REPORT OF THE RAPID ASSESSMENT OF VESICO-VAGINAL FISTULAE IN NIGERIA

By

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CHAPTER 1
INTRODUCTION

In the past decade there has been a growing upsurge of interest in the prevention of maternal mortality. Available data highlights the multifactorial and multidisciplinary approach required in the analysis of the problem, the dramatic consequences of its neglect and the urgent need for intervention. Since the Safe Motherhood Conference in Nairobi in 1987. Countries, including Nigeria have made efforts to evolve strategies to address the problem of maternal mortality. While maternal mortality constitutes a useful end point for studies and intervention, the characteristics, background and needs of the disabled survivors is also valid task which will further assist to demonstrate the scale and the nature of the problem and the preventive interventions for safe motherhood.

Worldwide, it is estimated that more than 600,000 women die annually from pregnancy-related causes. For each maternal death, 10 –20 other women are left with permanent disabilities, including vesico-vaginal fistulae (VVF). VVF is an abnormal communication between the vagina and the bladder/urethra, which results in the continuous dribbling of urine and sometimes feces, if there is associated recto-vaginal fistulae which wets the clothing of the victims leading to excoriation of an already damaged vulvae and vagina. Victims of obstetrics VVF are usually the lucky survivors of traumatic prolonged childbirth, but oftentimes without the joy of a baby as the baby invariably dies during childbirth. They become social outcasts. Divorced and rejected by families, they travel long distances in search of treatment, which often eludes them. They often have to take

to begging or prostitution for survival. No wonder some wished they had died in labor. VVF is often referred to as ‘the most dreadful affliction of mankind.’

VVF is considered a major public health problem in Nigeria, with the prevalence rate on the increase because of rising poverty and declining quality of maternal care. However, since the national safe motherhood conference in Nigeria in 1990, the problem of maternal mortality has been placed on the national agenda, but very little has been done to address the problem of VVF. Whatever efforts at redressing the problem has so far remained limited in scope, coverage and uncoordinated, with most of the interventions initially being spearheaded by NGOs, notably the NF-VVF and NCWS. Some State governments and lately the Federal Government have began to make inputs in responding to the VVF concerns in the country.

Some of the major constraints to articulation of a national response have been the dearth of information on the magnitude and distribution of the problem, resource availability for intervention, the actors in the field and their areas of input and gaps in current interventions.

In recent times there has been an increasing Federal Government interest in the problem of VVF, notably, the Presidency and the Federal Ministries of Health and Women Affairs and Youth Development. A National Committee was constituted by the FMOH to develop a national strategic plan of action to address to VVF problem in the country. In recognition of the information gaps on the national VVF situation, the National Foundation on VVF was assigned the responsibility of carry out a rapid assessment of VVF in Nigeria, in the quest to provide relevant data to assist in the national VVF planning effort.

Aim

The overall aim of the rapid assessment of the VVF situation in Nigeria is to provide relevant data on the magnitude and distribution of VVF and the current intervention efforts for planning a national response.

Specific Objectives

The specific objectives of the rapid assessment were:

- To estimate the magnitude and distribution of VVF in Nigeria
- To assess the resource available for the treatment and control of VVF VVF problem in the country
- To assess the skills and availability of human resources for VVF repair work in Nigeria
- To assess the workout of the VVF centers in the country
- To determine constraints to optimal VVF intervention activities in Nigeria
- On the basis of the findings, to proffer recommendations on strategies to be adopted to meet the current Federal Government target of funding at least 10 VVF repair per center per day.

CHAPTER 2
METHODOLOGY

The rapid assessment was carried out in two parts:

- A desk top review of all available literature, that could be located on VVF in Nigeria
- An assessment and descriptive study of the VVF situation in each zone.

Desktop Review

A consultant was commissioned to carry out an internet and library search and contact persons identified to be active in VVF work for literature on VVF. In addition, reports available in the NF- VVF secretariat on VVF was made available to the consultant. All literature was reviewed to document the epidemiology and intervention efforts on VVF in Nigeria. The review is presented in chapter 3

Assessment and Descriptive Study

The assessment was conducted at zonal level with a member of the NF-VVF coordinating the activity in each zone.

A guide was drawn and used for data collection, to address issues like Manpower availability and training for VVF repair, availability of facilities for VVF repair and the cost of repair, financial support to the VVF centers and Rehabilitation Services, patients profile, as well as, recommendations on how best to address the VVF problem (see appendix one for a copy of the guide).

In each zone, all VVF/potential centers and NGOs/organizations involved in VVF repair work were identified for each state. In-depth interviews were conducted in each state with the following:

- Relevant Ministry of health officials
- Representatives of NGOs/organizations involved in VVF work.

- Officers in-charge of hospitals/centers involved in VVF repair/rehabilitation work and other relevant heads of departments

In addition, site visits were carried out to the VVF centers for on the spot assessment of the activities and resources of the center. The list of centers and persons contacted in each zone are shown in appendices 2 and 3.

The Assessment started later than initially planned, because the scope of the assessment was later expanded beyond the scope planned, this meant more funds had to made available to the Foundation to under take the assessment. This was a major challenge, the Federal Ministry of Health faced delays in releasing the initial reasearch amount of N500,000 and could not get the additional fund of another N500,000 needed for the study, to ensure that the assessment was successfully carried out, the Foundation had to raise the additional amount.

The major challenges encountered in data collection is the difficulty of meeting with relevant government officials at the State Ministries of Health, and even when they are contacted they had no information on VVF work, this meant that the field researchers had to rely on their personal contacts, especially with the VVF centers.

CHAPTER 3
DESKTOP REVIEW

INTRODUCTION

"To meet only one of these mothers is to be profoundly moved. Mourning the stillbirth of their only baby, incontinent of urine, ashamed of their offensiveness, often spurned by their husbands, homeless, unemployable except in the fields, they endure, they exist, without friends, without hope. No world charities have ever

heard of them. They bear their sorrows in silent shame. Their miseries, untreated, are utterly lonely and lifelong."

These words were written in 1974 by Drs Reginald and Catherine Hamlin, founders of the second fistula hospital in Addis Ababa, Ethiopia (1). The women are sufferers from obstetric fistula, an injury to the bladder and/or rectum during childbirth.

There is a close proximity between the organs of reproduction and the urinary system in the human female. Therefore, trauma, cancer, infections, developmental abnormalities and other disease processes of one system easily affects the other. One of these diseases is vesicovaginal fistula, which is an abnormal connection between the urinary bladder and the vagina. A closely associated disorder is the rectovaginal fistula, which is also an abnormal connection between the rectum and the vagina. These abnormal connections lead to uncontrollable dribbling of urine and faeces respectively.

The physical, psychological and social consequences of these disorders are enormous. Robertson (1957) pointed out the misery of this condition "as one of the most frightful afflictions of human kind. Hour by hour, night and day the leakage wets, excoriates and hurts the victim of this misfortune. Clothes are ruined, the bed becomes a nightmare, social intercourse stops, a pariah is made, and the family houses an outcast.

The causes of vesicovaginal and rectovaginal fistula include obstetrical trauma, gishiri cuts, iatrogenic causes, cancer and infections. The contribution of these different causes varies from country to country depending on level of socio-economic progress. In the developed world, most cases are due to iatrogenic

causes, cancers and radiation therapy. In contrast, the majority of cases in the developing world are due to obstetrical causes, particularly obstructed labour. Traditional practices like the ‘gishiri’ cut also contribute substantially to the aetiology in the developing countries. (2)

Vesicovaginal fistula constitutes one of the major gynaecological problems in developing countries because of the high incidence of obstetric complications. But even in these countries the incidence is not evenly spread, as contracted pelvis is more often found in communities where malnutrition and untreated infections stunt the growth of future mothers during their childhood and adolescence. Where maternity services are sparse and far in between or mistrusted, cephalopelvic disproportion goes undiagnosed and the survivors of obstructed labour may be left with bladder or rectal injuries. Divorce and neglect often follows. Malnourished, poor and dejected, these young women may travel long distances for treatment or end up as low cost prostitutes. (3)

Historically, the lesions seen today are similar to those observed in Egyptian mummies (4), The earliest reference dates back to 1550 BC in the Kahun papyrus from Egypt (1). Avicenna also described it almost a thousand years ago as “preventable but incurable”(5). However, Marion Sims first successfully treated the condition more than 130 years ago (6). Vesicovaginal fistula was seen widely in Europe and America until the beginning of the twentieth century. It is pertinent to note that vesicovaginal fistula was common throughout the world before the twentieth century. Russell (7) has noted that, “in the United States, Britain and Europe, most of the fistulae seen in the 19th century were caused by dystocia. Apajalahi (8) reported that 80% of the 209 fistulae in Helsinki (Finland) between the years 1861-1929 were due to obstetrical causes. Prior to the twentieth century notes Mcgregor, many American and European women of various economic

backgrounds experienced crippling disorders following childbirth. In particular, such disorder, designated vesicovaginal fistula, was common enough in the mid-nineteenth century to influence remarkably the emergence of gynaecology-a hitherto unknown medical specialty. When in 1855 Marion Sims, often referred to as the father of modern gynaecology, founded the “women’s Hospital” in New York solely for curing vesicovaginal fistula, so many patients came for treatment from throughout America and Europe that soon a new site had to be found for the hospital.

In Nigeria, one of the pioneers of gynaecological surgery including VVF surgery is Professor J.B. Lawson, the first professor of gynaecology at the university college hospital Ibadan. His classical textbook on tropical obstetrics and gynaecology in developing countries is still an authoritative source for practitioners and students alike. He has also published widely on V.V.F and its total management (2,3). Another pioneer in this field is Professor Una Lister; she was also a founding member of the department of obstetrics and gynaecology of the university college hospital Ibadan, after which she moved to Zaria in the late 60’s, and subsequently to Maiduguri in 1980. She has an international reputation for her expertise in VVF repair and has had a profound influence on two generations of students and gynaecologists in Nigeria. In addition, she directly influenced, stimulated and inspired various research activities related to maternal health in the area, including those with respect to social consequences and rehabilitation of VVF patients together with Mrs. Murphy (9,10). The classical scholarly work of Dr. Kelsey Harrison on child bearing in Zaria (11) has provided essential scientific insight into the aetiology of VVF in the area, and with his results, he has championed strategies for better maternal health care and prevention of such lesions in this area.

The work of Dr. Ann Ward OFR at St. Luke's Hospital, Anua, in Akwa Ibom State in the South Eastern part of the country has been remarkable. She reported on 1789 cases of genito-urinary fistulae in 1980 (12). Her selfless services are reminiscent of the work of the Hamlins in Ethiopia. In recognition of her dedication, the federal government of Nigeria honoured her recently. She has also received several international awards for her work and dedication to serve humanity.

The work of Dr. Kees Waaldijk, a Dutch surgeon at Babbar Ruga Katsina, Laure centre Kano, Gusau, Sokoto, Kebbi, Zaria, Hadejia, Maradi and Zinder is quite remarkable. He first came to Nigeria as a leprologist but soon found that the prejudice against VVF patients was even greater than that against lepers. Therefore, he began to take an interest in VVF surgery. After periods of training under the Hamlins in Ethiopia, he came back to Katsina where he has performed 15,855 VVF/RVF operations between 1984 and September 2001. This grand total consisted of 14,556 VVF and 1,299 RVF repairs (13). He has also trained 166 doctors, 156 nurses and 15 paramedical staff in the management of VVF. (See Appendix 1) Dr. Waaldijk has also systematically evolved the immediate surgical management fresh obstetric fistulae with catheter and/or early closure (14, 15). He has also published a colour atlas titled "step by step surgery of vesicovaginal fistulas" as a guide to doctors working under primitive conditions (16). He has also developed a functional classification of vesicovaginal fistulae, and more recently that for rectovaginal fistulae (13,16). Dr. Waaldijk received the knighthood of the order of Aranje Nassan, awarded on behalf of the Queen of Holland by Nederland's Ambassador to Nigeria on 29th April 1995 for his contributions to humanity. Dr. Tazhib working in Sokoto in the eighties and early nineties also published widely on the epidemiology and social aetiology of vesicovaginal fistulae (17,18). He published the results of an extensive survey he conducted on VVF in Nigeria (19). This work forms the backbone of this review. Other

contributors to the management of VVF in Nigeria include professors Ekwempu, Chukudebelu, Adetoro, Aimakhu, Ojengbede, Nnatu and Ogedengbe among others. Dr Kashimawo of the evangelical hospital in Jos has also operated on several VVF patients.

Despite the great works of these gynaecologists and surgeons, there were no organised efforts to tackle the problem of VVF in Nigeria before the early eighties (20). Apart from the maternal health services provided within the general framework of primary health care, government had no special programme for VVF. However, by mid-nineteen eighties individuals and non-governmental organisations started various initiatives. Some of these include:

1. In 1986, the national council of women societies, Kano state, constructed a VVF theatre in Kano. Funding by the ford foundation since 1989 had allowed the development of an integrated programme that combined training, community awareness, skills development and health education. Income generating activities and literacy were organised for girls in the rehabilitation hostel. The hostel accommodates 60 patients. The theatre became operational in January 1990. Dr. Waaldijk comes from Katsina twice a week to operate. As earlier mentioned this centre is called Laure fistula centre and is located in Murtala Mohammed specialist hospital. The total number of repairs carried out at this centre from 1990 to 2001 is 4,261 (13). This centre serves as a national training centre for doctors and nurses. The chief surgeon reported recently that the number of new patients coming for treatment is increasing almost daily (13). There is a close collaboration between this NCWS programme and state ministries of health and social welfare.

2. Establishment of a VVF hostel and theatre in Katsina by Dr. Kees Waaldijk. Some philanthropic organisations and Katsina state government support this effort. From 1984 to 2001, 7,882 repairs were carried out at this centre.

3. Construction of a VVF centre at Uyo by Dr. Ann Ward in 1984. The facility consists of a 40-bed hostel, a standard and well-equipped theatre, and a rehabilitation unit where literacy skills and crafts are taught. An average of 200 repairs are carried out annually. Support for the services comes from UNFPA, Canadian High Commission, CIDA, Rotary, Ford Foundation and Philanthropic organisations. A community based safe motherhood programme funded by the ford foundation aimed at preventing maternal morbidity and mortality.

4. Building of a VVF centre in Sokoto by the then better life programme for rural women.

5. VVF hostel in Zaria constructed by the Ahmadu Bello University Teaching Hospital Zaria. The hostel has a capacity to accommodate 40 patients. The social welfare department of the teaching hospital runs the hostel. Literacy classes and income generating activities provided by the then better life were taught to the patients while they await surgery. Women in Nigeria (WIN) supported by ford foundation developed a community based rehabilitation programme.

6. More recently, several states in the northern part of the country under their respective family support programmes established VVF treatment centres. Examples include Faridat Yakubu VVF centre Gusau, Maryam Abacha Women and Children Hospital Sokoto, Special VVF centre B/Kebbi. Other

general hospitals that operate on many VVF patients are General Hospital Hadejia and Gambo Sawaba government Hospital Kofan Gayan Zaria.

In recognition of the magnitude of the VVF problem in Kano and other parts of the country, the National Council of Women's Societies, Kano state branch, organised the first national workshop on VVF in July 1990 funded by the ford foundation. The workshop was aimed at sensitising traditional leaders, NGOs and governmental agencies on issues relating to VVF and encouraging them to work together to devise strategies on how to control and prevent the problem. At the end of the workshop, it was decided that a National Task Force on VVF should be formed to effect the recommendations contained in the communiqué.

The National task force was formed with Mrs. Amina E. Sambo as National coordinator and Dr. Clara L. Ejembi as secretary. The body was inaugurated by the then Honourable Minister for Health and Social Services, Professor Olikoye Ransome Kuti during its maiden meeting in February 1991.

The task force conducted fact finding visits to various centres across the country to;

1) Assess the scope of VVF-related services being provided in these hospitals

2) Document the level of utilisation of the VVF services and identify factors if any, militating against optimal utilisation of these services

3) Seize the opportunity afforded by these visits to sensitise various NGOs, relevant government functionaries, health workers and traditional rulers to the problems of VVF to stimulate their interest in VVF related work.

Other aspects that engaged the attention of the task force were manpower development. The strategy adopted was training of indigenous doctors nurses and other paramedical staff in the skills of VVF repair, postoperative management and rehabilitation of such patients at the Kano and Anua centres under Dr. Kees Waaldijk and Dr. Ann Ward (gap)

Obstetrics and gynaecology to ensure that a policy is developed that include postings to VVF centres as part of postgraduate training for specialist gynaecologists.

Community mobilisation and public enlightment were conducted by disseminating information through print and electronic media and production of educational materials in various languages. Two national workshops were organised, one on counselling of VVF patients in Katsina and the other on prevention of VVF in Zaria in 1995.

Efforts were made by the task force to set up a national database on VVF using the recommended WHO prototype. However, the response from the various centres was discouraging, and so no much success was recorded with regard to research. A documentation and resource centre was formed at the secretariat of the task force.

The task force was dissolved in? 1997 and replaced by the national foundation on VVF. The foundation has carried on with the functions of the task force. An international conference on VVF held in Abuja in March 1998.

EPIDEMIOLOGY OF VVF

Over the past four decades, a number of key studies have been carried out on cases of obstetric fistula. With one exception (Murphy, 1981), these studies are based on hospital records. Most often, they are reports by the gynaecologists or surgeons who operated on the women. While they give a good indication of the existence of fistula in particular areas, these studies of course do not furnish adequate data as to incidence or true extent of the problem (21).

Actual incidence of fistula is impossible to calculate. Based on treating about 700 cases of obstetric fistula per year in Addis Ababa, it has been suggested that the incidence might be around 55 per 100,000 births in Ethiopia. However, Harrison suggested that the incidence might be closer to 80 per 100,000 (25). Frequencies are sometime given as a proportion of admissions or of gynaecological admissions, and sometimes of deliveries or births. This makes comparison difficult. The frequency for deliveries varies from 0.03% in Benin City (23) to 0.39% in Zaria (24).

The number of cases of VVF and the frequency of occurrence in Nigeria is unknown.

This is largely due to the absence of any large-scale community based studies.
However, available hospital reports indicate that VVF occurs in all parts of the country.

It is commoner in the Northern part of the country and appears to be declining in the southwestern part of the federation. Dr. Waaldijk working in Katsina and Kano estimates that worldwide, the incidence of VVF is 1-2 per 1000 deliveries. This gives a world prevalence of 0.5 to 2 million (16).

Several hospital-based studies report that less than one percent of hospital deliveries are complicated by fistula. (22,23) Harrison in his monitoring of 22,774 deliveries in Zaria from 1976 to 1979 found 79 women who had developed VVF from obstructed labour primarily due to cephalopelvic disproportion (24). Of the 79 fresh VVF cases seen during the Zaria study, 12(15.2%) died in the hospital in the puerperium.

Lister in analysing 320 cases of obstructed labour in the University College Hospital Ibadan (UCH) over a four year period (26), has noted that (6.6%) 21 of the obstructed labour resulted in VVF. Of the 21 cases "2 healed spontaneously, 10 were repaired, 1 patient died before repair was possible and 9 patients remained untraced."

During the period of study in Ibadan there were 17,230 deliveries giving an incidence of obstructed labour of 1 in 189 deliveries according to Lister, and accounting for (27.2%) 44 of the 162 maternal deaths in the period. Despite the high mortality observed in the above studies among patients with fresh VVF, more would have died if they delivered at home. In addition, some of these fistulae healed spontaneously. Therefore, hospital studies could underestimate the true frequency of occurrence of VVF in the community.

An enumeration of VVF patients by the Kano state social welfare department showed 980 patients at that time. In September 1989 the chairperson of Kano state branch of the National Council for Women Societies (NCWS) Hajiya Rakiya Ahmed noted that there were no fewer than 3000 VVF patients in Kano state (19). Although the data collection system is not certain, it portrayed the number of patients waiting for surgery in Kano and other northern states.

At the Laure Fistula centre, Murtala Muhammad Specialist Hospital Kano, the Chief Consultant Surgeon in charge reported 4,261 repairs from 1990 to 2001. This consisted of 3,842 VVF and 419 RVF repairs (13). In Hadejia General Hospital, located in neighbouring Jigawa state, Dr. Waaldijk reported 886 VVF and 24 RVF repairs.

In Katsina in the late 60's, St. George recorded some 250 VVF cases over a two and a half year period while he was working at Katsina General Hospital (27). From 1984 to 1988 "a total of 1,110 VVF repairs and related operations were preformed in 942 patients. An indwelling bladder catheter was inserted to try 'spontaneous' healing in 100 patients and 82 RVF repairs were done in 69 patients" by Waaldijk (19). In 1988, 340 VVF repairs had been carried out. At the VVF hostel attached to the fistula hospital 100 to 150 patients were waiting for operation/re-operation then. Moreover, 10 to 15 new patients were seen at the hospital clinic each week. More recently, at the Babbar Ruga Fistula Hospital Katsina, the same surgeon reported 7,882 repairs at the centre between 1984 and 2001. This consisted of 7,202 VVF and 680 RVF repairs.

