AN EVALUATION OF THE UNITED NATIONS POPULATION FUND/UGANDA’S
OBSTETRIC FISTULA PROGRAM

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ABBREVIATIONS

AIDS    Acquired Immune Deficiency Syndrome
AMREF  African Medical and Research Foundation
ANC    Antenatal Care
BESO   British Executive Service Overseas
COPE   Client-oriented, Provider-efficient
DFID   Department for International Development
EmOC   Emergency Obstetric Care
EH     EngenderHealth
FP     Family Planning
FTWG   Fistula Technical Working Group
HIV    Human Immunodeficiency Virus
IEC    Information Education Communication
IEC/BCC Information Education Communication/Behavior Change Communications
M&E    Monitoring & Evaluation
MOH    Ministry of Health
NGO    Non-Governmental Organization
ObGyn  Obstetrics and Gynecology
OF     Obstetric Fistula
OR     Odds Ratio
RH     Reproductive Health
RVF    Recto-vaginal Fistula
TBA    Traditional Birth Attendant
TFR    Total Fertility Rate
UDHS   Uganda Demographic and Health Survey
UN     United Nations
UNFPA  United Nations Population Fund
UNFPA-HQ United Nations Population Fund, Head-quarters
UNICEF United Nations Children’s Fund
USAID  United States Agency for International Development
VSC    Voluntary Surgical Contraception
VVF    Vesico-vaginal Fistula
WDP    Women’s Dignity Project
WHO    World Health Organization
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## Acknowledgements

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Executive Summary

Country Context
Uganda’s population of 28.5 million is growing at 3.1% annually, a doubling rate of 22.6 years (PRB, 2007). Results from the 2006 Uganda Demographic and Health Survey (UDHS) indicate that the total fertility rate for the country is 6.7 children per woman. Early marriages, in the Ugandan context where use of family planning is limited, lead to early childbearing, a longer period of exposure of women to reproductive risks, and, in turn, to high cumulative fertility levels (UDHS, 2007).

Obstetric fistula (OF) represents an important public health problem in Uganda. The actual prevalence of this condition remains unknown. The 2006 UDHS shows that 2.64% of Ugandan women have ever experienced symptoms of OF. Facility-based data compiled by the Ministry of Health (MOH) in Uganda estimates about 4,300 women awaiting surgical repair of OFs (UDHS, 2007; MOH, unpublished data, 2006).

United Nations Population Fund/Uganda’s Obstetric Fistula Program
The goal of the program was to improve the social and political environment for prevention, treatment and management of OF, as well as the delivery of OF-related health services in Uganda. The two expected outputs of the implemented project are: (1) a strengthened Ugandan health system capacity to address the current backlog of OF cases, and (2) increased awareness and support among stakeholders, families and communities to address root causes of maternal mortality and morbidity as a strategic health sector investment.

The main activities in which the United Nations Population Fund (UNFPA)/Uganda’s project was involved are capacity building, including renovation of health facilities and operating theatres, provision of equipment and supplies and training of providers, OF surgical repairs and advocacy. The project was implemented by the MOH and the African Medical and Research Foundation (AMREF) in 8 sites, and incorporated in the existing UNFPA supported reproductive health program which is addressing Safe Motherhood initiatives, including emergency obstetric care. The project was funded by UNFPA through a grant awarded by the Bill and Melinda Gates Foundation. Activities of UNFPA/Uganda’s OF program partners are discussed in detail in the report.

Evaluation Plan
The overarching goal of this evaluation was to provide an end of project assessment of the UNFPA/Uganda’s OF program (2003-2007), and, to the extent possible, place the program in the context of the national OF activities in Uganda. A review of project documents was conducted during the entire evaluation period. Field-visits were conducted at Mulago National Referral and Teaching Hospital in Kampala, Kitovu Mission Hospital in Masaka and at an outreach camp organized by Mulago Hospital at Gombe Hospital in the Mpigi district. Key informants were identified and a total of 52 interviews conducted in-person or by phone. Additionally, this evaluation used data from the 2006 UDHS, data on OF cases seen and repaired between 1990 and 2005 as compiled by the MOH in 2006, as well as data
Main Findings
Based on the considerable difference between the DHS and the MOH estimates of OF burden in Uganda, it can be inferred that a large number of women are not aware that OF treatment exists and/or cannot access health care due to poverty or shame about their condition (UDHS, 2007). In regions where women have greater access to health care, the magnitude of OF seems to be lower; however, given the low availability of OF repair facilities and trained surgeons, only a segment of women in need for OF repair receive treatment. The 2006 MOH assessment showed that 45 Ugandan and 6 visiting surgeons can perform OF repairs through routine services and/or repair campaigns organized in about 12 centres (MOH, unpublished data, 2006). Interestingly, the number of fistula surgeons is only slightly higher, while the number of repair centres is lower than found by the OF needs assessment conducted by UNFPA and EH in Uganda in 2002 (UNFPA and EngenderHealth, 2003).

There is no coherent Ugandan national strategy to eliminate OF. However, the need for OF-related services is mentioned in the National Policy Guidelines and Service Standards for Sexual and Reproductive Health and Rights, a first step toward development and implementation of a national OF program (MOH, 2006). Focused efforts of the major stakeholders in the OF field in Uganda are coordinated to a large extent during Fistula Technical Working Group (FTWG) meetings and locally, at the level of each site.

UNFPA/Uganda is one of the most important players in the OF field, and it has successfully placed OF on the national health agenda. Most notably, UNFPA/Uganda has initiated and coordinated the above mentioned FTWG, a group comprised of representatives from all major players working in the OF field in Uganda. The FTWG is only partly functional and most key informants report that it lacks coordination by MOH. An in-depth assessment of and specific recommendations for the FTWG are provided in the report.

There is broad recognition that without UNFPA/Uganda’s efforts to implement OF activities, there would be less such services available in the country. UNFPA/Uganda’s OF program has successfully involved partners to address the needs of OF patients in Uganda and help ensure sustainability of OF activities in the country. However, UNFPA’s efforts are not recognized by providers, facility administrators and communities.

The UNFPA/Uganda’s OF project has worked primarily in building capacity and supporting efforts to ensure long-term sustainability of OF activities in Uganda. During the project period OF surgical and medical equipment was distributed to 6 centres: Arua, Kitovu, Lacor, Mbarara, Mulago and Soroti Hospitals. Several problems were encountered as no technical advice was sought before purchasing surgical equipment and supplies -- the equipment supplied was either of poor quality or damaged/expired due to delays in delivery and improper storage conditions. Thus, most of the operating tables and lights distributed are currently out of use. Mulago and Kitovu Hospitals were identified as the main OF centres in the country and support provided to these centres was considerably greater than for the other project sites. The two hospitals are not yet OF centres of excellence, and while they have significant potential to becoming such centres, additional financial support is needed.
Training activities and surgical repairs were performed as part of the project in partnership with AMREF and EH. Due to poor documentation of project progress and lack of monitoring and evaluation (M&E) activities, it is difficult to discern each organization’s contribution and specific role in either training or repair activities. For example, we cannot assess the proportion of the 649 OF repairs reported by UNFPA/Uganda between 2004 and 2006 which was exclusively supported by UNFPA. Only two surgeons were adequately trained and can serve as master trainers in Uganda; thus, a core team of OF trained surgeons, nurses and anesthetists proposed by the project was not formed.

The number of OF repairs increased during the project period. Most repairs are conducted during outreach campaigns, while routine services are currently offered in only 3 of the 8 project sites – these are: Arua, Kagando and Mulago Hospitals. The percentage change in the number of OF repairs was 102.8% at Mulago Hospital between 2005 and 2007, and 62.1% at Kitovu Hospital between 2004 and 2007.

Two quality of surgical care indicators are proposed in this report: (1) the proportion of OF successfully repaired and, (2) the proportion of performed OF surgeries which are not first time repairs. Data collected between July 2005 and September 2007 shows that the proportion of successfully repaired fistulas was 76.6% in Kitovu Hospital and 75.1% in Kagando Hospital (EH, annual progress reports 2005, 2006, 2007). The reported proportion of successfully repaired OFs at Mulago Hospital is slightly higher than that reported by Kitovu and Kagando Hospitals. More than one quarter (26.6%) and about 18.6% of OF surgeries performed between July 2005 and September 2007 in Kitovu and Kagando Hospitals, respectively, were not first time repairs.

During the project period, UNFPA/Uganda’s OF program has not placed great emphasis on either OF prevention or social reintegration activities, and has not directly participated in increasing community awareness on causes and consequences of OF. While it is true that UNFPA is strongly involved in preventive activities such as family planning, it does not appear that the UNFPA/Uganda OF and other maternal health programs are adequately linked.

To date, no OF data collection system exists in Uganda. Training curricula, service guidelines and manuals for OF management are not available and therefore, UNFPA/Uganda’s proposed OF program activities related to reviewing, printing and distributing these materials were not conducted. Trained surgeons and several members of the FTWG are, however, interested in developing surgical guidelines and training manuals; to this end, several regional meetings of OF surgeons from several African countries were organized in 2007.

**Recommendations**

1. **UNFPA/Uganda should take advantage of the momentum around OF in Uganda and the increasing demand for OF services to promote sustainable OF-related activities and to build capacity for OF services in the 8 priority sites, while continuing provision of technical and financial support for OF outreach surgical repair campaigns.** It is encouraging that women are demanding and obtaining OF surgical repairs through campaigns, but increasing the health system’s capacity to offer routine services should be the focus of the OF program in Uganda. The future UNFPA/Uganda OF program should ensure OF wards and operating theatre space in all the 8 sites. Basic and specialized OF equipment should be provided to all sites, and the low quality equipment previously distributed replaced -- it is key that UNFPA/Uganda obtains independent technical advice before procurement of OF equipment, and that supplies are provided in a timely manner. Standardized and certified training activities using a structured curriculum composed of theoretical and practical...
aspects should be encouraged. Non-specialist doctors (e.g. medical officers) should be trained if interested in provision of OF-related services, including surgery, as more OF trained specialists are needed to address the large number of OF cases in the country. In the same time, committed and talented surgeons need to be selected and sponsored for advanced training in order to increase the pool of Ugandan master trainers. Key OF surgeons should be identified in all 8 sites and continuous communication and supervision promoted.

2. UNFPA/Uganda should strengthen OF prevention activities. Strategies should primarily include advocacy work, social mobilization and behavioral change communications aimed at increasing awareness on the causes and consequences of OF and access to OF-related services. Specific focus should be given to increasing knowledge on where, when and how to access obstetrical care and to explaining why support from trained medical professionals throughout pregnancy is needed; additionally, women need to be supported in getting education, postponing early marriage and practicing family planning to space their births or limit childbirthing. OF prevention should be incorporated in EmOC and overall, maternal health capacity building activities that UNFPA/Uganda is already conducting.

UNFPA/Uganda’s OF program should incorporate rehabilitation and social reintegration activities to address the needs of women suffering from OF and its consequences. Such activities could include provision of pre- and post-operative care, financial support for accommodation, food and transport for women seeking OF repairs, skill acquisition and promotion of income generation activities for repaired OF patients.

Media and community leaders need to be involved in prevention as well as in rehabilitation and social-reintegration actions – while the two types of activities attend to needs of different categories of women and involve different types of service providers and social workers they could be promoted and advertised together during media campaigns and community OF awareness creation activities. Various prevention, rehabilitation and social-reintegration projects could be pilot-tested in OF prevalent communities where demand for OF services has already been created, or in catchment areas of repair centers; proposals for such pilot projects should be requested and small grants awarded on a competitive basis by UNFPA/Uganda. In order to subsequently carry out successful prevention, rehabilitation and social-reintegration projects, new partnerships should be created with the existing community departments affiliated with health facilities, while the already formed partnerships with AMREF and EH should be strengthen. The MOH needs to develop a referral system for women with OF and establish clear mechanisms by which referrals are made so that patients know where and how to seek the services they need.

3. UNFPA/Uganda needs to improve documenting its OF activities, using standardized reporting forms based on a common set of program targets and indicators for all project sites. Activity and budget reports using the standardized forms should be submitted by each project site to UNFPA/Uganda on a monthly basis. Supervision of all UNFPA-funded OF activities, without regard to the implementing organization, and site visits need to be conducted quarterly by UNFPA/Uganda staff. Subsequently, detailed quarterly and compiled annual reports need to be submitted by UNFPA/Uganda to UNFPA-HQ. Additionally, UNFPA/Uganda should ensure that the program officer responsible for the OF program has enough time and resources to coordinate all OF-related activities, develop and maintain excellent working relationships with implementing partners, primarily with the MOH, and with all organizations represented in the FTWG.
4. UNFPA/Uganda should help the MOH coordinate the FTWG and the OF activities in the country by way of sponsoring a key person at the MOH whose unique activities would be to organize and supervise an OF program in Uganda. A key person, committed and knowledgeable about OF should be identified to work closely with both the Clinical Services and the Reproductive Health Departments in the MOH and ensure coordination of the FTWG, creation of a coherent national OF program and implementation of OF activities in Uganda. Also, OF-related service delivery workplans should be submitted to the MOH by all facilities conducting such activities in order to enhance coordination, monitoring and supervision activities by MOH.

5. UNFPA needs to augment its OF-related advocacy efforts targeted at increasing awareness on OF at the national and regional levels in order to increase support provided to OF prevention and treatment activities.

**Conclusion**

The UNFPA/Uganda’s OF program has partly met the proposed objectives. One of the most important achievement of the program was to increase visibility of OF at the national level as a major public health problem in Uganda. The Bill and Melinda Gates Foundation grant enabled UNFPA/Uganda to help strengthen delivery of OF services and build relationships with other organizations, the MOH and health facilities. The capacity to offer OF services in 6 health facilities has been strengthen by way of providing basic and specialized equipment, training providers and sponsoring OF surgical repairs. By working directly with EH and AMREF, UNFPA/Uganda has been able to replicate an innovative service delivery model – OF repair campaigns – in several sites in Uganda. However, documentation, as well as monitoring and supervision of program activities by UNFPA/Uganda or by organizations implementing its OF program are poor and need to be strengthened.

There is broad recognition that without UNFPA/Uganda’s efforts to implement OF activities, there would be less such services available in the country. It is critical that the Ugandan government, other organizations working in the OF field and UNFPA take advantage of the existing momentum to continue efforts to build a sustainable OF-related service infrastructure and develop a coherent national OF program.
Chapter 1

Background

1.1 What is Obstetric Fistula?
Obstetric fistula (OF) is a medical condition that arises most often as a complication of prolonged and/or obstructed labor and results in an opening (fistula) between the bladder and the vagina (vesico-vaginal fistula) or between the rectum and the vagina (recto-vaginal fistula). In the vesico-vaginal fistula (VVF), a woman passes urine uncontrollably through the vagina, while in recto-vaginal fistula (RVF) a woman passes feces through the vagina. In some cases, these two conditions occur together. While OF is both preventable and treatable, when formed it has severe health and social consequences. Women with this condition may not be aware that treatment exists or may be too poor or too ashamed of their condition to seek and access care and surgical repair of the fistula; additionally, they are many times stigmatized by society and often abandoned by their families.

1.2. Country Context
Uganda’s population of 28.5 million is growing at 3.1% annually, a doubling rate of 22.6 years (PRB, 2007). Results from the 2006 Uganda Demographic and Health Survey (UDHS) indicate that the total fertility rate (TFR) for the country is 6.7 children per woman, a slight decrease from the previous 2000/01 UDHS that indicated a TFR of 7.1 children per woman. The TFR in urban areas is much lower than in the rural areas (4.4 and 7.1 children, respectively). Kampala and districts in the Central and Southwestern regions of the country have the lowest TFR. Education and wealth have a marked effect on fertility in Uganda. Mothers with no formal education have on average 3 more children than women with secondary or higher education. Similarly, women in the lowest wealth quintile have almost twice as many children as women in the highest wealth quintile (UDHS, 2001; UDHS, 2007).

