National VVF Project Nigeria

largest obstetric fistula project in the world

evaluation report XXII

2005

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the (surgical) management of the obstetric fistula has to start the moment the leaking of urine becomes manifest

no need to become an outcast

the immediate management by catheter and/or early closure is highly successful and will prevent the woman from becoming an outcast

the best way to treat the whole patient is by closing the fistula

do not waste time, energy and money on things which make no sense

concentrate on the most important thing: close the fistula

prevention

only by building hospitals, roads and schools
lesson learned from history

executive summary

the highlight of the year was the **UNFPA fortnight** which was held from 21st february thru 6th march 2005 within the **national vvf project Nigeria** in the already existing centers in Kano, Katsina, Kebbi and Sokoto State where a **total of 591 repairs** were performed with a **success rate of 87.3%**; more patients could have been operated but this was restricted by the available number of postoperative beds and the stress of the postoperative care

all these four centers were completely and extensively renovated by the individual Nigerian States to cope with this major international exercise

during this exercise it became clear that the **backlog** in Katsina State has been **cleared**

another workshop was held in Jahun VVF Center in Jigawa State where the postoperative care was also the limiting factor

from our overall experience it seems that VVF-repair/training workshops should be limited to one week where 50-80 patients can be operated; otherwise, the postoperative management will be overloaded

it is hard to accept for the major organizations like UNFPA, FIGO, AMDD, WHO and others which have become involved in the initiative against fistula that **the obstetric fistula as a major public health problem** is totally different from all other public health problems where a major part is played by the organizational management to ensure that the right drugs reach the patients under low-level supervision and by extensive health education

the problem is that the prevention and the treatment of the obstetric fistula can only be dealt with by high-quality surgery in secondary and tertiary health institutions, not to mention all the aspects of infrastructure; especially the training of doctors in the **complicated surgery of the obstetric fistula** which requires time, energy and money; health education will only be effective if one is sure of easy and timely access to a functioning obstetric unit

if the service is reliable/accessible the public will respond; see the mobile telephone system; which woman wants to have a dead baby and which husband wants his wife mutilated

prevention can only be achieved by building an extensive network of hospitals, roads and schools; until that has been achieved we have to rely upon the (surgical) management and concentrate on the **immediate management** as soon as the leaking of urine has become manifest

during the year a total of 1,914 VVF/RVF-repairs were performed in the centers whilst a total of 18 doctors, 12 nurses and 40 social workers attended our regular training program or the workshops making **a grand total of 23,179 repairs, 626 trainees and 15 workshops including the UNFPA fortnight**

in Maiduguri Specialist Hospital a special VVF center was built to cope with the large number of VVF patients in Borno State

in Babbar Ruga a start was made with building a new rehabilitation center outside the hospital premises where the Ministry of Women's Affairs and Social Welfare will take over their social care so that the professional surgeons will concentrate only on the surgical aspects

by continuing our efforts in the struggle against the obstetric fistula we hope to have an impact upon an almost hopeless situation which will last another 100 years

aggressive urine

evaluation report XXII

introduction
the obstetric fistula constitutes a social disaster of the highest order; wherever these patients go, whichever place they enter, people turn away from them because of the urine leakage and the offensive smell; and they loose all dignity, as a woman and as a human being, with progressive downgrading medically, socially and mentally
the obstetric fistula is a major public health/social problem on the rise with a minimum of 1,500,000 patients in the whole of Africa and 250,000 in Nigeria alone,
prevention of the obstetric fistula, as achieved in the industrialized world over a period of 100 years, is only possible by establishing a network of 125,000 to 150,000 functioning obstetric units throughout inhabited (rural) Africa which **is a utopia** at the moment
the best rehabilitation into society is by a **successful closure** of the fistula and for the moment we have to concentrate upon this aspect
prevention of the social disaster is very well feasible by the **immediate management** by catheter and/or early closure; there is **no need to become an outcast**
this VVF Project aims to have an impact upon this hopeless situation by providing a VVF service, by establishing VVF centers, by training all kinds of doctors, nurses and paramedical personnel and by providing training materials with the emphasis on keeping it simple, safe, effective, feasible, sustainable and payable under African conditions

long-term objectives
to establish a lasting VVF service with ultimately the total eradication of the obstetric fistula, first in Nigeria but later on also in the rest of Africa
to keep the existing expertise available for present and future fistula surgeons
the 10 established centers are capable of dealing with the obstetric fistula within a radius of 100-120 km; however, this is not sufficient by far
luckily, UNFPA and other major organizations are highly committed to extend the service throughout the country and throughout Africa

short-term objectives
to further upgrade the repair and training services in the existing centers and to start new centers
masterplan: to establish a VVF-repair center in each of the 36 states of Nigeria and to have a VVF-training center in each of the 6 geopolitical zones of Nigeria; with a population of at least 150 million people.
a new VVF-repair center was constructed on the premises of Maiduguri Specialist Hospital in Maiduguri, Borno State; this state has a high prevalence of obstetric fistula patients, and now more doctors and nurses have to be trained to provide a reliable service
Ebonyi State
there was a setback since the funds for the obstetric fistula were exhausted and patients have to pay for their treatment In Ebonyi State University Teaching Hospital
therefore it would be better to shift the center to the Specialist Hospital since the service is free of charge there
Jigawa State
though the VVF center in Jahun itself needs upgrading of the facilities, the major problem is that continuity is lacking, and more doctors and far more nurses have to be trained in order to provide a smooth service; a workshop was held in November as sponsored by Jigawa State Government and UNFPA
Kaduna State
the total structural renovation of Kofan Gaya Hospital is moving forward fast, and Rotary Inter national has committed itself totally to aid the state in equipping the center and to fund the training of doctors/nurses in order to establish and maintain a lasting service
Kano State
all facilities of Laure Fistula Center were completely renovated to cope with the UNFPA fort night during which it became clear that there are still many patients in Kano State who are not aware of the repair service; the majority of the patients come from **within** Kano municipa lity demonstrating that the system is not functioning even in a major town like Kano

Rotary International is also committed to establish another VVF-repair center in Kano State, and Wudil General Hospital has been selected

national training center

the training of doctors is functioning well but we could handle more nurses

Katsina State

Babbar Ruga Hospital still remains the base of all our activities; we do not notice yet a reduction in the number of patients coming from République du Niger; the hospital was completely renovated for the UNFPA exercise during which it was noticed that in Katsina State there is **no backlog**; a start was made with the reconstruction of a new rehabilitation center in order to help the patients better and to dissolve the "fistularium"

international training center

the training of doctors is functioning well but we could handle more nurses; since the center becomes more and more known the interest is rising

Kebbi State

a new major Special VVF Hospital was completed before the start of the UNFPA fortnight and is functioning well; during its first year already 213 repairs were performed, and the medical director is doing a fine job

Sokoto State

Maryama Abacha Women and Children Hospital was totally upgraded for the UNFPA fort night during which it was noted that the need in Sokoto State is great; though 325 repairs were performed during the year, this is not sufficient, and more doctors and nurses have to be trained

Zamfara State

since the center has been converted into a general hospital, the only one in Gusau the work has come to a standstill due to organizational problems; once the new VVF Center has been completed the VVF work can continue

MARADI/NIAMEY/ZINDER in République due Niger

the new VVF center in Zinder is functioning well under the direction of Dr Lucien Djangnikpo; the obstetric fistula service in Maradi has to be restarted

new centers

after the workshop in Niamey the first priority now is first to select and then train a team who will take charge of the obstetric fistula; one doctor and 3 of her staff received the first part of their training

traveling rhythm

SK-Foundation donated a 4/WD Toyota Land/Cruiser Prado and this fine car is of enormous help in transporting ourselves, trainees and materials on our weekly tours of 1,200-1,500 km

activities (see annexes)

surgery

over the year a total of 1,914 procedures were performed in the 10 different centers making a **grand total of 23,179 operations: 19,517 VVF-repairs and 1,748 RVF-repairs**

postgraduate training

over the year a total of 18 doctors, 12 nurses and 40 social workers were trained making a **grand total of 626 persons: 273 doctors, 283 nurses and 70 other persons**

workshops

the consultant surgeon coordinated the UNFPA fortnight and co-facilitated the workshop in Jahun VVF center making a **grand total of 15 workshops**

research

this is a continuous process; the intention was, is and will be to make complicated things simple, safe, effective, feasible, sustainable and payable under African conditions

general surgical principles

the **principles of septic surgery** cannot be overvalued since the vagina is not sterile: water-tight closure of the bladder, air-tight closure of the rectum whilst the anterior/posterior vagina walls are only adapted, half closed or left open

VVF
the **scientific classification** in type I, IIAa, IIAb, IIBa, IIBb and III is very useful with regards to operation technique and prognosis
the repair of the **endopelvic fascia**, if necessary by bilateral paraurethral fixation onto the pubic symphysis periost, is of utmost importance in reducing the incidence of postrepair urine stress incontinence in type II, fistulas involving the closing mechanism
a **continent urethra reconstruction** has been developed