At the Faridat Yakubu VVF centre Gusau, Dr. Waaldijk reported 280 repairs consisting of 261 VVF and 19 RVF repairs. At the Usumanu Danfodio University Teaching in Sokoto 5 to 8 new VVF patients were seen at the gynaecology clinic per week, while 4 to 6 fresh VVF lesions were seen in the labour ward per month. Between May 1996 and April 1997, 31 patients were admitted into the VVF ward of the Sokoto specialist hospital (28). At the Maryam Abacha Women and Children Hospital Sokoto, Dr. Waaldijk reported 1,400 repairs; this consisted of 1,299 VVFs and 101 RVFs. At the other district hospitals in Sokoto state 2 to 5 fresh VVF patients were seen in each of the various maternity wards per month.

In August 1988, Dr. Altine Tongo of Bauchi specialist hospital noted at the ISI-WICCE meeting in Geneva that “not less than 10 VVF cases are seen monthly” at the hospital in Bauchi. Where according to the gynaecologist “they see so many VVF patients” that in her opinion they need a separate VVF ward (19).

In Maiduguri in the northeastern part of the country, though official figures are unavailable, but there are said to be waiting list of some 400 to 600 patients with VVF from Maiduguri and the surrounding states (9).

At the Ahmadu Bello University Hospital in Zaria over 1443, VVF repair operations were carried out from 1969 to 1980. The fluctuations of the numbers over the years do not indicate any changes in the prevalence of the condition, as Professor Lister (who was personally responsible for the repair of over 51% of these lesions) has noted. There were times when special campaigns and extra efforts would be made to repair large number of cases to try to clear the backlog. In 1989, about four new patients with VVF were seen at ABU hospital gynaecology clinic per week, and 10 new and old patients with VVF per week and 2 to 3 fresh VVF are seen in the obstetric wards per month. Moreover, 57 VVF repairs were carried out at the hospital in the preceding 12 months, with over 60 patients still waiting for operation (19). At ABU hospital in Kaduna, 3 to 4 new patients were seen in the gynaecology clinic per week, 49 VVF repairs were carried out in 1987, and 33 in 1988, and there were 30 waiting for operation then. (19) At the Gambo Sawaba Government General Hospital Kofan Gayan, Dr. Waaldijk reported 276 repairs, made up of 261 VVF and 15 RVF repair operations between 1998 and 2001.

At the Lagos University Teaching Hospital (LUTH), one senior gynaecologist with interest in VVF noted having seven cases of VVF waiting for operation in September 1989 (19). In addition, patients were periodically seen at private hospitals in Lagos. At the state specialist hospital in Akure (Ondo state), five VVF repair operations were carried out in 1988. While at the hospital in Ikare (Ondo) state three operations had been done in twelve months with two other patients waiting for surgery.

From Enugu in South Eastern part of the country, there have been a number of reports of the surgical management of the 840 patients with VVF seen and treated at the university of Nigeria Teaching Hospital from 1973 to 1982 (29,30). In 1989 at the same teaching hospital, two patients with fresh VVF were seen in the Obstetric ward per month, two new patients with VVF were seen in the gynaecology clinic per week. Twenty VVF repair operations were carried out at the teaching hospital in 1988. At the University of Benin Teaching hospital 43 VVF operations were carried out in 1988.

Dr. Ann Ward's centre at St. Luke 's Hospital at Anua in Akwa Ibom State in the South Eastern part of the country has been one of the major centres for VVF repair in the country for over two decades and has tended to attract patients from all surrounding states. She operates on an average of 200 patients annually (12).

SOCIAL CONSEQUENCES OF VESICOVAGINAL FISTULA

In order to explore the social situation of women suffering from VVF, Murphy conducted interviews with four sets of patients (10). They included 100 fistula patients attending a gynaecological clinic in Zaria for the first time between October 1976 and June 1978; 52 long term patients who had been incontinent for two or more years; 22 cured patients who had subsequent confinements in Zaria hospital; and 45 patients attending the cardiac clinic for postpartum cardiac failure,

who provided controls. A second control group was provided from records of 207 patients with postpartum cardiac failure treated between 1969 and 1972. Further information was gathered from informal discussions with 40 patients in a rehabilitation programme.

Results showed that fistula patients were much younger than controls: 69% of the new patients and over 50% of the long-term patients were aged 19 and under, as against 13% and 22% in control groups. However, there was a close similarity in all groups in age at marriage (the vast majority being married by age 15), and age at first birth (over 60% by age 17). Fistula patients came mostly from poor subsistence farming backgrounds, and only 15% of the husbands of new fistula patients and 8% of long-term fistula patients had received any form of modern education, compared with 31% of the control group. Although polygamous marriage is widespread in the area, 66% of fistula patients were the only wives, a factor also indicative of poor socio-economic status.

In other reports, (32) Murphy provided several case histories of women suffering VVF, in which she identified the social factors contributing to the disease. She also discussed the steps necessary in primary, secondary and tertiary prevention.

In addition, the author also stated that the objectives of the rehabilitation programme are to sustain the well-being of patients receiving treatment by involving them in activities that will help them regain their self respect and dignity. At the same time, by learning handicraft they may be able to earn a living and secure a permanent source of income. Onolemhemhen et.al also developed an instrument for assessing the risk of developing VVF based on some sociodemographic variables including age at marriage, parity, husband’s occupation and literacy level (31).

AETIOLOGICAL FACTORS OF VVF

Obstructed labour is the precedent of most cases of VVF in Nigeria (3). In Lawson's series of 377 patients he operated upon at University College Hospital Ibadan, 97.7% of the cases were due to obstetric causes. (3) The various obstetric causes in this series included; obstructed labour 343 (92.9%), operatic trauma due to vaginal delivery 4 (1.1%), operative trauma during caesarean section 15 (4.1%) and ruptured scar 7 (1.9%).

In a study of 1443 patients with VVF operated upon in Zaria, 83.8% were due to labour complications. (17) In a series of 840 cases of VVF at the University of Nigeria Teaching Hospital in Enugu, 98% of the cases were due to obstetric causes. (29)

In Waaldijk's series in Katsina, 470 out of 500 (94%) of cases operated over five years were due to obstetric causes. Prolonged obstructed labour due to cephalopelvic disproportion remains the major cause of VVF. The prolonged and unrelieved pressure of the presenting part of the foetus against the maternal pelvic wall results in necrosis of the intervening vagina, bladder and other structures in the area. The mechanical mechanism by which VVF is formed following obstructed labour has been well described for years (5).

In the Zaria VVF study, 50.9% of the patients with VVF due to labour had been in labour for 2 or 3 days before delivery and 18.1% reported having been in labour for more than 4 days (17). The clinical condition of the patients with such prolonged labours seen in hospitals is confirmation of the prolonged and strenuous nature of the labour.

In this study, it was found that the longer the duration of labour the more likely were the lesions to be of larger size, associated with fibrosis in the vagina, more inaccessible during operation and associated with worse foetal prognosis. For the patients with VVF due to obstructed labour in the Zaria study 64.4% reported that they delivered at home. Of the remainder only 6.9% delivered at the ABU teaching hospital in Zaria, the others delivered in centres some of which had no facilities for doing caesarean sections, majority of which had neither trained obstetricians nor adequate services and were not easily accessible to the patients from the rural area. Those cases that delivered in ABU teaching hospital had a better foetal prognosis overall compared to the total sample of VVF patients. This could be attributed to the use of caesarean section and neonatal care in the hospital. It is noteworthy that delivering in a hospital in a case of obstructed labour improves the maternal prognosis as well as decreasing the foetal wastage. The care in the puerperium including continuous catheterisation improves the chance of spontaneous healing of very small fistulae.

TRADITIONAL SURGERY INCLUDING GISHIRI CUTTING

In all parts of the country, certain traditional practices have resulted in the formation of VVF. One of the most occurring factors, in all parts of the country, is the vaginal insertion of various herbs and medicaments for the traditional treatment of various conditions such as dysperunia, infertility, congenital vaginal septum, vaginal infections, amenorrhoea, vaginal discharge and to procure abortion. Lawson (19) has noted that it is probably the highly alkaline vehicles of these preparations rather than the herbal contents, which damage the vaginal wall. The herbal content may also act by releasing various substances that cause coagulative necrosis of the vaginal epithelium. The irritating chemicals introduced into the vagina damage the epithelium by producing chemical burns. In severe cases, the resulting necrosis may involve the full thickness of the vaginal wall and lead into

the bladder or rectum. The ulceration is likely to be annular, as the vaginal wall is in contact with the irritant all way round. Circumferential contraction of the scar will follow healing and produce stenosis. When used for a long period time, VVF may be produced.

Such fistulae are associated with considerable vaginal fibrosis making successful repair of the lesions difficult. In the Zaria study, four of the lesions were due to the direct insertion of various traditional medicines in the vagina, and one patient had stick inserted in the vagina for sometime, as a treatment for congenital vaginal septum (which had been causing dysperunia), resulting in total destruction of the urethra. At times certain special leaves are inserted in order to purposefully shrink down the vagina, presumably to increase the sexual gratification of the husband.

GISHIRI CUTTING (Hausa = Yankan Gishiri)

St. George while working in Katsina, Northern Nigeria, first wrote of 'bush surgery' in the area causing VVF in the women (27). Subsequently Lister and a number of other medical workers described gishiri cutting and its crucial role in causation of VVF in northern Nigeria , while social scientists have described it amongst the various traditional gynaecological practices of the area (19). Among the Hausa and Fulani people in Northern Nigeria, it is traditionally believed that usually sugar deposits around the waist, in the vagina and in the womb of the woman during pregnancy.

These sugar deposits is believed can block the delivery passages and thus prolong labour as well as forming deposits on the baby. Therefore, because of the dangers of this sugar deposition, particularly in its role in blocking the delivery passages and causing prolonged labour, certain medicinal plants and foods are routinely recommended, particularly in the first pregnancy to rid the system of sugar and

other sweet substances, thus preventing the blockage of passages and to wash away the sugar deposits. The disease, which can result from the deposition of sugar crystals in the body of pregnant women, is referred to as Zaki (which literally means sweet or sweetness in Hausa language). It is also believed that prolonged and difficult labour can be caused by a membrane, Zurzur or gishiri (literally meaning salt), which covers the vagina and therefore blocks the delivery passages.

The membrane or sac is said to be a collection of “bad blood” and toxic substances collected there through dietary malpractices or failure to take specific medicines from the seventh month of pregnancy to stop the membrane forming and resulting in difficult labour. The condition is said to be contagious being caught from co-wives or relatives. Within the framework of Hausa traditional medicine “bad blood” is said to collect in various parts of the body such as the lower back or shoulders and the traditional treatment is cupping (Kaho). However, cupping in the vagina has not been described. When a woman has prolonged labour, the traditional medical practitioner considers that it may be an obstructed labour and a diagnostic test is done to determine whether it is due to gishiri or not (whether a membrane is obstructing the labour or not). The test consist of the woman washing her vagina with ashes and water, salt or water, or sometimes alum and water and if the patient does not feel anything then gishiri is the cause of the obstructed labour. (19)

The treatment of the condition consist of cutting of the membrane or sac by repeated small incisions made in the anterior vaginal wall were the outgrowth is said to lie, and rarely in the posterior wall of the vagina. A traditional spatula is inserted in the vagina and the incisions are made up and down or criss cross with the traditional metallic knives (Aska) or by a razor blade. The cutting is usually done by the wanzamis (Barber surgeons), or rarely by the older TBAs or by the

patient herself. The purpose is to let out the “bad blood”, cut the membrane, and treat the gishiri, which is the pathological condition of the anterior vaginal wall, and a collection in the area. Usually some bleeding occurs, at times, this may be profuse and result in severe antepartum haemorrhage and some deaths have been recorded of antepartum haemorrhage due to gishiri cutting. If the cuts are deep, they may result in VVF or RVF.

VVF due to gishiri cutting are characteristic since they are usually longitudinally clean cuts in the urethral or mid-vaginal areas. They are easy to repair. The size ranges from a pinhole to massive longitudinal fistulae of up to 6 cm long. The cuts may be done during pregnancy to prevent gishiri from and to ensure safe delivery or they may be done prophylactically or therapeutically during labour. However, it is important to note that the condition of gishiri is diagnosed and gishiri cutting is carried out for a large number of conditions not related to pregnancy, for example, to treat infertility, amenorrhoea, dysperunia, goitre, backache, dysuria and a number of other conditions. Gishiri is usually diagnosed in middle-aged women once their periods stop for a while, therefore gishiri cutting is done to treat the condition in these menopausal women. Another group of women in which gishiri is diagnosed and gishiri cutting is carried out is in young teenage girls. The reasons for these cuts are usually dysperunia or infertility. Twelve or thirteen year old newly married girls are often diagnosed as having gishiri when they experience dysperunia with their husbands and some are forced by their elders to have the “appropriate” treatment which may be gishiri cutting.

In one case of gishiri cutting, which had resulted in VVF, the diagnosis and treatment of gishiri had been made by the husband, who has cut his wife in order to widen her introitus, and subsequently brought her to hospital complaining of her leaking urine. Some women with dysperunia have been noted to diagnose gishiri

on themselves (i.e. possible pathology of the anterior vaginal wall) and they have cut themselves with razor blade with the assistance of a mirror, as a form of self-medication, but usually the barber-surgeon (wanzami) is consulted. Wanzamis are male traditional medical practitioners, widely spread, respected, and utilised for a variety of conditions.

There is also a related traditional practice carried out by the Hausa wanzamis in northern Nigeria that has also been noted to result in VVF. At times soon after birth the wanzami is called to remove what is called Argurya from the vagina, of the female child. This is claimed to be a fleshy outgrowth in the vagina although no actual tissue appears to be removed by the sharp traditional instruments used. However, in fact the wanzami may be cutting the hymen of the newborn. This practice is also carried out in young girls. At times when young newly married girls have dysperunia the wanzami is also called and he removes the so-called Argurya ("outcrop of fleshy material") from the vagina to cure the condition and permit satisfactory intercourse. These lesions may in fact be imperforate hymens or vaginal septums that are cut by traditional surgery. Infections, haemorrhage, VVF and RVF have been noted to result from such practices. Female circumcision though not common in northern Nigeria is widespread in southern parts of the country. This may result in injuries, infections, haemorrhage, VVF and septal scarring especially in the newborn.

During the Zaria VVF study of 1443 patients with VVF, it was found that 32.5% of all the Hausa patients actually studied (constituting 75% of the total sample studied) freely admitted to having had a gishiri cut. 15.1% of the VVF in Hausa patients were directly and solely due to gishiri cutting. Of these 43.8% were done during, before or after labour-the cut being the cause of the fistula rather than the labour. The reasons for the other cuts resulting in VVF not related in any way to

labour and puerperium included “feeling something coming out of the vagina” (24.1%); to menstruate properly (19.9%); dysperunia (16.3%); pain, itching and rash in the vulva and vagina (12.8%); fever and weakness (9.9%); to get pregnant (5.7%); dysuria (4.2%); other causes included prevention of illnesses; jaundice; enlarged thyroid; and “shyness with men”.

The central theme of these lesions is with respect to “something coming out of the vagina”, menstruation and dysperunia. On clinical examination, no prolapse is usually demonstrated in those who complain of something coming out of the vagina. With respect to the menstrual history of the patients: 31.4% were menopausal; 9.59% had no periods since their last delivery; and 16.2% had not yet begun menstruation.

Gishiri cutting has been noted to be carried out by the Hausa, Fulani, Kanuri, and Maguzawa tribes throughout the whole of northern Nigeria. It has not been described in the southern part of the country. In the north, it has been suggested that it may be more prevalent in amongst the Maguzawas and in the central areas. However, it is noteworthy that in some areas the medical personnel not aware of the condition and have not enquired about it from the patients.

Reports from Katsina indicate that 5.4% of the lesions in the area were due to gishiri cutting (97). In Harrison’s monitoring of 22,774 deliveries in Zaria, it was found that 90 women were admitted in labour with a gishiri cut. It is not known how many of these women had resulting VVf from the cuts but certainly the cuts must have been apparent enough to have been noted and recorded in a busy labour room. As indicated in the Zaria VVF study gishiri cutting is an important cause of VVF in northern Nigeria and its use is increasingly significant in frequency and in importance as a direct cause of VVF with increasing age.

OTHER CAUSES

Labour and the factors surrounding labour predominate the pattern of VVF in the country. The other causes of VVF in the country though numerically small illustrate further the environment in which the lesion occurs. VVF due to advanced carcinoma of the cervix are seen in the Nigeria; but they are not usually reported as part of the various studies of VVF in the country, since usually no VVF, repairs are attempted in such advanced malignancies, and the VVF studies are usually of a series of patients who had had VVF operations. In the Katsina study, the surgeon notes that he sees 5-10 patients with VVF due to advanced cervical carcinoma each year but since they are not treated, they have been excluded from his study. (97)

Infection

In the Zaria study, there were ten cases due to various types of infections including: lymphogranuloma venereum (3); Diphtheria (1), Measles (4); a boil in the vagina that had ruptured (1); and possibly a case due to schistosoma haematobium. Two of the three cases due to lymphogranuloma venereum were associated with rectovaginal fistulae and they all involved total destruction of the urethra.

The lesions due to measles are due to gangrenous vulvitis or noma (pudendi) vulvae, secondary to severe bout of measles. The pathology of the lesions is similar to those of cancrum oris or noma, a gangrenous stomatitis, which has been widely investigated and shown to occur in children with poor hygiene, debilitated by chronic illness or malnutrition, or after an acute bout of illness.

Coitus

In the Zaria study, there were six lesions due to sexual intercourse. All the patients were under 16 years of age, apart from one prostitute who had a lesion due to coitus at 18 years of age and subsequently she had repeated coital breakdown of the lesion after it was repaired twice. There was one suspected case of rape in a 9-year-old child, and one case of a fistula in a single unmarried girl, otherwise the others were all married. The age of the patients ranging from 10 to 14 is noteworthy, as well as the fact that all their husbands were polygamous (therefore with sexual experience at the time of marriage). The main factors in these injuries appear have been rough coitus and disproportion between the vagina and the penis. In another case, the husband used a cow horn to cut the hymen of his young wife and this resulted in a rectovaginal fistula.

Lawson (19) has noted two cases of laceration of the lower half of the posterior vaginal wall extending into the rectum in patients with vaginal stenosis following VVF repair, and a case of anterior vaginal wall laceration following coitus involving the bladder, resulting in a VVF, as well as a third degree tear after a first coitus.

Ikedife (19) in discussing coital injuries in eastern Nigeria has noted that “the common factor was the woman’s poor nutritional state, a condition which was very notable in the area, and soon after the Nigerian civil war. This possibly contributed to the easy traumatisability of their tissues” and subsequent coital injuries.

Trauma

In Lawson’s series from Ibadan, (4) there was one case of VVF due to perforation by stick. In the Zaria study, there were six cases due to trauma (other than due to coitus). The traumatic causes included the passage of calculus per vaginum after a previous successful repair of a VVF, penetration of vagina with sharp stick after

repair while the patient was trying to urinate at night, penetration of the vaginal wall after a fall from a tree, injury after falling astride a rope, fracture of the pelvis after a road traffic accident and a bite by a centipede like animal (kodan donya) in the vagina, which became severely infected, resulting in incontinence. All the patients, except the one, with passage of calculus per vaginum were under 16 years of age.

BIOLOGICAL DETERMINANTS

AGE AND PARITY

The major cause of VVF in Nigeria is prolonged obstructed labour due to cephalopelvic disproportion due to contracted pelvis. Teenage primigravidae are most at risk to acquiring obstetric fistulae. In the early teenagers, the pelvis is often too small for the baby, because growth is not completed when they become pregnant nor has it grown sufficiently by the time of labour. Recurrent childhood infections and malnutrition in childhood and adolescence can also interfere with the development of the pelvis, and such conditions are still common in the country. Available data suggest the existence of serious nutritional problems, particularly among infants and young children. Preventable infectious diseases still account for much of the high morbidity in the area with malaria, diarrhoea and measles accounting for majority of the reported diseases.

It has been estimated that poor childhood nutrition, frequent infections, and an early start to childbearing, often before growth is completed results in nearly 25% of the childbearing population being stunted leading to obstructed labour due to cephalopelvic disproportion (19). The oldest and most parous group constitute another possible risk group for developing VVF, since not only may they have a slightly contracted pelvis due to childhood and adolescent deprivations but also in

this group there is the added factor of the increase in foetal weight with respect to increasing maternal age and parity (25).

In the Zaria VVF study, 32.9% of the patients were under 16 years of age and 52.1% were primiparous. The younger patients also tended to have more severe lesions, more often associated with rectovaginal fistulas, third degree tears, obstetric palsies, and a greater amount of resulting fibrosis in the vagina. In the same study 8.6% of the patients were over 30 years of age. Some of the aetiological factors of these lesions in this old age group being increasing use of gishiri cut among older women, also multiparous women are more prone to rupture of the uterus, and the bladder secondary to obstructed labour.

In the series of patients operated in the Katsina centre by Waaldijk, 33.6% of the patients were under 16 years of age and 7.2% were over thirty years of age (33). In the study of 840 patients in Enugu, 68% of the patients developed the disease during their first confinement (29) and the age of the patients was said to have varied between 15 to 40 years with a peak at 27 years. Similarly Evoh et. al (34) noted that 52.4% of the 162 VVF patients in their study were primiparous at the time the lesion occurred and 29.5% were para 5 and above.

In the Zaria study 4.4% of the patients were noted to be nulliparous (those who had never been pregnant, including pre-pubertal lesions). This is due to the widespread use of gishiri cutting in the area as well as presence of other causes for the lesion such as congenital causes, infections, trauma, and coitus in these young girls. The foetal prognosis was found to be worse in the very young and the old patients, with no live births in those under 13 years of age nor in those over 40 years of age. Those patients under 16 years of age were significantly more likely to have juxta-urethral lesions compared to older patients. While the older patients were more

likely to have mid-vaginal and high lesions compared to those less than 16 years of age.