Marriage and contraceptive patterns are important determinants of fertility levels in a population. About 24% of married women aged 15 to 49 years are currently using a method of contraception, up from 19% in the 2000/01 UDHS; modern methods are more widely used than traditional methods, with 18% of currently married women using a modern method. Early marriages, in the Ugandan context where use of family planning is limited, contribute to early childbearing and a longer period of exposure of women to reproductive risks, and, in turn, to high cumulative fertility levels. Although the minimum legal age for a woman to get married in Uganda is 18 years, marriage among young girls is a common practice. Among women aged 20 to 49 years, 16% were married by age 15 and 53% by age 18. However, the age at first marriage for women appears to be increasing in Uganda. The median age at first marriage has increased from 17.4 years among women 45 to 49 years of age to 18.3 years among women 20 to 24 years of age (UDHS, 2001; UDHS, 2007).

Like age at first marriage, age at first sex appears to be increasing among women in Uganda. About one quarter (24%) of women aged 20 to 49 years were sexually active by age 15 and 69% by age 18; the cumulative percentage of sexually active women increases steadily to reach 86% by age 20. The median age at first sex for women 20 to 49 years of age is 16.6 years, and there is evidence of a slight trend towards later initiation of sexual activity in recent years. Initiation of childbearing has not changed much over time in Uganda, although it seems that there is a slight increase in age at first birth in recent years. The median age at first birth is 19.1 years, and the median birth interval is 29.7 months (UDHS, 2001; UDHS, 2007).

Utilization of health care is low in Uganda. Women start antenatal care (ANC) at a relatively late stage in pregnancy. Less than half (47%) of Ugandan women attend 4 or more ANC visits during their entire
pregnancy, an improvement from 42% in the 2000/01 UDHS. Four out of ten births occur in a health facility, and the ratio has only risen slightly since year 2000. Overall, 42% of births were delivered with the assistance of skilled medical professionals, while 23% delivered by a traditional birth attendant (TBA), 25% by a relative or some other person and the rest of 10% without any type of assistance at all. The caesarean-section rate was 3.1% as documented by the 2006 UDHS, considerably below the rate of 5-15% recommended by the World Health Organization (WHO) (UDHS, 2001; UDHS, 2007; UNICEF, 1997). The latest maternal mortality estimation places the maternal mortality ratio in Uganda at 550 deaths per 100,000 live births (WHO, 2007). The HIV prevalence in the country is 6.7 % (PRB, 2007), and therefore, a large part of the Ugandan Ministry of Health (MOH) and other organizations’ resources are invested in HIV/AIDS related services.

The 2006 UDHS assessed problems encountered in accessing health care. About 86% of the women interviewed report that they encountered at least one serious problem in accessing health care. About 65% of women say that getting money is a serious problem, while distance to the health facility is the second most commonly reported problem, mentioned by 55% of women. Other cited problems are need to take transport (49%), concern over unavailability of medications (46%) or providers (27%), and not wanting to go alone to a health facility (27%). Data from the same 2006 nationally representative survey shows that currently married women in Uganda do not often make decisions on their own. While 35% of women say they make decisions regarding daily household purchases on their own, only 15% report that they make decisions about major household purchases, and only about two in ten (22%) married women independently decide on their own health care. Ugandan women are equally likely to report that decisions about their health care are made jointly with their husband/partner and mainly by their husband/partner (39%) (UDHS, 2007).

Obstetric fistula represents an important public health problem in Uganda and it is a sign of a failure of the health system -- the actual prevalence of this condition in the country remains unknown. The 2006 UDHS found that about 2.64% of Ugandan women have ever experienced symptoms of OF. This percentage is clearly overestimating the actual number of women ever developing an OF in Uganda, as it includes for example women who have suffered from urinary incontinence related to one or more of their pregnancies in the absence of an OF. Facility-based data compiled by the MOH in 2006 estimates that about 4,300 women have ever sought care for an OF in a health facility.

1.3. Does a National Fistula Program Exist in Uganda?
Efforts to eliminate or reduce the burden of OF in Uganda exists. In December 2002 the United Nations Population Fund (UNFPA)/Uganda has taken the lead to coordinate a Fistula Technical Working Group (FTWG) inviting the Government and all the major reproductive health (RH) players in Uganda (donors, NGOs, UN agencies) to join monthly meetings of the group. Since then, representatives from the MOH, WHO, EngenderHealth (EH), African Medical and Research Foundation (AMREF), British Executive Service Overseas (BESO), United States Agency for International Development (USAID), United Nations Children’s Fund (UNICEF) and Mulago Hospital have started to participate as active members of the group. The FTWG has working objectives, and during meetings, members discuss, coordinate and review major OF activities in the country. However, a coherent, definitive national strategy for elimination of OF has not been yet developed or proposed for discussion in the FTWG by the MOH, which is currently chairing and convening the FTWG meetings.

It appears that EH, AMREF and UNFPA are the organizations most involved in OF work in Uganda. EH works at the community level and implements its own activities. UNFPA/Uganda has involved AMREF as an implementing partner for a large part of its OF program and therefore, it is rarely
recognized as an important donor for OF activities by recipient institutions and community members. Additionally, AMREF is involved in OF activities in Uganda through its own Specialist Outreach Program. There are small private funds used in fistula work in Uganda and such funding sources are more prominent in Mission Hospitals, such as Kitovu Hospital. There is no systematic monitoring or regular documentation of OF activities in the country, and the amount and quality of reporting varies substantially within and between organizations and OF repair centres.

“At the same time, the MOH is perceived by key informants as the rightful owner of all OF activities in the country, as it is from its budget that providers’ salaries are paid, facilities maintained functional and basic supplies provided. Whether or not the MOH allocates any additional resources to OF activities is unclear, and attempts made by this evaluation team to clarify this aspect were unsuccessful. The most recent national RH policy has incorporated OF and it proposes to: (1) integrate the management of OF into existing RH services at all levels of health care, (2) improve access to OF management and rehabilitation services, and (3) eliminate the factors that cause OF by increasing awareness about OF and providing appropriate obstetric care. This is a first step toward developing and implementing a successful OF national program.

All considered, we cannot infer that a national strategy to eliminate OF exists in Uganda. However, focused efforts made primarily by UNFPA, EH and AMREF in each organization’s priority sites, and locally by “champions” of OF work, most of them surgeons, are coordinated to a large extent during FTWG meetings currently chaired by the MOH. Activities are reviewed and approved by the FTWG in order to avoid duplication of efforts by the different organizations. Exceptions to this perfect cooperation between FTWG partners exist, and key informants report the presence of competition between organizations.

“There is competition between partners about training, and the MOH should harmonize situations like this when they appear. There are no clearly defined roles for the organizations in the FTWG and one cannot organize properly. EH and AMREF are more on the ground, while UNFPA is not recognized. […] Monitoring and evaluation [of activities] are only on paper.” [FTWG representative, 2007]

1.4. UNFPA/Uganda’s Obstetric Fistula Program

The goal of this program was to improve service delivery, the social and political environment for prevention, treatment and management of OF in Uganda. The two expected outputs of the implemented project were: (1) a strengthened Ugandan health system capacity to address the current backlog of OF cases, and (2) increased awareness and support among stakeholders, families and communities to address root causes of maternal mortality and morbidity as a strategic health sector investment.

The major activities proposed to be implemented through the program were as follows:

a) Identify and upgrade skills of health professionals for management of OF;
b) Refurbish and supply equipment to 6 centres and 11 regional referral hospitals;
c) Train a core team of 4 doctors, 4 nurses and 2 anaesthetic officers;
d) Improve management and prevention of OF through case management;
e) Improve data collection on OF from health facilities and communities;
f) Review, print and distribute training curricula service guidelines and manuals for OF management;
g) Mobilise policy support for OF prevention and treatment in the context of gender and health equity;
h) Increase awareness on causes and consequences of OF at the community level.

The UNFPA/Uganda’s OF project was implemented by the MOH and AMREF, and incorporated in the existing UNFPA supported RH project which is addressing Safe Motherhood initiatives, including emergency obstetric care (EmOC) with emphasis on establishment of an emergency referral system, strengthening a community based RH network, training health workers on a range of skills and providing equipment and supplies. Based on the 2003 country proposal, quarterly and annual progress reports should have been submitted to both the MOH and the UNFPA-HQ indicating the appropriateness, timing and progress toward achieving the project objectives.

The project was funded by UNFPA through a grant awarded by the Bill and Melinda Gates Foundation to EH as implementing organization of a partnership between UNFPA, EH and Women’s Dignity Project (WDP). Activities of all UNFPA/Uganda OF program partners are discussed in detail on page 24.
2.1. Evaluation Objectives
The overarching goal of this evaluation was to provide an end of project assessment of the UNFPA/Uganda’s OF program (2003-2007), and, to the extent possible, to place the program in the context of the national OF activities in Uganda.

The specific objectives set for this evaluation are as follows:
1. To assess UNFPA/Uganda’s OF project design and implementation;
2. To assess the progress made by the UNFPA/Uganda’s OF program according to the applicable country- and facility-level indicators indicated in the project proposal submitted by UNFPA, EH and WDP to the Bill and Melinda Gates Foundation;
3. To examine the UNFPA/Uganda OF program according to a set of criteria based on the WHO OF guidelines (WHO, 2006), and to assess the coordination of the partnership UNFPA/Uganda created through the FTWG;
4. To make recommendations for future UNFPA/Uganda OF programs.

2.2. Evaluation Timeline
The evaluation team was formed by Dr. Andreea Creanga, Dr. Zubairu Iliyasu and Ms. Loyce Arinaitwe. Over a period of 2 days (12/04-12/05) Drs. Creanga and Iliyasu had reviewed the interviewed guides drafted by UNFPA-HQ staff. Upon review, additional questions were added to existing sections and additional sections were incorporated into the evaluation instruments. Specific study guides for each organization represented in the FTWG were drafted and finalized by discussion between the evaluation team members and representatives of UNFPA. All interview guides are included in Appendix A.

A review of project documents started on 12/05 and continued over the entire evaluation period. The documents reviewed were provided by UNFPA/Uganda, EH/Uganda, AMREF/Uganda, MOH and Kitovu Mission Hospital, and included the various organizations’ project progress reports, training reports, surgery reports, meeting and budget notes.

Field-visits were conducted at Mulago National Referral and Teaching Hospital in Kampala on 12/07, 12/10 and 12/14, at Kitovu Mission Hospital in Masaka on 12/12 and at an outreach camp organized by Mulago Hospital at Gombe Hospital in Mpigi district on 12/17.

A first draft of the evaluation report was completed in Uganda and preliminary results were shared with staff of UNFPA/Uganda on December 17. The final version of the report was approved by all authors.
Chapter 3
Evaluation Data and Methods

3.1. Data Sources
We used data from the 2006 UDHS, data on OF cases seen and repaired between 1990 and 2005 as compiled by the MOH in 2006, as well as data found in projects’ progress reports reported by UNFPA, EH, AMREF, Kitovu Hospital or obtained through interviews with OF surgeons.

The 2006 UDHS is a nationally representative survey of 8,531 women aged 15 to 49 years and 2,503 men aged 15 to 54 years. The 2006 UDHS is the 4th comprehensive survey conducted in Uganda, the first to cover the entire country and to include a specific question about whether or not women have ever experienced symptoms of OF. Additionally, the survey questionnaire collected data on fertility, family planning, infant, child and maternal mortality, maternal and child health, nutrition, and knowledge of HIV/AIDS and other sexually transmitted infections (UDHS, 2007).

We compared data on OF from the 2006 UDHS with those compiled by MOH for a 15-year period between 1990 and 2005. Given the low number of women reporting OF symptoms in the DHS, in order to be able to perform a stratified analysis by geographical areas, we grouped the DHS regions into 3 larger zones as follows: (1) Central & Eastern zone including districts in the Central 1, Central 2, Kampala, East Central and Eastern regions, (2) Northern zone including districts in the North and West Nile regions, and (3) Western zone including districts in the Western and Southwest regions (see Figure 1).

Source for Figure 1: UDHS, 2007.

We were able to validate part of the data collected by the MOH through the interviews conducted and by using other available documents. For example, we compared data reported in the MOH study against data on the number of patients surgically treated from reports submitted by Kitovu Hospital, data obtained through interviews with OF surgeons at Mulago and Kagando Hospitals and reports of Kagando Hospital OF-related activities submitted to and reported by EH.

3.2. Data Collection Methods
3.2.1. Field Assessment
We conducted field visits as mentioned in Chapter 2 (see page 14), and performed interviews with providers (doctors and nurses), OF patients (pre- and post-surgery, both in-hospital and during outreach work), as well as facility administrators, ObGyn department heads, community leaders and a district officer. Additionally, client records were reviewed using two types of standardized forms developed by EH and compiled in the Client-oriented, provider-efficient (COPE) handbook: one form assessed the clinical and the other surgical records of OF patients. The two types of forms were examined for 20 randomly selected OF patients in both, Mulago and Kitovu Hospitals.
(EngenderHealth, 2003). Additionally, checklists for fistula centres, based upon a checklist developed at Addis Ababa Fistula Hospital, were used for service quality assessments and surgical protocols were examined in the two visited OF centres. Direct observation of the following care aspects was performed during visits in the two hospitals: (1) registration procedures, (2) content of the information provided, (3) way in which informed consent was obtained, (4) patient-provider interaction, and (5) infection prevention procedures. All forms used are included in Appendix B.

3.2.2. Key Informant Interviews
The review of documents and personal communications with UNFPA/Uganda staff guided the identification of key informants for this evaluation. Interviews were conducted with current and former representatives of UNFPA/Uganda, current representatives of MOH, EH, AMREF, WHO, a former representative of the Population Secretariat, fistula surgeons from Arua, Kagando, Kitovu, Mbarara, Mulago Hospitals, nurses and midwives in Mulago and Kitovu Hospitals, OF patients in Mulago and Kitovu Hospitals and the outreach camp organized at Gombe Hospital, the director of the Mulago Hospital and a district officer in Masaka. Interviews with two UNFPA representatives who were not in Uganda at the time of the evaluation, as well as interviews with fistulas surgeons in Kagando and Mbarara Hospitals were conducted by phone; all other interviews were conducted in-person by one or more members of the evaluation team. The total number of interviews was 52. Interviews were not recorded but rather detailed notes were taken and part of the information recorded verbatim.

Different types of interview guides were developed and used for the different categories of interviewees. Attempts to interview additional MOH representatives were unsuccessful, while no key persons in Soroti and Lacor Hospitals were identified in time to be interviewed. All interview guides are provided in Appendix A, and a list of all the interviewees in Appendix C.

3.3. Analysis Plan
We employed uni- and bi-variate analyses to explore the available data, and fitted simple and multivariate logistic regression models to assess the associations between reported OF-related symptoms after a pregnancy as a proxy variable for OF and skilled birth attendance, facility delivery and ANC. We report both unadjusted and adjusted odds ratios (OR) controlling for household wealth. Data from the 2006 UDHS were analyzed after adjustment for complex survey design with Taylor’s linearization method.

3.4. Study Limitations
1. The availability of data sources was limited, detailed progress and budget reports of the UNFPA/Uganda’s OF program were not available; moreover, we cannot assume that data obtained from a limited number of facilities or the 2 visited project sites can be generalized to all project sites;
2. Information from two of the eight program sites was not directly obtained as no key persons were identified for either phone or in-person interviews;
3. The quality of the data reported cannot be assessed when validation data does not exist; moreover, our limited validation sources might have been the same sources used in the 2006 MOH assessment;
4. Given the rapid turnover of the UNFPA/Uganda OF program coordinators during the project period it was difficult to obtain a clear picture of the overall program achievements and challenges as perceived by UNFPA/Uganda staff;
5. The evaluation team did not attend an actual FTWG meeting, but a common meeting with current or former representatives of EH, AMREF, Population Secretariat and MOH which provided one of the most important sources of information for the evaluation team.
Chapter 4

Findings

4.1. Obstetric Fistula in Uganda
4.1.1. Review of Obstetric Fistula Studies in Uganda

In 2002, UNFPA and EH examined the capacity of OF repair centres in 9 countries, including Uganda. This assessment identified 47 Ugandan and visiting surgeons repairing an average of 323 OF patients per year, and 16 facilities providing OF-related services in Uganda (UNFPA, 2003). Additionally, the assessment recognized several cultural norms related to either the development or the management of OF such as preference for home delivery, inclination toward certain delivery positions, low consideration for women who are not delivered vaginally and are seen “inferior or bewitched”, cost and difficulty of transportation arrangements, lack of women’s decision making power regarding their own health (Valez et al., 2007).

