategies to strengthen the management of emergency obstetric care, intensive care of newborns, active management of the third stage of labor, and IMCI at the health center and community levels. In Rwanda, maternal health services are provided primarily at the health centers, the first level in the Rwandan health care delivery system.

Findings from the Rwanda Service Provision Assessment (RSPA)

Availability of maternal health services:

- Eight out of ten facilities in the country provide antenatal care (ANC). Normal delivery care is available in three-quarters of facilities. However, postnatal care, an important service for the mother and the newborn, is available in only 16% of facilities.

<table>
<thead>
<tr>
<th>Type of facility/Managing authority</th>
<th>ANC</th>
<th>Normal delivery</th>
<th>C-section</th>
<th>Transportation support for maternity emergencies</th>
<th>Postpartum care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>33</td>
<td>93</td>
<td>93</td>
<td>98</td>
<td>10</td>
</tr>
<tr>
<td>Health center/Polyclinic</td>
<td>98</td>
<td>89</td>
<td>1</td>
<td>94</td>
<td>19</td>
</tr>
<tr>
<td>Dispensary/Clinic/Health post</td>
<td>34</td>
<td>19</td>
<td>1</td>
<td>31</td>
<td>5</td>
</tr>
<tr>
<td>Government</td>
<td>89</td>
<td>86</td>
<td>7</td>
<td>93</td>
<td>17</td>
</tr>
<tr>
<td>Government-assisted</td>
<td>90</td>
<td>85</td>
<td>13</td>
<td>92</td>
<td>20</td>
</tr>
<tr>
<td>Private/NGO/Community</td>
<td>40</td>
<td>26</td>
<td>3</td>
<td>33</td>
<td>7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>80</td>
<td>75</td>
<td>8</td>
<td>82</td>
<td>16</td>
</tr>
</tbody>
</table>
Quality of ANC services:

- More than 70% of facilities offering ANC do not have all the materials necessary for providing quality antenatal care: iron and folic acid tablets, tetanus toxoid vaccine, blood pressure apparatus, and a fetoscope to hear the fetal heart beat.
- More than half of facilities providing ANC have the capacity to perform routine diagnostic tests for urine glucose and protein, and 46% can test for syphilis. However, less than 3 in 10 facilities (27%) can conduct anemia testing. These tests are important to detect potentially serious pregnancy complications.
- Although a large majority of facilities have antibiotics, first-line antimalarials, and medicines to treat four of the most common sexually transmitted diseases, medicines for treating high blood pressure, a potentially life-threatening complication of pregnancy, is available mainly in hospitals (93%). Among facilities offering ANC, only 12% can treat pregnancy-related hypertension.
- The RSPA observed 709 ANC consultations at health centers and polyclinics. Almost three-quarters of the 346 first-time ANC clients received or were prescribed tetanus toxoid. However, iron tablets were given to only 42% of first-time and follow-up ANC clients. Opportunities for providing counseling during ANC visits are often missed—delivery plans, exclusive breastfeeding, and family planning after birth are discussed less than half of the time.

Delivery services:

- Normal delivery services are available in three-quarters of facilities, ranging from 34% in Kigali City to 87% in the South. The majority of facilities (84%) offering normal delivery services have a trained provider on site 24 hours a day.
- Ninety percent of hospitals that offer delivery services have the essential supplies to support routine delivery—scissors or blade, cord clamps, suction apparatus, antibiotic eye ointment for newborns, and skin disinfectant. These supplies are less readily available in other facilities. Only 12% of facilities (59% of hospitals) have additional medicines and supplies to manage common obstetric complications.
- In Rwanda, complicated and emergency deliveries are managed primarily in hospitals and select health centers that have skilled staff and equipment. To ensure that pregnant women benefit from emergency care, services for providing emergency transport must be in place. The RSPA found that 82% of facilities have emergency transport for deliveries. These services are only available in 31% of dispensaries, clinics, and health posts, where referrals to hospitals and health centers are much more urgent.
- Few facilities offering delivery services have the equipment necessary to support emergency obstetric services. For example, a vacuum extractor for assisted delivery and a D&C kit to remove retained products of conception are available in less than one-fifth of facilities although they are found in almost all hospitals.
Blood transfusion and Caesarean services required for life-threatening complications are found in only 11% of facilities offering delivery services, though all delivery hospitals have these services. Additionally, health care facilities should be prepared to provide emergency support for newborns. The majority of hospitals offering delivery services have a newborn respiratory support system and more than three-quarters have an external heat source.