HEIGHT

Patients with VVF due to labour are commonly noted to be short statured. From the Zaria VVF study available height measurements for the 191 of the patients confirms this in as much as 63.3% of the patients were below 1.52 metres. The mean height of the patients with VVF due to obstructed labour who had their heights measured was 1.50 metres, which is below the mean heights recorded for the women in the area. (11) A more recent report from Sokoto specialist hospital gave the mean height of VVF patients in their series as 149cm (28).

Pelvic size is said to be related to stature and all these skeletal measurements correlate with socio-economic status (and therefore nutrition in childhood) (19). When compared to taller women, shorter women are more likely to have pelvic contraction, the presence of which exposes them to the risk of cephalopelvic disproportion, to an increased risk of caesarean section and embryotomy deliveries, and to an increased risk of acquiring VVF from neglected obstructed labour.

SOCIAL DETERMINANTS

EARLY MARRIAGE AND EARLY START TO CHILD BEARING

In the Zaria VVF study, 54% of the patients were 13 years or younger at the time of marriage, and 12% of them were 12-13 years of age at the birth of their first child (10). 5.5% (80 out of 1443) of all the VVF cases were in those of 13 years of age or less. Of these fistulae 48 (60%) were due to prolonged labour, 12 (15%) due to gishiri cut, and the rest due to other causes including congenital causes, infection, fracture of pelvis after road traffic accident, penetrating wound of vagina, and coitus (17,18). Waaldijk reported from Katsina that out of 500 patients,

365 (73%) developed the fistula at the age of 11-20 years. The youngest girl seen was 6 years old, she started leaking when she was 1 week old following a gishiri cut by a wanzami (barber). It is noteworthy that the gishiri cut in this age group were often due to dysperunia, the cutting occasionally being done by the husband when his young wife could not be penetrated. Some of the young girls admitted that had been forced to marry their husbands and they did not feel like having intercourse with them.

Traditional parents are increasingly worried about the loosening of morals in society therefore they want to marry out their daughters at even younger ages so that they will be virgins at the time of marriage. On the other hand, many of the older women feel that a girl at 12 or 13 is too young for sexual intercourse and that nowadays not all men have the restraint and understanding to wait until she is older. There is thus a conflict between the fear of premarital pregnancy favouring early marriage, and fear of enforced intercourse and difficult childbirth in early marriage. Early marriage is associated with early start to child bearing.

As Harrison has pointed out, whatever social benefit early marriage may have, it is associated with high maternal and perinatal mortality, largely because in many of these girls childbirth may be difficult even with comparatively small babies (35). The pelvis of these young primigravidae is not yet fully developed and may be contracted, therefore there may be obstructed labour, which may result in VVF if not surgically relieved on time.

EDUCATION

Only 0.2% of the VVF patients in the Zaria study had received some rudimentary conventional education, compared to 7% of all the women delivered in the area. In the patients with VVF, only 12% of them had even one relative who had received

secondary education and 33% primary education. These relatives were all male members of the family. The role and relation between lack of formal education and VVF is important and has been discussed by Harrison and other commentaries on childbearing in the area (19).

In northern Nigeria education has been noted to be associated with a four fold decrease in maternal mortality, fivefold drop in perinatal mortality and nearly threefold decrease in prevalence of low birth weight babies. Educated women are at an advantage because not only they have better physique, but also because they start child bearing at the safest time, they receive antenatal care and report early for treatment when things go wrong.

STATUS OF WOMEN

Under some of our customary laws, a woman is a chattel to be sold by her parents to her husband to whom she becomes enslaved after the payment of the purchase price, the dowry. Upon his death, not only she has no right to inherit from his estate but she also becomes part of the estate of her deceased husband to be inherited by his heir. In some party of our rural communities, the women are not only the active farm labourers, but they are also the hewers of wood and fetchers of water. They plant the yams, cultivate the crops, harvest them, carry same on her head to the house, carry the surplus on her head to the market where she sells them and with the proceeds, she buys other essential commodities. She keeps the house and maintains the husband, the children and her self. Except tilling the land and making the ridges for planting the yams at the beginning of the rainy season, the husband does nothing else for the rest of the year other than drinking, singing and dancing. With respect to child bearing, apart from sexual intercourse, it is usually seen as “woman’s business”.

In northern Nigeria, purdah is widely practised in the Muslim communities. This is the practice of confining the women strictly to their matrimonial homes particularly during the day so that they do not encounter other men. Also male visitors are not allowed in women quarters of the living compounds. The women are not allowed to leave the compound under any circumstances without the permission of their husbands. Therefore, even during times of sickness, including during prolonged obstructed labour or eclampsia for example, the husband has to be found to give permission to go to hospital. Apart from the rigours of childbirth, women are often excluded from taking any decisions about treatment. In the absence of the husband, no one may be willing to take a decision. Therefore, a woman in obstructed labour has to continue in pain for several days further if necessary until the husband returns from a journey or is fetched. Even then there is no guarantee that the wife will be taken to hospital. The implications of this in the development of VVF are obvious.There have been cass of VVF developed in houses a few hundred metres from a teaching hospital with people in the household waiting for the husband to return.

Women with VVF come from poor subsistence farming backgrounds and are part of the disadvantaged members of the society. Murphy from her social studies of VVF patients in Zaria has noted that family support financially and morally drops with time (10). Husbands also readily send their wives to the girl's parents or divorce them because of illness or any other major problems. With respect to the VVF patients in Zaria, only 11% of those who had VVF for 2 years or more were still married with their husband; 55% were living with parents; 28% admitted that they were divorced because of the fistula, and 6% were widowed since the fistula developed. (10)

All over the country male children are more cherished and preferred to female children if a woman does not bear a male child after repeated attempts then she is either divorced or the husband marries another woman to improve his chances of getting a male child-heir to the throne! Preferential feeding of male children is practised compared to female children in communities with often with meagre resources and inadequate food supplies. The impact of poor nutrition in childhood and recurrent infections on pelvic growth has already been noted. Males are also given preferential educational opportunities compared to females even when the female child may be more deserving.

QUALITY AND UTILISATION OF HEALTH FACILITIES

The availability, access, quality and the utilisation of health services has a direct relevance on the incidence of VVF since, if obstructed labour can be prevented, or relieved quickly and effectively before labour becomes prolonged, then obstetric VVF can be prevented. Conversely, if there are no accessible, available, effective services or if the services are not utilised then obstructed labours will become prolonged with their entire sequel. There are certain factors that may delay or inhibit the use of modern services.

ROADS AND TRANSPORTATION

Difficulty of access, such as due to poor roads, poor transportation and prohibitive transportation costs make the women in rural areas poorly served by modern healthcare, more prone to VVF. In the Zaria VVF study, 8.1% lived in the state capital, 41% lived in the district headquarters while 54.3% lived in other villages and or hamlets. Transportation in rural areas is poor, irregular and costly. Usually patients walk or are carried by an animal (such as donkey) from their village to a main motorable road sometimes over long distances. At the main road they have to wait for a variable periods of time for a vehicle to stop and carry them to a major

town from where they often have to travel again to a town where hospital facilities are available. Moreover, they need to go to health facilities where the workers are not on industrial action. From such hospitals, they may be referred to tertiary referral centres in complicated cases. Since taxis and buses usually fill up their vehicles in motor parks in various towns, they are usually full and are not likely to pick people on the roads. In addition, the sight of a poor peasant woman in labour with peasant relatives is not attractive to a driver and usually attracts higher charges. At most hospitals, there is only one ambulance, with all the difficulties of maintenance, finding fuel and the driver, for emergency duties

QUALITY AND UTILISATION OF HEALTH SERVICES

All over the country there is reported to be under-utilisation of modern health services. Such services are often mistrusted and strange to traditional dwellers that usually prefer to come only as a last resort. Therefore, antenatal clinic delivery systems have difficulties in being established in the most needy areas. One of the major reasons for this in the northern areas is because of the shortage of female health workers who are essential for administering such services.

In many of the district hospitals, particularly in recent years, there are no available drugs or dressings and patients have to purchase everything. Before a caesarean section for example can be performed to relieve an obstructed labour, the patient's relatives have to purchase all the drugs and dressings including anaesthetic gases. In addition, they have to buy petrol for the generator and often for the ambulance to go and fetch the doctor, as well as finding donors, the haematologists, blood bags and infusion sets, before the operation can begin. All these items are costly and the relatives have to find money in strange surroundings having travelled from their village to the town for such emergency treatment. At times relatives have to return to the village again to find money and donors and return to the hospital

again before any surgery. The attitudes of doctors and midwives towards the illiterate rural patients has not generally been well publicised by the patients. In the northern parts of the country where women are kept in strict purdah and are not use to seeing other men, they are confused by the hurried inexplicable vaginal examinations by young male doctors and having to deliver on their backs in front of others.

Busy midwives on low salaries, amidst mounting economic difficulties, with responsibilities of a home and children often do not have time for explanations. Patients see hospitals as places where operations are done. While the busy hospital doctors are also busy trying to unofficial private practices. A caesarean section is seen as a failure by the women to deliver normally and she will be afraid to return again next time in case another operation is done. Some VVF patients, who deliver in hospital for example by craniotomy, felt that their incontinence was due to the operation since they were not leaking before they came to hospital!

TRADITIONAL AND CULTURAL FACTORS

The possible problems of women in purdah in Northern Nigeria in reaching modern hospitals at times of emergency such as obstructed labour has already been noted.

The patterns of decision making, the importance of the approval of the husband, finding suitable escorts and transportation may all cause some delay in deciding to take to hospital. In addition, all over the country wish to deliver vaginally without interference and an operative delivery is seen as a failure on part of the woman. Kunya and the first delivery

The first delivery, which is often the most crucial delivery in terms of the development of obstetric VVF, is traditionally expected to be delivered at the home of the wife's parents. This practice is still strongly adhered to and can cause delay in reaching a decision to abandon home delivery and transfer the woman to hospital at times of difficulty. For subsequent pregnancies, home deliveries are also preferred and transfer to hospital is seen as a failure.

Among the Hausa and Fulani women traditionally on the first night of marriage, during her first pregnancy, and in all relationships with her first child, a woman adopts an attitude of great shyness and modesty referred to as kunya. This attitude is adopted to the first born irrespective of the sex of the chid and to the first female child if all previous children have all been male. Classically at first after her first intercourse, the girl is shy and avoids all people in the compound. During her first pregnancy, she will not display the fact that she is pregnant, in conversation, posture or preparation for the child. This has obvious implications with respect to encouraging antenatal care since they deny their pregnancies modestly and do not openly wish to be seen preparing for it. This is extended to even during labour, when early signs may not be publicised.

Spiritual houses and church deliveries

A number of informal reports from southern parts of the country have noted that most of the clients that have VVF following prolonged obstructed labour usually come from spiritual houses or after delivery of a dead baby at home.(105)

There is a proliferation of small private churches and spiritual houses in the southern parts of the country, some run by entrepreneurs and individualistic determined administrators. Some of the women members of the congregation at times opt to deliver in such institutions. Since such deliveries are seen as an act of

faith it is at times difficult in times of difficulty with the labour to persuade the women to go to hospital for delivery. Labours may become prolonged as all spiritual means are exhausted and tested to achieve natural delivery.

Traditional birth attendants

Traditional birth attendants (TBAs) are widely spread, widely respected and carry out majority of deliveries in all parts of the country. All the TBAs in northern part of the country are females whereas some male TBAs have been described in the western part of the country.

Among the modern health workers in Nigeria, TBAs are the cause of confusion and controversy and they are mainly accused directly of delaying the patients coming to hospital as well as some harmful practices. Harrison has noted that the TBA is very much part of the outdated and dangerous system of maternal health care, and that if her deployment continues after retraining, this will be tantamount to replacing one bad system with another (15). Kelly (135) writing in after office hours on the influence of native customs on obstetrics in south eastern Nigeria has noted that although antenatal care and hospital deliveries are slowly making inroads into ancient practices, most women in this area still deliver their babies at home. These labours and deliveries are supervised by the native midwives, women whose only qualifications seem to be either high parity or that they are the oldest women in the village. The native midwife does frequent vaginal examination during labour, using no form of cleansing. When delivery seems imminent, the patient is encouraged t push in the squatting position, if delay develops, the woman is placed supine with her knees flexed and separated, the midwife assumes a seated position, tailor fashion, between the outstretched legs. The midwife then proceeds to sweep her fingers back and forth inside the patient’s vagina to iron out and dilate the vagina. Often she places both of her hands inside the perineum and continuous

this process for several hours. Fundal pressure is used to assist delivery; pressure is applied by manual pushing on the fundus or by sitting or standing on the patient's abdomen.

Iloabachie, working in the same area, has noted that VVFs are due to protracted obstructed labours, probably in a mildly contracted pelvis, especially in rural areas where brute force may occasionally be used to extract a dead foetus (29).

Frustrations of respected obstetricians in seeing the endless number of obstetrical emergencies and women coming to hospital after many days in labour is understandable. If only they would come earlier, why do these women come so late, is the plea often heard when poor illiterate rural women come to hospital after 7 days in labour, moribund with dead foetus still in utero and a VVF already formed. The TBA is not the only one to blame. The scarcity and inaccessibility of appropriate services and the socio-economic status of the patients are also crucial factors as already noted. As Kelly has noted there are no telephone or radio communications in the bush and no ambulance services in eastern Nigeria. (19) The situation is not going to improve overnight. For the foreseeable future majority of deliveries in the country are going to be delivered by the TBAs whether modern health workers like it or not. Specific scientific studies on TBAs in the Eastern part of the country, in the west, and in the north (11,19), have all shown that training TBAs in modern health care may be the quickest and cheapest way to improve obstetric care, especially for women in the rural areas. TBAs can be trained to identify and refer high-risk cases.

CHAPTER 4
RESULTS FROM FIELD ASSESSMENT

Study Coverage

The results discussed in this assessment were collected across the country, the institutions visited have been listed in Appendices 2 and 3. The report does not include the assessment from all the states in the South-South Zone, Kwara and Nassarawa States in the North Central Zone, Gombe in the North East Zone and part of Jigawa in North West Zone. The discussion covered only the data collected and institutions accessed by the field workers.

Magnitude and Distribution of VVF Problem in Nigeria

Qualitative data was sought from the States' Ministries of Health on there own assessment of the magnitude of the VVF problem in their States. The responses from the different States in each zone are shown in Table 1. The responses showed both zonal and intra-zonal variation.

In the North Central Zone, two thirds of the States did not consider VVF as a health problem in their States. All officials had no information on the estimated number of VVF victims in their locality. In both the North West and North Eastern Zones, all the State officials identified VVF as a major public health problem, but they did not have any idea of the estimated number of patients. While the survey did not provide quantitative data on the VVF burden, recent community-based surveys conducted in the northern zones, the former northeast and northwest zones by UNICEF to, among others, assess the maternal health services utilization and problems associated with delivery documented incidence rates of 0.4/1000 and

0.7/1000 deliveries respectively among mothers that had delivered within 11 months of the survey (Ejembi et al).

In the South West, only Ondo and Ogun State officials alluded to VVF as a problem in their states.

In the South East, apart from Ebonyi State, all the other States thought that VVF is not a problem, the Chief Medical Officer in Anambra State even went ahead to say that 'there is no case of VVF in Anambra as we have skilled midwives and trained traditional birth attendants.'

Many of the states indicated that their lack of data on VVF was because VVF is not one of the notifiable diseases; consequently, routine data is not collected on it.

The non appreciation of VVF as a problem in many of the States may be a pointer to the lack of awareness and degree of ignorance of the problem of VVF, as it is known that anywhere a woman is left in labour for a very long time, VVF results. Available information shows that given the poor level of development of obstetrics services in Nigeria and the lack of access to emergency obstetrics services, VVF can be found all over the country, if searched for. Perhaps it is because of the lack of appreciation of the VVF problem or the low priority accorded the disease that none of the States, except Kano and Kebbi States, had a policy on VVF. In Anambra State, the Chief Records Officer of the SMOH said there is no point developing a work plan for VVF in the state as there is no case of the diseases in the State.

Curative Activities

Health Facilities Involved in VVF Repair Work - The distribution of health facilities identified in each State that are involved in VVF repair work and their volume of work is shown in Table 2.

In the North Central zone, 10 facilities were identified as involved in VVF repair activities. Among these facilities, only one, the Evangel Hospital, Jos, run by a faith-based organization, has a dedicated VVF unit.

The Northwest zone has 11 hospitals said to be active in VVF work. Of these, five are dedicated VVF centres, namely Laure Fistulae Unit, Kano, Faridat Yakubu VVF hospital, Gusau, Maryam Abacha VVF Hospital, Sokoto, Babban Ruga Fistula Hospital, Katsina and Special VVF Centre, Kebbi, all owned by their respective state governments. The remaining 4 are tertiary institutions; three being teaching hospitals while the other is a Federal Medical Centre.

There are 9 health facilities involved in VVF repair work in the Northeast; six are state government owned facilities, two, federal medical centres and one a teaching hospital. There is no VVF centre in the zone.

In the South West, 7 health facilities were identified as centers where VVF repair surgery is undertaken, two of these are teaching hospitals while the rest are general hospitals. No dedicated VVF facility exists in the State.

Southeast zone has 11 health facilities involved in VVF, six in Imo, one each in Ebonyi, Abia and Anambra, while Enugu has two. Private health care providers were found to be involved in VVF repairs in the zone, two in Imo and one in State,

the remainder being state government owned, except the teaching hospital in Enugu

Facilities for VVF Repair

The available facilities for VVF repairs are also assessed, both directly by the investigator and the interviewees. Of specific interest is access to theater facilities for repair work. The data collected revealed that, there are no separate VVF Theatres in all the Teaching Hospitals and Medical Centres owned by the Federal and State Governments, except in the Ebonyi State Teaching Hospital, even that is a result of support to the institution by the UNDP. which is supported by the UNDP. The free standing VVF Centres have separate VVF Theatres, these are often supported Donor Agencies like the UNDP, The Ford Foundation, Embassies and other Faith Based and Philanthrophic groups and individuals. Some of the Centres with theatres solely dedicated to VVF repair are the Baban Ruga Hospital in Katsina, the Laure Fistula Centre at the Murtala Mohammed Hospital Kano, the Birnin Kebbi Special VVF Centre, the Faridat Yakubu VVF Centre, Gusau, the Maryam Abacha VVF Centre Sokoto, and the Family Life Centre, Anua.

The equipment in each of these theatres were assessed by both the field assistants and the workers and the conclusion of that is that there are no Theatres that can be said to be fully equipped as of the time of the assessment, they were either lacking or broken down, and some of the theatres do not have special instruments needed for VVF repair, except in a few cases. The challenge in this regard is the management of the facilities with special reference to equipment maintenance and purchase. The other challenge faced by Doctors is in relation to the type of operating tables available for repairs, these are not flexible enough for the positioning of the patient for repairs.

The other crucial need for VVF repair is the availability of pre and post operation beds, in most of the VVF Centres, the commitment to VVF work is seen in the form of the provision of a hospital unit/bed for the purpose of Pre-operational and Post operational care. The free-standing VVF Centres have adequate bed capacity, Katsina has as high as 150 pre-operation beds, 40 Post Operation Beds and 24 for Rehabilitation. The second largest centre is the Family Life Centre, in Anua, Akwa Ibom State with provision for beds. The other centers with many bed spaces but yet not free standing VVF centers are, the Laure Fistula Centre with 30 pre-operation beds and 64 (including 9 matresses) post operation beds along with the ECWA Evengel Hospital, with 50 beds, 30 pre and 20 post operation. There are several other medium to small VVF Centres and Units in the country.

An assessment of the facilities across the geopolitical zones, shows that the North West has the best facilities for VVF work, they have four VVF Centres with separate VVF Theatres that are fully equipped, these have an average of 46 Pre-operation beds and an average of 32.8 Post Operation Beds. In the North Central Zone there is no free standing VVF centre, all of them are part of general hospital services, but the Evengel Hospital Jos, has the best facility for VVF repair, this consist of a unit of the Hospital which serves as a VVF centre. The other centres are the Teaching Hospitals and Specialist Hospitals, these are four, have skeletal facilities for VVF repair as part of the general facilities available in the hospitals. In the other Zones, an average of 6 Pre-operative Beds exist and 4 Post Operative Beds in the North East, there are three post and pre operation bed facilities preserved for VVF work in the South East, these are found at the Ebonyi State Teaching Hospital. In the South West there are no special arrangements made in the form of any kind of facility for VVF repair, the few repairs are undertaken in

shared theatre facilities in the hospitals, most of these are Teaching and Specialist Hospitals.

The majority of the Doctors interviewed linked the lack of attainment of their optimal capacity for repairs to the lack of adequate facilities and equipment, especially the lack of separate theatres (Table 3). The other challenges mentioned are the lack of surgical equipment, theatre table, theatre and bed space and other infrastructure such as electricity and water supply to ensure effective repairs.