Another, more in-depth assessment was conducted in 2003 to inform the program being evaluated here. The assessment report highlighted several constraints that hospitals face in attempting to treat OF patients -- inadequate skills of health workers, medical personnel shortages, lack of interest of ObGyn specialists to receive training and to perform OF surgery because of its complexity, low pay, and risk that procedure’s failures would affect surgeons’ reputation (Karugaba A., 2003).

Both aforementioned needs assessments found the hospitals visited to be in need of supplies, drugs and equipment for OF treatment. Fistula surgery was most frequently available through repair campaigns during which about 40 OF patients were operated upon. The reports showed that absence of readily available means of transportation coupled with lack of knowledge on where to seek OF treatment and undesirable hospital practices led to underuse of the few Ugandan centres where OF services were available. The cost of OF surgical repair was considered too high for most patients (Karugaba A., 2003; Valez et al., 2007). Results from a WDP study conducted in 2006 in three districts in Uganda examining socio-cultural factors surrounding OF development and subsequent management were not yet available at the time of the evaluation, but are anticipated to shed more light on ways to recognize and approach OF patients at the community level.

The magnitude of OF is yet unknown in Uganda. The 2006 UDHS asked the following question: “Sometimes a woman can have a problem, usually after a difficult childbirth, in which she experiences uncontrollable leakage of urine or stool from her vagina. Have you ever experienced this problem?” Some 2.64% of the women interviewed for the 2006 UDHS have answered positively to the above question and were categorized as women with “OF symptoms”. Although the 2006 UDHS could have provided a population-based estimate of OF prevalence in Uganda, the question used is not validated for such estimation and it likely represents an overestimate of the actual number of women with OF symptoms in Uganda. If we multiply the total number of Ugandan women 15 years of age and over by the proportion with OF symptoms identified by the latest UDHS, we find that almost 200,000 women in Uganda have ever had OF symptoms.

\[(\text{7,565,341 } \times 2.64)/100 = 199,725 \text{ women ever experiencing OF symptoms in Uganda in 2006}\]

The MOH has conducted a facility-based survey collecting data on the number of OF patients seen and repaired between 1990 and 2005 in 78% of health facilities in Uganda. They have estimated that about 8,482 women with OF were seen and 4,877 repaired over the 15-year period. Thus, if we assume that
all women with OF seen are still alive, there were no duplicate-cases in the number reported by MOH in the “OF cases seen” category and that all repairs were 85% successful, then 4,337 patients are currently waiting for OF surgical treatment. If we further assume that all these cases could be repaired through ten two-week camps with 80 patients repaired for an average $22,500 per camp each year, then Uganda will need about 5 years and $1,215,000 to repair all OF cases identified by MOH as awaiting surgical repair. However, the uncertainty of the MOH estimate is unknown, it captures women seeking care in a health facility or in multiple facilities at one or more than one time points over the 15 year period and it is highly likely that it represents an underestimate of the true number of cases awaiting OF surgical repair in Uganda.

If we compare the two different estimates, one being a population-based estimate of women who have ever experienced OF symptoms and the other a facility-based estimate of women who have sought care in a health facility for a diagnosed OF between 1990-2006, and if we assume a constant risk of formation of OF in Uganda between 1990 and 2006, we may infer that there is a large number of women who are not reached through OF awareness campaigns and do not know that OFs can be treated, or who are either too poor or simply ashamed of their condition to seek OF services. Such a case was identified during an OF repair campaign conducted in Kitovu Hospital in 2006 as portrayed below:

“A 55 year old lady has been leaking urine since her first pregnancy at age 16. The pregnancy ended with obstructed labor, stillbirth and VVF. She has spent almost 40 years suffering from the degradation of urinary leakage and had only now heard about Kitovu [Hospital] and the possibility of a cure. However, she was found to be also suffering from advanced cancer of the liver and unfit for repair surgery. […] we arranged for her care […] and will continue to follow her up.” [Kitovu Hospital, OF repair campaign report, 2006]

If we stratify the data compiled by the MOH in 2006 by the 3 geographical zones described on page 15, we observe that more women with OF were seen in Central and Eastern regions than in North and West Nile regions and even more than in the Western and Southwest regions. At the same time, more OF patients in the North and West Nile regions were repaired than patients in either of the other 2 zones (see Figure 2).

Figure 2. Number of OF patients seen and repaired by zone

<table>
<thead>
<tr>
<th>Region</th>
<th># OF patients seen</th>
<th># OF patients operated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central 1 &amp; 2, Kampala, East Central</td>
<td>1585</td>
<td>3326</td>
</tr>
<tr>
<td>North, West Nile</td>
<td>1870</td>
<td>2993</td>
</tr>
<tr>
<td>Western, Southwest</td>
<td>1422</td>
<td>2163</td>
</tr>
</tbody>
</table>

This differential pattern changes if we use UDHS (women reporting OF symptoms) instead of MOH data. As shown in Figure 3, the percentage of women reporting having OF symptoms is highest in the Western and Southwest regions (5.32%), followed by women residing in Northern and West Nile regions (3.54%) and is lowest among women living in Central or Eastern regions of Uganda. The pattern seen with the DHS data matches the percentage of rural areas in the 3 zones: 85.4% in Central and Eastern regions, 88.7% in Northern and West Nile regions and 94.5% in Western and Southwest regions of Uganda.

Figure 3. Percentage of Uganda women reporting OF symptoms by zone

Overall, 1.68% women living in urban areas reported OF symptoms as compared to 2.84% of women residing in rural areas (p<0.05). Some 3.60% of women with no education reported such symptoms, while only 1.50% of women with secondary education or higher did so (p<0.05). Among women citing the distance to a health facility as a big problem for accessing health services, 2.86% report OF symptoms, as compared to 2.39% of women who do not recognize this reason as a limitation to access health care (p>0.05).

We examined the association between reporting OF symptoms and having a skilled attendant at birth, delivering in a health facility and attending antenatal care using UDHS data. Results from regression models show that having a skilled attendant at birth or delivering in a health facility decreases the odds of reporting OF symptoms by 29% and 25%, respectively. Further analyses, shown in the Table 1, found that women’s household wealth explains part of the association between skilled birth attendance and OF symptoms reports. Being in the poorest two wealth quintiles seems to increase the chance of reporting OF symptoms, but the results did not reach statistical significance. Similarly, the association between attending more than 4 ANC visits and reporting OF symptoms was not statistically significant. Inclusion of other variables (e.g. such as education, residence, women’s decision making power, age, parity) that might explain the relationship between reporting OF symptoms and skilled birth attendance, facility delivery, ANC attendance in the regression models did not improve model fit.

Women’s wealth, education and decision making power do not seem to explain the results obtained by the MOH study (see Figure 4). More women in the North and West Nile regions are in the lowest two wealth quintiles, have no education and lack decision making power about their own health, and the MOH study shows that the highest number of repairs was performed in these regions. The percentage
of women delivering in a health facility is highest in Eastern and Central regions where there are fewer women reporting OF symptoms and where the ratio OF patients seen to patients repaired is the lowest.

Table 1. Results from logistic regression models of reporting OF symptoms on having a skilled attendant at birth, delivering in a health facility and obtaining antenatal care

<table>
<thead>
<tr>
<th>OF symptoms</th>
<th>Unadjusted OR (95% CI)</th>
<th>Adjusted OR (95% CI) **</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled birth attendance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ref= no skilled birth attendance)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in the lowest 2 wealth quintiles</td>
<td>0.71 (0.55, 0.90)</td>
<td>0.73 (0.56, 0.94)</td>
</tr>
<tr>
<td>(Ref= women in the highest 3 wealth quintiles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ref= delivery outside of a health facility)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in the lowest 2 wealth quintiles</td>
<td>0.75 (0.58, 0.97)</td>
<td>0.78 (0.60, 1.00) *</td>
</tr>
<tr>
<td>(Ref= women in the highest 3 wealth quintiles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receiving 4 or more antenatal care visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ref= receiving less than 4 such visits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women in the lowest 2 wealth quintiles</td>
<td>0.97 (0.70, 1.33)</td>
<td>0.97 (0.71, 1.34)</td>
</tr>
<tr>
<td>(Ref= women in the highest 3 wealth quintiles)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data source: UDHS, 2006; Note: Figure in bold are statistically significant at a level of $p=0.05$ of better; * figure is marginally significant, $p=0.06$; ** models are adjusted for women’s household wealth.

Figure 4. Percent distribution of women reporting OF symptoms by zone and women’s education, wealth, empowerment and facility delivery.
In conclusion, in regions where women have higher access to health care, both maternal health services and OF services (i.e. Eastern and Central regions), the magnitude of OF is lower -- women know where and how to access OF services because knowledge is higher, women are more educated and more empowered, fewer of them are poor; however, given the low availability of OF repair facilities and trained surgeons, only a segment of women in need of OF repair receive the needed treatment. The MOH study also showed that about 45 Ugandan and 6 visiting surgeons can repair OFs through routine services and/or OF repair campaigns organized in about 12 centres (MOH, unpublished data, 2006). Interestingly, the number of fistula surgeons is only slightly higher, while that of repair centres lower than assessed in 2002 by the UNFPA needs assessment (UNFPA and EngenderHealth, 2003).

4.1.2. Obstetric Fistula Patient Profile
We interviewed 16 OF patients during field visits at Mulago and Kitovu Hospitals and during an outreach camp organized by Mulago Hospital at Gombe Hospital in the Mpgi district -- 9 women had received fistula surgery and were in the post-operative period, while 7 were awaiting surgical treatment. The mean age of the women interviewed was 28 years, and the age range was 16 to 41 years. Nine women were married or cohabiting, 1 was separated and 6 were not married. Two of the patients had no education, 9 had only primary education and the other 5 had secondary education; most women were not employed.

Twelve of the 16 OF patients had their first pregnancy at age 18 or younger; 10 women had only 1 pregnancy, while 2 women had 8. Five of the women interviewed had between 3 and 7 children, while the other 11 women had no living children. Women were asked whether they had seen a health worker at any time during the pregnancy after which the OF developed, and all answered positively: 11 women had seen nurses and 5 women had seen doctors. Interviewees were further asked about circumstances related to the delivery which caused the OF. Seven of the 16 women went to a health facility at the time of onset of labor, while 3 women had been admitted to hospitals before labor begun due to other medical conditions (e.g. malaria infection) or because their expected delivery dates were approaching. The majority of women reported difficulty and delays in getting to hospitals, receiving attention and appropriate care from the medical personnel.

Figure 5. Surgically repaired patient before discharge from Mulago Hospital

“[…] labor pains started at 2 [am] in the night […]. I knew it will happen at home with assistance of my mother like for the other 7 children. I waited until morning to be taken to the hospital.”

“When labor began, I went to Bugembe hospital where I used to attend ANC. After 2 days of waiting, I was referred to Jinja Hospital where surgical services were available.”

“On a Sunday, I was taken to the TBA for assistance. I was informed that the baby was big and had a lot of water. I was then told to wait for the labor pains […] in the process, my pressure went up.”

“I first visited the TBA for 2 days before I was taken to hospital.”

“I stayed 5 days at the TBA’s place where I was almost dying. […] The TBA examined me several times before I was moved to the hospital.”
Most women interviewed (14/16) thought that if they had delivered spontaneously, vaginally, arrived at the hospital at the onset of labor or if the surgery performed at the time of delivery had been done carefully and at the earliest time possible they would not have developed fistula. One woman considered that she could have done nothing to avoid this problem since “it is all God’s plans”.

**Perceived causes of obstetric fistula**

“Perhaps the machines that were used during the operation to pull out the baby could have touched the bladder leaving behind the hole.”

“[…] by having prolonged, delayed labor as told by the doctor.”

“The child pushed the bladder so hard for some time before delivery causing the perforation.”

“[…] because I pushed the baby so hard.”

“It maybe because the baby brought the hands first.”

“Perhaps the TBA touched the bladder.”

Women were asked about non-clinical problems related to OF. They were either ashamed to go out of their homes, rejected by their families and community members or stopped from working. In some cases relatives were helpful and supportive, women remarried and had more children. The following are statements from women who had lived with OF showing how relatives, friends and community members felt about and behave around them.

**Family members**

“My husband was not supportive after losing the baby and seeing me with this fistula problem. […] I now live with my mother.”

“[…] children at home were also becoming uneasy with me due to the smell”

“My uncle would not let me step on the banana plantation as he said it would dry up.”

“My husband rejected me after 6 months. […] He even refused to give me soap to wash my clothes. […] I now live with my mother.”

“My first husband and the father of my 3 children divorced me. […] My [current] husband however is supportive.”

**Friends & community members**

“You cannot afford to mix with others freely.”

“Friends stayed away from me because of the smell. I also reduced my movements within the community. I would stay at home most of the time.”

“Because of being wet all the time, I fear mixing with others easily. I did not disclose my status to others.”

“Community members referred to me as someone with an incurable disease.”

“My friends rejected me, my siblings discriminated against me too, leaving me in the house alone. […] even community members treated me badly and I became the “talk” in the community.”

Among the 9 post-operative women, one has had a previous OF surgery. Six of the 9 patients on which surgical repairs were attempted had their fistula closed, while 3 had stress incontinence. All women interviewed were satisfied with the OF-related services they obtained, irrespective of whether or not their fistula had closed. Patients were willing to share their experiences with the evaluation team and expressed their appreciation of and gratitude toward the health workers who took care of them.

“I am grateful to the staff of Mulago [Hospital] who treated me so that I can now go back to my normal life.”

“I will return to Kitovu Hospital to thank them [health workers] for the good work they are doing for us.”
Women appear to have high hopes in the success of their surgical repairs and are optimistic with regard to their future. They were confident they will recover as had either heard or seen women fully cured after receiving OF surgery. Six of the 16 women interviewed said they wish to have a child or more children, work and take care of their families. The following statements were gathered from women with OF who were either repaired or awaiting surgical repair:

**Family-related statements**

“If I recover well, I wish to have a child.”  
“I [want to] get married and have other children”  
“I plan to work hard and raise my children and family.”  
“If God can heal me properly, I would look after my children […]. I do not have plans of having more [children].”

**Work-related statements**

“If I recover fully, I wish to go to Kampala and look for a job as a housemaid so that I can look after myself.”  
“I [want to] establish a small restaurant in Rakai Town.”  
“I want to resume my business [retail shop] which my husband is attending to now.”  
“I would like to study hard and become a doctor or a nurse.”  
“I [want to] study computers and establish my own secretarial bureau where I could earn some income.”  
“I plan to do tailoring so that I am able to live on my own.”

4.1.3. Obstetric Fistula Activities in Uganda
We will discuss the OF activities conducted by the central partners of UNFPA/Uganda.

**EH/ACQUIRE project**
Through the ACQUIRE project, EH is working at the following sites in Uganda: Kitovu, Masaka, Kagando, Bwera and Mulago Hospitals. The main OF-related activities are capacity building, prevention of OF through community mobilization and education, treatment of OF and research. Four private organizations (Straight Talk, Family Life Program of Namirembe Diocese, Kitovu Community Based Health Care Program and Theater Ambassadors) were selected for community mobilization. These organizations create community awareness on OF. They also encourage community participation in OF fistula prevention activities involving men to address early marriage, early pregnancy, birth planning, community emergency transport/referrals and family planning. EH carries out “facilitative supervision” of health facilities in 10 districts around Kampala and those within Kampala, supports surgical repair of OF patients, provides pre-, intra and post-operative counseling to OF patients, creates partnerships and encourages collaboration among repair sites (e.g. Masaka and Kitovu Hospitals are jointly involved in OF treatment during OF surgical repair campaigns).