RVF
sphincter ani rupture: minimal dissection, meticulous closure of rectum with adaptation of the internal sphincter and end-to-end adaptation of sphincter ani muscle (no overlapping)

separation of repair and rehabilitation
since a professional surgeon is not a professional social worker and since he solely has to concentrate on his surgery (already difficult enough), the repair center has to be managed by the Ministry of Health and the rehabilitation center by the Ministry of Social Welfare: otherwise there will be conflict of interest

funding
basically the project is funded by the Federal Government and by the individual State Governments but this is not sufficient; UNFPA is helping with equipment and training
further funding came from the Scandinavian Society Nigeria and from several Dutch NGOs among which the SK Foundation in combination with the TTT Foundation are the most important; were are also grateful to the Wereldwinkel Maastricht

new nation-wide development
the Federal Ministry of Health, the Federal Ministry of Women Affairs and the individual State Governments are becoming more and more involved in the project
UNFPA has established offices in Katsina, Kebbi and Sokoto to coordinate strategies for the obstetric fistula prevention and treatment
Rotary International is sponsoring the obstetric fistula work in some hospitals in Kaduna and Kano State
Family Care continues its commitment and is even extending their efforts to rehabilitate the obstetric fistula patients to more centers

new world-wide development
since UNFPA, AMDD and FIGO started an **initiative against fistula** in 2001 there has been a renewed international interest in the obstetric fistula; and it was high time
though it are the same organizations and people who were beaten by **safe motherhood** we hope this time it will be successful; by **action** and not by words only

conclusion
though there is a continuous improvement in the quantity and quality of this project in terms of service, training and research far more has to be done to solve this major public health problem

kees waaldijk MD PhD 15th of August 2006

fistula surgery 1984-2005

	ebonyi		jigawa		kaduna		kano		katsina		kebbi		sokoto		zamfara		rép niger		
	VVF/RVF		VVF/RVF		VVF/RVF		VVF/RVF		VVF/RVF		VVF/RVF		VVF/RVF		VVF/RVF		VVF/RVF		**total**
1984	-		-		-		-		83	6	-		-		-		-		89
1985	-		-		-		-		196	20	-		-		-		-		216
1986	-		-		-		-		260	18	-		-		-		-		278
1987	-		-		-		-		318	7	-		-		-		-		325
1988	-		-		-		-		353	31	-		-		-		-		384
1989	-		-		-		-		464	21	-		-		-		-		485
1990	-		-		-		222	25	416	29	-		-		-		-		692
1991	-		-		-		248	17	195	4	-		-		-		-		464
1992	-		-		-		348	27	529	34	-		-		-		-		938
1993	-		-		-		416	35	488	62	-		-		-		-		1,001
1994	-		-		-		373	43	496	45	-		42	-	-		-		999
1995	-		-		-		373	51	537	51	-		161	11	-		-		1,184
1996	-		86	-	-		311	37	562	60	41	-	98	5	-		66	2	1,268
1997	-		211	4	-		295	38	513	55	107	2	181	14	-		33	2	1,455
1998	-		185	5	42	4	278	28	416	60	37	4	288	34	30	6	43	4	1,464
1999	-		30	3	37	3	280	36	441	62	80	5	238	12	64	3	49	2	1,345
2000	-		204	7	102	7	283	41	420	60	108	4	134	16	102	5	69	7	1,569
2001	-		320	27	80	1	415	41	515	55	98	4	157	9	65	5	74	5	1,871
2002	-		383	26	44	2	464	49	453	41	113	3	144	7	42	3	82	3	1,859
2003	48	5	245	15	39	1	376	52	475	51	96	4	151	7	35	4	56	3	1,663
2004	24	2	159	17	59	5	410	33	496	64	65	2	119	6	22	-	115	8	1,606
2005	12	-	117	9	31	4	507	39	525	47	208	5	303	22	-	-	79	6	1,914
total	**84**	**7**	**1,940**	**113**	**434**	**27**	**5,599**	**592**	**9,151**	**883**	**953**	**33**	**2,016**	**143**	**360**	**26**	**666**	**42**	**23,069**

total VVF-repairs and related operations: **21,203** + in workshops 96 = **21,299**

total RVF-repairs and related operations: **1,866** + in workshops 14 = **1,880**

grand total 23,179

success rate at VVF closure: 90% per operation at early closure: 95% per operation

success rate at RVF closure: 85% per operation

healed by catheter only: 891 patients

wound infection rate: < 0.5%

postoperative mortality rate: 0.5-1%

final success rate (after one or more operations): > 97%

final severe **incontinence rate** after successful closure: 2-3%

obstetric fistula training 1989-2005

since it is by training that more and more people will involve themselves in the management of the obstetric fistula, it has become one of the corner-stones in the project

however, training drains all our energy whilst **2 operations less a day** are performed

the objectives of the training are to demonstrate/learn the complex trauma of the obstetric fistula and the noble art of its (surgical) management under primitive African conditions; each trainee is given a hand-out

the training of nurses and other (para)medical personnel can be done in groups by theoretical and practical sessions; this can be achieved either by formal training or during workshops

the training of doctors is purely individual since surgery is handwork and that has to be learned by the practice of performing the surgery themselves; during their training they can only be taught the **basic principles of obstetric fistula surgery**; this can be done by formal training exclusively; then they will know which fistulas they can handle themselves confidently and which fistulas they have to refer to a more experienced surgeon; spinal anesthesia is included in the training

the training of trainers will be even more time- and energy-consuming; their minimum requirements is 200-250 personal repairs before they can attend this training

a grand total of 626 doctors, nurses/midwives, other highly educated persons and paramedical staff were trained/attended our training program:

a total of **273 doctors**
- 117 general doctors with 3 years of surgical experience
- 123 consultant gynecologists/surgeons/urologists
- 31 senior registrars in gynecology/obstetrics
- 2 senior registrars in anesthesia

a total of **283 nurses/midwives**
- 205 pre- and postoperative nurses/midwives
- 63 operating theater nurses
- 15 anesthetic nurses

a total of **3 other academic persons**
- 1 anthropologist
- 1 physiotherapist
- 1 sociologist

a total of **7 medical students**

a total of **20 paramedical persons**

a total of **40 social workers**

the hand-out to the trainees and other training materials are upgraded continuously in order to provide the latest information

executive summary unfpa fortnight

As part of the global campaign to eradicate the obstetric fistula, **unfpa** organized a fistula fortnight from 21st of february thru 6th of march 2005 within the **national vvf project Nigeria** in the already existing VVF-repair and VVF–training centers in Kano, Katsina, Kebbi and Sokoto State.

Funds, manpower, logistics etc were provided by UNFPA, Federal Government of Nigeria, Kano State Government, Katsina State Government, Kebbi State Government, Sokoto State Government, SK Foundation, TTT Foundation, Virgin Unite, Nigerian Red Cross Society and VSO.

These 4 existing centers and the service were upgraded by renovation of the facilities or even by a new center, by providing the necessary equipment, by providing the necessary consumables and by training 3 indigenous doctors, 10 indigenous nurses and 10 indigenous social workers for each participating state.

Fourteen expert **Nigerian** fistula surgeons volunteered; and they were joined by 2 surgeons from UK and 2 surgeons from US to participate and to learn since there are no obstetric fistulas in the industrialized world.

In a major effort by all parties concerned **550 VVF-repairs, 22 RVF-repair and 19 catheter treatments** were performed in those 4 centers during the fortnight of the campaign making a **grand total of 591 repairs**.

Since it was quality we were looking for the objective for fistula closure (healing) had been set at 85% before the exercise was started.

Despite the fact that over 40% of the patients had been operated already from one up to five times the **success rate at closure was 87.3%** since 516 out of the 591 fistulas had healed: 498 (87.5%) out of the 569 VVFs and 18 (81.8%) out of the 22 RVFs; as determined by vaginal examination at 6-8 weeks postoperatively.

The incontinence rate of the healed fistulas was 10-15% which is normal at the time of evaluation from 6-8 weeks up to 4 months postoperatively and this may still improve during the coming months.

Before and during the fortnight a **total of 12 doctors, 40 nurses and 40 social workers** were trained in the basic principles of management of the obstetric fistula patients regarding pre-, intra- and postoperative care as well as counselling.

Though the fortnight can be considered a great success, it was only a **burst of intensive activity within a 20-year well functioning obstetric fistula programme** of the 4 participating states where extensive groundwork was done to make it a success; for instance the consultant + team travelled more than 15,000 km by road for screening of the patients, for assistance and for follow-up since each round trip is 1,700 km.

It is clear that without the available existing Nigerian expertise, without the available existing Nigerian manpower and without the available existing facilities this fortnight would not have been possible.

unfpa fortnight
operations and outcome

a total of 591 procedures were performed on the available 10 operating tables being:
4-5 repairs per operating table per day

repairs unfpa obstetric fistula fortnight

center	op-tables	catheter	vvf-repair	rvf-repair	total
kano	3	5	153	11	**169**
katsina	2	7	123	5	**135**
kebbi	2	4	94	4	**102**
sokoto	3	2	180	2	**184**
	10	**19**	**550**	**22**	**591**

the **success rate at closure** was **87.3%** since 516 out of the 591 fistulas had healed: 498 (87.5%) out of the 569 VVFs and 18 (81.8%) out of the 22 RVFs; as determined by vaginal examination at 6-8 weeks up to 4 mth postoperatively

the incontinence rate of the healed fistulas was between 10-15% which is normal at the time of evaluation; this will surely improve during the coming months by strict bladder drill

unfortunately, there was a postoperative mortality in 4 patients at resp. day 6 (severe malaria), day 13 (hepatitis or hepatic failure due to native drugs), day 19 (stroke due to hypertension) and day 31 (leukemia as diagnosed in the referral hospital)

infringement of intellectual property
resulting in
fake scientific articles

it seems that the interest in the obstetric fistula is increasing in the world; however, not all interest is welcome since there are some individuals or groups in the industrialized world claiming credit for things which belong to others

a common trick is to visit an existing VVF project, (perform one or two operations,) collect the data, analyze them and write an article as first author about the operative procedures and the whole project as if it were their own

by doing this they deprive the people who have set up the VVF project and who have dedicated themselves to the obstetric fistula from their intellectual property