The surgical consumables needed for the operations are often provided free for the Patients in almost all the VVF Centres in the North West, except in cases where the centres have run out of supply. Discussions with the VVF patients, however, contrary to the position of the officials of the VVF Centres or Hospitals, revealed that in an increasing number of cases, the patients have to be responsible for most of the consumable. A few Faith Based Organizations, such as the Evengel Hospital Jos, and the Family Life Centre Anua, provide more free services to the patients, even though this often limits the capacity of the centers as only the number that they can adequately manage are admitted. Accessibility to the consumables is increasingly becoming a major challenge for both the patients and the Doctors, especially in the North East and the North West where there are trained Doctors who have no access to extra resources they can use for VVF work. The low patronage of these centers could therefore be a factor of the high poverty of the VVF patients.

The Rehabilitation of VVF patients has become necessary because of the social stigma attached to VVF, both before and after repairs, and also because most of them end up being divorced and thrown on the street without a means of livelihood. The majority of the women come from very poor and uneducated

backgrounds, this makes their economic empowerment necessary, and would this often take the form of the economic rehabilitation through the provision of income earning skills. The major challenge in rehabilitation is that this is often capital intensive and difficult to sustain. The available Rehabilitation services often take the form of a hostel, that will serve them during the waiting periods for the operation, and also during the post operation period, in preparation for return into their communities. Skills training is provided in the following areas, dress making, knitting, cookery, pomade making and other relevant skills within the patient's immediate environment, as well as, life value skills, basic hygiene and marketing skills, the training often lasts for three months and for the majority of them that covers the period from when they arrive at the centre until they leave, the period could be as long as seven to eight months in some cases. Feeding at the Rehabilitation Centres are expected to be free, but in most of the cases, the patients take care of their feeding, this is mainly as a result of scarcity of resources available to the centre, as well as, the tendency for prolonged stay at the centres.

The centres that currently provide rehabilitation facilities are the Evengel Hospital, Jos, The Family Life Centre Anua, the Baban Ruga Fistula Hospital, Katsina, and the Special VVF Centre in Birnin Kebbi, the Maryam Abacha Centre, Sokoto, the Kwalli Hostel, which is part of the Laure VVF Centre, Kano. Some of these centers, such as, the Maryam Abacha Centre Sokoto and the Special VVF Centre in Birnin Kebbi, have enjoyed support for rehabilition from the National Poverty Alleviation Program.

In conclusion, it can be said that, the general assessment of the facilities in country for VVF work reveals that there are still major gaps that need to be filled if the optimal condition for VVF work is to be ensured. In all the centres there are still

major needs of VVF facilities, these range from capital intensive input such as buildings, equipments to consumables.

Human Resource and Human Resource Development for VVF Work

Teaching hospitals in the country have the responsibility of training specialists in obstetrics and gynecology. These are supposed to be the doctors with the requisite knowledge and skills in VVF repairs and hitherto most of the VVF repair work, apart from the surgeries being carried out in specialist centers were done there. Unfortunately, for more than a decade, it was observed that because of the high cost being charged in the teaching hospitals, because of the introduction of various cost recovery policies, very few VVF surgical repairs were taking place in these facilities, because the patients could no longer afford the charges. Recognizing the implications in terms of access to care for the patients and the declining VVF repairs skills acquisition in the teaching hospitals, the National Foundation on VVF developed a three months skills- based training curriculum for VVF repairs for general practice doctors and another for training nurses in holistic post-operative management of VVF patients. To date the following categories of doctors have been trained under this scheme:

- General practitioners 57
- Deputy surgeons 15
- Senior registrars 22
- Visiting consultants 27

In addition, more than 100 nurses have been trained. The names and addresses of the persons trained are shown in appendix 4.

This training led to the expansion of the VVF treatment outlets, especially in the northern part of the country. Unfortunately, information is not available on the places of current deployment and the VVF-related work output of many of them.

The data on the distribution of health personnel currently involved in VVF work as provided by the informants during the field trips is shown in table 4, other information on trained health workers identified in the region is shown in table 5. Most of the State officials did not provide information on the current number of doctors carrying out VVF repairs in the teaching hospitals, perhaps because these facilities are not under them or because the VVF work they are doing is comparatively insignificant. However, the NF-VVF assumes that in each teaching hospital, all obstetrician/gynaecologists of the rank of senior registrars and above should have the skills to carry out VVF surgery.

For the Northeast zone, University of Maiduguri Teaching Hospital has the highest number of doctors, followed by FMC Gombe while the General Hospitals have the least number of doctors. All the facilities, except Specialist Hopital Bauchi have at least one doctor that has undergone the NF-VVF developed training in VVF repair surgery, with the Specialist Hospital Maiduguri having the highest number of 4. However, not all the doctors trained are carrying out VVF work as shown in the table, for example, only one of the doctors trained in the Specialist Hospital Maiduguri actually does VVF surgery. The table shows also the teaching hospital and the federal Medical center in the zone has the highest number of doctors involved carrying out VVF surgery. All, except 2 of the facilities have nurses that have undergone the special NF-VVF developed training in either Anua or Kano, under the tutelage of Drs Ann Ward and Kees respectively.

The northwest zone has the highest number of health personnel that have been trained in VVF repair work with Kano State having the highest number of 12 doctors and 19 nurses trained by Dr Kees as reported by the Kano State VVF coordinator. However, the distribution of doctors in the VVF treatment facilities

shows that these trained personnel are not there. There is paucity of data on the human resources and VVF work from the teaching hospitals in the zone. It is however evident that all in these facilities, the skilled personnel, trained obstetricians in the zone are found these facilities and they account for a disproportionate number of skilled personnel with potential for VVF surgery, but they undertake only a disproportionately low proportion of the work. Two of the VVF treatment facilities, Kofan Kanya General Hospital, Zaria and the VVF Center in Gusau, do not have a resident doctor doing VVF work but depend on visits from Dr Kees, who goes there monthly to carry out repairs. The other facilities have between one and 3 doctors that do VVF repairs. Some of the facilities have more than 10 trained nurses.

There is a general dearth of information on the human resource availability for VVF is the Southeast zone. While there appears to be very many health facilities listed as places where VVF work is being done, there were no reports on the staffing situation, the number of gynaecologists available and the number actually doing VVF repairs. However, available data tends to suggest that the paucity of data may not be unconnected with the lack of appreciable VVF surgery going on in the zone generally.

There was no information provided on the number of doctors available in the 8 facilities indicated as carrying out VVF repairs. All the facilities had at least one consultant gynaecologist, the number of residents in O&G was not state. Five of these facilities were teaching hospitals that had between 5 to 14 consultant gynaecologists. Four of the facilities had no doctor that had received any special training in VVF repair, the rest had one, except Onabisi Onabanjo University Teaching Hospital that had 4. None of the facilities had any nurse that had undergone the VVF post – operative nursing care training.

VVF Repair Output

Available evidence from the NF-VVF records show that there has been remarkable improvement in the number of VVF repair surgeries being carried out in the country in the past decade. By the beginning of 1990, more than 70% of the estimated 1000 VVF repair surgery in the country was being done By Drs Kees and Ann Ward. Paucity of data from other places and perhaps the lack of trained VVF doctors outside the teaching hospitals and the then two VVF centers may have been accountable for the low repair output. It is evident that the training of doctors through the NF-VVF designed program has opened more centers with consequent generation of more widespread information on the situation of VVF outside the catchment areas of the teaching hospitals and the 2 VVF centers, especially in the northern part of the country.

The data from the field visits suggests that the most of the VVF repair work still takes place in the northern zones. Although the data from the Southsouth zone is not available, Dr Ann Ward center in Anua is reputed to do more than 400 repairs per year.

The northwest zone records the highest number of VVF repairs. Dr Kees working in 7 centers in the northwest has carried out 12,527 VVF repair surgeries between 1996 and 2002. In addition, 17 of the doctors he trained, working in the Northwest, for which information was available, had by 2002 carried out between them, a total of 4350 operations, with the numbers carried out by individual doctors raging from 150 to more than 1,800. Generally the number of repairs per month ranged from 5 to 120 per month in the VVF centers and Kofan Kanya General Hospital, Zaria. While scanty data is available from the teaching hospitals, past data suggest than the hospitals in the zone carry out less than 3 VVF surgeries in a month.

As shown in table 2, the Evangel Hospital, a faith-based hospital is the most active center in the zone, conducting an average of 30 repairs per month. The doctor doing the work was trained under the NF-VVF program. There is no information on the VVF work output of the two teaching hospitals and the National Hospital in the zone. The other hospitals for which information is available in the zone, State and Federal Medical Centers do from as low as 2 VVF operations in 10 years to 4 per annum.

The number of VVF repairs recorded in the northeast zone ranged from I/month in the Specialist Hospital in Jalingo to 10/month in UMTH and FMC Gombe with a zonal mean of 4/month in the centers listed as treating VVF centers.

The number of VVF repairs being carried out per facility in the South West and South East zones is abysmally low. In the South West, it ranged from less than 2 per year to 10 per year. Lagos State University Teaching Hospital, UCH, Ibadan and FMC Abeakuta had the highest number of 10/year. Lagos University Teaching hospital does about two per year. There was no information on most of the centers said to be carrying out VVF repairs in the South East. For the three that had information, the number of VVF repairs ranged from less than one per year in UNTH Enugu to 2 per year in Ebonyi State Teaching Hospital.

It is evident that most of the VVF repair takes place in dedicated VVF treatment centers and there is no relationship between personnel availability and the volume of VVF repair work taking place in the different treatment centers

Cost of VVF Surgery

Information was sought from the different centers on how much it costs for one attempt at surgical repair and what the different items of cost were. Table (6) gives

the details on the payments VVF patients have to make in each center. The cost of treatment ranged from none to about N80, 000 (excluding bed and feeding) in Ahaeze Private Hospital in Anambra State.

Generally, VVF Center said they provided free treatment, especially in the Northwest. It has however been observed that even though most of these facilities say they provide free treatment, often times the consumables are out of stock and patients have to provide and also they take care of there feeding arrangements. Except for the private hospitals in the South East, the teaching hospitals charged the highest rates.

Analysis of the data at the zonal level showed that in the South West zone, all the centers charge for treatment. The teaching hospitals in the zone charged between N16,360 to N49,100 with a mean of N29, 209, the State-owned health facilities charged a mean of N20, 700, ranging from N17,600 to N25, 700. Information was provided at State level only for a few centers in the Southeast and the cost of care was said to range from an average of N3,250 in Imo to N30,000 in UNTH with a private clinic charging as high as N80,000 as partial cost of care. There is no data for the South South.

In the North, the cost of care in the Northeast zone averaged N19,775 for teaching hospitals ranging from N11,470 to N25,700, while the state owned facilities charged from N4,450 to N15, 555 with an average of N8, 331 per VVF surgery. In the North central zone, the only faith-based health facility involved in a lot of VVF repair surgery, the Evangel Hospital, Jos, estimated that it costs approximately N25, 000 for one VVF surgical repair but treatment is grossly subsidized for the patients, as a result, the patients pay only N450. Payment at the three State-owned facilities for which information was provided in the zone showed that the patients are charged from N960 in Kogi State to N7510 in Minna with a mean of N5,323.

In the North west all the VVF centers indicated that they provide free treatment, so also the state general hospitals. However, it is known that Kofan Kanya General Hospital charges N2000 per patient. FMC Birnin Kudu in Jigawa State indicated that it charges N5,000. No information was provided on the charges made in the teaching hospitals in the Northwest and Northcentral zones but from the knowledge of what obtains in the teaching hospitals in these zones, the cost in any center will not be less than N15, 000 per surgery.

Given the poor background of the patients, majority of them may not be able to afford the costs being charged in the hospitals for repairs. This may be one of the major deterrent to their patronage of these fee-paying centers. While it is known that in some of the centers, provision is made for paupers it is near impossible to access these facilities, consequently, a lot of the VVF victims are unable to access care in most of these teaching and general hospitals.

VVF PREVENTION AND CONTROL ACTIVITIES

There are various initiatives by different organizations on VVF in the country, some of the ones identified are highlighted below:

National Foundation on VVF

- Production of Copies of Radio Jingles on VVF in Hausa Language for Northern Listeners
- Development of and production of copies of a pictorial on the causes and prevention of VVF
- Rapid Assessment of VVF Situation in Nigeria

Dr. Ann Ward (Family Life Centre, Anua)

- VVF Repairs

- Rehabiltation
- Training of Doctors and Nurses

Kees Waaldijk (Baban Ruga Hospital)

- Training of Doctors
- VVF Repairs in Babbar Ruga Fistula Hospital Katsina, Special VVF Centre Birnin Kebbi, Faridat Yakubu VVF Hospital Gusau, General Hospital Hadeija, Lure Fistula Center Kano, Maryam Abacha Hospital Sokoto, Kofan Gayan Hospital, Zaria.
- Training Workshops

Federal Ministry of Health

- Co-financing of Rapid Assessment of VVF situation in Nigeria
- Host meetings of the Expert Group on VVF

UNFPA

- Sponsorship of the Expert Group on VVF meetings
- Support for Nigeria's participation at the International UNFPA meetings on Fistula

UNDP

- Support for Rehabilitation in Kano State

NAPEP

- Provision of Rehabilitation Services for VVF Centres

FORWARD (Danbatta VVF Rehabilitation Centre)

- Rehabilitation of VVF patients

Kano State Government

- VVF Repairs at Murtala Mohammed Hospital
- Rehabilitation of VVF Patients

CONSTRAINTS TO OPTIMAL VVF WORK IN NIGERIA

A number of constraints have been identified as militating against the prevention , treatment and rehabilitation of VVF. The following are the main factors identified:

- **Political Commitment**

Before the NF-VVF and other women organizations embarked on advocacy to raise the level of awareness and political commitment to the cause of VVF, about a decade ago, there was a general ignorance even among policy makers about the issues relating to VVF. Consequently, the level of political commitment was very low and VVF was never an agenda issue at policy level. Since the onset of advocacy work by NF-VVF the level of political commitment at the federal level has waxed and waned. Of recent however, both the Presidency and the Federal Ministries of Health and Women's Affairs and Youth Development have demonstrated commitment to the cause of VVF and has even initiated the a national project to clear the VVF backlog and rehabilitate the victims. While some state governments have shown commitment and provided resources to support VVF work, others have not been forthcoming.

- **Policy Environment**

There is no national VVF policy and most states have no policy on VVF. Other related policies that may be supported of the VVF cause, for example policies on female education, age at marriage for girls, access to comprehensive, quality maternal health care including emergency obstetric care, especially in the rural areas, deployment of nurse/midwives to rural areas, subsidizing the cost of ANC and delivery for women, exemption of VVF patients from payment of hospital charges, which have all been the focus of NF-VVF advocacy work, are still on the drawing board/suffering from lack of implementation.

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- **Socio-cultural Factors**

The underlying determinants of VVF are rooted in socio-cultural values and practices that subjugates women, especially in the northern part of the country and denies them access to societal resources and opportunities for self-actualization. This limits a woman's participation in decisions at both the private and public spheres on all matters that relate to her health and well-being, thus exposing her to the risk of early marriage and its attendant consequences. The major problem is the inability of women to confront and challenge these negative socio-cultural practices.

Poverty and lack of infra-structural development in the rural areas have also been identified as major risk factors. Others include ignorance and misconception about the causes of VVF leading to stigmatization and rejection of the victims of the affliction

- **Health Services –related factors**

Very many factors have been identified, relating to the health system in the country that increases the risk of development of VVF or limits access to treatment. These include:

I. General collapse of the PHC system in the country
II. Lack of quality accessible essential and emergency obstetrics care
III. Unaffordable obstetric care
IV. Lack of skilled personnel and other resources for the provision of emergency obstetrics care
V. Poor attitude of health staff
VI. High cost of VVF treatment, especially in teaching hospitals
VII. Inequitable distribution of available skilled personnel for VVF repair
VIII. Inadequate facilities for VVF work in the none VVF centers

IX. Lack of comsummables for VVF repair work in most of the hospitals
X. Non integration of of VVF rehabilitation in current VVF management efforts
XI. Non recognition of the current VVF training by the postgraduate colleges of Obstetrics and Gynaecology.
XII. Stigmatization of VVF patients by even health workers

- **Intervention Strategies**

Until very recently, the strategies dealing with VVF in the country sought to deal with the problem within a medical paradigm without much success as it is more of a social problem. Also, the strategies are not holistic and they lack coordination. There seems to be very little attention to prevention and rehabilitation in the current intervention efforts.

STATE REPORTS

NORTH CENTRAL ZONE

The States surveyed are Plateau, Nassarawa (no data obtained) Benue, Federal capital territory Abuja, Kwara and Niger States. In all the states, top ranking officer of the ministry of health were interviewed and where possible, the officer in charge of the facility that did VVF work was also interviewed.

PLATEAU STATE

The officer interviewed was the Director Planning, Research and statistic and the interview was on 12/2/02. He agreed that the state has problems of VVF, but had no documented information on VVF. Government work on VVF was the health talks and occussional surgeries done in government hospitals and clinics, but there was no policy or data in the state MOH on VVF. The ministry identified two facilities involved in VVF work and they were the Jos University Teaching Hospital and ECWA Evangel Hospital Jos. Beside the two facility, and the Evangelical Church of West Africa. The officer was not aware of any other organization working on VVF in the state. He was not also aware of any VVF related work on VVF going on with government and neither any government work plan on VVF.

The Health Facility During VVF work:

This was the ECWA Evangel Hospital in Jos, Jos North Local Government of Plateau State. The hospital has a dedicated unit doing VVF work call the Evangel VVf Centre. It was a Mission/Church Organization that started the VVF work in 1992.

The centre has seven doctors, ten nurses, one social worker, the rehabilitation worker, three gynaecologist (who could do 30 repairs in a month) and two trained VVF nurses committed to the VVF work. See table for the names of the trained staff. There was no visiting VVF surgeon.

Infrastructure:

The facility had an operating theatre with two surgery days and full complements of instruments though inadequate set because of the workload. The centre has fifty beds for VVF:- thirty for preoperative patient and those under going skills training and twenty post operative beds. All surgical consumables are supplied free and cost covered by the hospital and donors. The actual average cost per treatment session was twenty five thousand as per the time of interview. This cost was made up of one hundred and fifty Naira for card, fifty Naira consultation, investigations cost one thousand five hundred Naira, surgery fifteen thousand Naira, bed fees three thousand five hundred Naira, food two thousand Naira and drugs five thousand Naira. Of these costs, the patients paid four hundred and fifty Naira only. For this all the patients were able to pay, and the balance covered by the hospital and donors. Even where the patient cannot pay, the required N450.00 she is still not denied surgery. Some times the patients were also from transported back to their villages when they have no transport money.

ECWA Evangel Hospital, SIM Mission and Christophel Blinden Mission (CBM) were the main donors to the centres via grants.

Rehabilitation

The facility also had a rehabilitation programme for the VVF women, which was part of the centre. The bed allocation for the women undergoing rehabilitation was not specified but as at the time of the interview there were fifteen women under going the skill rehabilitation and it was a mix of all the patients (pre-operative,

recovering patients, cured and uncured). The life skills lessons included dress making, knitting, cooking, pomade making, life value formation, basic hygiene and basic marketing skills. Their courses lasted 3 months. The rehabilitation women were also fed by the centre during the 3-month at the cost of about six thousand Naira per person and the costs were covered from the donor grants.

Patient Profile

The majority of the women at Evangel VVF centre came from Plateau, Benue, Nassarawa states. Others came from Bauchi, Gombe, Yobe, Adamawa, Taraba and Kano states. The average age of the patients was 22 years, most with one previous deliveries that (and often the first delivery that resulted in the injury). The majority of the women were not literate, very poor and of low socio- economic status and their injuries resulted from complications of childbirth. Mainly neglected prolonged labors. The centre could repair 30 women per week under optimum condition which means having more operating days, more operating rooms, uninterrupted electricity and water, full operating motivated staff.

The project director of Evangel VVF centre proffered the following recommendation on the VVF patients care and problems: There is need to build in incentive and motivation for staff that offer VVF care and services. VVF patients care and maternity care there after should be free. The facilities offering the services need and deserve adequate and continuing supplies of surgical consumable since majority of the patients are poor. General improvement of socio-economic status of the people, and particularly women will surely reduce the incidence of VVF among our women. This can be better achieved through purposeful girl child education through both formal and informal approach. Finally adequate funding of the hospitals and maternity centres and watching out against workers industrial strike in the health sector.

NASSARAWA STATE

We were not able to get data or secure interview with any of the principal officers of the state ministry of health. Neither was the effort at the State Specialist Hospital helped. Verbal communication with HMB Director of Medical Services and a Consultant at the specialist hospital indicated that VVF is a problem in the state but there was no specific VVF related work on going in the state.

BENUE STATE

State Ministry of Health

The officer interviewed at the state was the State Executive Secretary, Hospital Management Board on 14/02/03. He said the state had no problem of VVF and he too no adequate information on the number of VVF women in the state. The Government also had no specific involvement in VVF related work in her programs. The state had no policy or data on VVF. He gave us the name of four health facilities in the state that did about eight cases of VVF over a year. These facilities were the General Hospital Gboko-4 cases, General Hospital Otukpo-1, General Hospital Katsina ala- 1 and the Federal Medical Centre Makurdi- 2. There was no any other organization involved with VVF related work in the state.

There was also no information on any VVF related work sponsored by government, and neither did the government had a work plan on VVF.