- Some important newborn care practices are not routinely carried out, while other common practices are unnecessary and may even be harmful. For example, almost half of hospitals offering delivery services routinely suction babies with a catheter, and almost 4 in 10 facilities give the newborn a full immersion bath within 24 hours of delivery, even though both of these practices are strongly discouraged. Additionally, recommended practices are not often followed; only 38% of facilities with delivery services provide vitamin A to the mother and half provide BCG vaccination to the newborn.

- Almost three-quarters of facilities offering delivery services conduct facility reviews on maternal and newborn deaths or near misses. However, only 59% of delivery facilities document coverage of deliveries, including 15% of hospitals.

**Implications for Policy**

- Quality antenatal care can prevent serious pregnancy complications. Just one in four ANC facilities can test for anemia, a condition affecting 35% of pregnant women in Rwanda. Additionally, only 38% of health centers and polyclinics providing ANC services report they routinely provide or prescribe iron supplements to pregnant women. Increasing the diagnosis and treatment of anemia, 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 organizational systems. Health unit managers, particularly among health centers and polyclinics where these services are most commonly received, need to focus on ensuring that ANC and delivery services have the basic supplies for preventive care.

- While 75% of Rwandan health care facilities provide childbirth services, 70% of women give birth at home, increasing risks to both mother and newborn. Understanding why women choose to deliver at home is essential to improving maternal and child health in Rwanda.

- Preventing infections during childbirth is a basic responsibility of health facilities. While the majority of delivery facilities in Rwanda have latex gloves, disinfectant, and running water in the service area, where it is needed for infection prevention in delivery clients, less than three-quarters have soap in the service area.

- Provision of postnatal care is essential for the health of the mother and newborn. Increasing access to these services will help to decrease maternal and infant mortality and gives providers the opportunity to provide further counseling and health education.

**What is the Rwanda Service Provision Assessment (RSPA)?**

The 2007 Rwanda Service Provision Assessment survey (RSPA) describes how the formal health sector in Rwanda provides services for family planning, maternal health, child health, malaria, HIV/AIDS, and other communicable diseases. The RSPA was carried out by the National Institute of Statistics of Rwanda (NISR) in collaboration with the Ministry of Health (MOH). 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). Financial support for the survey was received from USAID. The RSPA involved a sample of 538 facilities, including all public health facilities and a sample of private facilities throughout Rwanda. Facilities are also identified by managing authority; that is, facilities run by the Government of Rwanda, Government-assisted facilities, and private, community, or NGO-run facilities. Trained interviewers collected the data through interviews with providers, clients, and observations at health facilities between June and August 2007.

Photo at top right: Courtesy of Rathavuth Hong, Macro International
HIV/AIDS

Background

Rwanda’s population and health care system have suffered from the HIV epidemic. The first case of HIV/AIDS was seen at the Centre Hospitalier in Kigali in 1983. Since then, the infection has spread throughout the country. An estimated 49,000 people have died each year due to HIV infection and related conditions, and HIV infection cases occupy 60% of all hospital beds.

In 1987, the National AIDS Control Program (NACP) (Programme National de Lutte contre le Sida [PNLS]) was created to direct the HIV/AIDS control activities. In November 2000, the NACP was replaced by the National AIDS Control Commission (NACC) (or Commission National de Lutte contre le Sida [CNLS]), charged with promoting a multisectoral approach and strengthening cooperation among agencies. In 2004, the government established the Treatment Research AIDS Center (TRAC) and in 2007, TRAC expanded to TRAC-Plus, becoming a publicly autonomous institution. TRAC-Plus coordinates and supervises research and education on prevention and treatment of HIV/AIDS, malaria, and tuberculosis.

According to the 2005 Rwanda Demographic and Health Survey (RDHS), 3% of Rwandan adults are infected with HIV/AIDS. Women are more likely to be infected than men (3.6% versus 2.3%). Prevalence ranges from 2% in North province to 6.7% in Kigali. Only about one in ten Rwandans had been tested for HIV and received the results of the test in the year before the RDHS.