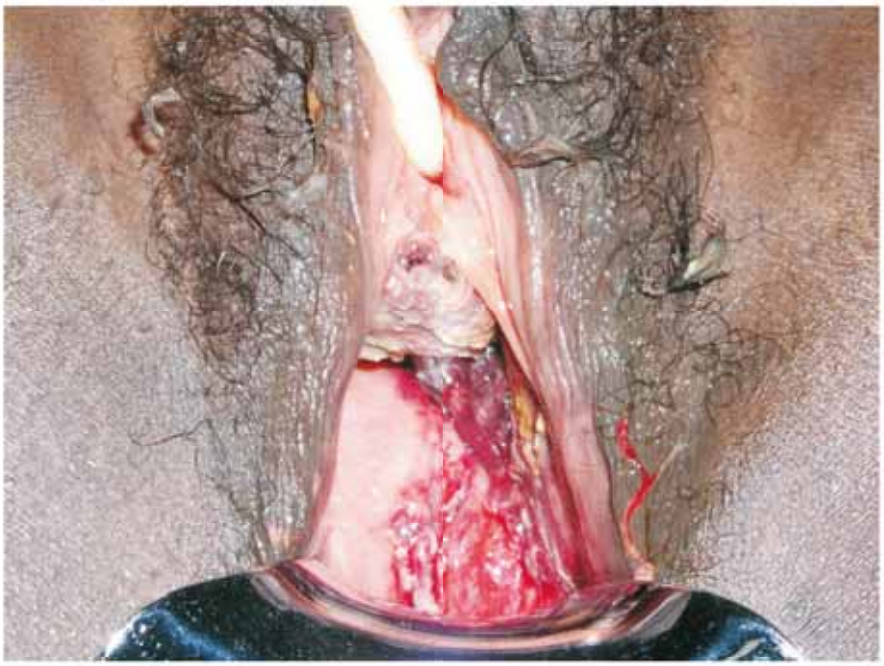
besides, being not their own work they make up things and state fake conclusions; once published they refer to these articles as peer-reviewed evidence

in 1996 the following authors TE Elkins and Lewis L Wall published a **fake** article in the Journal of Pelvic Surgery about a **rapid training programme** for senior registrars in obstetric and gynecology; however, the authors were never present at a single training session as executed by the chief consultant personally and exclusively: **J Pelv Surg 1996, 2: 182-186**

now the same author Lewis L Wall starts referring to this article as peer-reviewed evidence that the training in the (surgical) management of the obstetric fistula is simple and easy; the opposite is true, see **complex trauma of the obstetric fistula** on the next pages

what is very naïve of the international journals and their peers is to believe that a person who is residing and having a full-time job in the USA or Europe can execute a VVF project in Africa or that this person can have any clue about the obstetric fistula; would it have been possible for a doctor living and working in Africa to report about a rapid training programme in the USA teaching American surgeons how to perform cardiovascular surgery in a leading international journal??

by writing this down, I hope that journals, peers and the public will be more critical about this type of reporting simply because the obstetric fistula has disappeared from the industrialized world and with it the expertise of the doctors; the **real experience and expertise** exists only in the developing world in the brain and hands of few dedicated fistula surgeons who experience many difficulties in getting their **evidence-based** work published due to prejudice about "science" in the developing world



necrosis

slough

complex trauma of the obstetric fistula

as based on a personal experience in over 16,000 fistula repairs and related operations

kees waaldijk MD PhD

introduction

The variety of the complex trauma of the obstetric fistula is immense, from a minute fistula with minimal tissue loss to a cloaca in an empty pelvis with extensive intravaginal lesions and (sub)total loss of the intrapelvic tissues, extravaginal lesions, urine-induced lesions, neurologic lesions and systemic lesions.

The lesions are due to intravaginal pressure necrosis, intrapelvic compression of deep structures, immobilization, continuous urine leakage, blood loss and the amount of metabolic energy consumed during prolonged obstructed labor which may last from 2 to 7 days or more.

Added to this may be the trauma of spontaneous (assisted) delivery, harmful practices by the traditional birth attendant or harmful practices by professionals such as craniotomy, vacuum delivery, forceps delivery and cesarean section.

If a repair has been performed already there is an additional surgical trauma which varies as well from minimal, in case of expert surgery, to extensive, if surgery was poor; some patients are really traumatized by surgeons who fail to understand the problems involved in obstetric fistula surgery since it looks so easy and then turns out to be so difficult.

Each fistula constitutes a unique entity which makes the (surgical) management of the obstetric fistula so intriguing and challenging. The more all the factors involved are understood and the more accurate the quantitative and qualitative amount of tissue loss is assessed the more effective obstetric fistula surgery can be executed.

This review has been based on the extensive history taking, systematic pre- and intraoperative examination and meticulous documentation of the findings by the author with a personal experience in over 16,000 obstetric fistula and fistula-related operations in Northern Nigeria from 1984 until today.

mechanism of action in obstructed labor

The fetal head is too big or lies or presents abnormally and gets stuck inside the birth canal; then the soft tissues are compressed between the hard fetal skull and the hard maternal pelvic bones; if this is not relieved within 3 hours by cesarean section, tissue necrosis (no blood supply) occurs and a fistula develops.

The enormous trauma of prolonged obstructed labor is such that over 95% of the infants die inside the mother; then the head (its largest circumference) shrinks and the mother may be able to push the dead child out. Many times the mother dies as well in the process though it is not possible to give figures.

If the mother survives it is for the prize of a dead child and an obstetric fistula ... and then the real trouble starts.

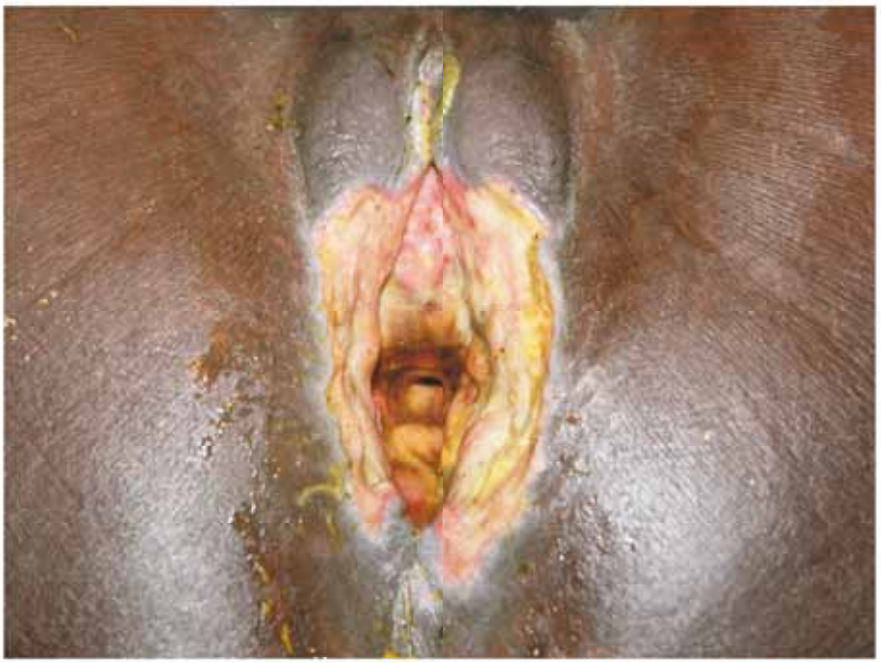
intravaginal lesions due to pressure necrosis

The anterior vagina wall and bladder/urethra are more at risk than the posterior vagina wall and rectum; also the lateral vagina walls, levator ani muscles, cervix, uterus and deeper pelvic structures (nerves, ligaments, periost etc) are at risk.

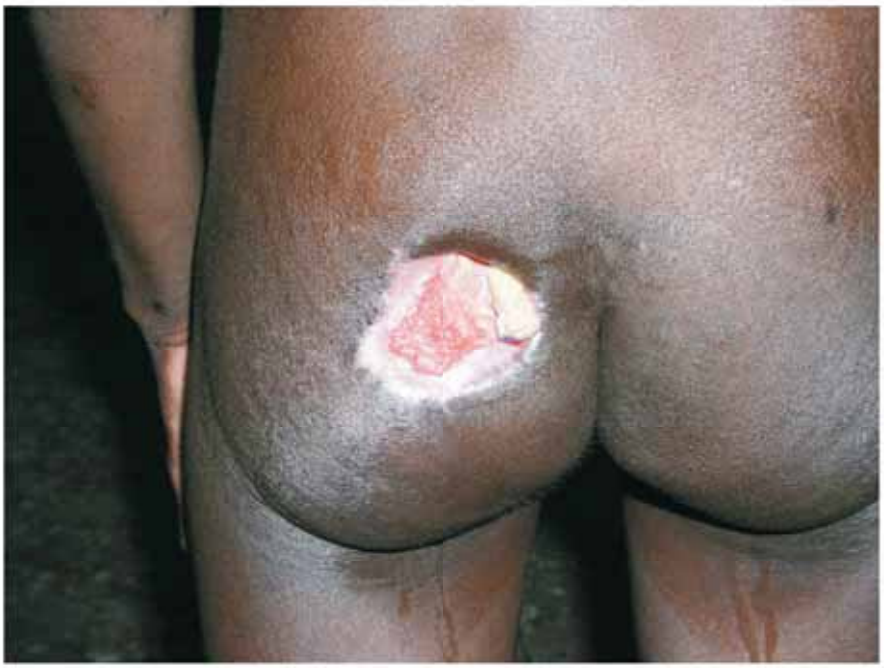
Therefore an isolated VVF is found in 85% of the patients, a combination of VVF with RVF in 12-15%, whilst an isolated RVF is seldom except for sphincter ani rupture with distal rectum trauma.

<u>vesicovaginal fistula</u>

In case of VVF there is always tissue loss of the urethra and/or bladder, pubocervical (endopelvic) fascia and anterior vagina wall and/or cervix and/or uterus. There may be a urethrovaginal fistula, a vesicovaginal fistula, a vesicocervical fistula or a vesicouterine fistula, either isolated or in combination with each other; and there may be multiple fistulas. If the traumatized urethra is totally disrupted from the traumatized bladder (neck) there is a circumferential fistula or a urethrovesicovaginal fistula with a circumferential defect which is common. Urethra block of the proximal urethra opening is frequently found in circumferential



fresh extensive trauma



decubitus ulcer

fistulas since the traumatized urethra heals with scarring and obliteration. Stricture of the urethrovesical junction may develop if there has been subfistulous trauma to the bladder neck and proximal urethra. In 2-3 per thousand patients there is (sub)total loss of urethra and bladder, and the resulting fistula becomes inoperable.