Health Facility doing VVF related Work

The respondent identified the Federal Medical Centre (FMC) Makurdi as the health facility doing VVF related work. FMC Makurdic was in Makurdi Local Government Area (LGA) of Benue State and was under the proprietorship of the Federal Government. It was established in 1999. The respondent at the facility, a Consultant Obstetrician and Gynaecologist stated that there was one trained VVF

doctor and two Gynaecologists among the VVF staff in the facility. The trained VVF doctor was Dr. E. T. Agida, who had his VVF surgical experience during his residency training in Maiduguri from 1992 to 1998 under Dr. Obed. He did about two repairs per year. There was no trained VVF nurse and neither a Visiting Fistula surgeon in the facility.

The facility had an operating theatre, but with no dedicated VVF surgery days. The patients were booked as routing surgical list. It also had no appropriate instruments and surgeries were done with improvised instruments. There were no special beds allocation for VVF patients. The surgical consumable and drugs were supplied to patients on fee or the patients bought them from the drug stores when the stock in the facility is depleted.

The actual average cost of VVF treatment in the facility was twenty one thousand Naira per treatment session. This was made up of card – one hundred Naira, consultation free, investigation two hundred and fifty Naira, surgery seventeen thousand five hundred Naira, bed fee one hundred and fifty Naira per night (giving three thousand one hundred and fifty Naira per session). There was no food provision and the drugs were not charged. The patients bore all the cost of care and hence only negligible number could pay among the VVF patients. Surgery was not done for patients who could not pay. No support for VVF patient care was obtained from anywhere.

Rehabilitation

There was no any rehabilitation program for the VVF patients in the state.

Patients profile

The few VVF patients that came were from Benue state. Since the number was negligible, the respondent could not trace the records of the patients, but recalled that the injuries were from neglected prolonged labor.

Optimal Condition and Recommendation

The facility believed that under optimal condition, it could treat two VVF patients per week. The optimal condition here was proper VVF operating table and the necessary instruments.

The factors that limited their work in VVF patient care were the cost of the care born by the patients and the lack of appropriate instrument.

The consultant Gynaecologist offered this recommendation on the care of VVF patients; " A well equipped VVF centre and trained personnel in the areas of high prevalence."

KWARA STATE

MOH official interviewed was the Director Primary Health care, Kwara State on 18/02/02. He stated that VVF was not a problem in the state, though he had no information of the number of VVF patient in the state. The state government was not involved in any VVF related work because the problem was almost non-existent.

The state had neither policy nor data on VVF and there was no hospital and organization that could be identified as involved in VVF work. The state also did not have any work plan for VVF work. All the other in formations requested were neither available in not applicable since there was nothing on VVF in the State.

FEDERAL CAPITAL TERRITORY ABUJA

The officer interviewed was a consultant O&G at the general hospital and the municipal area consol. The interviewed was on the 21/02/02. The consultant stated that the FCT had no problems of VVF, but had no documented information on VVF. Government work on VVF was the occasion/surgeries done in government hospital, but that there was no policy or data in the FCT MOH and Hospital on VVF.

The consultant identified two facilities that have been involved with occational VVF repair; they were Wuse General Hospital and Garki General Hospital. Besides the two hospitals, he was not aware of any other facility, organization involved in VVF work nor any government work plan on VVF.

The Health Facility Doing VVF work:

The Health facility that has done the few VVF cases was the General Hospital and the Wuse municipal area council. VVF work started in 1988 and only six VVF surgeries were recorded now ten years. The centre had two trained VVF doctors, no trained VVF nurses, no social worker and there was also no rehabilitation programe.

Infrastructure

The facility had an operating theater, however due to the low turn out, there are no specific days set aside for VVF surgery. There were no appropriate VVF instruments. As such they improvise. There were no specific ward or beds set aside for patients with VVF.

All surgical consumables were supplied by the hospital on fee and the patients were required to pay for them. However, where the facility did not have them available, the patients were required to buy from chemist shops. The average actual cost per VVF treatment was six thousand Naira; card fifty-Naira consultation was free, investigation cost two hundred Naira, surgery three hundred Naira, bed was free and drugs did cost one thousand Naira. The patient paid for all of these cost regardless of their social and financial position as there was no specific organization or government funding designated to the treatment of VVF.

Rehabilitation

There was no rehabilitation program in the facility. The patients were left to recover and then go home.

Patients Profile

Majority of the patients that had undergone VVF surgery at the hospital were from the rural areas. The average age of the patients was usually 22 years, most of them married, illiterate and of low socio-economic status. This they developed VVF through childbirth.

The consultant stated that lack of optimal conditions is what is limiting VVF repair and the facility and said the solution to VVF patients care and problem include the

establishment of VVF centres and provision of optimal conditions of which he did not state.

KOGI STATE

The officer interviewed was the Permanent Secretary and Chief executive, Hospitals Management Board. The interviewed was conducted on the 4th/03/02, He stated that VVF was not a problem in the state and as such there was no state policy or work plan on VVF. That the government was involved mostly no prevention by positioning medical officers in virtually all communities of the state, even though there was no data on VVF. The state had also trained the doctors as a VVF surgeon. He said there where no NGOs involved in VVF or related work in the state and the only facility known to him involved in VVF repaired was the General Hospital Okene.

The Health Facility Doing VVF work.

This was the general hospital Okene and that VVF work started in 1993. if had a trained VVF doctor, no trained nurses, no visiting surgeon. See table for doctors name, year of training, duration and place.

Infrastructure

The facility has an operating theater, there were no specific days set aside for VVF repair/surgery as the operated as the patients come. The patients buy their surgical consumables and drugs from chemist shop outside the facility.

The permanent secretary could not give the actual cost of treating VVF per patient but he did provide the following breakdown: card cost one hundred Naira, consultation was free, investigation cost one hundred and fifty, service charge and consumables cost five hundred Naira and the bed was ten Naira per night. The

patients were expected to pay for all of these, as there was no support for VVF work not from government or any NGO at the facility.

Rehabilitation

There was no rehabilitation programe at the facility as the patients are meant to go through the normal process recovery and that was all.

Patient Profile

The women that came for the facility were from Edo and Kogi State. They where usually 18-25 of age and sometimes in few instances 50 years of age, most not married but pregnant as such as a result of prolonged labour and malignancy the have VVF. There educational qualification was usually not as above primary school and they are poor.

According to the permanent secretary, under optimal conditions of patient turnover, instrument and related material for operation, the facility could do two to four VVF repairs in a week.

The limiting factors to VVF repairs at the Hospital were scanty patients, absence of the right equipments. Education of the girl child and counselling of the women. Dedicated equipped centres a cross the country and funding where the permanent Secretary recommendation on VVF patients care and problems.

NIGER STATE

The officer interviewed was the medical officer O&G at the General Hospital Minna. The interviewed was conducted on the 7th/03/02 and he agreed that VVF was a problem to the sate as there was information on the number of VVF patients in the state. However, because the only data was that in the O&G department of the hospital and due to its poor collection method and registration it was only made available for inspection.

The only facility involved in VVF work known to him was the general hospital Minna. Where the one doctor, four nurses and one social worker trained by the state government work. He was also not aware of any other organization working on VVF in the state.

The Health Facility doing VVF work.

This was the General Hospital Minna, the state owned hospital located at the state capital of Niger state. He could not state precisely when VVF work stated at the facility but it where many years ago. The facility had one trained VVF surgeon, two trained nurses and one social worker.

Infrastructure

The facility had an operating theater with one day a week dedicated to VVF surgeon even though the improvise the facility in the theater. There were no beds specifically allocated to patients and the facility supplies surgical consumables and drugs on fee or where not available patients buy from chemist shop outside the hospital.

Then at the facility the actual average cost of treatment was five thousand to ten thousand Naira, that is; card - ten Naira, consultation was free, investigation one

thousand five hundred, surgery three thousand to five thousand, bed was free and drugs one thousand Naira. The patients' bear all the cost and those who could not where sent home, as there was no funding or support coming from anywhere.

Rehabilitation

Though there was a social worker in hospital there was no rehabilitation programe and the facility.

Patient Profile

Majority of the patients at the hospital were from Niger state and few from border States. The patients were between the ages of 14-17 years, non-illiterate, prior and had VVF as a result of obstructed labour.

The medical officer stated that under optimal conditions the hospital could repair 35 VVF and this optimal conditions were Good/ideal facility. As the factors limiting there VVF repair where Manpower and facility.

His recommendation VVF patients care and problem was that every hand should be on deck.

STATE REPORT NORTH EAST

The States surveyed in the NEZ were Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe states.

ADAMAWA STATE

The Director Hospital Services in the Ministry of Health was interviewed; also the Chairman of the Health Services Management Board both agreed that it is a common knowledge that VVF is a problem in the state. There is no documented information or data though available, only one facility in the state is involved in

VVF work Yola Specialist Hospital now Federal Medical Centre Yola. This facility has a Doctor and a nurse trained in management of VVF patients. The facility though has no theatre dedicated to VVF work and proper specialized instruments for VVF repairs. The VVF repairs are done in the general theatre as part of general practice.

There is also no special ward allocated to VVF patients and rehabilitation facilities. The average cost of treatment in the facility is about N13,155 without feeding which is not easy to cost. All costs are borne by the patients sometimes there is exemption of bed fees. The majority of the patients come from the zone and Cameroon.

The average age of patients was 16 years and with one previous delivery which resulted in the fistula. Almost all the patients were non-literate and of very low socio-economic status. Major cause of fistula was prolonged obstructed labour.

The centre can repairs average of 5 patients per month under optimal condition it can be much more. The optimal condition having proper operating table and specialized instruments, supply of enough consumables.

Recommendation an the way forward in the VVF problem in the state zone have been categorized into two measures to reduce new cases of VVF and measures for the treatment of exiting cases.

Measures to reduce new cases

- Economic empowerment of women through girl child education.
- Advocacy, community mobilization and public enlightenment
- Training and proper distribution of health professional, who can respond to obstetion emergencies notably obstructed labour.

BAUCHI STATE

The person interviewed at the state level was the Director Hospital Management Board and he admit that VVF is a problem in the state, but there are no available data. He identified two facilities in the state that are involved in VVF work namely Specialist Hospital Bauchi and General Hospital Ningi. No Doctor in Specialist Hospital Bauchi has been trained on VVF repairs surgery, but the facility has a nurse trained in the management of VVF patients.

Specialist Hospital Bauchi has separate pre-operation, post operation and rehabilitation ward for VVF patients, but has no separate theatres or specific equipment for repairs.

The patients profile:- The average age of patients is 15 years and prim Para, mostly of non-literate and of low socio – economic status. The patients come from with the states in zone and Jigawa and Borno state. There can be 7 repairs per month and average cost of repairs per patient is between 5 and 10 thousand naira. The cost is borne by the patients and feeding is indeterminable. The patients in Specialist Hospital Bauchi receive intermitent support from NGOs mainly women organizations.

The limiting factor in the facility is the absence of proper instrument and operating table.

Recommending training of personnel for VVF work and provision instrument of consumable for VVF work. Also very important encouraging the girl child education there by reducing early marriage improving their socio-economic status.

BORNO STATE

In Borno State there are two facilities that are involved in VVF work. The teaching Hospital which is Federal Government owned and the state Specialist which is owned by the state Government. These two facilities has the highest manpower for VVF work in the zone. They also have better infrastructure and more specialized equipment for VVF work. Both were separate pre and post operation ward for VVF patients but has no separate theatre. Their average repairs per month is 9 and 10. the average cost o repairs or UMTH is about the highest in the zone N24,700.00 and Specialist Hospital is N15,555.00 and these cost are borne by the patients, but the UMTH sometimes exempt extremely poor patients and sometimes the patients receive help from the paupers fund o the hospital.

The patients profile :- average age is between 16 and 18 years, mostly married, non-literate and of low socio-economic status. They receive patients from all over the zone. Their re-comendation is proper and adequate. Distribution and facilities that hand emergency obstatoic care to reuce the occurance of VVF.

GOMBE STATE

In Gombe State there are two facilities that are involved in VVF work. The Federal Medical Centre Gombe and the General Hospital Gombe, however, no information could be gotten from state official in Gombe and he General Hospital which is

state government owned. Federal Medical Centre Gombe also has provision for separate bed space for pre and post operative VVF patients, but also has no separate theatre for VVF repairs. There is also rehabilitation arrangement. About 10 repairs are carried out per month by 2 doctors that have been trained and are active at the work. The average cost of repairs per patient is 11,470.00 including cost of feeding. The most prevalent cause of VVF is the prolonged obstruction labour, mostly done outside healthy facilities without skilled attendance.

Recommendations: public enlightenment to encourage patients to deliver in facilities with skilled attendant, discouraged early marriage.

TARABA STATE

The Principal Medical officers in the state Specialist Hospital represent the Executive Secretary Health Services Management Board, agreed that VVF is a problem in the state, but said there is no available data in the Hospital or Ministry on the problem. The only facility that is involved in VVF in the state is the Specialist Hospital.

The Head Department of Surgery in the hospital has received training in VVF repairs and does the repairs. He does average of 2 repairs per month and there is no specific theatre or equipment for VVF repairs. Repairs are done as part of general surgery.

Average cost of repairs per patients is N10,000.00 with indeterminate feeding and free consultation. All cost are borne by the patient. Again the cause of VVF is mostly prolonged obstructed labour.

Recommendation: to train ,more personnel for VVF work in the state and public awareness or the availability of treatment.

YOBE STATE

There are two facilities in Yobe State that are in involved in VVF work Specialist Hospital Damaturu and General hospital Potiskum. Both facilities has Doctors and Nurses trained in VVF management. In both the hospital there are no specific infrastructure for VVF work. The theatres are used along with other surgeries. There are speific beds for pre-operative VVF patient in Damaturu specialist Hospital but no separate pre and post bed allocation for the VVF patients. Average number of repairs per month in the facilities are 1 per month in Damaturu and 4 per month in the General Hospital Potiskum. Average cost of treatment in Damaturu is about N6.650.00 while in Potiskum it is N4,050.00. the major causes of VVF in the state after prolonged obstructed labour and gishiri cuts.

Recommendation: to train more personnel and improve available of infrastructure and specialized equipment.

STATE REPORT NORTH WEST ZONE

States surveyed were:-

Kano, Jigawa, Katsina, Zamfara, Kebbi and Kaduna states.

Dr Kees, top ranking officers of the various Ministries of Health in the State and at the facilities where VVF work is carried out.

KANO STATE

The director, Primary health care in Kano State, Dr. Mohammed Daiyabu was contacted. On his directive the coordinator, VVF Kano State was interviews. According to her VVF is a major health [problem in Kano state, but she had no community based data on the number of VVF patient. She identified the Laure Fistula Centre at the Murtala Mohammed Specialist Hospital as the major centre for VVF. She identified FOIRWARD UK on Maiduguri but informed that the project had ended. The officer directed that the VVF centre at zoo road though established for VVF, work was yet to commence there.

Health Facilities doing VVF Work:

The Laure fistula Centre of the Murtala Mohammed Specialist Hospital Kano city owned by the Kano State Government is involved in serious VVF work. VVF work started here in 1990. the centre and Dr. Kees visiting consultant surgeon has two doctors who do an average of 90 repairs per month. There are trained nurse in VVF management.

Infrastructure:

The facility has a separate VVF theatre. The visiting consultant surgeon operate once every week while the two doctors operate daily. There are 30 beds at the VVF ward allocated to pre-operation and post operation. These is a rehabilitation centre

(Kwali VVF Hostel) run by the ministry for Women Affairs where craft and trade are taught. These are 55 beds, 9 mattresses and floor cases at the rehabilitation centre. There is a problem of power and water supply at the facility. All surgical consumable s are supplied free and patient treated free. The trainees were taught skills like dress making, soap making, cooking and pomade making. The duration is a minimum of between 2 months and 3 months. NGOs involve in VVF work are GHO and FORWARD.

Patient Profile:

Majority of the patient at the centre come from Kano, Jigawa, Yobe, Katsina, Gombe, Lagos, Birnin Kebbi, Bauchi, Sokoto, Kogi and Niger Republic. The average age of the patients is 14 years with one previous delivery. They were mainly of low socio-economic status, non-litrate, prolong obstructed labour or the gishiri cut was given as the main reasons for their condition. The centre has a capacity for about 130 – 150 repairs per week under optimum condition which means training more personnel in VVF repairs and management, steady power and water supply. The need to properly motivate staff was also poised out. The centre receives between 20 – 25 new cases weekly. The VVF coordinator in Kano state suggest the girl child education and awareness creation in all the Local Government Area in the state to enable victims come for treatment.

KATSINA STATE

At the Ministry of Health in Katsina, we were referred to the facility at Babbar Ruga Fistula Hospital. At the facility Dr. Abdulrasheed Yusuf, a VVF surgeon and the chief nursing officer on charge of the VVF ward were interviewed. The officers agreed that VVF was a major health problem in the state.

Health Facilities doing VVF Work:

VVF work started here as far back as 1984. this is where Dr. Kees is the resident chief consultant surgeon. There are two doctors who carry out repairs here and three trained nurses in VVF management. These doctors carry out an average of 25 repairs weekly. See table for names and particulars of the doctors and nurse.

Infrastructure:

The facility had an operating theatre and surgery is done daily. There are adequate instrument for VVF work. There are 150 beds in pre-operation, 40 post operation and 24 rehabilitation. All surgical consumable are supplied free. The patient bears no cost of the treatment except the card at N10.00

Rehabilitation:

There is a rehabilitation centre which is managed as apart of the hospital but with support from the Ministry of Women Affairs and equipment supplied by NAPEP. Skills taught at the centre include pomade making, sewing, knitting, soap making and cooking. Feeding is provided by the centre and volunteers.

Patient Profile:

Patient come to the centre from all over Nigeria and Niger Republic. The average age of patient is 14 years, most one previous delivered. Most were non-literate and of low socio-economic status and their injuries resulted from prolonged obstructed labours, wazami cut (cut by local barbers) yankan gishiri and hysterectomy handled by unqualified persons. The centre could repairs 25 – 30 patients per week under optimum condition which means creating awareness and training more surgeons to assist the consultant.

ZAMFARA STATE

The identified centre was the Faridat Yakubu VVF Centre, Gusau.

Health Facilities doing VVF Work:

VVF work started here in 1999. there is no trained doctor in VVF work in this centre. Dr. Kees Waaldjk visits and carries out surgery once for 2 days every 2 weeks. One nurse has been trained in VVF Management

Infrastructure:

The facility had no separate VVF theatre. There are 20 beds in pre-operation and 20 in post operation for VVF. There is no rehabilitation centre attached to the centre

Patients at the centre come from the rural areas in the state. The average age of the patients is 16 and most had only one delivery. Most are not literate and very low soci-economic status. Their condition is due mostly to prolonged labour and the gishiri cut. The centre could repair 20 patient per week under optimum condition. This condition would be a separate VVF theatre trained resident surgeon and nurse in VVF work. The medical officer proferred girl child education, enlightenment campaigns, training and retraining of personnel, free ante-antal care and more hospital in rural areas as the solution to the VVF scourge.

No non-governmental organization was identified as being involved in VVF work in the state.

SOKOTO STATE

The officer interviewed at the Ministry of Health was the Doctor, Medical services. He agreed that VVF is a problem in the state, but did not have community based data on VVF. The involvement of the provision of free treatment

to the patients. He identified the Maryam Abache Hospital, Sokoto as a facility involved in VVF work and the specialist Hospital, Sokoto.

Health Facility Doing VVF work

Maryam Abache Hospital was established by the government to handle mainly women and children patient. The hospital has five doctors none of who is an O & G specialist. None is trained in VVF repair. Dr. Kees visits once in 2 weeks for 2 days. There are 6 nurse trained in VVF management. The average number of repairs was not given.

Infrastructure:

There is separate VVF theatre at the facility. There are 32 beds in pre-operative and none in post operative ward. There is no rehabilitation center though it was reported that the NAPEP had donated some sewing, knitting and embroidery machines to the center some few days earlier VVF treatment is free and the patients bear no cost other than feeding.

Patient Profile

most of the patient come from within the state particularly the rural areas and some come from Niger Republic. The average age is 15 years and with one previous delivery. Most are either married or divorced. Even those still married may not be living with their husbands. Most patients, condition was brought about as a result of the gishir cut or prolonged obstructed labour. The average number of repairs per week was not given. The surgeon and at least 2 trained doctors and separate VVF theatre.

KEBBI STATE

The Kebbi state government recognizing the seriousness of the VVF problem has since appointed a Secretary, VVF who coordinate VVF related issues on being contacted, he directed the researcher to the Ministry of women Affairs, but the Permanent secretary who we sought to talk with was unavailable necessitating interviewing. The Secretary VVF Dr. Hassan Wara and at the facility on the directive of the M.O. the chief nursing officer in charge of the VVF ward. They all agreed that VVF is a problem in Kebbi state but had no documented data. These officers identified the special VVF center as the only facility where VVF work is done in the state.

Health Facility Doing VVF work

This facility was established by the government for VVF work. The hospital had 1 doctor who trained in VVF repairs but is now with the Federal Medical Centre, Birnin Kebbi and now visits the facility to do repairs. 3 nurses at the facility have received training in VVF management.

Infrastructure:

The hospital has a separate VVF theatre fro VVF surgery is done here once or twice in a month depending on when the surgeon is available. These are 20 beds at the pre-operative and 20 at the post operative wards. All surgical consumables are supplied free and the patient bears no cost. These is a rehabilitation center there skill like sewing, cooking, aso-oke, soap and pomade making are taught attached to the hospital.

The NAPEP Tulsi & Chanrai Foundation, Lagos have supplied equipment to the center.