“We [EH] have partners at 2 levels: UNFPA, EH, WDP at the global level and MOH, AMREF and several hospitals at the national level. Under MOH’s guidance, the different roles were divided among partners. WDP brings the socio-cultural perspective, UNFPA has roles in policy and capacity building, EH has roles in prevention (i.e. delay of 1st pregnancy), community involvement, training of trainers, AMREF helps with repair camps, conducts training. […] We have been trying to make Kitovu a training center. […] Radio programs are going on in several languages, we have tried to reach the youth, involved the Family Life Project working in 6 districts around Mulago. We have reached the community and organized theater performances so that after the shows a health education team would answer questions. In this way, we increase awareness, clients hear about [OF] repair services being available and the demand increases.” [EH representative, 2007]
EH supports development of Kitovu Hospital as an OF training centre by providing training materials, supplies and equipment, sponsoring visiting international fistula surgeons as master trainers, conducting training and building capacity on counseling of OF patients as well as on EmOC quality improvement including “facilitative supervision” and infection prevention activities. Moreover, EH carries out in service training on EmOC including caesarian section and proper use of partograms. EH provides technical assistance to all in-country organizations involved in the project, and is one of the major partners conducting OF work represented in the FTWG.

Additionally, EH is currently conducting a prospective (18-month), multi-centre, multi-country research study on OF (13 study sites in 6 countries: Bangladesh, Guinea, Niger, Nigeria, Rwanda and Uganda). The primary objective of the study is to determine predictors of complications and success of OF repair surgery. The study examines the many variables that have the potential to impact success and complication rates of fistula repair, including socio-demographic characteristics, circumstances surrounding development of OF, anatomical and clinical characteristics of the fistula, and pre-, intra- and post-operative therapeutical techniques used. A secondary objective of the study is to examine socio-structural factors associated with OF.

“Routine obstetric fistula care is a rare event in Uganda” [WHO representative, 2007]

**AMREF**

In 1992 AMREF started OF repairs in Uganda, first in Kumi Leprosy Hospital and later in Arua Hospital, St. Joseph’s Hospital in Kitgum, Lacor Hospital, Nebbi Hospital, Kamuli Hospital, Kitovu Hospital, Kagando Hospital, Kisiiizi Hospital, Kapchorwa Hospital and Bundibugyo Hospital, as well as in Mulago Hospital. Visits by OF surgeons are conducted twice a year.

AMREF’s policy is to bring medical services to underserved and remote areas, where the need is greatest. AMREF collaborates with UNFPA, MOH, training centers and NGOs and trains/re-trains rural health workers in sexual and RH, refers OF patients for treatment and conducts social rehabilitation programs. Their projects are implemented through pre-planned regular visits to the designated hospitals which perform OF surgery and train local specialists, doctors and nurses.

“Our goal is to provide better health for vulnerable communities and marginalized groups. We work to build capacity, repair OF in 11 hospitals, 10 rural and Mulago Hospital, hold camps and train specialists, conduct on-job training for nurses for pre- and post-op work, support Ugandan ObGyn to go to Ethiopia to learn to repair the more complex fistulas -- we trained 2 doctors in Addis-Ababa so far even if our goal was to train 4; unfortunately there are not many free slots for such training opportunities. We have created an advocacy documentary on OF.” [AMREF representative, 2007]

AMREF has been implementing OF-related activities with funding from UNFPA/Uganda. These activities had the following objectives:

1. Provide surgical repair for 250 OF patients;
2. Visit 10 hospitals to provide OF-related services and OF training for doctors and nurses;
3. Send 2 ObGyn specialists for advanced OF training to Addis Ababa or Northern Nigeria;
4. Support trained specialists with essential supplies such as sutures and surgical instruments;
5. Document activities and progress made.
In 2004, 237 OF patients were repaired, more than half (121) by Ugandan specialists. Usually, during a workshop such as the one conducted in October, 2005 about 30 OF patients are repaired. During the period between January and October, 2006 163 OF patients were operated upon, 53 (32.5%) by Ugandan surgeons.

The impact of the advanced training received by the Ugandan surgeons trained at the Fistula Hospital in Addis-Ababa was recorded in their reports submitted to AMREF after completing the training.

“I learnt a lot, especially the surgery for stress incontinence following previous successful closure of the fistula and prevention of stress incontinence at primary closure of a urethra fistula, with a sling. Dr. Andrew [Browning] was a skilled, brilliant, innovative, passionate and up-to-date fistula surgeon/teacher. Surgery is a skill that is perfected as more operations are carried out. Teaching the surgical skills inevitably employs demonstrations. A demonstration will never be complete unless a return demonstration is performed by the trainee. A poor surgery teacher will make you watch him over and over as he shows you his expertise and will never allow you to hold a knife and operate and sometimes giving excuse of time and client load.” [OF surgeon, AMREF report, 2006]

“This visit to Ethiopia was timely as I enriched myself with a lot of knowledge, however I recommend that more doctors should be enticed in fistula surgery and I need a future visit to Addis Ababa fistula hospital to share with the senior surgeons on the management of the complicated cases.” [OF surgeon, AMREF report, 2006]

AMREF has procured two OF surgical sets for Mulago Hospital, and provides sutures and catheters for all repairs during specialist outreach visits. Since 2005, after discussion with MOH and Mulago Hospital, the Specialist Outreach Program of AMREF was extended to more than 10 hospitals in Uganda. More than 1,000 OF patients have been operated through this AMREF program in the last 13 years. This part of AMREF project was integrated into AMREF’s Specialist Outreach Program in East Africa. AMREF's doctors fly in to operate in Ugandan hospitals in an arrangement known as "VVF week", a reference to vesico-vaginal fistulas.

**Other partner organizations**

The role of BESO is to provide British surgeons as trainers for the OF project and to pay their expenses. Surgeons are not paid for their work and therefore, neither BESO nor individual surgeons as a group are contracted to provide any specific level of input or period of time for this project or to operate in any hospital where they consider the facilities and support as inadequate. The role of UNFPA is to manage and deliver all other aspects of the project, to provide and pay for upgrading / refurbishment of premises, surgical instruments and equipment, supplies, expenses of Ugandan trainees and patients, as well as all administrative and other costs. UNFPA/Ugnada in partnership with MOH recruits suitably qualified surgeons, anesthetists and nurses as trainees. Each participating hospital publicizes fistula campaigns, provides operating theatre time and staff, ensures there are sufficient ward beds and appropriately trained nursing staff for recovery, assesses costs for patients for reimbursement and provides the necessary administrative support.

WDP has been conducting community based participatory research on OF and vulnerability in Uganda. This work is part of a partnership with local organizations and EH, funded by the Department for International Development (DFID) that started in 2001. A report of the research conducted in three districts in Uganda (Masaka, Kesese and Soroti) has been completed and will be released in January 2008. The study examines socio-cultural dimensions of OF.
**Obstetric fistula community work**

Community health workers provide OF preventive services. They conduct sensitization campaigns and educate men and women on EmOC, family planning and how to access health care. They recognize OF as an important problem and discuss the causes of OF and early signs of labor, as well as the need to increase the age of marriage and start of childbearing. Community outreach programs are involved in both preventive and therapeutic OF services. It appears that community’s perception of OF is gradually changing, as awareness about the condition increases.

> “Once community members have more information, changes take place” [Community health worker, 2007]

### 4.2. Objective 1: To assess UNFPA/Uganda’s OF project design and implementation

#### 4.2.1. Project sites

During initial FTWG meetings 8 project sites were identified (Arua, Kagando, Kitovu, Lacor, Masaka, Mbarara, Mulago, Soroti Hospitals), and all but Kagando and Masaka Hospitals selected for the first phase of program implementation. The 8 sites are mapped in Figure 6. We assessed the capacity of each site to offer OF services to the extent information was available; results of this assessment and a detailed description of services offered at Mulago and Kitovu Hospitals are provided below.

**Figure 6. UNFPA/Uganda OF project sites**

1. **Arua Hospital** provides OF services mainly through repair camps, but also through routine OF surgery conducted one day per week in the operating theatre in Arua Hospital. The OF surgeon we interviewed as part of this evaluation estimated that about 112 OF surgical repairs were conducted this year in the hospital with a success rate of approximately 90%. Most cases are VVF, but RVF are also seen. The same surgeon estimated that up to 60% of OF patients in Uganda were eventually delivered...
by caesarean-section, so less scarring is seen in these cases. Patients coming from the Democratic Republic of Congo have the most complicated OFs.

“[…] the extent of tissue damage reveals when a woman is from [the Democratic Republic of] Congo -- these are the most difficult cases.” [OF service provider, Arua Hospital, 2007]

OF patients are accommodated on the gynecological ward during the post-operative period. The main challenge identified in this hospital is the lack of a dedicated OF surgery theatre.

2. Lacor Hospital provides OF services through repair camps. Results from the 2006 MOH study show the number of OF patients seen in this hospital was constant between 2003 and 2005 (MOH, unpublished data, 2006). No key informant was identified to be interviewed at Lacor Hospital as part of this evaluation.

3. Soroti Hospital provided some routine OF services before the only trained OF surgeon in the hospital left for advanced training in India. About 30 OF patients were seen in the hospital each year between 2003 and 2005 (MOH, unpublished data, 2006). No key informant at Soroti Hospital was interviewed as part of this evaluation.

4. Mulago Hospital established a separate operating theatre for OF which is shared with the voluntary surgical contraception (VSC) program. The 6-bed post-operative ward is an annex of the postnatal ward located in upper Mulago, the old part of Mulago Hospital. UNFPA supported the renovation of the theatre, provided two operating tables, an operating lamp, surgical equipment and supplies for the conduct of OF surgical repairs. The two operating tables in the theatre are still in use but are both leaking hydraulic fluid even after already being repaired several times; the tables cannot be adjusted and maintained at the exaggerated lithotomy position, position of choice for OF surgery (see Figure 7).

Figure 7. Operating tables at Mulago Hospital, Kampala, Uganda

The operating lamp has not been used given that the bulb blew out during installation, manufacturers did not provide additional, spare bulbs and hospital administrators could not supply it locally. The surgical instruments are of good quality, but some of the sutures supplied by UNFPA could not be used
due to exposure to heat during transport. The theatre staff uses a small autoclave machine, which is inadequate for sterilization of some equipment and linen, especially during surgical camps. Mulago Hospital lacks ureteric catheters, operating lights, surgical blade no. 11, drugs for spinal anesthesia, all necessary for OF surgery. A computer set donated by the UNFPA is installed in the doctor’s office for data management.

An outpatient clinic screens OF patients each Friday in the Gynecology clinic of Mulago Hospital. There is no accommodation provided to patients awaiting surgery. Upon arrival, patients must finance accommodation from their own sources until included on the operation list and prepared for surgery. OF surgical operations are held only once a week, on Wednesdays, and an average of 4-5 surgical operations are performed. More OF surgeries can be accommodated in this theatre, if not for the restricted post-operative bed capacity or the availability of anesthetists. Each year, OF treatment campaigns are organized by Mulago Hospital -- the camps are held either in Mulago Hospital or in closely located outreach hospitals. During camps, surgical repair services are provided, and training of surgeons, nurses and midwives takes place concurrently. When camps are held in Mulago Hospital, the postnatal patients are transferred to lower Mulago temporarily thereby providing a total of 26 post-operative beds. Despite this arrangement, many patients are placed on mattresses on the floor which subsequently impedes post-operative catheter drainage.

A total of 5 doctors at Mulago Hospital were trained under the UNFPA/Uganda OF program between 2004 and 2007. Currently, only 3 of the 5 doctors are actively providing OF surgical services at this site. In addition, the centre has 9 nurse/midwives trained under the UNFPA/Uganda OF program. Their training covered counseling, pre-, intra- and post-operative nursing care for OF patients; the duration of training ranged from 2 days to 4 weeks, with the majority of nurses being trained for 2 weeks. The interviewed nurses and midwives stated that they were instructed on how to obtain informed consent and protect the rights of OF patients. All the trained midwives provide OF-related services in the post-operative ward and the operating theatre. Our interviewees report positively on their OF training experiences, but all describe the training received as unstructured given the absence of an appropriate training curriculum. It appears that training is mainly skill-based and does not formally cover basic OF pathophysiology, its causes, diagnosis and classification, or anesthesia, physiotherapy, rehabilitation, referrals and prevention aspects. However, the surgical training received is practical, hands-on, and interviewees report observing between 23 and 80 patients during the training, assisting 5 to 16 surgical operations and performing up to 5 surgeries. Most interviewees are keen to undergo advanced training outside the country, while some suggested involving expert trainers for hands-on training in future repair campaigns in order to acquire more skills.

Reviewed clinic records and theatre logs showed that 60 new OF patients were seen in the last 3 months of 2005, 151 in 2006 and 242 in 2007 -- a total of 453 new patients. The number of OF repairs rose from 56 to 83 and to 113 in 2005, 2006 and 2007, respectively. Thus, this centre operated 252 (56%) of the 453 new patients between October, 2005 and December, 2007, and has a known backlog of 201 OF patients awaiting surgery. Key informants report an overall success rate of 90-92%, with post-operative stress incontinence present in about 5% of cases.

The main challenges in providing more and better quality OF services at Mulago Hospital are: (1) poor quality equipment supplied by UNFPA, including problems with the timing of / delayed distribution, and inadequate storage conditions of some of the supplies (see Figure 7), (2) lack of continuous availability of supplies, (3) bureaucratic block and delays in transferring awarded funds due to payment through the Medical School account; occasionally, providers use their personal resources
before authorities release the necessary funds; (4) limited number of beds available for OF patients, (5) existence of only one operating theatre shared with VSC services, and (6) large backlog of OF cases.

5. **Kitovu Hospital** is a mission (private, not-for-profit) health facility which has a separate OF unit -- St. Ann’s VVF unit. This unit has a pre-operative waiting ward with over 30 beds (St. Francis ward), and a 28-bed post-operative ward. The hospital has been providing OF surgery as part of its gynecological services since inception. This centre was identified by the FTWG as one of the centers that would provide organized OF services and training for surgeons, nurses, midwives and anesthetists. The centre does not have a separate operating theatre for OF patients and the existing theatre is used for all other obstetric and gynecologic cases. The same medical personnel perform all the surgeries. UNFPA/Uganda has provided equipment and supplies to this centre and sponsored training of health workers. Specifically, UNFPA has provided two operating tables, an operating lamp, two surgeon stools, surgical equipment and supplies for the conduct of OF surgical operations. The operating tables are not functional as they cannot be adjusted and maintained in the exaggerated lithotomy position. The operating lamp that was donated to the theatre by UNFPA was used only for a short period, while the surgical instruments supplied are inappropriate for vaginal repair procedures.

In the outpatient clinic OF patients are accepted, screened and registered on any day they arrive; a pre-printed form is completed for each patient and baseline investigations are performed. This hospital conducts quarterly treatment camps, but few routine services are provided. The number of camps held in 2004, 2005, 2006 and 2007 was 1, 4, 4 and 3, respectively. The hospital provides women with accommodation before and after surgery, food, transportation and clothes on discharge. A separate kitchen and laundry room is in place for the OF unit and there is a classroom for patients’ health education. An affiliated community health education department conducts health education campaigns and counseling on OF prevention through outreach services in the hospital’s catchment areas.

This centre has trained 18 doctors, 7 anesthetic nurses, 8 theatre nurses and 18 ward nurses/midwives under the UNFPA/Uganda’s OF program between 2004 and 2007. Only 1 surgeon is currently providing OF surgical services at this site, together with 4 trained nurse/midwives; the trained midwives are providing OF-related services either in the post-operative ward, the operating theatre or through involvement in community health education activities.

The number of repairs undertaken at this centre increased from 201 in 2005 (Kitovu Hospital OF repair camp reports, 2005) to 259 and 235 in 2006 (Kitovu Hospital OF repair camp reports, 2006) and 2007 (personal communications with OF surgeon at Kitovu Hospital, 2007), respectively. The main challenges identified at this site are the absence of a separate OF operating theatre and the lack of more trained OF surgeons.