Ureter fistulas and other exceptional urine fistulas

Especially if a caesarean section has been performed and the woman is leaking urine together with spontaneous miction, there may be a ureter fistula as well. Exceptionally fistulas between the urinary tract and bowels may develop or between the bladder and the skin.

rectovaginal fistula

In case of RVF there is always tissue loss of the rectum, prerectal fascia and posterior vagina wall; in sphincter ani rupture there is always trauma (with or without tissue loss) to the internal and external anal sphincters, rectum, prerectal fascia and perineal body; and there may be multiple fistulas. If the traumatized rectum is completely disrupted from the traumatized sigmoid there is a circumferential fistula or a rectovaginal fistula with circumferential defect which is very rare. In proximal rectovaginal fistulas there is often a (severe) rectum stricture at the distal part which has to be disrupted during the repair otherwise the repair will be blown out. Complete closure of the distal loop with the rectum as a blind sac is possible in the circumferential fistulas. Exceptionally the trauma is so extensive that the fistula becomes inoperable.

Actually sphincter ani rupture is normally not caused by pressure necrosis but by precipitous passing/cutting through of the head of the baby through the vulva; only in few instances is it caused by prolonged obstructed labor and then always in combination with a VVF and extensive other lesions. In over 90% of the patients signs of additional surgical trauma are present as every body tries to apply some sutures immediately post partum.

cervix and uterus

There may be tissue loss of the cervix, and (sub)total loss is frequently encountered sothat also the canal cannot be identified even though the patient is menstruating. If there is total obliteration of the cervical canal secondary amenorrhea with or without cryptomenorrhea is found.

Trauma to and tissue loss of the endometrium may lead to synechia and secondary amenorrhea, though (sub)total loss of the uterus is very rare; this is different from secondary amenorrhea due to excessive blood loss (SHEEHAN syndrome).

levator ani musculature

There may be variable amounts of tissue loss of the pubococcygeus, iliococcygeus and ischiococcygeus muscles. This is always found in the circumferential fistulas, and may frequently lead to a vagina stricture, mostly of the posterior and lateral vagina walls but also circular, at the distal edge of tissue loss at the junction with traumatized tissue which has "healed" with scarring and distal vagina stenosis.

pubic bones and pubic symphysis

If there is major tissue loss of the levator ani muscle this results in bare pubic bones with loss of pubic bone periost and pubic symphysis cartilage; though sometimes there is subtotal loss of the pubic symphysis cartilage complete symphysiolysis with dehiscence has not been encountered.

internal obturator muscle

Infrequently tissue loss of the internal obturator muscle is such that the obturator foramen is "empty" and a finger can be passed through this foramen from the inside to the outside.

arcus tendineus fasciae and arcus tendineus of levator ani muscle

Trauma to the arcus tendineus fasciae and to the arcus tendineus of the levator ani musculature may be found, if there is major loss of the pubocervical (endopelvic) fascia with major loss of the pubococcygeus, iliococcygeus and/or ischiococcygeus muscles.

pubourethral ligaments

Frequently there is tissue loss of the intermediate and posterior pubourethral ligaments whilst loss of the anterior pubourethral ligaments is seldom; if there is a circumferential fistula it may be total

broad, cardinal and sacrouterine ligaments

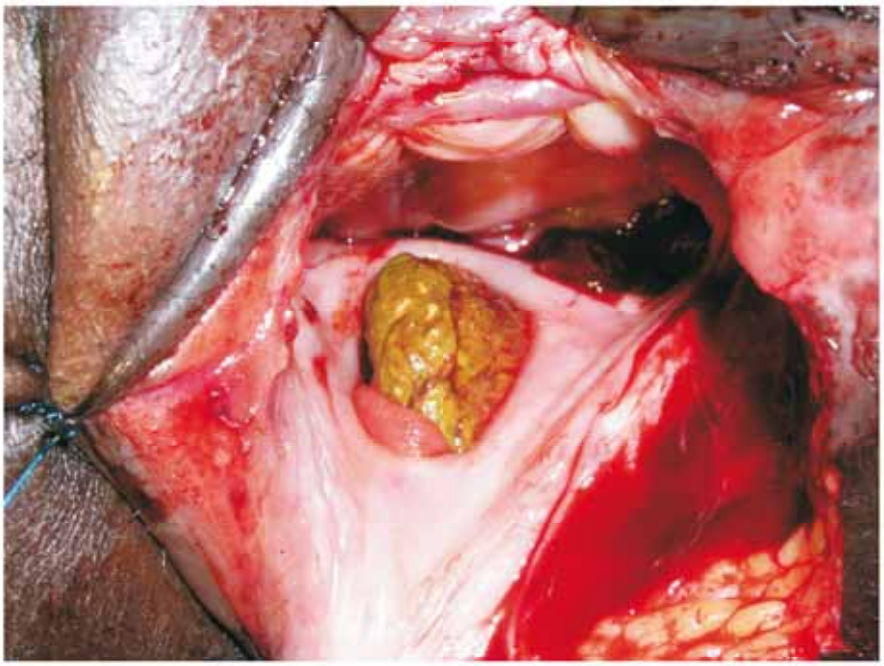
In extensive fistulas with circumferential defect there may be trauma to the broad, cardinal and sacrouterine ligaments resulting in prolapse of cervix and uterus. Here there is major tissue loss of the pelvic connective tissue combined with major loss of the pelvic muscular diaphragm resulting in an empty pelvis.

connective tissue and ligaments
There is tissue loss of the pubocervical (endopelvic) fascia which may be combined with loss of other intrapelvic connective tissues and ligaments.
vascular and lymphatic tissue
In the urethrovesicovaginal fistulas with circumferential defect there is trauma to and loss of the prevesical vascular plexus at the urethrovesical junction since major hemorrhage is not encountered at circumferential dissection of the bladder from the symphysis; there must be trauma to the lymphatic tissues as well.
vagina stricture, stenosis, shortening and atresia
Tissue loss together with trauma of the intrapelvic soft tissues may "heal" by varying degrees of scarring resulting in varying degrees of vagina stricture, vagina stenosis, vagina shortening or even vagina atresia.
empty pelvis with bare bones
If there is (sub)total loss of the intrapelvic soft tissues, there is no tissue left to "heal" by scarring and an empty pelvis with bare bones is the result.

lesions of the vulva due to pressure necrosis
Tissue loss of the labia minora may be encountered, mostly the posteriolateral parts but also (sub)totally. Sometimes this is combined with tissue loss of the labia majora. It is definitely not due to circumcision which can be proven in the patients who come immediately after delivery with open lesions of the labia.

local extravaginal lesions due to immobilization
Because the patient is immobilized for a long time, pressure sores over sacrum, trochanter major, heel and scapula may develop in varying degrees of size and depth up to the degree that the sacrum is bare.
Therefore every effort should be made to mobilize the patient as soon as possible post partum.
Pressure ulceration over the ischial tuberosities may be found due to insensitivity if there is long-standing saddle anesthesia in case of sacral plexus trauma.

neurologic lesions due to intrapelvic compression
intrapelvic sciatic/peroneal nerve trauma resulting in drop foot
The sciatic nerve or its lumbosacral plexus may be compressed between the hard fetal skull and bony maternal pelvis resulting in minor to total function loss of the peroneal nerve being part of the intrapelvic sciatic nerve.
Since the peroneal nerve is serving the musculi tibialis anterior, extensor hallucis longus, extensor hallucis brevis, extensor digitorum longus, extensor digitorum brevis, peroneus longus, peroneus brevis and peroneus tertius this will result in (partial) atrophy of these muscles with weakness or loss of dorsiflexion and eversion of the foot.
In its extreme form the foot is in inversion_plantiflexion and if long standing the gastrocnemius muscle with Achilles tendon will shorten and contract especially when the patient is immobilized; in the end it will become a fixed inversion_plantiflexion contracture of the ankle if nothing is done.
The incidence of peroneal nerve trauma in the obstetric fistula is high since signs of it are found in over 85% of the patients who present within 3 months after childbirth; and therefore it should be part of the routine examination.
The degree of trauma is estimated by voluntary muscle testing VMT according to the Medical Research Council or MRC scale 0-5 whereby grade 0 = no function whatsoever, grade 1 = only a muscle twitch, grade 2 = minimal movement (active dorsiflexion of toes), grade 3 = active half-range dorsiflexion of foot if gravity is eliminated, grade 4 = active full-range dorsiflexion of foot with minor muscle weakness, and grade 5 = normal. The gait is severely affected in grades 1-2(-3) which will produce the typical drop foot walking.
Since we cannot influence nerve healing we can only wait for spontaneous recovery or improvement which may take up to 2 years and occurs in over 90% of the patients. Active muscle exercises by immediate mobilization/walking, with or without a stick, will prevent major muscle atrophy and major contracture of the gastrocnemius muscle with Achilles tendon.



rvf

vvf + rvf

Passive ankle movements by physiotherapy will only prevent or reduce Achilles tendon contracture and then only if started early enough and do not contribute anything else; pharadic stimulation is too complicated in developing Africa.
If after 2 years the patient complains about severe drop foot, a tibialis posterior tendon transfer (with or without a lengthening achillotomy) can be performed but so far no patient came forward since this is of low priority to the patients.
Probably there is anesthesia of the anterioateral and dorsolateral aspects of the lower leg and foot as well but we have not been testing this by sensitivity testing ST since we do not encounter ulceration of these areas.
There may be trauma to the other parts of the sciatic nerve and to other intrapelvic nerves as well though this has not been systematically documented.
sacral plexus trauma
The sacral plexus may be compressed between the hard fetal skull and maternal bony pelvis resulting in: a. atonic bladder with overflow incontinence with leaking urine, b. minor or major stress incontinence with leaking urine, c. sphincter ani paralysis with stool_flatus incontinence, d. saddle anesthesia of vulva/perineum/buttocks and eventually ulceration due to anesthesia
Therefore routine examination of the obstetric fistula patients should include measuring bladder capacity, testing of anal sphincter reflex and, if this is negative, sensitivity testing ST of vulva/perineum/buttocks for saddle anesthesia.
Though sacral plexus trauma is regularly encountered immediately following obstructed labor, usually it heals spontaneously and most patients have no complaints after 4-6 weeks. However, rarely patients are encountered who have the combination of all these lesions longer than 2-3 yr and then we have nothing to offer.
anesthesia of the vagina
This is more or less a physiologic process during childbirth and lasts some 4-6 weeks afterwards probably due to trauma to the nerve endings in the vagina walls. This explains why in a selected group of patients primary suturing can be performed; with excellent results.
stroke (cerebrovascular accident)
Though actually not caused by obstructed labor three **teenage** patients were treated who had an obstetric fistula and had experienced a stroke due to hypertension (eclampsia) during obstructed labor resulting in slurred speech and L sided paralysis of the limbs; their recovery was very slow and incomplete.