Patient Profile

Most of the patient come from within the state, but some patients come in form Niger Republic as well. The average age of the patients is 14 years and most with one previous delivery. Most of the patients are not literate and are of low socio-economic status. The causes of their condition were either prolonged obstructed labour or the gishiri cut.

Under optimal condition the surgeon can effect 10 or more repairs per week. This optimal condition include 2 resident doctors trained in VVF repairs and improved welfare for VVF personnel.

STATE REPORT SOUTH EAST

The States surveyed in the zone are Abia, Anambra, Ebonyi, Enugu and Imo States.

ABIA STATE

The survey of Abia state shows that there are some minor works done in the state in VVF. The facility involved in the work is Federal Medical Centre Umahia. The facility has 4 gynaecologists but two of them do repair VVF. They have not received any special training on VVF REAPIRS. There are no specific equipment or infrastructure for VVF. The average cost of repairs is about N19,350.00 and this is born by the patient who are mostly poor. Most of the patients come form within the state. The factors limiting the VVF work in the state are lack of trained personnel and lack of equipments. Their recommendation is health education of early pregnancy among young girls.

ANAMBRA STATE

The health facilities that are involved in treatment of VVF ion the state are Namdi Azikiwe University Teaching Hospital Iyi-Eru Specialist Hospital Ogichi which is a mission hospital and waterside. The chief medical record of officers in the state Ministry of Health however says VVF is not a problem in the state none of the facilities has any specialised equipment/infrastructure for VVF, but carries out VVF repairs as part of general practice and there were no records in number of patients treated in those facilities except Namdi Azikiwe Teaching Hospital that have records of 2 patients repaired over unspecified period. The average cost of repairs is N12,388 as at 1999.

It is also worth to note that it was not possible to talk to the people really concerned because of their unavailability of the information were somehow scanty.

EBONYI STATE

In Ebonyi state most of the hospital do not see VVF patient, Ebonyi State Teaching Hospital however started work in VVF in 2002. some refers have been made to Itain in Uyo for repairs before now. The teaching hospital offer VVF treatment as part of general medical services. Two of their doctors have been trained on VVF repairs and there is a separate theatre for VVF repairs though has a faulty operating table. The facility has beds allocated to pre and postoperative patients but non-for rehabilitation. The average cost of treatment is N23,000 and this cost is borne by UNDP. The greatest limitation is that of lack of equipment.

ENUGU STATE

Two centres in Enugu State are involved in VVF work, these are UNTH Enugu and Aeghaeje Hospital which is a private hospital. All the consultant are

gynaecologist in the hospitals and the have received VVF training. Currently at UNTH 5 of them are actively involved in VVF repairs.

However, the patients' flow is not very high there is less than one repairs per month. The facilities has no separate theatre fro VVF, they also do not have suitable operating tables. The cost of treatment is born by the patients and it is about N30,000.00, in few occasions some very poor patients can benefit from exemption by the hospital management. In the Aeghaeje Hospital the average cost of repairs is about N80,000.00 which is almost always impossible for patients to pay.

Recommendation in this state are

- Retraining of TBA and operator of maternity homes.
- Subsidizing cost of treatment.

IMO STATE

There is no state policy on VVF here but 6 hospital were identified as being involved in VVF work.

Health Facility Doing VVF work

General Hospital Umuguma. This hospital is owned by the Imo state government has 15 doctors, 2 out of the 15 are O&G specialist. 4 doctors have been trained in VVF repairs surgery but only 1 actually carries out repairs. There are 4 nurses in the hospital and 4 have received training ion VVF management

Infrastructure.

The hospital has no separate VVF theatre but there repairs are done once in a while. There are 6 beds allocated to VVF at the hospital. The average cost of treatment is N12,000.00 and this cost is borne by the patient.

Patient Profile

The average age of the patients was given as 16 years. They come in mostly from within the state and the major causes for their condition as given as obstructed labour.

Federal Medical Centre, Owerri

The Federal Government owns this hospital and it has 25 doctors for these being O & G specialist. 4 doctors have been trained in VVF repairs surgery but only 3 actually carry out repairs, 4 nurses have receive training in VVF management. There is no separat5e VVF theatre in this hospital but 8 beds have been allocated to VVF.

Patients seen at the facility come from within the state. The average cost of treatment is N13,230.00 and borne by the patient. These are mostly married or single and the cause of their condition was mainly obstructed labour.

Mercy Hospital, Umulogbo

This hospital is government and VVF work commenced here in 1972. this hospital has 1 doctor who is an O & G specialist. These are 4 nurses who are all trained in VVF management. These are no separate VVF theatre but 14 beds are allocated to VVF. Repairs are carried out once weekly.

Patients here are mostly married with their third delivery or above. The average cost of treatment here is N25,000.00 and completely born by the patients. The

patients come to the hospital from the village and its environs. The average age of the patients is 30 years and the cause of their condition was due to prolonged labour.

Joint Hospital, Mbano

The state government also owns this facility. The hospital has 1 doctor who us an O & G specialist. There are 4 nurses who are all trained in VVF repair surgery and they carry out VVF repairs once in a while. There is no separate VVF theatre but 4 beds are allocated to VVF

Holy Rosary Hospital, Emekuku, Owerri

This is another government hospital that was identified as a VVF centre. There are 2 doctors at the facility and 4 nurses who have all received training in VVF repairs or management. There is no separate VVF theatre and repairs are carried out twice weekly. 8 beds are allocated to VVF and the cost of treatment is N25,000.00 or more and completely borne by the patients is 16 years are unmarried and with their first deliveries VVF work started here in 1972. Patients are mostly non-literate and their socio-economic status generally low.

General Hospital, Aboh Mbaise

Also government owned, the hospital has 6 doctors, two of these are O & G specialists but non-has been trained in VVF repairs.

There are 4 nurses in the hospital and they have all received training in VVF management. There is no separate VVF theatre and patients are repaired once in a very long while. The average cost of repairs is N12,000.00 and this cosy is borne by the patient.

STATE REPORT SOUTH WEST ZONE

States surveyed were:-

Lagos, Oyo, Ogun, Osun, Ondo, and Ekiti states.

LAGOS STATE

The director, Primary health care and disease control was interviewed and consultant, maternal child Health Department of Primary Health Care and Disease control. The informed that VVF is rarely seen. They further informed that there is no record of VVF patient in the state. Moreover, the state has no policy on VVF.

Health Facility Doing VVF Work

The Lagos Island maternity hospital, Lagos owned by the Lagos state Government involved in VVF repairs. There are 4 O & G specialist with one doing repir. He acquired his knowledge from the Genera; Residence Training at LUTH, Idi – Araba, 1993 – 94 No Nurse has received Training in VVF management.

Infrastructure

There is no separate theatre for VVF in this facility. All repairs are carried out in the general theatre. There are no separate VVF ward. The average cost of treatment per patient is N25,700.00 and this cost is borne by the patient.

Patient Profile

The average age of the patients is 23 years. They are mostly first timers and married. Their socio-economic status is low while they are mainly first school leaving certificate holders or below. They are all resident in Lagos. In the last one year only 3 patients had been treated under optimal condition, 2 repairs can be done per week. This optimal condition will include appropriate surgical

equipment/theatre table trained nursing staff and reduction or abolition of cost of treatment.

LAGOS STATE UNIVERSITY TEACHING HOSPITAL

The information on health facility doing VVF work infrastructure, rehabilitation and patient profile are basically the same as those of Lagos Island maternity except in the following areas 3 O & G specialists with only 2 can repair VVF and this can be 10 – 13 per week under optimal condition. The average of patient here is 19 years.

LAGOS UNIVERSITY TEACHING HOSPITAL IDI ARABA

This facility is owned by the Federal Government VVF work started here in 1962. there repairs VVF. Average repairs here is one per year and 2 nurses have received training in VVF management. VVF repairs are no longer done here. The factors limiting VVF work is the inability of the patients to pay the cost is N49,100.00

GENERAL HOSPITAL BADAGRY

Information gathered is similar to those of the Lagos island maternity Hospital.

OYO STATE

At the Ministry of Health information was supplied by Dr. (Mrs.) A. Willams. According to her VVF IS NOT A PROBLEM IN Oyo state. The Ministry has no data of VVF patients and the state has no policy on VVF.

AEOYE MATERNITY HOSPITAL , YEMETU IBADAN

VVF work started here in 199. this facility owned by the Oyo State government has 3 O & G specialist. Only one doctor has received training in VVF management. This is 28 bed gynaecological ward with 4 of this beds reserved for

VVF. The cost of treatment is N17,600.00 all of which is born by the patient. The patients come from Oyo, Ondo and Ekiti state. Under optimal condition 4 repairs can be made per week. This optimal condition will include adequate funding, adequate personnel and reduction of the cost of repairs. The average age of patients here is 26 years.

UNVERSITY COLLEGE HOSPITAL, IBADAN

This facility is owned by the Federal Government and VVF work commenced here in the 1960s. there are 14 O & G specialist but only one has been trained in VVF repairs and no nurse has been trained in VVF management. However, 5 doctors actually carry out theatre, bed or wards. The average cost of repair is N35,000.00 all borne by the patient on the average 10 patients are treated yearly. Patients come from all the stated in the south west of Nigeria. There is no rehabilitation center linked to the facility. The average age of the patients is 19 years

OGUN STATE

At the Ministry of Health, Dr. M.A. Adekanbi was interviewed. According to the officer VVF is a problem in Ogun state as 10 cases have been reported in the last 1 year. There is however no data on VVF patients in the state. Federal Medical Centre, Abeokuta was identified as a facility where VVF work is being carried out.

FEDERAL MEDICAL CENTRE, ABEOKUTA

VVF work commenced here in 1993. there are 5 O & G specialist and one doctor has received training in VVF repair. Surgery while no nurse has been trained. There is no separate theatre/bed for VVF. Patient come from Oyo, Lagos and an few northern Nigeria. The average cost of treatment is N23,125.00 and the patient bears the cost.

BISI ONABAJO UNVERSITY TACHING HOSPITAL SHAGAMU

VVF work started in 1990. there are 7 O & G specialist 4 of these actually carry out VVF repairs. No nurse has received training in VVF management in this facility. There is no separate theatre or bed for VVF. The number of patients treated is one per month. The average cost of VVF repair is N16,360.00 and this is borne by the patient. The factors limiting VVF work are lack of appropriate surgical instrument and trained nursing staff. There is no rehabilitation center linked to this hospital. Health education is recommended for the populace to come to the hospital early.

OSUN STATE

Information was given by Dr. T. A. Nasiru of Ministry of Health Osogbo according to him VVF is not a serious problem in the state. There are few patient seeking help which are usually sent to tertiary health institutions for treatment. The Ministry therefore has no data on VVF patients, there is also no state policy on it.

The state government is however, involved in safe motherhood. Projects and runs free health care which is a major step to prevention of VVF. Ladoke Akintola university Teaching Hospital owned by the state has been involved in VVF work since 1988 and one of the consultant gynaecologist carry out the repairs, he did not receive specialized training in VVF repairs apart from his residency programme.

Available records in the hospital shows that he has repaired 3 patients in the last one year. The average cost of VVF treatment is about N28,250.00 and the patients bear all the cost. The patients are mostly from Osun and Kwara state and there is no separate theatre for operation and ward for the patients. Under optimal condition 4 VVF cases can be repair per week.

Recommendation are that TBA should be trained to known when to refer patient to the hospital for proper treatment and most of the cases are as a result of obstructed labour. Mission/prayer group should be enlighten to take case to the hospital.

ONDO STATE

Survey was carried out between 5th and 6th February, 2003 at the first contact with the Director Hospital Services Dr. Mann Ali explained that VVF is a problem in the state but the extend of it is not well known and the Ministry has no date on VVF patient neither do the state has any policy on it.

The state specialist Hospital Akure also work on VVF but it is not known when it started and there was no repair done in the hospital in the last 2 years.

EKITI STATE

The survey was carried out I the state between 5th and 6th of February, 2003 and the contact persons was the director Medical Services Ministry of Health and head of

O & G state specialist Hospital Ado Ekiti VVF is not a problem in the state though there have been few patients who are sent to tertiary institution for treatment. The MOH has no data or any policy on VVF.

The specialist hospital Ado-Ekiti has recorded repairs of 2 patients in the last one year, average total cost or repairs is N18,800.00 and the cost is borne by the patients.

The repairs are done as part of general practice, these are no specific infrastructural equipments for VVF repairs. Training of personnel and free feeding and supply of consumables increase. Optimal performance in the area of VVF work. Other recommendation education to avoid home delivery and delivery in churches where emergency intervention cannot be made.

The general summary of the south west zone survey

- There are no VVF centre in the above zones
- No state has any policy on VVF in the zones
- State Ministry of Health has no data on VVF
- Patients flow were not high probably due to ignorance of availability of treatment.
- Cost treatment are high where they are done ranging between N17,000.000 and N50,000.00
- The major causes of VVF are prolong obstructed labour.

CHAPTER 5
CONCLUSION AND RECOMMENDATIONS

Some of the conclusion of the assessment and study are:

- The governments have not recognized VVF as a problem in most of the states, only Kano and Kebbi States have state policies on VVF
- The Facilities for VVF repairs are very poor, theatre facilities and equipment, as well as, bed space are inadequate and of poor quality
- The Cost of repair is generally high, especially in the University Teaching Hospitals, the Federal Medical Centres and Private Hospitals. There are limited facilities for free services, these are inadequate to meet the needs of the VVF patients
- Inadequate Rehabilitation facilities
- The quality and quantity of manpower is generally, a high number of doctors and nurses have been trained to repair and manage VVF but the majority of them are under utilized because of the lack of repair facilities or poor access to these Doctors by the VVF patients, as a result of high cost of repairs.
- Training activities are still on-going but they are limited to only two centers, Katsina and Anua, and therefore grossly inadequate
- The northwest has the highest number of VVF facilities, the best facilities and more repair work in the zone.
- Personnel availability is not related to the volume of repair work, over 70 percent of repair work is undertaken by Drs Kees and Ann Ward, and the output is generally poor in the country compared to the backlog of cases.

RECOMMENDATIONS

In the process of the assessment the officials contacted made various recommendations on strategies for addressing the VVF scourge, some of these are:

- Legislation of Child Rights Bill
- Emergency Obstetric Care
- Economic Empowerment of Women
- Girl-Child Education
- Community Mobilization
- Training of Health Professionals
- Rehabilitation Services
- Political Commitment

The Foundation recommends the following measures as a way of ensuring a way forward:

- The Study did not adequately bring our information on the prevalence of VVF in the country, it will be necessary to sponsor a Community Based National Health Survey to address this because this is vital in ensuring success strategies to address the VVF problem in Nigeria.
- The Federal Ministry of Health should call a meeting of all the Heads of relevant facilties to discuss the prevalence, facilities and manpower problems.

Table 1: States and Policy Position and Work involvement on VVF

North West Zone

State	VVF as problem	Policy on VVF	Data on VVF	Govt Involvement
Kano	Yes	VVF Cordinator in the MOH	No	Free repairs and training of personnel feeding within the limited available resources
Jigawa	Yes	No	No	
Kaduna	Yes		No	Free repairs and training of personnel
Zamfara	Yes		No	Free repairs and training of personnel and rehabilitation
Sokoto	Yes		No	Free repairs and training of personnel and rehabilitation
Kebbi	Yes	VVF Secretary Ministry of Women Affairs	No	Free repairs and training of personnel and rehabilitation
Katsina	Yes		No	Free repairs and training of personnel and rehabilitation

North East Zone

State	VVF as problem	Policy on VVF	Data on VVF	Govt Involvement
Adamawa	Yes	No	No	Sometimes exemption of fees
Bauchi	Yes	No	No	State along with NCWS do some social mobilization on prevention
Gombe	Yes	No	No	None
Borno	Yes	No	No	Rehabilitation and Exemption of fees
Taraba	Yes	No	No	None
Yobe	Yes	No	No	Training Workers

Table 2: Facilities Involved with VVF

North West Zone

Facility Name	State	Town	VVF Done/Mo	Doctors involved	Rehab Program	Proprietor of Facility
Laure Fistula Centre	Kano	Kano City	90	3	Yes	Kano State Govt.
FMC Gen. Hospital	Jigawa	Birnin Kudu	5	1	No	Fed. Govt
Hajia Gambo Sawaba Hospital	Kaduna	Zaria City	40	1	No	Kaduna State Govt
Faridat Yakubu VVF Hospital	Zamfara	Gusau	20	1	No	Zamfara State Govt
Maryam Abacha VVF Hospital	Sokoto	Sokoto	20	1	Yes	Sokoto State Govt
Special VVF Centre	Kebbi	Birnin Kebbi	7	1	Yes	Kebbi State Govt
Babbar Ruga Hospital	Katsina	Katsina	100	1	Yes	Katsina State Govt

North East Zone

Facility Name	State	LGA	Town	# VVF done/Mo	Doctors Involved	Rehab Program	Proprietor of Facility
Federal Medical Centre	Adamawa	Yola North	Yola	5	1	1	Federal Government
Bauchi Specialist	Bauchi	Bauchi	Bauchi	7	1	Yes	State Government
General Hospital Ningi	Bauchi	Ningi	Ningi	Not Known	1	No	State Government
Univ of Maiduguri Teaching Hospital	Borno	-	Maiduguri	9	6	Yes	Federal Government
Specialist Hospital Maiduguri	Borno	-	Maiduguri	10	1	Yes	State Government
Federal Medical Centre Gombe	Gombe	Gombe	Gombe	10	2	No	Federal Government
Specialist Hospital	Taraba State	Jalingo	Jalingo	2	1	No	State Government

Jalingo							
Specialist Hospital Damaturu	Yobe	Damaturu	Damaturu	2	1	No	State Government
General Hospital Potiskum	Yobe	Potiskum	Potiskum	2	1	No	State Government

NA = Not available
LGA = Local Government Area
Mo = Month

South East Zone

Facility Name	State	LGA	Town	# VVF done/Mo	Doctors Involved	Rehab Program	Proprietor of Facility
Nnamdi Azikwe Univ Teaching Hosp.	Anambra	Nnewi	Nnewi	NA	NA	No	Fed Govt
Mi-ENU Specialist Hospital	Anambra	NA	Ogidi	NA	2	NA	Volunatary Organization Mission Hospital
Waterside spital itsha	Anambra	Onitsha	Onitsha	NA	NA	NA	Voluntary Organization Mission Hospital
University of Nigeria Teaching Hospital	Enugu	NA	Enugu	5	12	NA	Federal Government
Aghaeze Specialist Hospital	Enugu		Enugu	0.5	2	NA	Private
General Hospital Umuguma	Imo State	Umuguma	Umuguma	1	4	NA	Private
Federal Medical Centre	Imo State	Owerri	Owerri	1	3	Na	Government
Mercy Hospital	Imo State	Umubogbo	Umubogbo	3	1	NA	Government
Joint Hospital	Imo State	Mbano	Mbano	NA	NA	NA	Government
Holy Rosary Hospital	Imo State	Owerri	Omekuku	6	2	NA	Government
General Hospital	Imo State	Aboh-Mbaise	Abosh-Mbaise	NA	NA	NA	Government
Teaching Hospital	Ebonyi State	Abakaliki	Abakaliki	NA	NA	NA	Government
Federal	Abia State	Umuahia	Umuahia	NA	2	NA	Federal

Medical Centre Queen Elizabeth Hospital							Government
Amachara Mission Hospital	Abia State	Amachara	Amachara	NA	NA	NA	Federal Government

NA = Not available
LGA = Local Government Area
Mo = Month

Table 3: Facility Optimal Condition

North West Zone

Facility Name	State	#VVF repair/wk	Definition of optimal condition	Limiting condition
Federal Medical Centre	Jigawa	1	Separate theatre proper operating table, instruments and trained personnel	Lack of separate theatre, proper operating table and dearth of trained personnel
Laura Fistula Hospital, Kano	Kano	43	NA	NA
Maryam Abache VVF Centre, Sokoto	Sokoto	5	Resident Surgeon	Trained Personnel in VVF repairs
Faridat Yakubu VVF Center Gusau	Zamfara	5	Resident Surgeon	Trained personnel in VVF repairs
Hajia Gambo Sawaba (Kofa gayan) Zaria	Kaduna	10	Separate theatre proper instruments and trained personnel consistent supply of utilities	Absence of separate theatre and trained personnel Epileptic supply of utilities.
Special VVF Centre, B/Kebbi	Kebbi	2	Resident Surgeon	Absence of a resident surgeon
Babbar Ruga Fistula Hospital, Katsina	Katsina	20	NA	NA

North East Zone

Facility Name	State	#VVF repair/wk	Definition of optimal condition	Limiting condition
FMC Yola	Adamawa	1	Adequate equipment operating table	Lack of equipments operating table

			adequate staff	
SPH Bauchi	Bauchi	2	Well equipped theatre	Poorly equipped theatre
UMTH	Borno	2 – 3	Separate theatre and separate days	Sharing theatre and High Cost
SPH Maiduguri	Borno	3	Good operating tables specialized instruments	Lack of good operating table
SPH Damaturu	Yobe	1	Well equipped theater. Adequate staffing	Ill equipped theatre, poor staffing
GH potiskum	Yobe	1	Well equipped theatre	Poorly equipped theatre

South East Zone

Facility Name	**State**	**# VVF repairs/wk**	**Definition of Optimal condition**	**Limiting factor**
Nnamdi Azikwe UTH	Anambra	Not Stated	Trained Doctor in VVF repairs and availability of consumables	Unavailability of trained doctors in VVF repairs and high cost of consumables
Federal Medical Centre, Owerri	Imo	Not Stated	Availability of specific equipment for VVF repairs and trained Doctors on VVF repairs	Unavailability of specific equipment, for VVF repairs and trained Doctors on VVF repairs
Federal Medical Centre, Umuahia	Abia	Not Stated	Information to women who need the service	Lack of information by women who need the service
UNTH, Enugu	Enugu	Not Stated	Availability of adequate consumables and availability of specific equipment for VVf repairs	Unavailability of adequate consumables and specific equipment for VVF repairs
Ebonyi State Teaching Hospital	Ebonyi	Not Stated	Availability of trained Doctors in VVF repairs and nurses trained in the management of VVF cases	Lack of trained Doctors in VVF repairs and Nurses trained in the management of VVF cases

Table 4 : Doctors and Nurses Available for VVF Repair Work In Each of the Treatment Centres by Zone.