6. **Masaka Hospital** was not visited as part of this evaluation and interviews with either providers or facility managers were not conducted. The 2006 MOH study reports a very low, but constant annual number of OF patients seen in this hospital since 1990 (MOH, unpublished data, 2006). This hospital was selected as a potential project site for the UNFPA/Uganda OF program as it is an important regional referral hospital.

7. **Mbarara Hospital** currently refers most OF patients to Kitovu Hospital given the departure of the only surgeon trained to provide OF surgery. The number of OF patients seen in this hospital as reported in the MOH study has slightly increased from 32 in 2003 to 46 and 43 in 2004 and 2005, respectively (MOH, unpublished data, 2006). OF repair camps are not routinely organized at Mbarara Hospital due to lack of OF trained surgeons and specialized surgical equipment.
8. Kagando Hospital is involved in fistula work and provides OF services routinely and through OF repair campaigns. Three doctors are performing OF surgery at Kagando Hospital and visiting surgeons from UK, Kenya, or Tanzania supplement the number of surgeons temporarily throughout the year. The hospital benefits from nurses and anesthetists trained in OF care at Kitovu Hospital. Some of the very complex fistulas are sent to Kitovu Hospital, while the rest are repaired routinely or during camps in the only operating theatre in the hospital. A key informant at Kagando Hospital reported that the hospital needs to “freeze the other activities” when OF surgery is performed.

EH is the major donor for the OF program in this hospital – they sponsor OF repair camps and training activities as well as routine OF activities. EH funded OF activities at Kagando Hospital between July and December, 2006 and between June, 2007 and March, 2008. For the 1st above mentioned period EH has provided equipment and $200 for each patient repaired up to 120 patients. For the 2nd period EH supported $200 for each patient repaired up to an additional 120 patients. Two camps were organized in 2006 when 4 doctors were re-trained, together with several nurses and one anesthetist; 164 OF repairs were performed that year. Two more OF repair camps were organized in 2007, but no training was involved, and about 110 OF patients repaired. As per the MOH study, between 30 and 40 OF patients were seen each year between 2003 and 2005 (MOH, unpublished data, 2006); given the number of repairs conducted in 2006 and 2007 we may conclude that the number of patients seen in either 2006 or 2007 was several times greater than in previous years.

Challenges identified at Kagando Hospital are related to lack of adequate equipment (e.g. lack of theatre table, appropriate lights, surgical instruments), human resources and operating theatre space. Additionally, as donors only support OF repairs and not other related means of managing OF patients which require similar amounts of resources (e.g. ureteric catheterization), there is a gap as only some “eligible” OF patients can be supported using the available funds.

4.2.2. Project Progress and Implementation Challenges
Table 2 presents UNFPA/Uganda’s OF project progress by year emphasizing the five main types of activities provided, as well as the project implementation challenges and the budget spent each year between 2004 and 2007.

Table 2. UNFPA/Uganda OF program progress by year

<table>
<thead>
<tr>
<th>Year</th>
<th>Major activity</th>
<th>Program progress</th>
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<tbody>
<tr>
<td>2004</td>
<td>Training</td>
<td>4 doctors and 2 nurses received training; trainees were identified by the MOH and</td>
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<tr>
<td></td>
<td></td>
<td>trained by 2 international experts in OF surgery</td>
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<td></td>
<td>OF repairs</td>
<td>80 OF patients</td>
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<td></td>
<td>Equipment provision</td>
<td>Equipment provided to 6 regional hospitals; specialized OF equipment and supplies</td>
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<tr>
<td></td>
<td></td>
<td>were procured locally through one of the 2 medical stores accredited by MOH.</td>
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<td></td>
<td></td>
<td>Key informants and the annual progress report note that fistula master trainers,</td>
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<td>MOH, other partners in the FTWG and at Makerere Medical School reviewed the list of</td>
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<td></td>
<td></td>
<td>equipment to be procured</td>
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<td></td>
<td>Partnerships</td>
<td>Initiation and coordination of the FTWG</td>
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<tr>
<td></td>
<td>Advocacy efforts</td>
<td>Increased awareness and better understanding of OF as a major public health problem,</td>
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<tr>
<td></td>
<td></td>
<td>of the existing capacity gaps in preventing and managing OF in the country, as well</td>
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<tr>
<td></td>
<td></td>
<td>as of the need for coordinated and joint interventions among major stakeholders.</td>
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<tr>
<td></td>
<td></td>
<td>The baseline needs assessment report (Karugaba, 2003) was used as an advocacy tool.</td>
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<tr>
<td></td>
<td></td>
<td>Overall, there has been a global and national interest in</td>
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the project, with the First Lady of Uganda launching the project in February, 2004. Government officials, medical practitioners and leading personalities with an interest in OF attended, creating an excellent opportunity for advocacy and sensitization.

| Program challenges | Difficulty for most stakeholders in the FTWG to attend meetings regularly due to competing demands. The MOH has not provided funds to address OF needs. There were high expectations from stakeholders which in turn created pressure on the limited resources available |
| Budget | US$ 90,000 approved, and $86,198 utilized to cover expenses on equipment as well as transport and living expenses for trainers of trainers |
| Training | 9 doctors and 9 nurse/midwives received training; trainees were identified by the MOH and trained by 2 international experts in OF surgery |
| OF repairs | 220 OF patients were repaired through training workshops in Kitgum, Lacor, Nebbi, Kitovu, Mulago Hospitals |
| Equipment provision | Specialized OF equipment and supplies were procured for the 6 hospitals included in the first phase of the project. Kitovu and Mulago Hospitals received 2 operating tables, while the other 4 hospital one operating table each. One operating theatre at Mulago was renovated and a 6-bed space exclusively for OF patients was created in one of the wards in Mulago Hospital |
| 2005 | EH supported the honorarium of master trainers, as UNFPA met the living expenses for workshop participants. UNICEF supported part of the training activities during workshops in northern Uganda and Mulago Hospital |
| Advocacy efforts | FTWG met regularly and oversaw implementation of OF activities; OF was incorporated in the RH National Policy |
| Program challenges | Coordinated interventions to maximize use of resources from all interested parties in the prevention and treatment of OF were not conducted. There was limited allocation of government resources for OF programs. IEC and social-reintegration activities by UNFPA/Uganda OF program were not initiated |
| Budget | US $124,395 was spent on procurement of equipment and supporting training programs |
| Training | 9 doctors and 37 nurse/midwives were trained. During OF repair camps, orientation of health worker teams of doctors and nurses was conducted by visiting specialists |
| OF repairs | 394 OF patients were repaired through 15 training workshops throughout the country and routine OF services offered at Mulago Hospital; 115 of these repairs (29.2%) were conducted by Ugandan surgeons |
| Equipment provision | Sutures, ureteric catheters and spinal anesthesia were procured for Kitovu and Mulago Hospitals to facilitate repair camps; 2 OF surgery sets were procured for Mulago Hospital; computers and cameras were provided to the MOH and Mulago Hospital to facilitate the documentation of OF management and establish a database on OF |
| 2006 | Strong partnership with AMREF which is implementing part of UNFPA/Uganda OF project activities. FTWG started to meet under coordination and chair of the MOH |
| Advocacy efforts | MOH designated an OF focal person to continue to coordinate all partners in the field of fistula and proposed to “work with the Planning Department to ensure that in the subsequent years, fistula gets incorporated in the health budget” |
| Program challenges | OF was not included in MOH’s 2006/07 budget; MOH does not appropriately coordinate activities on OF in the country |
| Budget | US $49,084 were utilized, and an additional $5,000 from regular resources used to cover AMREF training activities |
Training activities, partly funded by UNFPA, were conducted through OF repair camps in Kitovu and Mulago Hospitals (no 2007 activity report available at the time of the evaluation)

OF patients were repaired through UNFPA partly-funded OF repair camps; funds were allocated for patients’ transport to OF repair camps; at least 75 OF patients were repaired during at least one OF repair camp at Kitovu Hospital through the contract with Kitovu Hospital, and at least 200 OF patients were repaired during at least one OF repair camp at Mulago Hospital and outreach camps in Mityana, Gombe, Kagandi, Kaunga and Mubende Hospitals through the contract with Mulago Hospital

Basic supplies for OF repair campaigns were provided

Results of the MOH research study on OF burden in Uganda were shared during a FTWG meeting; created partnerships were functional

No activity identified

The operating tables and lights distributed by UNFPA in 2005 are no longer functional and described as being of poor quality. Due to limited resources only Mulago and Kitovu Hospitals have received funding for the repair campaigns planned throughout the year

US $47,952 spent on living expenses for 5 trainees for 3 15-day OF repair camps, food for patients, transport refund for patients, supplies and equipment, monitoring activities

Source: Annual UNFPA/Uganda OF project reports (2004-2006); Memorandum of understanding with Kitovu Hospital, 2007; Memorandum of understanding with Mulago Hospital, 2007.

As shown above, the UNFPA/Uganda’s OF program has worked primarily in building capacity and supporting efforts to ensure long-term sustainability of OF activities in Uganda. However, several problems were encountered as no technical advice was sought before purchasing surgical equipment and supplies: the equipment supplied to the 6 sites included in the 1st phase of the project was either of poor quality or damaged/expired due to delays in delivery and improper storage conditions. Thus, most of the operating tables and lights bought for the 6 sites are currently out of use. Training activities and surgical repairs were performed as part of the program in partnership with AMREF and EH; due to poor documentation of project progress and lack of monitoring and evaluation activities, it is difficult to discern each organization’s contribution and specific role in either training or repair activities. The three organizations have individual focal sites where they implement their activities, but conduct part of their activities in partnership covering the various resource needs of training and repair campaigns – in such cases, delimitation of roles is overall vague and poorly documented. For example, it is impossible to assess the proportion of the 649 OF repairs between 2004 and 2006 exclusively supported by UNFPA/Uganda.

While advocacy efforts cannot be easily evaluated, it does appear that UNFPA has succeeded to place OF on the national health agenda. OF services are reaching an increasing number of women and the UNFPA/Uganda’s OF program has successfully involved partners to address the needs of OF patients and help ensure sustainability of OF activities in the country. If funds for OF activities will be available and UNFPA/Uganda’s OF program coordinators committed to advance OF work, UNFPA will continue to be one of the major players in the OF field in Uganda.

4.2.3. Achievement of Major Program Activities
The major program activities were described on pages 12-13. We examined the extent to which these activities were conducted between 2004 and 2007.
The project proposed to identify and upgrade skills of health professionals for OF prevention and treatment. Specifically, the project should have trained a core team of 4 doctors, 4 nurses and 2 anaesthetists. During the project period only 2 instead of 4 Ugandan surgeons, one in Mulago Hospital and one in Arua Hospital, were adequately trained and can serve as master trainers. Overall, the MOH reports that about 45 Ugandan doctors and 8 foreign surgeons are currently conducting OF surgery in Uganda (MOH, 2006). More than 4 nurses and 2 anesthetists were trained, the exact number is not known given the poor documentation of OF activities by UNFPA/Uganda.

Another activity proposed by the UNFPA program was to refurbish and supply equipment to 6 centres and 11 referral hospitals, and to create 2 “model” facilities offering OF services in Uganda. Low quality equipment was distributed only to the 6 centres included in the 1st phase of the UNFPA project. There are 2 facilities which have been specifically supported by UNFPA during the project period: Mulago an Kitovu Hospitals. Mulago Hospitals was renovated in 2005 with UNFPA support, it has an operating theatre where OF surgeries take place once a week and a 6-bed post-operative ward for OF patients; thus, OF services are offered regularly. Kitovu Hospital has an operating theatre shared by all surgical specialities in the hospital, does not offer OF services on a regular basis, but it provides good quality services for the sporadic patients repaired outside camps and for those repaired during the 4 yearly camps. Kitovu Hospital appears to be the most important training centre and the site to which complex OF cases are referred from other OF centres for repair during camps.

It was proposed that an improved data collection mechanism for OF from health facilities and communities is established. Computers were provided by UNFPA to MOH and Mulago Hospital, but the extent to which these computers are used or will be used for OF data collection purposes remains unknown. To date, no OF data collection system exists in Uganda.

Training curricula, service guidelines and manuals for OF management are no yet available and therefore, program activities related to reviewing, printing and distributing these materials were not conducted. There are training manuals developed by several foreign surgeons, but none was recognized by MOH and proposed for use during nationally standardized OF training. Unfortunately, no UNFPA activity encouraged the development of such training manuals and service guidelines.

UNFPA/Uganda works in the OF field in partnership with AMREF and EH. UNFPA has been successful in mobilizing stakeholders and providing technical assistance for the FTWG. However, the extent to which UNFPA has mobilized policy support for OF prevention and treatment in the context of gender health equity remains unknown. AMREF (partly sponsored by UNFPA) and EH are conducting several types of preventive activities, with one particular EH program involving men as partners in the fight to eliminate OF. In sum, UNFPA/Uganda’s OF program has not placed much emphasis on OF prevention and social-reintegration activities as the project proposal stated.

Table 3 provides a comparison between the baseline assessment of the OF-related activities conducted in 2003 (Karugaba A., 2003), before the UNFPA/Uganda OF program was implemented, and the project endline evaluation performed in December, 2007.
Table 3. Comparison between baseline and endline assessments of OF activities in Uganda

<table>
<thead>
<tr>
<th>Baseline assessment</th>
<th>Endline evaluation</th>
<th>Comments</th>
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<tbody>
<tr>
<td>A substantial number of OFs in the country, but little efforts to improve the situation</td>
<td>There are efforts to improve the number of women repaired through either routine OF services or repair campaigns</td>
<td>The number of women awaiting OF surgical repairs or requiring additional surgical procedures is still unknown, but clearly very high as per 2006 UDHS and 2006 MOH OF assessment</td>
</tr>
<tr>
<td>No specialised equipment for OF repairs in any regional hospital</td>
<td>6 sites of which 4 regional hospitals have received equipment from UNFPA in 2005</td>
<td>The equipment provided by UNFPA in 2005 is of poor quality and in need of replacement</td>
</tr>
<tr>
<td>Very few skilled health professionals to manage OF</td>
<td>The MOH study estimated that about 45 Ugandan surgeons are trained to provide OF surgery, while 8 visiting surgeons were regularly visiting Uganda during repair camps between 1990-2007</td>
<td>The number of trainees has increased considerably; surgeons and master trainers indicate that the period of training should be at least 6 weeks to ensure that trainees can manage simple OFs</td>
</tr>
<tr>
<td>Inadequate drugs and other essential supplies</td>
<td>Lack of essential supplies even in major referral hospitals; specialized OF repair equipment is not available in OF sites</td>
<td>The equipment provided by UNFPA in 2005 is of poor quality and in need of replacement</td>
</tr>
<tr>
<td>Low provider and community awareness on the causes and consequences of OF</td>
<td>Increased provider and community awareness on the causes and consequences of OF</td>
<td>One of the most important achievements of the major players in the OF field in Uganda; the exact contribution of UNFPA is unknown as preventive and social reintegration activities under the OF program are not documented</td>
</tr>
<tr>
<td>No data collection system for OF in place in the country</td>
<td>An MOH research study mapped the number of OF seen and repaired in 78% of health facilities in the country providing facility-based estimates of OF burden</td>
<td>The MOH study likely underestimates the actual number of women awaiting OF surgical repairs in the country; there is a large difference between the MOH estimates and the population-based estimate of women with OF symptoms reported in the 2006 UDHS</td>
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4.3. Objective 2: To assess the progress made by the UNFPA/Uganda’s OF program according to the applicable country- and facility-level indicators set in the project proposal submitted by UNFPA, EngenderHealth and Women’s Dignity Project to the Bill and Melinda Gates Foundation

We examined country- and facility-level UNFPA/Uganda OF program indicators by the strategy they address as noted in the project proposal submitted by UNFPA, EngenderHealth and Women’s Dignity Project to the Bill and Melinda Gates Foundation. Changes to current indicators, as well as additional indicators are proposed by the evaluation team.
Strategy 1: Create and manage a strong partnership between EH, WDP, UNFPA, and local counterparts to launch the project and implement the strategies and monitoring and evaluation processes.