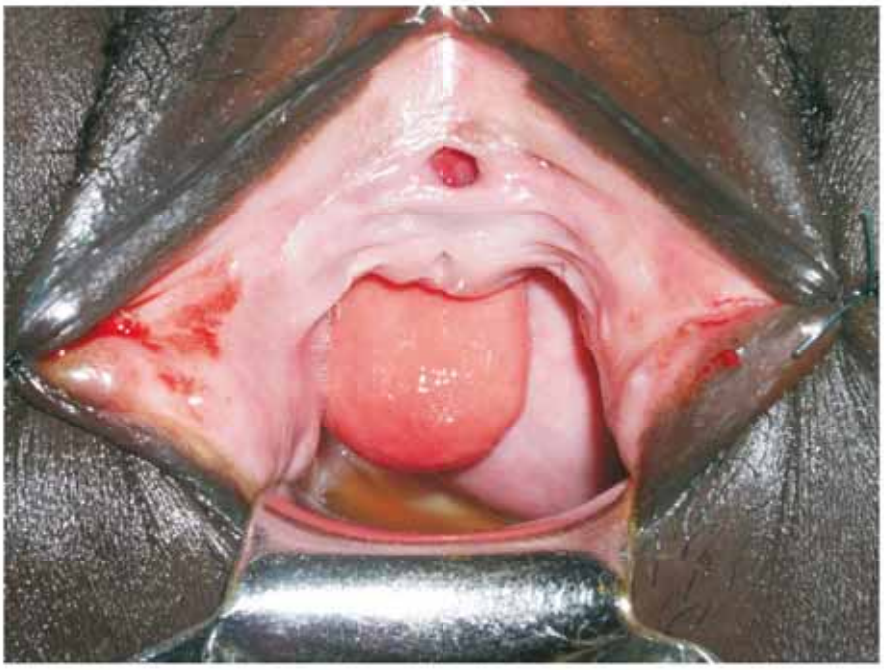
systemic lesions due to the enormous trauma of prolonged obstructed labor
Poor general health and even cachexia may be encountered which is due to the amount of energy consumed from which some patients even die post partum; high-protein alimentation is necessary.
Severe anemia is frequently found and then oral or systemic hematinics are indicated; patients may die from this as well post partum.
If there is excessive blood loss secondary amenorrhea may develop (SHEEHAN syndrome). Fistula-related secondary amenorrhea, either due to local endometrium trauma, obliteration of cervical canal or endocrinologically, is found in 12-15% of the patients if the fistula duration is one year or longer. Cryptomenorrhea may be found if there is total obliteration of the cervical canal.

lesions due to continuous urine leakage
In almost all patients ammonia dermatitis around the vulva develops due to the continuous leaking of urine. In some patients it may be very aggressive and if long-standing it may be leather like. Causal treatment is by closure of the fistula and if necessary treatment of the postrepair incontinence.

lesions due to restriction of oral fluid intake
If the urine leakage lasts for some time the woman restricts her fluid intake which may result in repeat ascending urinary infections with in the end a shrunken bladder and she may also develop stones in the bladder and/or vagina. As well the offensive odor becomes worse; however, urosepsis is rare.

social implications
In case of VVF there is continuous leakage of urine which cannot be stopped or cleaned. The

yankan gishiri



bladder base prolapse

extensive bladder prolapse

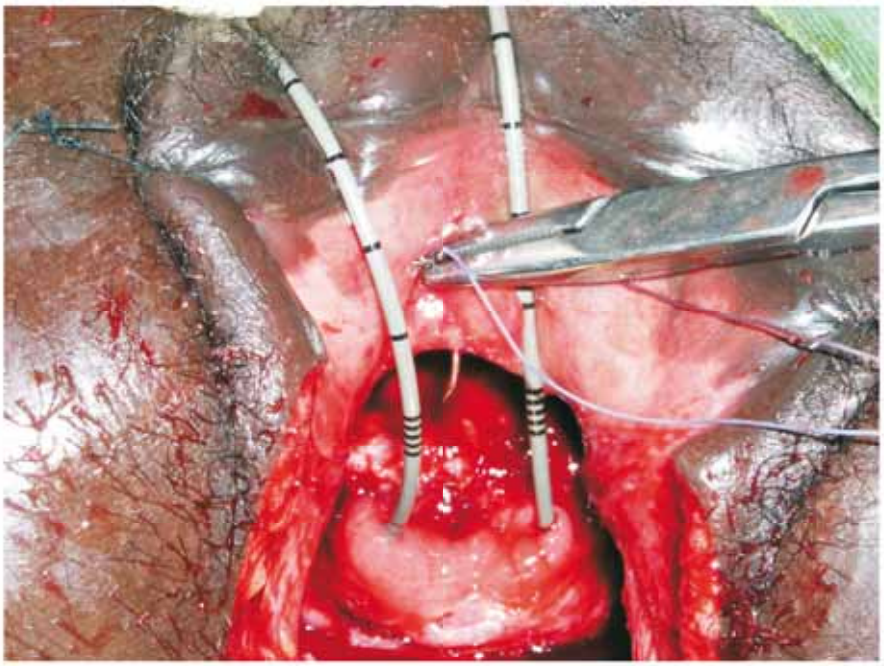
cervix prolapse + decubitus

urine wetting of clothes, legs, bed, chair and floor with an offensive odor are unacceptable in any society since anybody can see and smell it, and the patient can not participate in normal social activities.
In case of RVF there is intermittent passing of stools and flatus per vaginam (unless diarrhea) which can be cleaned. Therefore these patients can participate in social activities, though with a handicap; several patients even deny it and do not want an operation.
The far reaching social implications of the obstetric fistula are such that the patient is being divorced by her husband and ostracized from her community, her friends and in the end even from her own family. The only ways to survive are by begging and commercial sex, and the woman has to live as an outcast with progressive downgrading physically, socially, emotionally and mentally if nothing is done.
Therefore one has to concentrate on the most important thing, viz. closure of the fistula, in order to rehabilitate the patient into her own family and society

discussion
There is an immense variety not only of the trauma to the bladder and/or rectum leading to a fistula but also of the additional trauma to other intrapelvic structures such as connective tissue, ligaments, muscles, blood vessels, lymphatic vessels and the vagina walls; and of the surgical trauma from previous repairs. Theoretically the trauma of prolonged obstructed labor may result in tissue loss ranging from one cell to (sub)total loss of all the intrapelvic soft tissues.
There are intravaginal, local extravaginal, neurologic, urine-induced and systemic lesions in an immense variety, either isolated or in total combination. There are no identical fistulas and each fistula constitutes a unique entity in need of its own specific approach.
Though the medical aspects of the obstetric fistula are already heart breaking, the far reaching social implications constitute a disaster especially considering the fact that in northern Nigeria 70% of the patients are younger than 20 years and have their whole adolescent and adult life in front of them; 40% of the patients are even younger than 16 years.
In order to plan and execute obstetric fistula surgery it is of utmost importance to examine the patient systematically and to assess all the different lesions pre- and intraoperatively. Special attention has to be given to the involvement of the urine continence/closing mechanism, since closure of the fistula is only effective if the patient becomes continent as well.

conclusion
The obstetric fistula constitutes a complex trauma with an immense variety, theoretically from one cell loss to total loss of the different intrapelvic structures in combination with local extravaginal lesions, neurologic lesions, urine induced lesions and systemic lesions, with far reaching social implications: a medical calamity and social disaster.
Therefore the repair of an obstetric fistula may be simple, difficult, highly complicated or even impossible, and requires thorough theoretical knowledge of and ample practical experience in the obstetric fistula and profound understanding of the urine continence/closing mechanism in the female together with expert surgical skills.
Though normally something can be done, in its extreme form the woman ends up with a cloaca in an empty pelvis for which nothing can be done and she is crippled for life physically, socially, emotionally and mentally and she will never again be a normal woman.

abstract
The obstetric fistula is a complex trauma due to prolonged obstructed labour with an immense variety from a minute fistula with minimal tissue loss to a cloaca with extensive intravaginal lesions, (sub)total loss of intrapelvic tissue, local extravaginal lesions, urine-induced lesions, neurologic lesions and systemic lesions. There is also additional trauma due to spontaneous delivery with or without trauma due to traditional or professional practices. If operated there is surgical trauma as well. Each fistula constitutes a unique entity in need of its own (surgical) management. The more all the factors involved are understood and the more accurate the pre- and intraoperative assessment of the lesions the more effective the reconstructive surgery can be executed.