Facility	Number of Doctors	Number of O&G Specialists	Number of doctors specially trained in VVF	Number of doctors carrying out VVF repairs	Number of nurses trained	Average number of repairs per month
North Central Zone						
Evangel Hospital Jos	7			3		30
Jos University Teaching Hosp						
Plateau Hospital, Jos						
General Hospital Gboko						4/year
General Hospital Otupko						1/year
General Hospital Katsina Ala						1/year
Federal Medical Center Makurdi				1		2/year
General Hospital Garki						4/10 years
General Hospital Wuse			2			2/10 years
National Hospital Abuja						
General Hospital Kogi			1			
General Hospital Minna			1		2	
Nassarawa State	No Data					
Kwara State	No data					
NorthEast Zone						
FMC Yola	20	1	1	1	1	5
SPH Bauchi	30	-	-	1	-	7
UMTH	300	20	2	6	4	9
SPH Maiduguri	37	1	4	1	4	10

FMC Gombe	92	4	2	2	2	10
SPH Jalingo[2]	7	-	1	1	1	2
SPH Damaturu	13	1	1	1	1	1
GHP Potiskum	6	-	1	1	1	4
NorthWest Zone						
Babbar Ruga Fistula Center	3	-	3	3	4	100
Laure Fistula Center Kano	5	2	3	3	N/A	130
Aminu Kano Teaching Hospital, Kano	>100	7	3			
Kofan Kanya hospital, Zaria	7	-	-	Dr Kees Visits	5	40
ABU Teaching Hosp, Zaria	>100	26	2	?	-	3
ABU Teaching Hospital, Kaduna						
FMC Birnin Kudu	17	-	1	1	4	5
Maryam Abacha VVF Center, Sokoto	5	-	1	1	10	20
Specialist Hospital, Sokoto	?	?	?	3	?	2
Usmanu Danfodio Teaching Hops., Sokoto	N/A	N/A				
Faridat Yakubu VVF Hospital, Gusau	-	-	-	Dr Kees Visits	1	20
Special VVF Center, Birnin Kebbi	1	-	1	1	11	7
South East Zone						
NAUTH Nnewi	Over 50	7	2	2	-	-
Iyienu Specilist Hospital Ogidi	5	1	-	-		
Water Side Hospital Onitsha	7	1	-	-		
General Hospital Umuguma	15	2	4	1	4	
Federal Medical Centre Owerri	25	4	4	3	4	
Mercy Hospital	1	1	1	1	4	

Umulogbo						
Holy Rosary Hospital Emekuku Owerri	2	2	2	2	4	
Joint Hospital Mbano	1	1			4	
General Hospital Aboh-Mbaise	3	1			4	
Federal Medical Centre Umuahia	5			2	Nil	
Amachara Mission Hospital	-	-	-	-	-	-
Ebonyi State Teaching Hospital	136	7	2	1	1	
South West Zone						
LUTH			1		1	
UCH			1			
OUTH			4		NIL	

Table 5: Trained VVF Workers identified in the North West Geo-Political Zone

Name of staff	Profession	State	Place Working	Centre Trained	Trainer	Current Work	Avg # of VVf repair/ mo
Dr. Said Ahmad	G/cologist	Jigawa	FMC B/kudu	Kano	Dr. Kees	CMO B/Kudu	7
Dr. Kees Waaldjk	Doctor	-	Babbar Ruga Hosp.	-	-	CCO Katsina	Over 200
Dr. Abdulrasheed Yusuf	Doctor	Katsina	Babbar Ruga Hosp.	Katsina	Dr. Kees	M.O Katsina	
Dr. Hassan Wara	Doctor	Kebbi	FMC B/Kebbi	Katsina	Dr. Kees	MO FMC B/Kebbi	7
Alh. Nafisat Ade Ajagu	Nurse	Katsina	Babbar Ruga	Katsina	Dr. Kees	CNO	
Halimat Ibrahim	Nurse	Katsina	Babbar Ruga	Katsina	Dr. Kees	Leprosy Unit	
Hajia Magajiya	Nurse	Katsina	Babbar Ruga	Katsina	Dr. Kees	VVf Unit	
Hussaina Salemi	Nurse	Zamfara	Fandat Yakubu	Gusau	Dr. Kees	VVf Centre	
Hajia Kulu Abubakar S. Bunza	Nurse	Kebbi	S VVF Centre	Kano	Dr. Kees	VVf Centre	
Hajia Aishatu Shehu Sambawa	Nurse	Kebbi	S VVF Centre	Kano	Dr. Kees	VVf Centre	
Hajara Tafarki Moh'd	Nurse	Sokoto	VVF Centre	Katsina	Dr. Kees	VVf Ward	
Fati Moh'd Binji	Nurse	Sokoto	VVF Centre	Katsina	Dr. Kees	VVf Ward	
Hauwa S. Kudu	Nurse	Sokoto	VVF Centre	Katsina	Dr. Kees	VVf Ward	
Aishatu Moh'd	Nurse	Sokoto	VVF Centre	Katsina	Dr. Kees	VVF Ward	
Binta Malami	Nurse	Sokoto	VVF Centre	Katsina	Dr. Kees	VVF Ward	
Fatima Arzika	Nurse	Sokoto	VVF Centre	Katsina	Dr. Kees	VVF Theatre	
Hajia Aishatu Moh'd Anaruwa	Nurse	Kebbi	VVF Centre	Kano	Dr. Kees	VVF Ward	

North East Zone

Name of	Profession	State	Place	Centre	Trainer	Current	Av # of

staff			Working	Trained		Work	VVF repair/Mo
Dr. Linda Onu	Medical Officer	Adamawa State	Federal Medical	Katsina	Dr. Kees	Obstetric & gynae	5
Dr. Ningit	Medical Officer	Bauchi	Specialist Hospital	-	-	Obstetrics & gynae	Not known
Dr. Wapada Salami	Gynaecologist	Bornu	Specialist Hospital Maiduguri	Not Specified	-	Obstetrics & Gynae	10
Dr. Shettima	Gynaecologist	Bornu	Specialist Hospital Maiduguri	FLC Uyo	Dr. Ann Ward	Obstetrics & Gynae	-
Dr. L Y Gang	Gynaecologist	Bornu	Specialist Hospital Maiduguri	Dublin	-	Obstetrics & Gynae	_
Dr. Umaru	Gynaecologist	Bornu	Specialist Hospital Maiduguri	Zaria	-	Obstetrics & Gynae	-
Dr. J. Y. Obed	Gynaecologist	Bornu	Univ of Maiduguri Teaching Hospital	Katsina	Dr. Kees	Obstetrics & Gynae	5
Dr. A.K Mairiga	Gynaecologist	Bornu	Univ of Maiduguri Teaching Hospital	Katsina	Dr. Kees	Obstetrics & Gynae	4
Dr. Tijjani	gynaecologist	Gombe	Federal Medical Centre	Kano/Katsina	Dr. Kess	Obstetrics & Gynae	5
Dr. Idris	Surgeion	Taraba Federal Medical Centre	Lagos Univ Teaching Hospital	Lagos Univ Teaching Hospital	Prof. Osagie	Surgeion	2
Dr. Hauwa Gone	Medical offices	Yobe	Specialist Hospital Damaturu	Kano	Dr. Kees	Obstetrics & Gynae	2
Dr. D Mune	Medical Officer	Yobe	G H Potiskum	Katsina	Dr. Kees	General Practitioner	4

South East Zone

Name of staff	**Profession**	**State**	**Place Working**	**Centre Trained**	**Trainer**	**Current Work**	**Av # of VVF repair/Mo**
Mrs Rosemary Okeke	Nurse	Enugu	Eye Ward UNTH	UYO	Dr. Ann Ward	VVF	10

Table 6: Average Cost of Care per One VVf Treatment Session in Naira

North West Zone

State	Kano	Sokoto	Jigawa	Kebbi	Gusau	Kaduna
Facility Name	Laure Fistula Centre	Manyam Abacha Hospital	FMC B/Kudu	Special VVF Centre	Faridat Yakubu VVF hospital	Hajia Gambo Sawaba Hospital
Cost of Consumable to Parent	NA	NA	NA	NA	NA	NA
Card	NA	NA	NA	NA	NA	NA
Consultant	NA	NA	NA	NA	NA	NA
Investing Cost	NA	NA	NA	NA	NA	NA
Surgery Cost	NA	NA	NA	NA	NA	NA
Bed Fee	NA	NA	NA	NA	NA	NA
Feeding	NA	NA	NA	NA	NA	NA
Drugs	NA	NA	NA	NA	NA	NA
Average Actual Cost	NA	NA	NA	NA	NA	NA
Cost to Patient	NA	Free	5,000	Free	Free	Free

North East Zone

State	Adamawa	Bauchi	Borno	Borno	Gombe	Taraba	Yobe	Yobe
Facility Name	Yola FMC	Spec. Hosp.	UMTH	SH Maiduguri	FMC	SH Jalingo	SH D'tur	GH P'kum
Cost of Consumm. To patients	Fee	NA	10000	6000	1500	1500	1000	2500
Card	5.00	NA	200.00	55	100	Free	50	50
Consultation	Free	NA	Free	Free	20	Free	Free	Free
Investig cost	1000	NA	2000	2000	100	2500	100	1000
Surgery cost	7000	NA	2500	5500	2000	3500	4500	NK
Bed fee	150	NA	2500	3000	3000	500	Free	Free
Feeding	NK	NA	5000	NK	4500	NK	NK	NK
Drugs	5000	NA	2500	4000	250	3000	1000	500
Average actual cost	13155	5-10000	25700	15555	11470	10000	6650	4450
Cost to Patient	ALL	ALL	ALL	ALL	All	All	ALL	ALL

*Patients pay for the cost of consumables and drugs

South East Zone

State	Anambra	Aghaeze	Enugu	Abia	Ebonyi	Imo
Facility None	Nnamdi Azikwe Univ Hosp.		Nil	FMC	Nil	Wuse GH
Cost of Consumm. To patients	480		5000	4000	5000	-
Card	50		350	150	100	100
Consultation	-		600	-	500	-
Investig cost	480		1800	2000	2000	-
Surgery cost	8000		8000	3000	5000	10000
Bed fee	900		2100	2000	4000	250
Feeding	1875		6300	4200	4200	260
Drugs	-		5850	4000	2000	-
Average actual cost	10985		3000	19350	23000	13230
Cost to Patient	All		All	All	None	

*Patients pay for the cost of consumables and drugs

Table 7: Patient Profile

North West Zone

Facility Name	**State**	**Area of Coverage**	**Av. Age**	**Av. Parity**	**Marital status**	**Ed. Level**	**Socio economic level**
Laure Fistula Hospital Kano	Kano	N/W Chad and Niger	15	1	M	NL	Low
Maryam VVF Centre, Sokoto	Sokoto	N/W Chad and Niger	15	1	M	NL	Low
Babbar Ruga Fistula Hospital	Katsina	N/W Chad and Niger	14	1	M	NL	Low
Federal Medical Centre	Jigawa	N/W	15	1	M	NL	Low
Faridat Yakubu VVF Hospital Gusau	Zamfara	Zamfara	16	1	M	NL	Low
Hajia Gambo Sawaba Hospital, Zaria	Kaduna	Kaduna	16	1	M	NL	Low

Special VVF Centre, B/Kebbi	Kebbi	N/W and Niger	14	1	M	NL	Low

N/W = North West
NL = Non Litrate
M = Married

North East Zone

Facility Name	State	Area of Coverage	Av. Age	Av. Parity	Marital status	Ed. Level	Socio economic level
FMC	Adamawa	North East part of Cameroon	16	1	M	NL	Low
SPH	Bauchi	North East North West	15	1	M	NL	Low
UMTH	Borno	North East	18	1	M	NL	Low
SPH	Borno	North East	16	1	M	NL	Low
FMC	Gombe	North West North West State	20	1	M	NL	Low
SPH	Taraba	North East North Central	15	1	M	NL	Low
SPH	Yobe	North East North West	16	1	M	NL	Low
GH	Yobe	North East North West	16	1	M	NL	Low

GH = general Hospital
SPH = Specialist Hospital
NL = Non Litrate
M = Married
FMC = Federal Medical Centre
AV –Average
ED = Educational
SE = Social Economic

South East Zone

Facility Name	State	Area of Coverage	Av. Age	Av. Parity	Marital status	Ed. Level	Socio economic level
Gen Hosp Umugruma	Imo	Imo	17		Single	NL	Low
Fed Med. Centre	Imo	Imo	22		Single or Married	L	Low
Mercy Hospital	Imo	Imo	14		Single	L	Low
Joint Hospital	Imo	Imo	16		Single or Divroced	L	Low
Holy Rosary Hospital	Imo	Imo	18		Divorced	L	Low
General	Imo	Imo	18		Divorced	L	Low

Hospital Aboh Mbaise							
Federal Medical Centre	Abia	Abia	15		Married or Single	L	Low
UNTH, Enugu	Enugu	Enugu	21		Married	L	Medium
Ebonyi State	Ebonyi	Ebonyi			Divorce	L	Low

NR = No record
NI = No idea
GH = General Hospital

Table 8: Facility Recommendation on VVF Work

North West Zone

Facility Name	State	Recommendation
Federal Medical Centre	Jigawa	- Training of Personnel - Education of the girl child - Community Mobilization
Laura Fistula Hospital, Kano	Kano	- Free Ante natal care - Free education for all girls - Training and retraining of TBAs - Community advocacy
Maryam Abache VVF Centre, Sokoto	Sokoto	- Free Education for girls - Small scale business loans to women - Training of manpower - Resident surgeon should be employed
Faridat Yakubu VVF Center Gusau	Zamfara	- Prevention of early marriage - Education
Hajia Gambo Sawaba (Kofa gayan) Zaria	Kaduna	- Improved socio-economic condition of women - Education - Prevention of early marriage
Special VVF Centre, B/Kebbi	Kebbi	- Counseling of victims - Well equipped rehabilitation center - Free education
Babbar Ruga Fistula Hospital, Katsina	Katsina	- Girl child education - Community mobilization - Awareness creations

South East Zone

Facility Name	State	Recommendation
Nnamdi Azikwe University Teaching Hospital	Anambra	Education and dangers of early marriage. Train more Doctors and nurses in repairs and management of VVF patients
Federal Medical Centre Owerri	Imo	Create awareness on importance of antenatal care and equipment for training.
Federal Medical Centre Umuahia	Abia	Availability and adequate consumable for the treatment of VVF patients
UNTH Enugu	Enugu	Subsidize cost of treatment of VVF
Ebonyi State Teaching Hospital	Ebonyi	Train more Doctors and nurses for the management public enlightenment
GH Minna	Niger	Every hand should be on deck

REFERENCES

1. Zacharin R.F. Obstetric fistula. Springer Verlag. Wien, New York.1988 page 281.

2. Lawson, J.B. The management of genitourinary fistulae. In clinics in obstetrics and gynaecology. 1978; 5(1): 209-236.

3. Lawson J.B. Vesicovaginal fistula-a tropical disease. Presented at the joint meeting of the Royal College of obstetricians and gynaecologists and Royal society of tropical medicine and hygiene. 10th November 1988.

4. Derry D.E. Note on five pelvises of women of the eleventh dynasty in Egypt. Journal of obstetrics and gynaecology British Empire. 1935; 42; 490-495.

5. Mahfouz N.P. urinary and faecal fistulae. Journal of obstetrics and gynaecology of the British empire. 1938; 45(3); 405-424.

6. Sims M. On the treatment of vesicovaginal fistula. American Journal of Medical science. 1852; 23:59-82.

7. Russel C.S. Urinary fistulae and there management. Journal of Obstetrics and gynaecology of the British Empire. 1956; 63(40; 481-493.

8. Apajalahti, A. Acta Obstet. Gynecol. 1931; 11:1-34.

9. Lister U.G. Vesicovaginal fistulae. Postgraduate doctor 1984; October: 321-323.

10. Murphy M. Social consequences of vesicovaginal fistula in Northern Nigeria. Journal of Biosocial sciences. 1981;13:139-150.

11. Harrison K.A. Childbearing, health and social priorities: a survey of 22,774 consecutive hospital births in Zaria, Northern Nigeria. British Journal of Obstetrics and Gynaecology 1985; Supplement 5: 119p.

12. Ward A. Genitourinary fistulae: report 1789 cases, proceedings of second international congress of obstetrics and gynaecology. 1980 Lagos.

13.Waaldijk K. Evaluation report XVII National VVF-project Nigeria. Federal ministry of Health. 2001 pg 2.

14. Waaldijk K. The immediate surgical management of fresh obstetric fistulas with catheter and or early closure. International Journal of gynecology and obstetrics. 1994 45: 11-16.

15. Waaldijk K. Immediate indwelling bladder catheterisation at postpartum urine leakage. 1997 Tropical doctor 27;4: 227-228.
16. Waaldijk K. Step by step surgery for vesicovaginal fistulas. 1994. Campion press Edinburgh.

17. Tahzib F. Epidemiological determinants of vesicovaginal fistulas. British Journal of Obstetrics and Gynaecology 1983; 90:387-391.

18. Tahzib F. Vesicovaginal fistula in Nigerian children. Lancet 1985; December: 1291-1293.

19. Tahzib F. VVF in Nigeria. Carnegie foundation New York. Nov. 1989. Pgs 1-150.

20. Anonymous. National task force on vesico vaginal fistula. Programme proposal for 1992-1994. pg.3

21. WHO. Obstetric fistula- a review of available information WHO/MCH/MSM/91.5

22. Elkins. T, Onwuka. E, Stovall.T, Hagood .M and Osborn. D. Uterine rupture in Nigeria. Journal of Reproductive Medicine. 1985; 30(3): 195-199.

23. Groen. G.P. Uterine rupture in rural Nigeria. Review of 144 cases. Obstetrics and Gynaecology. 1974;44(5): 682-687.

24. Harrison K.A. Mode of delivery with notes on rupture of the gravid uterus and vesicovaginal fistula. British Journal of Obstetrics and Gynaecology. 1985; Suppl.5:61-71.

25. Harrison K.A. Obstetric fistulae. Paper prepared for a Technical Working Group. Geneva:WHO 1989.

26. Lister U.G. Obstructed Labour- a series of 320 cases occurring in 4 years in a hospital in southern Nigeria. Journal of obstetrics and gynaecology of the British Commonwealth. 1960: 67: 188-198.

27. St. George. J. Factors in prediction of successful repair of VVF. Journal of Obstetrics and Gynaecology British Commonwealth. 1969; 76:741-745.

28. Ibrahim. T, Sadiq A.U. and Daniel S.O. Characteristics of VVF patients as seen at the specialist hospital Sokoto, Nigeria. West African Journal of Medicine 2000 Jan-Mar; 19(1): 59-63.

29. Iloabachie. G.C. The Juxtaurethral fistula. East African Medical Journal. 1987. 1987;74(7): 488-492.

30. Iloabachie.G.C. and Njoku O.Vesicouterine fisatula. British Journal of Urology. 1985 57: 438-439.

31. Onolemhemhen.O.D. An investigation into the sociomedical risk factors associated with vaginal fistula in northern Nigeria. Women Health 1999; 28(3):103-16.

32. Murphy. M. Education and health; the place of education in the prevention of a health problem. Zaria 1989 pgs 3. (unpublished)

33. Waaldijk. K. The (surgical) management of bladder fistula in 775 women in Northern Nigeria. 1989 pgs.23-67.

34. Evoh N.J and Akinla O. Reproductive performance after the repair of obstetric vesicovaginal fistulae. Annals of clinical research; 1978; 10:303-306.

35. Harrison K.A. Child bearing in Zaria. A public lectureat Ahmadu Bello University Zaria. 20th March, 1978.

APPENDIX – QUESTIONNAIRE FOR RAPID ASSESSMENT

RAPID ASSESSMENT ON VVF IN NIGERIA

QUESTIONNAIRE

Serial No_____

Name of Interviewer_____

Date of Interview_____

Duration of Interview Start_____

End_____

Checked/Edited by _____

Supervisor_____

Dear Sir or Madam:,

We send you greetings and hope that you and your family are all doing well.

We are researchers from _____ working with the National Foundation on VVF and The Federal Ministry of Health for a rapid determination and documentation of the VVF situation in Nigeria. We have come to seek your own opinion over these matters since it would assist in policy matters affecting this category of women. We assure you that we will treat all information you give us as confidential.

Thank you very much for helping on this matter.