Indicator 1. Number of country plans developed to implement the project and monitored throughout project implementation

There is no coherent country plan proposed by MOH. However, the need for OF services is mentioned in the RH policy that MOH developed, OF centres send their annual work plans to MOH at the beginning of each year, the FTWG has an work plan and it discusses proposals from OF centres during their quarterly meetings.

“The MOH calls OF the unfunded priority. […] Monitoring and evaluation [of OF activities] exist only on paper.” [UNFPA staff, 2007]

Focused efforts made predominantly by UNFPA, EH and AMREF, complemented by other private funds are coordinated to a large extent during FTWG meetings or locally, at the level of each site. UNFPA, EH and AMREF activities are reviewed and approved during FTWG meetings so that duplication of efforts is avoided, but exceptions to perfect cooperation between partners has been reported by key informants. No monitoring and evaluation of OF-related activities exist at the national level.

Strategy 2: Strengthen the health system’s capacity to manage the prevention and treatment of obstetric fistula

Indicator 1. Number/percentage of sites that are providing quality OF services

Several quality of care aspects were monitored during this evaluation and the results are mentioned below:

a) health workers obtained written consent from patients before surgical operations were undertaken in the visited sites;
b) post-operative nursing care protocols were available and posted on the walls of either post-operative wards or operating theatres in Mulago and Kitovu Hospitals;
c) no centre had written pre-operative and intra-operative protocols for OF;
d) no centre had written protocols for infection prevention and disinfection procedures;
e) nurse/midwives provided care 24 hours a day through 3 shifts in Mulago Hospital and 2 shifts in Kitovu Hospital;
f) there was support staff (e.g.cleaners, aids) present in both visited sites;
g) patients are not accommodated pre-operatively and are given only one meal a day at Mulago Hospital; accommodation and 3 meals per day are provided to OF patients in Kitovu Hospital;
h) patient transportation after discharge from hospital is supported for patients in Kitovu Hospital, but not for those receiving services at Mulago Hospital, where sometimes health care workers provide transport money from their personal resources;
i) no separate kitchen and laundry available in the OF unit in Mulago Hospital;
j) no separate space for health education, literacy classes and skill acquisition as part of rehabilitation of OF patients exists at Mulago Hospital;
k) Issues of rehabilitation and social re-integration of OF patients are not adequately addressed at Mulago Hospital, but counseling is provided (including sexual education, family planning counseling and provision of condoms);

l) OF patients are provided with a case file with their name and a unique hospital ID number; date of visit, patient’s medical history, findings on physical examination, investigations requested and prescriptions are most of the times recorded. In Mulago Hospital, out of the 20 client records reviewed 6 did not include client’s reason for visit, 13 did not record patient’s reproductive history; surgical records of 4 of the 20 patients did not indicate the intra-operative vital signs, while status at discharge was not mentioned on 15 of the 20 records. In Kitovu Hospital intra-operative vital signs are recorded for each patient and an innovative recording system for patient’s post-operative condition is in use showing whether the patient is drinking water, draining urine and having dry linens; follow-up plans are indicated on each of the records reviewed;

m) Mulago Hospital uses Dr. Kees Waaldijk’s classification of OFs which is clearly recorded. Kitovu Hospital uses the Lawson classification system of OF (Creanga A.A., and Genadry R., 2007).

No definition for “quality OF services” is proposed as only two sites were visited during this evaluation. We believe that the best indicators for OF quality of care given the low number of sites visited is the rate of success of OF repairs and the rate of repaired OFs which are 2nd or 3+ repairs indicating the failure rate for 1st time OF repairs. Table 4 shows the available data on outcomes of OF surgery in two centres: Kitovu and Kagando Hospitals.

Table 4. Number of women seen, women who have received surgery and women successfully repaired in Kitovu and Kagando Hospitals (2005-2007)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kitovu Hospital</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># women seeking OF surgery</td>
<td>212</td>
<td>329</td>
<td>244</td>
</tr>
<tr>
<td>% of women seeking OF surgery</td>
<td>150 (70.75%)</td>
<td>259 (78.72%)</td>
<td>184 (75.41%)</td>
</tr>
<tr>
<td>1st repair (% of all OF repairs)</td>
<td>NA</td>
<td>NA</td>
<td>135 (73.37%)</td>
</tr>
<tr>
<td>2nd repair (% of all OF repairs)</td>
<td>NA</td>
<td>NA</td>
<td>35 (19.02%)</td>
</tr>
<tr>
<td>3+ repairs (% of all OF repairs)</td>
<td>NA</td>
<td>NA</td>
<td>14 (7.61%)</td>
</tr>
<tr>
<td># women successfully repaired (% of all OF repairs)</td>
<td>121 (80.67%)</td>
<td>213 (82.24%)</td>
<td>120 (65.22%)</td>
</tr>
<tr>
<td><strong>Kagando Hospital</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># women seeking OF surgery</td>
<td>242</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>% of women seeking OF surgery</td>
<td>NA*</td>
<td>167 (69.00%)</td>
<td>86 (81.90)</td>
</tr>
<tr>
<td>1st repair (% of all OF repairs)</td>
<td>NA*</td>
<td>70 (81.40%)</td>
<td></td>
</tr>
<tr>
<td>2nd repair (% of all OF repairs)</td>
<td>NA</td>
<td>10 (11.63%)</td>
<td></td>
</tr>
<tr>
<td>3+ repairs (% of all OF repairs)</td>
<td>NA</td>
<td>6 (7.00%)</td>
<td></td>
</tr>
<tr>
<td># women successfully repaired (% of all OF repairs)</td>
<td>121 (72.46%)</td>
<td>69 (80.23%)</td>
<td></td>
</tr>
</tbody>
</table>

*Data source: EngenderHealth progress reports 2005-2007; NA= data not available.*

Thus, two indicators are reported here using data from Kitovu and Kagando Hospitals. The two sites are likely not representative for the outcome of all OF repairs in Uganda as both hospitals have
adequately trained providers and serve as training centres; as shown in Table 4 the rates of closure and success as defined by the FTWG (surgical closure and continence by day and night) are fluctuating likely due to the training activities taking place in both sites.

Proportion of OF successfully repaired at Kitovu Hospital:

80.67% between 07/2005 and 12/2005
82.24% between 01/2006 and 12/2005
65.22% between 01/2007 and 09/2007
76.56% between 07/2005 and 09/2007

Proportion of OF successfully repaired at Kagando Hospital:

72.46% between 01/2006 and 12/2005
80.23% between 01/2007 and 09/2007
75.10% between 07/2005 and 09/2007

The proportion of OF successfully repaired at Mulago Hospital as reported by key informants is broadly in line with reports from Kitovu and Kagando Hospitals. For example, at the repair campaign conducted in April 2007 42 OF patients were operated, of which 39 were uro-genital fistulas and 3 were RVFs. The success rate at 3 weeks was 85.71%, and increased to 92.86% at 6 weeks after 3 of the 6 patients who were incontinent at hospital discharge have recovered.

Indicator 2. Percent change in number of fistulas repaired annually

During this evaluation data for estimating this indicator was obtained from Mulago and Kitovu Hospitals. However, given that in Kitovu Hospital repairs are conducted mainly during OF repair campaigns, while Mulago Hospital offers routine services, the differences observed in the number/percentage change in OF repaired cases are not indicative of the difference in capacity of these centres.
to repair OFs. The available data on the number of repaired cases by project year in Mulago and Kitovu Hospitals are presented in Figure 8. The number of OF repairs increased in both centres; the percentage change in the number of OF repairs in Mulago Hospital was 102.79% between 2005 and 2007, and in Kitovu Hospital 62.07% between 2004 and 2007.

Figure 8. Number of OF patients repaired in two project sites

![Bar chart showing number of OF patients repaired in Mulago and Kitovu Hospitals]

Indicator 3. Average waiting time for OF treatment after need is reported

Data to appropriately assess this indicator are not available. Only qualitative data collected from the 16 OF patients interviewed can be reported, but we note that these data are not representative of the overall situation in the country. The range of waiting time for receiving OF treatment is wide: 9 of the 16 women had OF for 1 to 8 months before receiving repair, 4 women had lived with fistula for 1 to 2 years, 1 woman had lived with OF for 12 years, while 2 women for 19 to 20 years.

Indicator 4. Number of sites with established referral protocols for fistula treatment

Data to assess this indicator are not available.
Indicator 5. Number/percent of trainees by training topic

Data to assess this indicator are not available for UNFPA efforts exclusively.

Indicator 6. Number/percent of project sites with a monitoring and evaluation system for OF, antenatal and/or EmOC established and functioning

No project site has a monitoring and evaluation system for either OF, ANC or EmOC.

**Strategy 3: Strengthen efforts for fistula prevention, treatment, and management by sharing lessons learned from best practices and creating a positive policy environment in selected countries**

Indicator 1. Evidence-based protocol for high quality fistula care established at project sites

Two sites were visited during this evaluation: Mulago and Kitovu Hospitals. No written pre-operative or intra-operative protocols existed in either site. Books written by Drs. Brian Hancock and Kees Waaldijk were used during training activities. Recently, several experienced Ugandan surgeons participated in a regional meeting held in Nairobi, Kenya in order to develop a standardized curriculum for the different cadres of health care providers working on OF.

Indicator 2. Number/percent of districts/states where community members have received sensitization and awareness training or media campaigns

No documentation of such activities for the UNFPA/Uganda OF program exists. However, AMREF and EH have conducted sensitization and media campaigns in districts surrounding the main OF repair sites.

4.4. Objective 3: To examine the UNFPA/Uganda OF program according to a set of criteria based on the WHO OF guidelines (WHO, 2006), and to assess the coordination of the partnership UNFPA/Uganda created through the FTWG

We use criteria developed by the WHO in 2006 for national OF programs to examine the UNFPA/Uganda’s OF program. This analysis is possible to the extent that national program guidelines can be applied to the UNFPA’s program which is implemented in 6 sites in the country. First, we discuss the general program criteria proposed by WHO, and second, given the duration of the evaluated program, we address the short- and medium-term criteria developed by WHO. For this exercise, we have tried to integrate the UNFPA/Uganda program in the overall national OF activities conducted in Uganda using the information that was made available to us.

4.4.1. General WHO criteria

Based on the WHO criteria, the long-term goals of any national Fistula Program should be:

1. To prevent women from developing fistula through health promotion and awareness, and the development of high-quality basic and comprehensive maternal health services that are available to all women.
2. To ensure that all women living with fistula have easy and early access to skilled professionals able to repair simple fistulas and/or refer more complex cases to more experienced surgeons;
3. To ensure that each woman’s right to health, including prevention and treatment of OF, is recognized and protected by the provision of an enabling policy and
regulatory environment. The UNFPA/Uganda OF program is not a national program and does not have long-term goals. However, the UNFPA/Uganda OF program included activities to: (1) help the development of better quality maternal health services by providing equipment and supplies to project sites, renovating one health facility (Mulago Hospital: post-natal ward and operating theatre), providing training to ObGyn surgeons interested in OF, anesthetists and nurses/midwives, (2) ensure early access to OF care in the sites where routine OF services are provided, provision of OF surgical repairs during camps organized 1-4 times a year in the various project sites and referral of more complex cases to more experienced surgeons, (3) place OF on the national health agenda and make it part of the national RH policy so that OF patients have their rights to treatment recognized.

Based on the WHO criteria, the national strategy to eliminate OF should be based on developing and promoting short-, medium- and long-term objectives and milestones to measure program’s progress. This evaluation shows that only project objectives over a 4-year period (2003-2007) were set for the UNFPA/Uganda’s OF program as per the proposal submitted to the Bill and Melinda Gates Foundation. UNFPA/Uganda informants were able to identify these objective and the challenges encountered in meeting some of these objectives. There is poor record-keeping and documentation of the performed activities by UNFPA/Uganda’s OF program is lacking. Although the project proposal adequately mentions that quarterly and compiled annual reports on program progress will be submitted to the UNFPA-HQ and to the Bill and Melinda Gates Foundation, only three, very brief annual progress reports for years 2004, 2005 and 2006, none of which included financial reports or budget allocation for the reporting period were provided.

Based on the WHO criteria, where possible, estimations of the resources (financial, human) required, and feasibility studies should be included. There are no documents showing that resource needs estimations were made for the UNFPA/Uganda’s OF program before or after the project proposal was submitted and funding was approved. It is however clear that the various project sites have different levels of need for the development of preventive and curative OF services and that resources put in various centres will impact the overall project differently; it appears that the UNFPA/Uganda’s OF program has considered these variations as it seems to follow the proposed project objectives to create two model facilities (Mulago and Kitovu Hospitals), provide equipment and supplies to all project sites and train medical personnel. A baseline assessment was conducted in 2003 before project’s implementation started. However, given the lack of documentation of resource needs estimation or program planning, this evaluation team cannot adequately assess if and to what extent the results of the baseline assessment informed the UNFPA/Uganda’s OF program.

Based on the WHO criteria, when identifying priorities, and calculating the costs of interventions and services, it is best to look beyond the constraints of individual budgets and consider the long-term benefits. Formal and informal consultations with stakeholders will help to increase ownership of the proposals. The UNFPA/Uganda’s OF program did consider the long-term benefits as the implemented program activities were mostly related to capacity building and increase of OF awareness at the national level. UNFPA/Uganda has initiated collaboration and consultation with other stakeholders in the country by way of creating and coordinating the FTWG; this working group is comprised of representatives from the most important RH players in the country. Moreover, the UNFPA/Uganda OF program which was implemented over a four-year period is part of a partnership with EH and WDP, which brought on board AMREF, the MOH and the eight hospitals representing the projects’ sites. All program activities were endorsed by the MOH (across two departments: the RH department and the Clinical Service department), currently chairing the FTWG. In sum, UNFPA has initiated a “coalition of support” for OF as recommended by WHO.
Based on the WHO criteria, a strategy document agreed upon by the national OF strategy committee and endorsed by MOH and partner organizations which summarizes the information gathered, the policy objectives, how these relate to the national policy for maternal and neonatal health, and how these are to be delivered locally should be produced. Such a document does not exist. However, the FTWG has a work plan which states the objectives of its activities (see page 44).

4.4.2. Short-term WHO criteria

Establish a national OF strategy committee and program, integrated with the national maternal and newborn health strategy. Such a committee exists (FTWG) and was initiated by UNFPA/Uganda. To date, an integrated OF strategy and program does not exist, but OF is part of the RH national policy. However, given the enormous backlog of OF patients awaiting repair in Uganda, this evaluation team believes that caution is needed when assessing this particular WHO criteria: while OF preventive activities should be integrated into the national maternal and newborn health strategy, the OF treatment activities need to be part of MOH’s clinical services strategy; otherwise, the scarce resources available for surgical repair of OF patients will be further diluted and potentially lost. We believe the two types of activities should be conducted simultaneously.

Undertake a national needs assessment and map current services.
UNFPA and EH have conducted a first OF needs assessment in 2002 – some of the results found are presented on page 17 of this report. In 2006, the MOH has conducted a research study to assess the magnitude of OF as a public health problem in the country. Data on the number of patients seen and repaired, respectively, between 1990 and 2005 were obtained from about 78% of the health facilities offering clinical services in Uganda. UNFPA was informed of these activities during FTWG meetings and project sites have reported OF data to the MOH. The chair of the FTWG has presented the results of this study during a FTWG meeting in 2007 (see pages 17-21 for details)

Identify any gaps in the information available and commission relevant research if necessary.
MOH representative has informed the evaluation team about his intention to discuss publication of the results of the MOH OF analysis during the next FTWG meeting. To our knowledge, Uganda is the first country to have conducted such research on OF, and the results constitute a strong advocacy tool. However, it is highly likely that the results found are underestimates of the actual burden of OF in Uganda. We cannot estimate the extent to which OF patients reported seen and/or repaired between 1990 and 2005 are repeat patients (i.e. seen multiple times, in various centers and years, repaired or not). Moreover, DHS data on a proxy measure for OF is available in the 2006 UDHS. The difference between the number of OF patients identified by the MOH research study even if we do not consider the number of duplicates reported in the seen and/or repaired categories and the population-based estimate from the DHS is quite large and therefore, population-based research examining the burden of OF in Uganda should be conducted

Identify efficient use of resources by the OF national strategy committee.
There are no documents showing that either the MOH or UNFPA/Uganda has a coherent strategy for how to efficiently use resources for OF. Furthermore, several key informants have stated that no discussion on ways to distribute the available resources took place during FTWG meetings.