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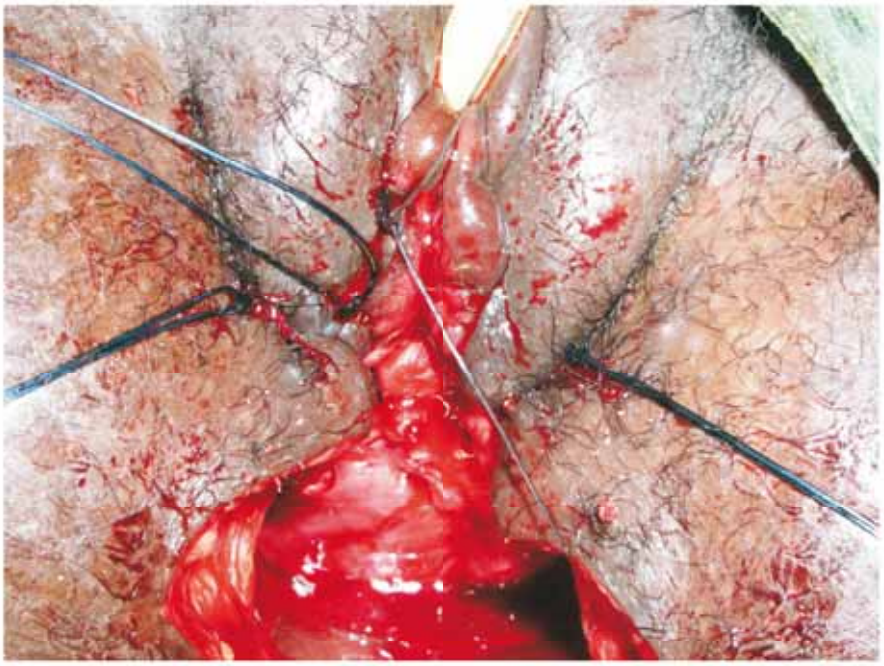

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"All the News That's Fit to Print"

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WEDNESDAY, SEPTEMBER 28, 2005

WHEN STORM HIT, NATIONAL GUARD WAS DELUGED TOO

SLOW RESPONSE FAULTED

Troop Deployment to Iraq Hurt Louisiana Effort, Commanders Say

By SCOTT SHANE and THOM SHANKER

The morning Hurricane Katrina thundered ashore, Louisiana National Guard commanders thought they were prepared to save their state. But when 15-foot floodwaters swept into their headquarters, cut their communications and disabled their high-water trucks, they had their hands full just saving themselves.

For a crucial 24 hours after landfall on Aug. 29, Guard officers said, they were preoccupied with protecting their nerve center from the waves topping the windows at Jackson Barracks and rescuing soldiers who could not swim. The next morning, they had to evacuate their entire headquarters force of 375 guardsmen by boat and helicopter to the Superdome.

It was an inauspicious start to the National Guard response to the storm, which ultimately fell so short that it has set off a national debate about whether the Pentagon should take charge immediately after catastrophes. President Bush has asked Congress to study the question, and top Defense Department and Guard officials are scheduled to testify on the response before a House panel on Wednesday.

Other elements of the response to Hurricane Katrina are also coming into question. The New Orleans police chief, Edwin P. Compass III, resigned Tuesday after the department announced that 250 police officers — roughly 15 percent of the force — could face discipline for leaving their posts without permission during the storm and its aftermath.

The former head of the Federal Emergency Management Agency, Michael D. Brown, testified in Congress that he had warned the White House of impending disaster several days before the storm struck. [Page A17.]

In interviews, Guard commanders and state and local officials in Louisiana said the Guard performed well under the circumstances. But they say it was crippled in the early days by a severe shortage of troops that they blame in part on the deployment to Iraq of 3,200 Louisiana guards-

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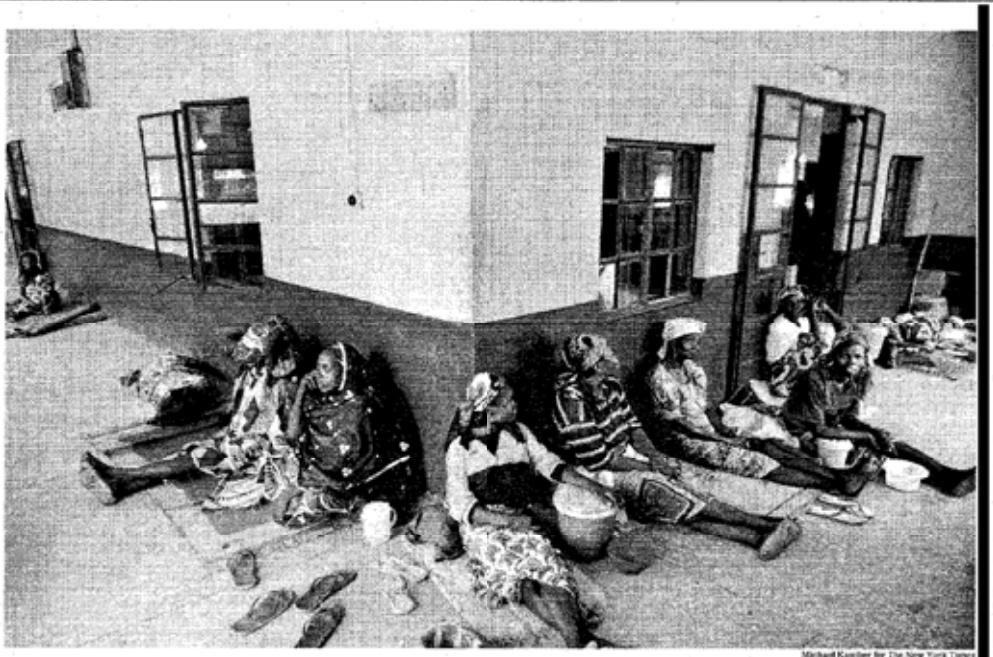

Michael Kamber for The New York Times

Women recuperating from fistula operations in Babbar Ruga Hospital inNigeria. They sit in a hallway to get out of bed and avoid bedsores.

Nightmare for African Women: Birthing Injury and Little Help

By SHARON LaFRANIERE

KATSINA, Nigeria — Dr. Kees Waaldijk began surgery shortly before 10 a.m. one recent Saturday in a cement-walled operating room in this city near Nigeria's northern border. More than five hours later, orderlies carried the last of four girls to the recovery ward. In the near-90 degree heat, Dr. Waaldijk's light blue surgical garb had turned dark with sweat.

"We are finished for the day," he barked.

It was the last thing the dozen girls who squatted in the open-air corridor outside wanted to hear. Leaping up, tracking wet footprints and soaked skirts across the floor, they besieged the towering, white-haired surgeon, holding out orange case files, their names scrawled on them in black marker.

"Big eyes, with a question mark: 'When is it my turn?' " he said later in his office, filled with medical books, suture-filled suitcases and damp socks and T-shirts hung on chairs to dry. He held up his hands. "The eyes are following you everywhere you go. I tell them it is one man, two hands and many women."

What brings the girls to Dr. Waaldijk — and him to Nigeria — is the obstetric nightmare of fistulas, unknown in the West for nearly a century. Mostly teenagers who tried to deliver their first child at home, the girls failed at labor. Their babies were lodged in their narrow birth canals, and the resulting pressure cut off blood to vital tissues and ripped holes in their bowels or urethras, or both.

Now their babies were dead. And the would-be mothers, their insides wrecked, were utterly incontinent. Many had become outcasts in their own communities — rejected by their husbands, shunned by neighbors, too ashamed even to step out of their huts.

Until this decade, outside nations that might be able to help effectively ignored the problem. The last global

Continued on Page A12

Saudi Women Have Message For U.S. Envoy

By STEVEN R. WEISMAN

JIDDA, Saudi Arabia, Sept. 27 — The audience — 500 women covered in black at a Saudi university — seemed an ideal place for Karen P. Hughes, a senior Bush administration official charged with spreading the American message in the Muslim world, to make her pitch.

But the response on Tuesday was not what she and her aides expected. When Ms. Hughes expressed the hope here that Saudi women would be able to drive and "fully participate in society" much as they do in her country, many challenged her.

"The general image of the Arab woman is that she isn't happy," one audience member said. "Well, we're all pretty happy." The room, full of students, faculty members and some professionals, resounded with applause.

The administration's efforts to publicize American ideals in the Muslim world have often run into such resistance. For that reason, Ms. Hughes, who is considered one of the administration's most scripted and careful members, was hired specifically for the task.

Many in this region say they resent the American assumption that, given the chance, everyone would live like Americans.

The group of women on Tuesday, picked by the university, represented the privileged elite of this Red Sea

Continued on Page A12

DECLINE IS SEEN IN IMMIGRATION

Study Finds Arrivals in U.S. Peaked in 2000

By NINA BERNSTEIN

For years it seemed that immigration to the United States could only rise. Now a new study, based on a year-by-year analysis of government data, shows a startlingly different pattern: Migration to the United States peaked in 2000 and has declined substantially since then.

And in New York, the historic gateway to the nation's newcomers, the influx is now lower than it has been for more than fifteen years.

Both phenomena underscore the growing importance of illegal immigrants from Mexico, said Jeffrey S. Passel, a senior researcher at the Pew Hispanic Center, a nonpartisan research group, which released the study yesterday. And they indicate that post-9/11 security measures have had a far greater impact on legal immigration than on illegal entry.

Though the level of immigration to the United States has subsided by about 25 percent from a peak of 1.5 million a year in 1999 and 2000, more annual immigration is now illegal than legal, the study found. Over all, the number of immigrants entering the country has followed the growth of the American economy. But in New York, the boom years did not

Continued on Page C19

JUSTICES TAKE ON SPENDING LIMITS FOR CANDIDATES

MAY REVISIT A PRECEDENT

Vermont Law at Issue — Confusion on Rulings by Lower Courts

By LINDA GREENHOUSE

WASHINGTON, Sept. 27 — The Supreme Court opened a new chapter in the long-running debate over the role of money in politics on Tuesday by agreeing to decide whether Vermont's strict limits on campaign spending and contributions are constitutional.