Research Coordinator

Federal Ministry of Health & The National Foundation on VVF Sponsored Project

RAPID ASSESSMENT PROCEDURE GUIDE

Ministry of Health Official

Job Title of the Respondent

_____

Is VVF a problem in this state? Yes No

Do you have information of the number of VVF patient in the state?

Yes No If yes, obtain information

_____

_____

_____

What is the involvement of the State Government in VVF related work in the state? (Prevention; Treatment; Rehabilitation) Describe

_____

_____

_____

_____

_____

(State what has been done, when and by who)

(e) Does the State have a policy on VVF? Yes No If yes, obtain a copy, if no, describe the Government position on VVF_____

_____

_____

_____

(f) Does the state have any data on VVF? Yes No

(g) Name of the Hospitals involved in VVF work

S/No	Name of the Hosp.	# Cases per month	# of Doctors involved.	Rehabilitation Program

(h) Is there any Organization involved in VVF related work in the State?

Yes No

S/No	Name of Organization	Type of Activity	Volume of work	Area of coverage

(i) Number of VVF related workers sponsored by Government for special training: Doctors: _____Nurses _____ Social Workers _____

(j) Does the State have a work plan for VVF work (say for 2 Yes) on Prevention, Treatment, Rehabilitation Yes No

Health Facility doing VVF related Work.

BACKGROUND OF RESPONDENT

Name of Facility_____

Local Government Area_____

State : Plateau; Nassarawa; Benue; Niger; Kogi; Kwara; FCT Area

Nature of Facility: VVF Center; General Hospital; Specialist Hospital; Federal Medical Center; Teaching Hospital.

Proprietor of the Facility:

(a) Federal Government; (b) State Government;

(c) Local Government; (d) Mission/Church Organization;

(e) Other NGO; (f) Private Owner

Year VVF work started in the Facility _____

Job Title of Respondent_____

a. Manpower

1. VVF Staff

# Doctors	# Nurses	# Soc. Worker	# Rehab. Worker	# Obs/Gyn	# Trained VVF Drs.	# Trained VVF Nurses

2. Trained VVF staff

Name of Doctor/Nurse	Year of Training	Duration of Training	Location of Training	Trainer	Current place of work in the hospital

3. How many doctors actually carry out the VVF repair in the facility?

Name of Doctor	Is s/he trained VVF Surgeon	Average number of VVF repair /month

4. How many VVF Trained Nurses are currently working the VVF unit?

_____

5. Are there visiting VVF surgeon on your team? Yes NO If Yes

6. How often do/does s/he comes ? _____

7. How long do they stay? _____

8. Do they do it for free? Yes No

9. State other arrangements _____

_____

b. Infrastructure

1. Does the facility have Operating Theater? Yes NO IF yes

2. How many days are dedicated for VVF surgery in a week?

_____

3. Does the facility have appropriate VVF surgery instrument, including the right operating table? Yes No. If no, what arrangement are there for the work?

_____

---

4. Total beds allocation to VVF patients _____

Number for preoperative care _____

Number for postoperative care _____

Number for rehabilitative care _____

5. How do VVF patients get their Surgical consumables and Drugs?

a. The facility supplies free
b. The facility supplies on fee
c. The patients buy from the facility
d. The patients buy from chemist shop outside the facility

6. If the consumables are given free, who pays for them?

_____

7. What is the actual average cost of VVF

treatment?_____

8. Please break the cost:

Card _____

Consultation

_____

Investigation

_____

Surgery

_____

Bed

_____

Feeding

_____

Drugs _____

9. Which of these cost do the patient bear?

_____

10. What proportion of your patients are able to meet this cost?

11. What happens to patients who are unable to pay this cost?

12. Who pays the balance of the cost?

_____

c. Funding and Support

13. Who supports VVF work in this center (organizations or Individual)?

Name (Organization, Individual)	Nature of Support (Grant, Material &Equipment	Pattern of Support (continuous, intermittent, one-off)

d. Rehabilitation

1. Is there a rehabilitation program in the facility? Yes NO

2. If yes, is it part of the facility or a separate program?

_____

3. If it is a separate program, who runs it?

_____

4. What is the name of the center?

_____

5. How many bed space are there?

_____

6. How many patients are currently there?

_____

7. What type of patients are admitted in the program? Preoperative;

Post operative; Cured, Uncured

8. What skills and services are provided and the patients taught at the center?

_____

_____

9. For how long are the women kept at the center? _____-

__

10. Are the patients fed? Yes No

11. What is the actual cost of keeping one woman for the assigned duration?

_____

12. What is the source of funding of the center? _____

_____

e. Patients' Profile

1. Where do most of your patients' population come from? (Indicates by states)

_____

_____

_____

2. What is the avearage age of the patients'?

_____

3. What is the average parity?

_____

4. What is the marital status of the patients?

_____

5. What is the average educational status?

_____

6. What is the average socio-economic status of the patient?

_____

7. What are the major causes of the disease in your area?

_____

f. Under optimal conditions, how many VVF repairs can you do par week?

_____

g. What is this optimal condition?

_____

_____

h. What are the factors limiting VVF repair work in your hospital?

_____

What recommendation can you proffer on VVF patients' care and problem?

_____

APPENDIX 2: LIST OF PERSONS CONTACTED IN EACH ZONE

SOUTH WEST ZONE

Serial No.	Names	Designation & Address
1.	Dr. O. G. Olomolehin	Director Primary Health Care & Diseases Control MOH Alausa
2.	Dr. K. E. Layeni Adeyemo	Consultant Maternal & Child Health Dept. of PHC & moh disease Control MOH Alausa
3.	Dr. Olumuyiwa Solanke	IWACS, Med. Director Lagos Island Hospital
4.	Dr. Adetokunbo O. Fabamwo	Consultants O & G LSUTH Ikeja
5.	Dr. Mrs A. Ofun	Consultants O & G LSUTH Ikeja
6.	Prof. O. F. Giwa Osagie	Head O & G LUTH
Oyo	Dr. Mrs A Willams	MOH Ibadan
1.	Dr. K. A. Afolabi	Adeoyo Maternity Hosp. Yemesu,
2.		Ibadan
	Prof. Abiodun Ilesanmi	UCH Ibadan
3.		
Ogun		
1.	Dr. M A. Adekambi	MOH Abeokuta
2.	Dr. A. O. Fawole	Federal Med. Centre Abeokuta
3.	Dr. A. O. Sule Odu	Olabisi Onabanjo University Teaching Hospital Shagamu
Osun		
1.	Dr. T. A. Nasiru	MOH, Abeokuta
2.	Dr. A. I. Isawumi	Head Dept. O & G Ladoke Akintola University Teaching Hospital
Ondo		
1.	Dr. Mann Alli	Director Hospital Services MOH Akure
2.	Dr. S. G. B. Adeboye	Head O & G Dept. state Specialist Hospital Akure
Ekiti		
1.	Dr. C. A. Oladele	Director Medical Services MOH & Head
2.		O & G Dept. Specialist Hospital Ado Ekiti
	Dr. C. A. Oladele	Head of O & G Dept. State Specialist Hospital Ado – Ekiti

NORTH EAST ZONE

STATE	OFFICER INTERVIEWED	OFFICER'S UNIT
Adamawa	Director Hospital Services	Ministry of Health
Taraba	Principal Medical Officer	Specialist Hospital Jalingo
Yobe	Director Primary Health Care	Ministry of Health
Bauchi	Director, Hospital Services	Ministry of Health
Borno	Director Primary Health Care	Ministry of Health
Gombe	NA	NA

SOUTH EAST ZONE

STATE	OFFICER INTERVIEWED	OFFICER'S UNIT
Ebonyi	Director of Public Health	Ministry of Health
Anambra	Chief Medical Record Officer	Ministry of Health
Enugu	Medical Director	Aghaeze Hospital Enugu
Abia	Director of Public Health	Ministry of Health
Imo		

NORTH WEST ZONE

State	Officer Interviewed	Unit
Kano	1. VVF Co-ordinator 2. Mrs. Esther Sambo 3. Dr. Kees Waakjk	Ministry of Health GHON Laure Fistula Centre
Jigawa	Dr. Said Ahmed CMO	FMC, Binin Kudu
Kaduna	Dr. Ado Zakari Moh'd MD	Hajia Gambo Sanaba Hospital, Zaria
Zamfara	Dr. Prassad MD	Faridat Yakubu VVF Centre, Gusau
Sokoto	Director, Medical and Social Services Chief Nursing Officer VVF	Ministry of Health Maryam Abacha Hospital Sokoto

	ward	
Kebbi	VVF, Secretary Dr. Hassan Wara CNO	Ministry of Women Affairs. FMC B/Kebbi Special VVF Centre, B/Kebbi
Katsina	Dr. Abdulrasheed Yusuf CNO in Charge OP and Post-OP	Babbar Ruga Hospital

NORTH CENTRAL ZONE

State	Officer Interviewed	Unit
Plateau	4. Director Planning Research and Statistics	Ministry of Health GHON Laure Fistula Centre
Nassarawa	Nobody	NA
Benue	Executive Secretary	Hospital Management
Kwara	Director Primary Health Care	Ministry of Helath
FCT	Consultant OBSGYN	General Hospital Wuse
Kogi	Permanent Secretary and Chief Executive	Hospital Management
Niger	Ag CMO I/C	Ministry of Health

APPENDIX 3: LIST OF RESEARCH CO-ODINATORS, AND RESEARCH ASSISTANTS IN EACH ZONE

ZONE	RESEARCH COORDINATOR	RESEARCH ASSISTANTS
North Central	Dr. Kashirma	
North East	Dr. Nana Tanko	Dr, Linda Onu
North West	Dr. Clara Ejembi	Mr. Aba A. Ejembi
South East	Lady Nkechi Onah	
South West	Professor Bomi Ogedengbe Dr. F. Ademiluyi	
South South		

APPENDIX 4
LIST OF DOCTORS AND NURSES TRAINED IN KANO/KATSINA
Independent Consultant Gynaecologist

Dr. Said Ahmed	VVF Centre, Hadejia

Present Deputy Surgeons

Dr. Hassan Ladan Wara	VVF Centre
Dr. Imman Amir	Laure Fistula Centre Kano
Dr. Abdulrasheed Yusuf	Babar Ruga Fistula Hospital, Katsina
Dr. Dajanikpo Lucien	Maternity Central Zinder

Past deputy Surgeons

Dr. Yusha Armiya U	Babbar Ruga Fistula Hospital Katsina
Dr. Shehu Bala	
Dr. Idris Halliru	
Dr. Jabir Mohammed	
Dr. Aminu Safana	
Dr. Isah Ibrahim hafi	
Dr. Idris Abubakar	Laure Fistula Centre Kano
Dr. Said Ahmed	
Dr. iiLIAYASU Zubairu	
Dr. Bello Samaila Chafe	Jummai Fistula Centre, Sokot
Dr. Sa'ad Idris	Federal Medical Centre Gusau

General Doctors with at lease 3 yrs surgical experience

Dr. (Mrs) Hauwa M. Abdullahi	Kano State
Dr. Garba Mariga Abdulkarim	Borno State
Dr. Umar Fatuk Abdulmajid	Katsina State
Dr. Ibrahim Abdulwahab	Niger State
Dr. Idris S. Abubakar	Kano State
Dr. Abdul Ado	Katsina State
Dr. Mohammed I Ahmad	Jigawa State
Dr. Said Ahmad	Jigawa State
Dr. Labaran Dayyabu Aliyu	Kano State
Dr. Yusuf Aliyu	Kaduna State
Dr. Fmmam Amir	Kano State
Dr. Ebenezer Al'ake	Taraba State
Dr. Yusha'u Armiya'u	Katsina State
Dr. Salisu Mu'azu Barura	Jigawa State
Dr. Shehu Bala	Katsina State
Dr. Ibrahim Bature	Zamfara State
Dr. Umar Garba Bulangu	Jigawa State
Dr. Bello Samaila Chape	Zamfara State
Dr. Umaru Dikko	Kano State
Dr. Gyang Datong	Plateau State
Dr. Bello I Dogondaji	Sokoto State
Dr. Johnson Emeka	Imo State
Dr. James O. Fagbayi	Kwara State
Dr. Abdulahi Ahamed Gada	Sokoto State
Dr. Hauwa Goni	Yobe State
Dr. Idris Halliru	Katsina State
Dr. Mohammed Mukhtar Hamza	Kaduna State
Dr. Gabriel Haruna	Kaduna State
Dr. Kabir Aliyu Ibrahim	Jigawa State
Dr. Musa Ibrahim	Kano State
Dr. Saidu A Ibrahim	Jigawa State

Dr. Sa'ad Idris	Zamfara State
Dr. Zubalru Iliyasu	Adamawa State
Dr. Benedict Ishyaku	Plateau State
Dr. Momoh Omuya Kadir	Kogi State
Dr. Sabi'u Liadi	Katsina State
Dr. Ado Kado Ma'arue	Katsina State
Dr. Danamlam Maichede	Sokoto State
Dr. (Mrs) Linda Maman	Adamawa State
Dr. Umaru Mohammed Maru	Zamfara State
Dr. Bako Abubakar Mohammed	Bauchi State
Dr. Jabir Mohammed	Katsina State
Dr. Gamaliel Chris Monday	Plateau State
Dr. Ibrahim Muhammed	Jigawa State
Dr. Dunawafuwa A. M. Muna	Borno State
Dr. Lawal Hakeen Olakayode	Kwara State
Dr. Yusuf Baba Onimisi	Kano State
Dr. Yusuf Saka	Kwara State
Dr. Aminu Safana	Katsina State
Dr. Isah Ibrahim Shafi'I	Kebbi State
Dr. Aliyu Shettima	Borno State
Dr. Sani Ibrahim Umar	Kano State
Dr. (Mrs) Yalwa Usman	Kano State
Dr. Hassan Ladan Wara	Kebbi State
Dr. Aqsom Warigon	Adamawa State
Dr. Abdulrasheed Yusuf	Katsina State
Dr. Munkaila Yusuf	Kano State

Senior registrars in obstetrics/ gynaecology	Zaria
Dr. Oguntayo Olaranwaju Adekunle	Ibadan
Dr. Yomi Ajai	Enugu
Dr. Francis Amaechi	Ile-Ife
Dr. Nosa Amiengheme	Sokoto
Dr. Lydia Audu	Zaria
Dr. Inj Enang	Kaduna
Dr. Deborah Haggai	Port Harcourt
Dr. Nesror Inimbgba	Ilorin
Dr. Yusuf Mohammed Kasim	Ilorin
Dr. Ijaiyu Munir-Deer	

Dr. Jense Yafi Obed	Maiduguri
Dr. Nworah Obiechina	Enugu
Dr. John Okoye	Enugu
Dr. Benneth Onuzurike	Enugu
Dr. Ishaya Chuwang Pam	Jos
Dr. Abdullahi Jibril Randawa	Zaria
Dr. Masur Suleiman Sadiq	Kano
Dr. Dapo Sotloye	Adeokuta
Dr. Emmanuel Udoeyor	Jos
Dr. (Mrs) Marhyya Zayyan	Kaduna

Senior Registrars in anegthesia

Dr. Saidu Babayo	Bauchi State
Dr. Abdulmummni Ibrahim	Katsina State

Visiting consultants in gynaecology/surgery/Urology

Dr. Joel Adze	Kaduna, Nigeria
Prof Dr. Shafig Ahmed	Pelshawar, Pakistan
Dr. Said Ahmed	Hadeji, Nigeria
Dr. Tajudeen Adebowalw Aiyedun	Gusau, Nigeria
Prof Dr. Fons A Amaye –Obu	New York USA
Dr. Abdulumalik Bako	Zaria, Nigeria
Dr. Frils Driessen	Nijmegen, Holland
Dr. Aliyu Muhammed El-Ladan	Katsina, Nigeria
Dr. Kabir K. D. Garba	Katsina Nigeria
Dr. Jelte De Haan	Maastricht, Holland
Dr. Tijjani Mamman Hina	Zinder, Nigeer
Dr. Vivian Hirdmna	Stockholm, Sweden
Dr. Jonathan Karshima	Jos, Nigeria
Dr. Djannikpo Lucien	Zinder, Niger
Dr. Prof. Dr. Oladosu Ojesngbede	Ibadan< Nigeria
Dr. Okay Richard Onyebuchi	Abakaliki, Nigeria
Dr. Thomas J. I. P. Raassen	Nairobi, Kenya
Dr. Ruben A. Rostan	Masaga, Sierra Leone
Dr. Wim Sneller	Leiden, Holland
Dr. Melah |George Sule	Gombe, Nigeria
Dr. Walter Schhidt	Nuernberg, Germany
Dr. Augustine Chibuzor Umezulike	Abuja, Nigeria
Dr. Pieter L. Venema	Den Haag, Holland
Dr. Ulrich Wendel	Besigheim, Germany
Dr. E.E. Zakaria	Funtua, Nigeria
Dr. Yacouba Zanre	Ousgadougou, Burkina Faso

Medical anthropologist

Dr. Sandra BOER	Amsterdam, Holland

Physiotherapist

Garba M. Fagge	Kano State

Nurses

Mohammed VB. A.	Adamawa State
Rauta I Beenett	Bauchi State
Hauwa D. Heriju	Borno State
Martha F. Msheh'a	
Aliyu Abbas	Kaduna State
Dahiru Haliru	
Theresa Inusa	
Hajara S. Musa	
Sara Saleh	
Fatima A. Umaru	
Alheri Yakubu	
Herrietta Abdallah	Kano State
Umma Abubakar	
Florance Ajayi	
Esther Audu	
Hauwa Bello	
Sherifatu A Jimoh	Kano State
Ramatu Dagachi	
Amina Kabir	
Kutaduku B. Marama	
Hadiza Mohammed	
Mairo A Mohammed	
Mabel A Obayemi	
Comfort Oyinloye	
Rabi Rabi'u	
Maijiddah Saidu	
Amina Abbdu Salihi	
Ummi Bello Sani	
Amina Umaru	
Habiba A Usman	
Hamisu Abdulahi	Katsina State
Adetutu S. Ajagun	
Magajiya Aliyu	
Taibat Aminu	
Saratu Gambo	
Hauwa Garba	
Halima Ibrahim	
Gambo Lawal	
Kabir K. Lawal	
Ladi Mohammed	
Halima Nock	
Asaratu S. Saleh	
Faruk Sambo	
Alia Usman	
Aishatu M Anaruwa	Kebbi State
Safiya Isa Manga	

Aishatu Y Mohammed	
Aishatu Sambawa	
Kulu A. Shamaki	
Leah T. Amguti	Kogi State
Hajara Joseph	Niger State
Dorcas Nathanieekl	
Hauwa Taurid	
Rhoda T. Agana	Plateau State
Victoria S. Harri	
Lami Pam	
Esther Adamu	Sokoto
Beatrice Akinmade	
Fatima Arzika	
Binta Malami Kalgo	
Elizabeth Gaje	Yobe
Anesthesia Nurse	
Philip Joseph Kithinga	Machakos, Kenya
Jibo Adamu Zinder	Zinder, Rep du Niger
Hadiza Galadima	Sokoto
Operation theatre nurses	
Mohammed B. A. Adamu	Adamawa State
Aliyu Abbas	Kaduna State
Dahiru Haliru	Kaduna State

List of Doctors that received training in VVF repairs

Dr. Amiru Imam Yola	Kano State
Dr. Idris S. Abubakar	
Dr. (Mrs) Hauwa M. Abdulahi	
Dr. Ibrahim Abdulwahab	
Dr. Said Ahmed	
Dr. Yusuf Aliyu	
Dr. Umar Dikko	
Dr. Musa Ibrahim	
Dr. Yusuf Baba Onimisi	
Dr. Sani Ibrahim Umar	
Dr. (Mrs) Yalwa Usman	
Dr. Munkaila Yusuf	

List of Nurses that receive training in VVF repairs

Herritta Abdulahi	Kano State
Umma Abubakar	
Florance Ajayi	
Esther Audu	
Hauwa Bello	
Shrifatu A. Jimoh	
Ramatu Dagachi	
Amina Kabir	
Kutaduku B. Marama	
Hadiza Mohammed	
Mario A. Mohamed	
Mabel A. Obayemi	
Comfort Oyinloye	
Rabi Rabiu	
Mafiddah Saidu	
Amins Abdu Salihi	
Ummi Bello Sani	
Amina Umaru	
Habiba A. Usman	
Madajiya Aliyu	
Taibat Aminu	
Saratu Gambo	
Hauwa Ibrahim	
Gambo Lawal	
Kabir K. Lawal	
Ladi H Mohammed	
Halima I Nock	
Saratu S. Saleh	
Frauk Sambo	
Alia Usman	
Umma Abubakar	
Florence Ajayi	
Mairo Aliyu	
Ramatu	
Hadiza Isah	
Hadiza Mohammed	
Hamisu Abdullahi	Katsina State
Adetutu S. Ajagun	
Taibat Aminu	
Saratu Gambo	
Mohammed Hashimu	
Hailma Ibrahim	
Gambo Lawal	
Kabir K. Lawal	
Hauwa Mamman	
Faruk Sambo	
Alia Usman	
Fatima Arzika	Sokoto State
Soueba Lauoali	Department du Zinder
Nurses/Midwives from Republic du Niger	

Zakari Ayouba	Maradi
Maimouna Sadou Bagna	
Suoeba Laouali	Zinder
Fassouma Brah	
Other Nurses/Midwives	
Feonagh Cooke	Sierra Leone