Improve support to, and strengthen existing obstetric and fistula-repair services, including capacity building and the use of international expertise when necessary.
The UNFPA/Uganda’s OF program is one of the three leading organizations working in OF in Uganda using international expertise and guidance; the other two such organizations are EH and AMREF.
UNFPA/Uganda’s OF program has supported and helped strengthen the OF services and focused especially on capacity building.

**Plan the introduction of a given number of accessible, quality fistula treatment and rehabilitation services, using a suitable and sustainable local model of service delivery.**
The EH, UNFPA, WDP partnership proposal mentions that two “model” facility for OF services will be created as result of the program. Although Mulago and Kitovu Hospitals have received more support than the other project sites, these 2 hospitals are still not recognized as being OF “model” facilities. However, Kitovu Hospital is far better positioned on its way to becoming a “model” facility for OF services than Mulago Hospital. No indicators or targets (e.g. number of prevention or social reintegration activities for OF patients, number of patients repaired) were specifically set in either the project proposal or after project’s implementation started.

**Introduce health promotion and education initiatives to reduce the incidence of new OFs by stressing the need for skilled care during childbirth, as well as explaining what fistula is, how it can be prevented, and most importantly, that it is curable.**
UNFPA/Uganda has sub-contracted AMREF to conduct OF prevention activities and the specific achievements of AMREF’s programs are detailed on pages 24-25. No specific OF prevention activities were performed directly at the community level by UNFPA/Uganda. However, UNFPA/Uganda has helped efforts to increase awareness and visibility of OF at the national level.

As part of the Safe Motherhood program, maternal health services should be strengthen to enable all pregnant women to have access to ANC and a skilled attendance during childbirth.
Not applicable to the UNFPA/Uganda OF program.

**Include knowledge of OF, its prevention and treatment (including management of labor, use of the partograph) in all relevant nursing, midwifery and medical undergraduate and post-graduate curricula.**
Not applicable to the UNFPA/Uganda OF program.

**Start to increase awareness of fistula-repair facilities among providers and communities.**
UNFPA/Uganda’s OF program provided equipment and supplies to 6 OF centres, and facilitated OF repair campaigns. Thus, it has likely increased awareness on OF repair service availability at the community level (e.g radio announcements are sponsored when repair camps take place). Additionally, through AMREF, awareness and knowledge was further increased.

4.4.3. Medium-term WHO criteria

**Introduce a given number of accessible, quality fistula treatment and rehabilitation services, using a suitable and sustainable local model of service delivery.**
This criterion was addressed above.

**Start a core training program for surgeons and others able to undertake fistula repair, with national oversight and measurable standards.**
UNFPA/Uganda’s OF program supported training of interested surgeons through AMREF activities. Project’s progress on these activities is reported by year on pages 30-32.

**Develop at least a centre for training established surgeons to become basic fistula-repair trainers.**
Through its own efforts or through AMREF and in partnership with EH the UNFPA/Uganda’s OF program has participated in developing Kitovu Hospital as the most important training centre in the
It is difficult given the amount of documentation of the UNFPA/Uganda’s OF program activities to know what part of the activities performed at Kitovu can be attributable to UNFPA/Uganda’s input exclusively.

Start a routine data-collection system and, if considered appropriate, an audit system.
UNFPA/Uganda’s OF program has not initiated such a data collection system even if this was one of the major activities proposed.

Strengthen health-promotion initiatives related to safe motherhood and reducing fistula formation and associated stigma.
This criterion was addressed above.

Establish a good referral system for women living with fistula.
This was not one of the UNFPA/Uganda’s OF project objectives. However, through activities which have increased awareness on OF, UNFPA/Uganda’s OF program has helped the efforts to inform women about repair campaigns. The extent to which an actual referral system for OF exists in the country and whether or not UNFPA/Uganda’s program helped in either establishing or strengthening such as system cannot be assessed with the information obtained during this evaluation. Importantly however, it appears that through their own activities or through their partnership with EH and AMREF, UNFPA/Uganda’s OF program has established a core of adequately trained surgeons able to decide whether they can repair a specific case or they need to refer the case to a more experienced surgeon – this is a type of surgeon-based case-specific referral system.

4.4.4. Assessment of Coordination of the Fistula Technical Working Group
In December 2002 UNFPA/Uganda launched the fight against OF during the annual program review. The meeting adopted the idea of setting up a Technical Working Group consisting of key stakeholders in RH such as MOH, UN agencies and NGOs. UNFPA was the convener of the meetings of the FTWG and served as the Secretariat. The group is perceived as one of the important steps made by Uganda in its efforts to eliminate OF.

“FTWG is the most effective component of the fistula program, has a leadership role, brings stakeholders together, facilitates dialog and experience sharing and the way forward so that there is coordination.” [EH representative, 2007]
“FTWG is a forum for discussion, decision making and experience sharing.” [UNFPA staff, 2007]
“[FTWG] gives us a sense of direction.” [OF surgeon, 2007]

UNFPA is perceived as one of the key players in OF field in Uganda, investing own resources in OF activities and creating partnerships with other organizations.

“UNFPA was instrumental in advocacy and mobilizing the partners, the leader agency in the area of obstetric fistula.” [MOH representative, 2007]
“UNFPA is involved in advocacy, capacity building, support for fistula camps, giving visibility to fistula and input in the FTWG.” [UNFPA staff, 2007]
“UNFPA maintained fistula on the policy agenda, provided funding for training activities, for supplies and equipment, […] raised the profile of fistula in the country to the extent that the 2006 DHS captured fistula data, established some coordination of activities ensuring that government is in the lead, led to repair and management of fistula cases.” [UNFPA staff, 2007]
“We do not talk about allocation of resources; we assume that UNFPA has mobilized resources and therefore this issue is not discussed.” [WHO representative, 2007]
There were several responsibilities set for the FTWG in 2002:

a) provide technical advise on issues related to OF;
b) coordinate all OF activities through MOH and UNFPA;
c) serve as advocates for the prevention and treatment of OF;
d) provide technical input into the design and review of the 2003 baseline survey on OF;
e) build partnerships and alliances in the fight against OF;
f) review and comment on project proposal;
g) review annual work plans and agree on annual activities;
h) identify centres to be upgraded to conduct OF surgery;
i) identify trainees based on agreed criteria;
j) compile and approve the master trainers;
k) conduct support supervision visits to project sites at least once a year;
l) participate in annual reviews of the project;
m) conduct monthly meetings until the time when OF project is fully operational;
n) conduct resource mobilization campaigns.

Following the findings from the baseline assessment conducted in 2003, a list of pilot training centres in four regions of Uganda was drawn. The FTWG recommended eight priority hospitals: Arua, Lacor, Soroti, Mulago, Mbarara, Kitovu, Masaka, Kaganado. Out of the above, only the first six were included in the first phase of the project. It was agreed during a 2004 FTWG meeting that the latter two hospitals cited would be given priority should there be a new interested partner and increase in funding. The criteria used for choosing the eight hospitals were “geographic location so that there is regional balance between centres, the existence of facilities which could be improved or strengthened with minimum costs considering the amount of funds available” [FTWG meeting notes, April 2004]. Based on the results of the baseline assessment it was decided that two doctors and one nurse in every of the 6 centres will be trained. The FTWG was given the responsibility of establishing training guidelines for interested surgeons given that making changes to the medical schools’ curricula to incorporate a mandatory OF care component was considered to be a long-term process. An eight-strategy work plan for the period between 2004 and 2007 was decided upon. The strategies, their outputs and responsible parties, as well as whether or not these were successfully achieved are shown in Table 5.

Before September 2005, the meetings took place at UNFPA/Uganda office and UNFPA chaired the meetings; after September 2005, the MOH started to chair the meetings organized at MOH. There were 4 meetings in 2006 and 3 meetings in 2007, the last being held in November, 2007. Currently, the FTWG is formed by representatives from MOH, UNFPA, EH, AMREF, WHO, UNICEF, Population Secretariat which is part of the Ministry of Finance and Economic Development, Mulago Hospital, Kitovu Hospital, Mbarara Hospital.

“In the beginning FTWG was instrumental in making decisions – now it is difficult to make decisions when there are no money. This year, we supported Mulago and Kitovu [Hospitals] given the resources we had left. The two hospitals had planned three camps each this year, there was commitment for more, but there were no money. FTWG is a good forum for deciding what site to support. […] They [FTWG] did not find much reason to meet every month as funds exists or there is nothing to share about what was done [UNFPA representative, 2007]
Table 5. Achievement of FTWG program outputs

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Program outputs</th>
<th>Responsible parties</th>
<th>Program endline evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create and manage a strong partnership between MOH, UNFPA and other partners to launch the project, implement the strategies and monitor and evaluate the project</td>
<td>A working group functional which meets regularly</td>
<td>MOH, UNFPA</td>
<td>The FTWG is partly functional but the MOH needs to better coordinate all OF activities and receive support from UNFPA in doing so; the FTWG did not meet regularly in 2006 and 2007, and the number of participants is generally reduced; motivation to participate decreased due to lack of funds for OF activities</td>
</tr>
<tr>
<td>Integrate OF in RH services</td>
<td>One day seminar held and OF project launched</td>
<td>MOH, UNFPA</td>
<td>Objective was achieved</td>
</tr>
<tr>
<td>Improve policy environment for OF management</td>
<td>Training curriculum developed and utilized in training institutions</td>
<td>Training institutions: MOH, UNFPA, AMREF, BESO</td>
<td>Although several training curricula exists having been developed by experienced foreign surgeons, trainers are waiting for a WHO manual that is endorsed by the eH</td>
</tr>
<tr>
<td>Increase access to comprehensive RH services for prevention of OF</td>
<td>Training curriculum revised to integrate OF management</td>
<td>Training institutions: MOH, UNFPA, AMREF, BESO</td>
<td>Objective was not achieved</td>
</tr>
<tr>
<td></td>
<td>Policy on OF management developed and disseminated</td>
<td>MOH, UNFPA</td>
<td>OF was included in the RH policy, but the policy was not disseminated</td>
</tr>
<tr>
<td></td>
<td>Increased capacity of leaders, civil society and media to advocate for RH, particularly safe motherhood including OF</td>
<td>MOH, UNFPA</td>
<td>Awareness on OF has increased during the project period but the magnitude of this increase cannot be accurately estimated</td>
</tr>
<tr>
<td></td>
<td>Increased availability of quality maternal health services, including skilled birth attendance</td>
<td>MOH, UNFPA</td>
<td>Skilled birth attendance increased from 37% in 2001 to 42% in 2006 [UDHS 2001, 2006]</td>
</tr>
<tr>
<td></td>
<td>IEC materials distributed during health talks, ante-natal and post-natal care</td>
<td>AMREF, UNICEF, WHO, NGOs</td>
<td>Awareness on OF has increased during the project period but the magnitude of the increase cannot be accurately estimated</td>
</tr>
<tr>
<td></td>
<td>Strengthen referral systems for maternal health and OF services</td>
<td>AMREF, UNICEF, WHO</td>
<td>An OF referral system should be set and its functioning continuously monitored</td>
</tr>
<tr>
<td>Strengthen the health system’s capacity to manage and treat OF</td>
<td>Increased availability of quality OF services that provide a continuum of care</td>
<td>MOH UNFPA AMREF BESO</td>
<td>The number of OF patients repaired has increased over the program period (see page 38), but only 3 sites provide routine services in the country, of which 1 (Kagando Hospital) was not considered by the FTWG for support in the 1st phase of the project</td>
</tr>
<tr>
<td>-</td>
<td>6 fistula centres and 12 referral hospitals fully equipped and functional</td>
<td>MOH UNFPA AMREF BESO</td>
<td>No OF centre in Uganda is “fully equipped and functional”</td>
</tr>
<tr>
<td>-</td>
<td>Increased availability of social reintegration programs for OF women repaired</td>
<td>MOH UNFPA AMREF BESO</td>
<td>Few such programs exist, the actual # cannot be assessed without an adequate reporting/monitoring system; most repaired OF patients receive some post-surgery counseling</td>
</tr>
<tr>
<td>Develop a strategy for systematic data collection to enhance knowledge regarding OF, monitor and evaluate progress at the national level</td>
<td>Capacity to collect and disseminate data</td>
<td>MOH UNFPA AMREF WHO Training institutions</td>
<td>Objective was not achieved</td>
</tr>
<tr>
<td>-</td>
<td>Functional database on VVF in all districts</td>
<td>MOH UNFPA</td>
<td>Objective was not achieved</td>
</tr>
<tr>
<td>Increase awareness and support among stakeholders, families and communities to tackle root causes of maternal mortality and morbidity</td>
<td>Increased awareness among communities on advantages of delaying marriage and childbirth</td>
<td>MOH UNFPA AMREF WHO UNICEF</td>
<td>Difficult to assess during this evaluation – key informants have mentioned both aspects during interviews</td>
</tr>
<tr>
<td>-</td>
<td>Increase social mobilization around women and girls’ empowerment and life opportunities</td>
<td>MOH UNFPA AMREF WHO UNICEF</td>
<td>Difficult to assess during this evaluation</td>
</tr>
<tr>
<td>-</td>
<td>Increase media coverage, public statements referring to OF and maternal health issues</td>
<td>MOH UNFPA AMREF WHO UNICEF</td>
<td>Radios programs and newspaper articles were among the activities performed by EH, AMREF and community departments affiliated with referral hospitals</td>
</tr>
<tr>
<td>Strengthen demand for RH services</td>
<td>Strengthen capacity to improve women’s participation in decisions regarding their healthcare</td>
<td>MOH UNFPA AMREF WHO UNICEF</td>
<td>2006 UDHS shows that only some 22% of Ugandan women have final say on issues related to their own health</td>
</tr>
</tbody>
</table>
The 3 main challenges identified for the FTWG are: (1) lack of coordination by MOH, (2) limited resources for OF activities, and (3) unclear roles for the partners in the FTWG. However, the most cited limitation was the minimal involvement of MOH. The different perspectives on MOH’s role in the FTWG are given below:

**MOH needs to coordinate better**

“At first everyone was enthusiastic. [...] Now, the MOH needs to be in the driver’s seat and say *this is what we want.*” ; “Coordination role is lacking, this should be a MOH program.” ; “MOH should take the lead and give direction to partners, produce guidelines and standardize fistula management, results reporting [...]” ; “Leadership is lacking, need better leadership that activates the rest of partners.” ; “There is lack of commitment of MOH officials; they would not attend the [FTWG] meetings.” ; “Funding has been limited but the biggest challenge is to have MOH plan for fistula in its annual budgeting process.” [UNFPA staff, 2007]

“MOH needs to facilitate and supervise all activities, they need to coordinate better.” [EH representative, 2007]

“MOH needs to make fistula an issue; put down real issues, have a plan and coordinate better. Gender issues are generally difficult to push, especially this one.” [WHO representative, 2007]

“MOH needs to make sure that every woman knows where to go and inform people of what to expect as these are not donor responsibilities. We cannot play the music of donors and we need the program to be an MOH program.” ; “Obstetric fistula is neglected, women are so poor and so quiet, mistreated by community; they don’t have a voice to talk for themselves, the MOH needs to take them to the forefront and help them.” [OF surgeons, 2007]

**MOH cannot do everything**

“We cannot do everything -- we have a basic package including essential clinical care and under that we have medical and surgical treatment. One of the most prevalent problems we have is obstetric fistula and MOH targets it. That’s why we call the partners together and ensure that fistula is at least at the regional level.” [MOH representative, 2007]
Overall, the FTWG is only partly functional and should involve providers from all project sites. The working group has increased visibility of OF in Uganda but currently lacks coordination. It is the role of MOH to build a strategy on how to eliminate OF, start implementing a national OF program in Uganda, provide guidance for the FTWG in order to avoid duplication of efforts, start supporting OF activities from its own budget and gain ownership of the program.
Chapter 5
Recommendations

The UNFPA/Uganda’s OF program has partly met the proposed objectives. One of the most important achievement of the program was to increase visibility of OF as a major public health problem in Uganda at both international and national levels. Most notably, UNFPA/Uganda has initiated and coordinated the FTWG, a group comprised of representatives from all major players working in the OF field in Uganda.