Findings from the Rwanda Service Provision Assessment (RSPA)

- Sixty-two percent of all health care facilities have an HIV testing system (the facility conducts HIV testing or the test is conducted outside but the results are returned to the facility for client follow-up). Almost all hospitals and two-thirds of health centers and polyclinics have an HIV testing system compared to only 29% of dispensaries, clinics, and health posts. Government-assisted facilities are more likely to have an HIV testing system than government or private, NGO, and community facilities. Availability of testing system in facilities ranges from 50% in North province to 78% in South province.
- More than half (55%) of all facilities offer care and support services (CSS), defined as any care for HIV/AIDS-related illnesses (e.g., opportunistic infections) or provision of counseling or social support services for people living with HIV/AIDS. Three-quarters of government-assisted facilities offer CSS compared to only half of government facilities and 27% of private, NGO, and community facilities.
- Tuberculosis is one of the most common infections among people living with HIV. Among facilities offering CSS, 69% provide TB diagnosis and treatment and 55% follow the directly observed treatment short-course strategy (DOTS). TB diagnosis and treatment services are least available in dispensaries, clinics, and health posts (30%).
- Treatment of sexually transmitted infections (STIs) is a crucial component of HIV-related care. Almost all facilities offering CSS also provide STI treatment services, and among these, 82% have all medicines to treat common STIs—syphilis, gonorrhea, chlamydia, and trichomoniasis.
- Advanced level treatment of opportunistic infections is relatively rare. Treatment of Kaposi’s sarcoma and cryptococcal infections, for example, is available in less than 20% of facilities offering CSS. Hospitals are most likely to offer treatment for these two infections. More than 50% of CSS facilities provide symptomatic or pain relief treatment, nutritional rehabilitation, and psycho-social support services.
Antiretroviral therapy (ART) is provided in only 29% of all facilities. Over 90% of all hospitals offer ART. ART is most available in Kigali City; however, ART is only available in a third of Kigali City’s facilities.

About three-fourths of facilities that prescribe ART experienced a stock-out in the six months before the survey.

Only half of facilities offer any form of PMTCT. Government-assisted facilities are more likely to offer PMTCT services (74%) than government facilities (56%) or private, NGO, and community facilities (5%). Among facilities offering any form of PMTCT, 68% offer the full PMTCT package: HIV counseling and testing; counseling on child feeding and family planning; and provision of prophylactic antiretroviral drugs to HIV positive women and their newborns within 72 hours of birth.

Post-exposure prophylaxis (PEP) is the provision of prophylactic antiretroviral drugs to persons who have been exposed to HIV infection. Only 28% of facilities, mostly hospitals, have PEP available to their staff.

Only 7 of 334 facilities with an HIV testing system offer youth-friendly testing services.

**Implications for Policy**

Most HIV/AIDS services in the country are concentrated in hospitals; however, there are only 42 hospitals. As not all Rwandans have easy access to hospitals, expanding HIV testing and provision of ART to other facilities will increase access to care.

TB services are primarily found in hospitals and health centers and polyclinics. TB diagnosis and follow-up of the DOTS regime should be expanded to dispensaries, clinics, and health posts in order to improve care to those living far from primary facilities.

PMTCT is essential to limit the spread of disease and could be extremely successful in Rwanda, as almost all pregnant women receive antenatal care (ANC). More facilities need to provide the full package of PMTCT in order to take advantage of the strong ANC system already in place.

Stockouts of first-line ARVs contribute to drug resistant strains of the virus, threatening the welfare of many Rwandans. Efforts to ensure a steady supply of these life-saving drugs are essential.

Health care providers are on the forefront of preventing HIV transmission and caring for people already infected. Post-exposure prophylaxis should be made more widely available to health care providers. PEP along with proper infection prevention practices can keep health care providers safe from inadvertent infection with HIV/AIDS.

**What is the Rwanda Service Provision Assessment (RSPA)?**

The 2007 Rwanda Service Provision Assessment survey (RSPA) describes how the formal health sector in Rwanda provides services for family planning, maternal health, child health, malaria, HIV/AIDS, and other communicable diseases. The RSPA was carried out by the National Institute of Statistics of Rwanda (NISR) in collaboration with the Ministry of Health (MOH). 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). Financial support for the survey was received from USAID. The RSPA involved a sample of 538 facilities, including all public health facilities and a sample of private facilities throughout Rwanda. Facilities are also identified by managing authority; that is, facilities run by the Government of Rwanda, Government-assisted facilities, and private, community, or NGO-run facilities. Trained interviewers collected the data through interviews with providers, clients, and observations at health facilities between June and August 2007.