The court's action suggested, although it did not guarantee, that the justices might be ready to revisit their 29-year-old precedent, Buckley v. Valeo, which in equating money with speech has been widely interpreted as ruling out any restrictions on expenditures by candidates.

Vermont is the only state to have placed limits on candidates' spending. Its contribution limits, $400 to candidates for statewide office during a two-year election cycle and lower for other offices, are the tightest in the country.

Whether the court is embarking on a fundamental reappraisal of its campaign precedents, or whether it is intervening to clear up growing confusion in the lower courts, the case will inevitably become a highlight of the Supreme Court's new term, which formally begins on Monday.

The justices, as has been their recent custom, got a jump on the term by adding cases to the new term's calendar from among those that arrived during the summer recess. On Tuesday's list, there were 11 new cases, which will be argued in January and February.

The Vermont case underscored the significance of the transition the court is now facing as it awaits not only the arrival of John G. Roberts Jr., who is expected to be confirmed by the Senate on Thursday as the next chief justice, but also a successor to Justice Sandra Day O'Connor.

Justice O'Connor, who will retire when her successor is confirmed, took part in selecting the new cases on Tuesday. As in many other areas of law, she has been at the center of the court in campaign finance cases, and cast the deciding vote two years ago when the court upheld a major new federal campaign finance law, the Bipartisan Campaign Reform Act, more commonly known as the McCain-Feingold law. The late Chief Justice William H. Rehnquist was one of the dissenters. The 5-to-4 decision upheld curbs on the unlimited contributions to political parties known as soft money.

A second new campaign finance case that the justices accepted on Tuesday challenges the application of another section of that law, asking the court to establish as exception

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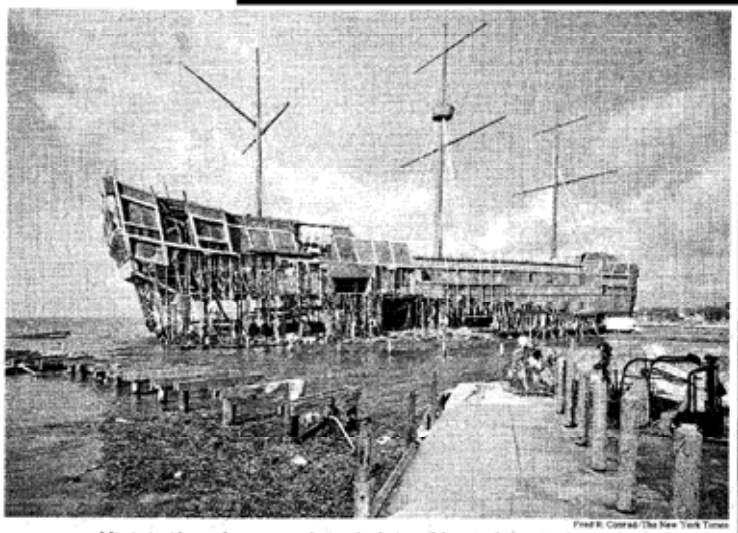


Fred R. Conrad/The New York Times

STORM TOSSED Mississippi lawmakers are pondering the future of the crippled casino-boat industry. Page C1.

As Bodies Mull Retirement, 2 Aging Stars Play On

By ALAN SCHWARZ

Mike Piazza has used the same bat model his entire career, a 32-ounce club that his arms and wrists have whipped through the hitting zone with lightning quickness and thunderous results. But as he has walked back to the dugout after some at-bats this season with the Mets, he has recognized, and resisted, the growing reality of needing a lighter model.

"I'm stubborn," Piazza said. "My ego maybe isn't allowing me to."

Bernie Williams, the Yankees' longtime center fielder, has experienced the aging process in a different way. For years, he says, a burst of speed could enable him to make up for a momentary lapse in concentration before having to chase a fly ball.

"I would get a late jump on a ball and be able to overcome that by running," Williams said. "Now I can't the line there was a shift in power, a sort of stealthy corporal coup. The joints and muscles stopped taking orders; soon the body did the instruct-

Boys of Summer, Now 37

Mike Piazza of the Mets and Bernie Williams of the Yankees were at their peak in 1999 and are now in decline.

Statistics through Monday's games

BERNIE WILLIAMS

	GAMES	AT-BATS	HITS	HR	RBI	AVG	OBP	SLG
1999	158	591	202	25	115	.342	.435	.536
2005	135	462	116	12	64	.251	.324	.372

MIKE PIAZZA

	GAMES	AT-BATS	HITS	HR	RBI	AVG	OBP	SLG
1999	141	534	162	40	124	.303	.361	.575
2005	108	363	99	18	61	.258	.333	.460

INSIDE

Saudi Women Have Message Of Their Own for U.S. Envoy

Continued From Page A1

An unpredictable encounter in a carefully staged trip.

coastal city, known as one of the more liberal areas in the country. And while they were certainly friendly toward Ms. Hughes, half a dozen who spoke up took issue with what she said.

Ms. Hughes, the under secretary of state for public diplomacy, is on her first trip to the Middle East. She seemed clearly taken aback as the women told her that just because they were not allowed to vote or drive that did not mean they were treated unfairly or imprisoned in their own homes.

"We're not in any way barred from talking to the other sex," said Dr. Nada Jambi, a public health professor. "It's not an absolute wall."

The session at Dar Al-Hekma College provided an unusual departure from the carefully staged events in a tour that began on Sunday in Egypt.

As it was ending Ms. Hughes, a longtime communications aide to President Bush, assured the women that she was impressed with what they had said and that she would take their message home. "I would be glad to go back to the United States and talk about the Arab women I've met," she said.

Ms. Hughes is the third appointee to head a program with a troubled past. The first, Charlotte Beers, a Madison Avenue executive, produced a promotional video about Muslims in America, rejected by some Arab nations and scoffed at by a number of State Department colleagues. Her successor, Margaret D. Tutwiler, a former State Department spokeswoman, lasted barely five months. A report issued in 2003 by a bipartisan panel chosen by the Bush administration portrayed a dire picture of American public diplomacy in the Arab and Muslim world.

Carol T. Powers for The New York Times

Karen P. Hughes, the under secretary of state for public diplomacy, was hired to publicize American ideals in the Muslim world.

Ms. Hughes, on this first foray, has churned through meetings in which she has tirelessly introduced herself as "a mom," explained that Americans are people of faith and called for more cultural and educational exchanges. Her efforts to explain policies in Iraq and the Middle East have been polite and cautious.

As a visiting dignitary, she had audiences in the summer palaces of this Red Sea coastal city with King Abdullah, Crown Prince Sultan and the foreign minister, Prince Saud al-Faisal. But mostly it was a day that underscored the uneasy Saudi-American relationship, fed by unsavory images the two countries have of each another.

In December, there was an armed attack on the American Consulate in Jidda, leaving five people dead, and that meant that the Americans traveling with Ms. Hughes were cautioned against traveling alone in the city.

At the meeting with the Saudi women, television crews were barred and reporters were segregated according to sex. American officials said it was highly unusual for men to be allowed in the hall at all.

A meeting with leading editors, all men, featured more familiar complaints about what several said were American biases against the Palestinians, the incarceration of Muslims at Guantánamo Bay and the alleged American stereotype of Saudis as religious fanatics and extremists after Sept. 11.

Ms. Hughes responded by reminding listeners that President Bush had supported the establishment of a Palestinian state and asserting that Guantánamo prisoners had been visited by the International Red Cross and retained the right to worship with their own Korans.

Americans, she said at one point, were beginning to understand Islam better but had been disappointed that some Muslim leaders had been "reticent" at first in criticizing the Sept. 11 attacks.

"Now, several years later, we're beginning to hear other voices," she said.

But it was the meeting with the women that was the most unpredictable, as Ms. Hughes found herself on the defensive simply by saying that she hoped women would be able to vote in future elections.

In June, Secretary of State Condoleezza Rice talked of democracy and freedom in the Middle East but declined to address the question of driving. By contrast, Ms. Hughes spoke personally, saying that driving a car was "an important part of my freedom."

A woman in the audience then charged that under President Bush the United States had become "a right wing country" and that criticism by the press was "not allowed."

"I have to say I sometimes wish that were the case, but it's not," Ms. Hughes said with a laugh.

Several women said later that Americans failed to understand that their traditional society was embraced by men and women alike.

"There is more male chauvinism in my profession in Europe and America than in my country," said Dr. Siddiqa Kamal, an obstetrician and gynecologist who runs her own hospital.

"I don't want to drive a car," she said. "I worked hard for my medical degree. Why do I need a driver's license?"

"Women have more than equal rights," added her daughter, Dr. Fouzia Pasha, also an obstetrician and gynecologist, asserting that men have obligations accompanying their rights, and that women can go to court to hold them accountable.

Ms. Hughes appeared to have left a favorable impression. "She's open to people's opinions," said Nour al-Sabbagh, a 21-year-old student in special education. "She's trying to understand."

Like some of her friends, Ms. Sabbagh said Westerners failed to appreciate the advantages of wearing the traditional black head-to-foot covering known as an abaya.

"I love my abaya," she explained. "It's convenient and it can be very fashionable."

Nightmare for Africans: Birthing Injury and Little Help

Continued From Page A1

Photographs by Michael Kamber for The New York Times

Inno Usman, 25, waited for surgery this month in Babbar Ruga Hospital in Nigeria. She suffered from an obstetric fistula, an injury, suffered by many African women, that can be prevented with a Caesarean section.

study, in which the World Health Organization estimated that more than two million women were living with obstetric fistulas, was conducted 16 years ago.

Nor has a recent spate of international attention set off an outpouring of aid. Two years of global fundraising by the United Nations Population Fund, an agency devoted in part to improving women's health, has netted only $11 million for the problem.

The number of new cases is far outpacing repairs — not just here, but in other sub-Saharan nations like Kenya, Malawi and Uganda. Despite recent strides, said Thoraya Ahmed Obaid, the Population Fund's executive director, "at the current rate of action it will take decades to end fistula."