Overall, the Bill and Melinda Gates Foundation grant enabled UNFPA/Uganda to help strengthen delivery of OF services and build relationships with other organizations, the MOH and health facilities. Specifically, the capacity to offer OF services in six health facilities has been strengthened by way of providing basic and specialized equipment, training providers and sponsoring OF repairs. By working directly with EH and AMREF, UNFPA/Uganda has been able to replicate an innovative service delivery model – OF repair campaigns – in several sites in Uganda. However, documentation, monitoring and supervision of program activities by UNFPA/Uganda or by organizations implementing its OF program are poor.

There is broad recognition that without UNFPA’s efforts to implement OF activities, there would be less such services available in the country. It is critical that the Ugandan government, other organizations working in the OF field and UNFPA take advantage of the existing momentum to further strengthen the current OF services, continue efforts to build a sustainable service infrastructure and develop a national OF program. While the six health facilities included in the 1st phase of the program now serve a somewhat wide geographical area (see Figure 6), neglecting either the potential for routine OF services in these sites or the potential of other sites will likely weaken the permanent capacity of the Ugandan health system in OF. If repair camps offer a service delivery model for treating OF patients in Uganda, it is routine OF services, preventive and therapeutical, that need to replace the camps to guarantee program’s sustainability. Given the large number of women awaiting surgical repair as well as the new cases formed each year, routine services offered by Ugandan medical professionals in specialized facilities with dedicated OF operating theatres and wards are likely the best way to ensure sustainable OF services in Uganda.

5.1. Interviewees recommendations
We have asked health providers and non-provider interviewees to make recommendations to improve the OF services in Uganda. Not all the providers interviewed were offering OF-related services themselves, but they were all in adequate professional positions to make recommendations on how to advance OF activities in Uganda. Additionally, we have asked all interviewees who were FTWG members to make recommendations for UNFPA/Uganda’s OF program. Given the large number and the variety of recommendations made we have decided to summarize these recommendations and group them into 3 categories: (1) recommendations made by providers to improve OF efforts in Uganda, (2) recommendations made by non-provider key informants to improve OF efforts in Uganda, and, (3) recommendations made by FTWG members for the UNFPA/Uganda’s OF program. The individual sets of recommendations grouped by category of respondents have been compiled into a summary table below and ordered by their reporting frequency.
Table 6. Key informants’ recommendations by the frequency of reporting

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Frequency of answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category 1. Recommendations made by providers for OF activities in Uganda (N=24)</strong></td>
<td></td>
</tr>
<tr>
<td>Increase the number of beds for OF patients</td>
<td>33.3%</td>
</tr>
<tr>
<td>Develop a well structured prevention strategy to enhance prevention activities</td>
<td>33.3%</td>
</tr>
<tr>
<td>Provide financial support for transport for OF patients</td>
<td>29.2%</td>
</tr>
<tr>
<td>Provide financial support for food for OF patients</td>
<td>29.2%</td>
</tr>
<tr>
<td>Train more doctors</td>
<td>29.2%</td>
</tr>
<tr>
<td>Provide financial support for accommodation of patients pre- and post-surgery</td>
<td>25.0%</td>
</tr>
<tr>
<td>Train more nurses</td>
<td>25.0%</td>
</tr>
<tr>
<td>Increase support for supplies such as linen, basic drugs, as well as for hospital gowns, beds, mattresses, blankets, bedsheets, autoclaves, patient trolleys for OF wards</td>
<td>20.3%</td>
</tr>
<tr>
<td>Train anesthetists</td>
<td>16.7%</td>
</tr>
<tr>
<td>Involve more centres in OF repairs</td>
<td>12.5%</td>
</tr>
<tr>
<td>Provide micro-credits for OF patients repaired</td>
<td>8.3%</td>
</tr>
<tr>
<td>Train TBAs</td>
<td>8.3%</td>
</tr>
<tr>
<td>Increase the duration of training workshops for doctors and nurses</td>
<td>8.3%</td>
</tr>
<tr>
<td>Provide community health education</td>
<td>8.3%</td>
</tr>
<tr>
<td>Sponsor surgeons for advanced training in international centres</td>
<td>8.3%</td>
</tr>
<tr>
<td>Build a separate theatre for OF repairs</td>
<td>8.3%</td>
</tr>
<tr>
<td>Provide operation beds, specialized materials/ instruments for OF management (e.g. ureteric catheters)</td>
<td>8.3%</td>
</tr>
<tr>
<td>Increase motivation by remuneration and improvements in the working environment/ eliminate restriction to allowances received by nurses during camps</td>
<td>8.3%</td>
</tr>
<tr>
<td>Recognize medical professionals trained in provision of OF services</td>
<td>8.3%</td>
</tr>
<tr>
<td>Require pre-service OF-related training at undergraduate and post-graduate levels</td>
<td>8.3%</td>
</tr>
<tr>
<td>Engage more types of specialist doctors in OF surgery</td>
<td>8.3%</td>
</tr>
<tr>
<td>Build a new ward for OF patients</td>
<td>4.2%</td>
</tr>
<tr>
<td>Set targets and objectives for every centre providing OF services</td>
<td>4.2%</td>
</tr>
<tr>
<td>Involve dedicated person at the district level</td>
<td>4.2%</td>
</tr>
<tr>
<td>Train only 2 surgeons per camp</td>
<td>4.2%</td>
</tr>
<tr>
<td>Report on regular basis on any fistula work</td>
<td>4.2%</td>
</tr>
<tr>
<td>Increase follow-up efforts at the community level</td>
<td>4.2%</td>
</tr>
<tr>
<td>Create a formalized referral system</td>
<td>4.2%</td>
</tr>
<tr>
<td>Increase the quality of the equipment provided</td>
<td>4.2%</td>
</tr>
<tr>
<td>Provide benches for waiting area</td>
<td>4.2%</td>
</tr>
<tr>
<td>Initiate social reintegration programs</td>
<td>4.2%</td>
</tr>
<tr>
<td>Minimize the bureaucracy related to releasing the awarded funds</td>
<td>4.2%</td>
</tr>
<tr>
<td><strong>Category 2. Recommendations made by non-provider key informants for OF activities in Uganda (N=12)</strong></td>
<td></td>
</tr>
<tr>
<td>MOH needs to take the lead, better coordinate, facilitate and supervise all OF activities</td>
<td>58.3%</td>
</tr>
<tr>
<td>Increase advocacy efforts regarding OF at all levels</td>
<td>41.7%</td>
</tr>
<tr>
<td>MOH needs to better coordinate the FTWG activities</td>
<td>41.7%</td>
</tr>
<tr>
<td>Support MOH for better coordination among partners working on OF</td>
<td>33.3%</td>
</tr>
<tr>
<td>Integrate OF services into RH/safe motherhood/EmOC</td>
<td>33.3%</td>
</tr>
<tr>
<td>Enhance OF preventive activities</td>
<td>25.0%</td>
</tr>
<tr>
<td>Increase the number of sites where OF services are provided</td>
<td>25.0%</td>
</tr>
<tr>
<td>Train more doctors and nurses</td>
<td>25.0%</td>
</tr>
<tr>
<td>Set a regular reporting system for all OF activities</td>
<td>25.0%</td>
</tr>
<tr>
<td>Increase the number of social reintegration programs for repaired OF patients</td>
<td>16.7%</td>
</tr>
<tr>
<td>Provide integrated OF-RH outreach activities</td>
<td>16.7%</td>
</tr>
<tr>
<td>Set standards to recognize medical professionals trained in provision of OF services</td>
<td>16.7%</td>
</tr>
</tbody>
</table>
MOH should start using its own resources for OF work  
Improve health infrastructure  
Create a “definitive country strategy” for OF to which all partners contribute  
Involve more partners in the FTWG  
Establish a good, reliable referral system  
Create log books for every surgeon  
Create checklists for assessing OF trainees’ skills  
Attract committed people into training  
Increase the quality of antenatal care provided  
Develop VVF training curricula  
Increase the number of IEC/BCC programs  

One third of the current health service providers interviewed have suggested an increase in the number of beds allocated to OF patients in centres where OF-related services are offered and development of an well structured prevention strategy to enhance OF prevention activities in the country. More than one fifth of the same category of interviewees has emphasized the need to provide financial support for accommodation, food and transport after discharge for OF patients and for basic supplies for OF wards, as well as the importance of training more doctors and nurses on OF care.

Almost 60% of the non-provider key informants have stressed that MOH needs to better coordinate, facilitate and supervise all OF activities in Uganda. More than one third of respondents in this category have recommended that advocacy efforts regarding OF at all levels by all major players in OF field are amplified, FTWG activities are better coordinated by MOH and support is provided to MOH to fulfill its responsibilities with regard to the FTWG. Similarly to providers, non-provider respondents have suggested that OF prevention activities are augmented and more medical personnel trained on OF service provision. As expected, while providers have emphasized the need for more OF dedicated beds, wards and operating theatres in the already existent OF centres, non-provider interviewees mentioned the need for more sites where OF services are provided. Interestingly, only non-provider interviewees have recommended that OF services are integrated into RH, Safe Motherhood or EmOC. It is likely that providers recognize that treatment of OF for the large number o women awaiting surgical repair in Uganda deserve as much attention and resources as OF preventive activities -- integration of OF surgery into other medical services would only decrease the amount of resources allocated to managing OF cases and, by implication, the number of OF patients repaired.

The most frequent recommendations made for the UNFPA/Uganda’s OF program were to provide basic supplies and OF specialized equipment, renovate health facilities providing OF services and
support advanced training of Ugandan surgeons. Thus, it seems that capacity building is perceived as the main activity conducted by UNFPA in Uganda. Additionally, UNFPA/Uganda is suggested to “start documenting their activities”, to monitor and evaluate their progress.

5.2. Additional recommendations

There are some areas inevitably that can benefit from additional attention or emphasis by UNFPA/Uganda, as noted below.

1. **UNFPA/Uganda should take advantage of the momentum around OF in Uganda and the increasing demand for OF services to promote sustainable OF-related activities and to build capacity for OF services in the 8 priority sites, while continuing provision of technical and financial support for OF outreach surgical repair campaigns.** It is encouraging that women are demanding and obtaining OF surgical repairs through campaigns, but increasing the health system’s capacity to offer routine services should be the focus of the OF program in Uganda. The future UNFPA/Uganda OF program should ensure OF wards and operating theatre space in all the 8 sites. Basic and specialized OF equipment should be provided to all sites, and the low quality equipment previously distributed replaced -- it is key that UNFPA/Uganda obtains independent technical advice before procurement of OF equipment, and that supplies are provided in a timely manner. Standardized and certified training activities using a structured curriculum composed of theoretical and practical aspects should be encouraged. Non-specialist doctors (e.g. medical officers) should be trained if interested in provision of OF-related services, including surgery, as more OF trained specialists are needed to address the large number of OF cases in the country. In the same time, committed and talented surgeons need to be selected and sponsored for advanced training in order to increase the pool of Ugandan master trainers. Key OF surgeons should be identified in all 8 sites and continuous communication and supervision promoted.

2. **UNFPA/Uganda should strengthen OF prevention activities.** Strategies should primarily include advocacy work, social mobilization and behavioral change communications aimed at increasing awareness on the causes and consequences of OF and access to OF-related services. Specific focus should be given to increasing knowledge on where, when and how to access obstetrical care and to explaining why support from trained medical professionals throughout pregnancy is needed; additionally, women need to be supported in getting education, postponing early marriage and practicing family planning to space their births or limit childbearing. OF prevention should be incorporated in EmOC and overall, maternal health capacity building activities that UNFPA/Uganda is already conducting.

**UNFPA/Uganda’s OF program should incorporate rehabilitation and social reintegration activities to address the needs of women suffering from OF and its consequences.** Such activities could include provision of pre- and post-operative care, financial support for accommodation, food and transport for women seeking OF repairs, skill acquisition and promotion of income generation activities for repaired OF patients.

Media and community leaders need to be involved in prevention as well as in rehabilitation and social-reintegration actions -- while the two types of activities attend to needs of different categories of women and involve different types of service providers and social workers they could be promoted and advertised together during media campaigns and community OF awareness creation activities. Various prevention, rehabilitation and social-reintegration projects could be pilot-tested in OF prevalent communities where demand for OF services has already been created, or in catchment areas of repair centers; proposals for such pilot projects should be requested and small grants awarded on a
competitive basis by UNFPA/Uganda. In order to subsequently carry out successful prevention, rehabilitation and social-reintegration projects, new partnerships should be created with the existing community departments affiliated with health facilities, while the already formed partnerships with AMREF and EH should be strengthen. The MOH needs to develop a referral system for women with OF and establish clear mechanisms by which referrals are made so that patients know where and how to seek the services they need.

3. **UNFPA/Uganda needs to improve documenting its OF activities, using standardized reporting forms based on a common set of program targets and indicators for all project sites.** Activity and budget reports using the standardized forms should be submitted by each project site to UNFPA/Uganda on a monthly basis. Supervision of all UNFPA-funded OF activities, without regard to the implementing organization, and site visits need to be conducted quarterly by UNFPA/Uganda staff. Subsequently, detailed quarterly and compiled annual reports need to be submitted by UNFPA/Uganda to UNFPA-HQ. Additionally, UNFPA/Uganda should ensure that the program officer responsible for the OF program has enough time and resources to coordinate all OF-related activities, develop and maintain excellent working relationships with implementing partners, primarily with the MOH, and with all organizations represented in the FTWG.

4. **UNFPA/Uganda should help the MOH coordinate the FTWG and the OF activities in the country by way of sponsoring a key person at the MOH whose unique activities would be to organize and supervise an OF program in Uganda.** A key person, committed and knowledgeable about OF should be identified to work closely with both the Clinical Services and the Reproductive Health Departments in the MOH and ensure coordination of the FTWG, creation of a coherent national OF program and implementation of OF activities in Uganda. Also, OF-related service delivery workplans should be submitted to the MOH by all facilities conducting such activities in order to enhance coordination, monitoring and supervision activities by MOH.

5. **UNFPA needs to augment its OF-related advocacy efforts** targeted at increasing awareness on OF at the national and regional levels in order to increase support provided to OF prevention and treatment activities.

In conclusion, the UNFPA/Uganda’s OF program has partly met the proposed objectives. One of the most important achievement of the program was to increase visibility of OF at the national level as a major public health problem in Uganda. The Bill and Melinda Gates Foundation grant enabled UNFPA/Uganda to help strengthen delivery of OF services and build relationships with other organizations, the MOH and health facilities. The capacity to offer OF services in 6 health facilities has been strengthen by way of providing basic and specialized equipment, training providers and sponsoring OF surgical repairs. By working directly with EH and AMREF, UNFPA/Uganda has been able to replicate an innovative service delivery model – OF repair campaigns – in several sites in Uganda. However, documentation, as well as monitoring and supervision of program activities by UNFPA/Uganda or by organizations implementing its OF program are poor and need to be strengthen.

There is broad recognition that without UNFPA/Uganda’s efforts to implement OF activities, there would be less such services available in the country. It is critical that the Ugandan government, other organizations working in the OF field and UNFPA take advantage of the existing momentum to continue efforts to build a sustainable OF-related service infrastructure and develop a coherent national OF program.
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