Few doubt that the problem is most concentrated in sub-Saharan Africa, where poverty and rudimentary health care combine with traditions of home birth and early pregnancy to make women especially vulnerable. In Nigeria alone, perhaps 400,000 to 800,000 women suffer untreated fistulas, says the United Nations.

Dr. Waaldijk , a 6-foot-4, 64-year-old Dutchman who rides a circuit nine months each year from his home in the Netherlands to Babbar Ruga Hospital here and others in rural Nigeria, says he has operated on 15,000 fistulas in 22 years here, repairing nearly all of them.

Obstetric fistulas are easily prevented by Caesarean sections. But in sub-Saharan Africa — excluding the region's richest nation, South Africa — the average doctor serves 6,666 patients and villages are often linked by little more than dirt paths. Many rural women labor fruitlessly for days before being taken, sometimes in a cow-pulled cart, to a road leading to a hospital.

Dr. Waaldijk remembers one patient well. She managed to push out only her baby's head before collapsing from exhaustion in her hut, he said. Her brother carried her, balanced on a donkey, to a road, where a bus driver demanded 10 times the usual fare to take her to a hospital. She half-stood, half-sat for the trip, her dead baby's head between her legs, her urethra ripped open.

"This is what is happening," the doctor said. "Nobody will believe it." The fistulas point to the broader plight of millions of African women: poverty; early marriage; maternal deaths; a lack of rights, independence and education; a generally low standing. One in 18 Nigerian women dies during childbirth, compared with one in 2,400 in Europe, the Population Fund says. A larger share of African women die in childbirth than anywhere else in the world.

Were it widely available, the United Nations agency states, a $300 operation could repair most fistulas. But Mozambique, with 17 million people, has just three surgeons who consistently perform those operations. Niger, population 11 million, has but six, the organization reported in 2002.

Nigeria, Africa's most populous country with 137 million people, has eight fistula repair centers, and Dr. Waaldijk, a Health Ministry employee, said he had trained 300 doctors in fistula surgery. Once trained, though, many leave for better paid jobs in wealthier nations.

Nearly 600 women showed up, some arriving in busloads, when international and Nigerian officials staged a 14-day treatment campaign at Babbar Ruga and three other hospitals in February. Three hospitals ran out of beds. The youngest patient was 12.

The oldest, more than 70, had been incontinent for a half-century.

"The health care system is not copING WITH IT," Dr. Waaldijk said. "You go to a hospital and they have no working facilities. You say, 'You need this, this, this and this.' You go back. No water! No water in the whole hospital! You go back again, no lights!

"So where do you start?"

Dr. Waaldijk started here at Babbar Ruga Hospital 22 years ago, after a misspent youth followed by a lucrative surgical practice in Europe mixed with public health stints. Only when he came to this dusty town of open sewers and fickle electricity did he find his life's calling, he said.

Dr. Kees Waaldijk speaking with Faima Mamman, a patient at Babbar Ruga Hospital, after operating on her to repair a fistula.

With help from government and private donors, he slowly built Babbar Ruga into one of Africa's two biggest fistula centers, a small city of yellow concrete wards and hostels that typically houses 200 patients.

Those recovering from his surgery walk awkwardly about the grounds, catheters emptying between their legs into plastic buckets in girlish colors of pink and purple. Relatives camp by the dozens under the trees amid cooking pots, straw mats and tea kettles.

ONLINE: AFRICAN OBSTETRIC NIGHTMARE

Audio of Sharon LaFraniere, video of a Nigerian operating room as well as additional photographs at nytimes.com/africa.

Dr. Waaldijk still hauls sutures, needles and anesthetics in big black suitcases from Holland to be certain of a reliable supply. He operates partly by the sun, wheeling his surgery table across the room to catch the best light, and personally logs his results on a laptop protected by a backup generator.

More than a third of his patients are 15 or younger; another 30 percent are between 15 and 20. His records indicate that most were married at 11 or 12, before menstruation. Nearly all bring with them tales of hardship, suffering and rejection.

Safiya, 23, was in the post-op ward after living for a year in the hut of a traditional healer who tried to cure her by stuffing potions into her vagina. Daso, 23, said she had leaked urine and feces for five years. Her husband divorced her.

Rumasau, 16, unluckily began labor on a Saturday, when her local hospital had no physician for her. She had to wait until the following Tuesday for an emergency Caesarean section — not an uncommon delay here, Dr. Waaldijk said.

For the few who get help, fistula surgery is life-changing. Zainabu Ado, 19, said she had leaked urine and feces for a year before coming to Babbar Ruga.

"People ran from me, even members of my own family," she said during an interview in Suluba, a tiny village hidden on a barely passable dirt road across the border in Niger. "My husband abandoned me. Nobody talked to me. Nobody visited me. For that whole year I stayed indoors."

At an impromptu gathering this month, Ms. Ado arrived resplendent with beaded jewelry, and her neighbors made room for her on straw mats in the sand.

Problems linger, she said. Her husband never bothered to divorce her, leaving her unable to remarry. She suffers a slight limp from lingering nerve damage. But compared with a fistula, such troubles are nits. "I am completely healed," she said, flashing a smile.

Her village is too small to appear on any map. Yet she is neither Suluba's first nor last fistula patient. She heard of Babbar Ruga Hospital from a neighbor who had undergone fistula surgery there. Ms. Ado, in turn, told Gide Gero.

Four feet 10 and nut-brown, Gide arrived at the hospital in September and spread her mat in the corridor outside the operating room. Her eyes were lively, her smile gap-toothed. She looked perhaps 12, but said she was 16.

Isolation and the traditions of her Fulani tribe governed her upbringing. She never went to school. Once she reached puberty, each suitor was allowed to specify that a decorative design be carved in her face as a sign of his interest.

She said she had fallen in love with one, but her grandfather had insisted that she marry her much older cousin, whom she did not meet till her wedding day. At 13, her grandparents decided, it was high time that she settle down. "Two reasons," her grandmother said in an interview. "She had started menstruating. And she had developed breasts."

Early this July, she started labor on a bed of bound sticks covered with a straw mat. For two days she struggled. Finally it took five hours for two cows to pull her family's wooden cart to the nearest hospital, 10 miles away.

There Gide labored for two more days before managing to expel a dead baby boy. When she discovered the next day that she could not control her urine, she said, she was dumbfounded. As a solution, she learned to wait as long as eight hours before allowing herself a sip of water.

Her fistula, it turned out, was a small one. Twenty minutes after she climbed atop Dr. Waaldijk's operating table, she was stretched out in the first bed in the recovery room, her grandmother by her side.

"She will be fine," Dr. Waaldijk predicted. Fine, that is, unless her next labor begins in the same village, far from medical treatment, as is all too likely. In which case, he said, her affliction will simply repeat itself.

"To be a woman in Africa," Dr. Waaldijk said as he stitched her last sutures, "is truly a terrible thing."

World Briefing

EUROPE

FRANCE: EX-CONCORDE HEAD IN CRASH INQUIRY Henri Perrier, the former director of the French Concorde program, was questioned for more than 11 hours by a judge in the crash of an Air France Concorde just after takeoff from Paris in 2000 that killed 113 people, and he was placed under formal investigation — a step short of formal charges. Investigators have said debris from another plane on the runway was the principal element in the crash, but they also say a weakness in the Concorde's structure was partly responsible. *John Tagliabue (NYT)*

POLAND: ECONOMIST SET TO BECOME PREMIER in the Kremlin endlessly," he said. Much of the carefully scripted program was dedicated to wealth from oil exports, and he promised callers help fixing roads and paying pensions. "All those things taken together create an absolutely stable situation in the country," he said. "People can plan their lives." *Andrew Kramer (NYT)*

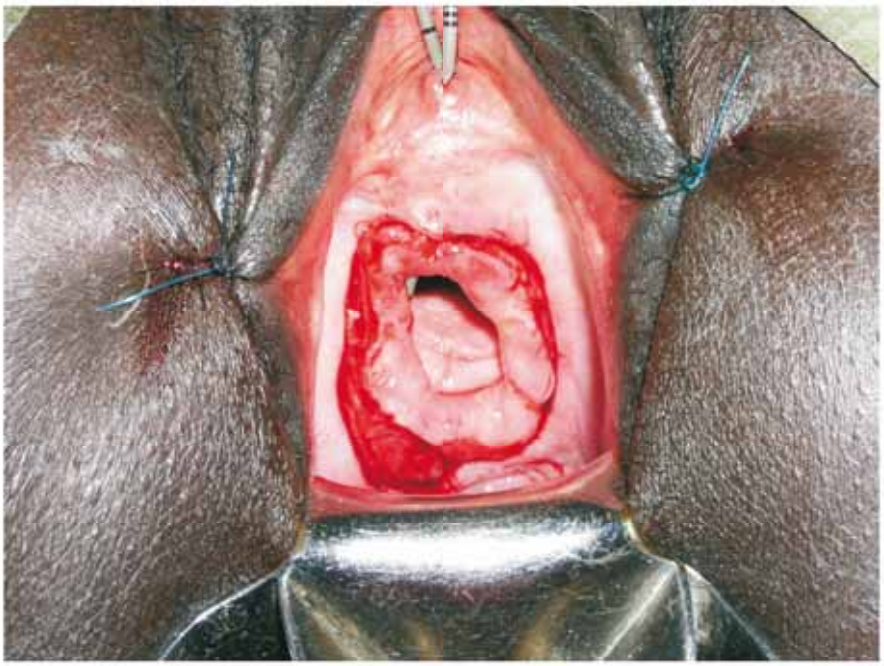
AMERICAS

HAITI: RICE VISITS TO SUPPORT ELECTIONS Under extraordinary security precautions, Secretary of State Condoleezza Rice urged Haitians to vote in the first elections since Jean-Bertrand Aristide was ousted last year and spirited into exile on an

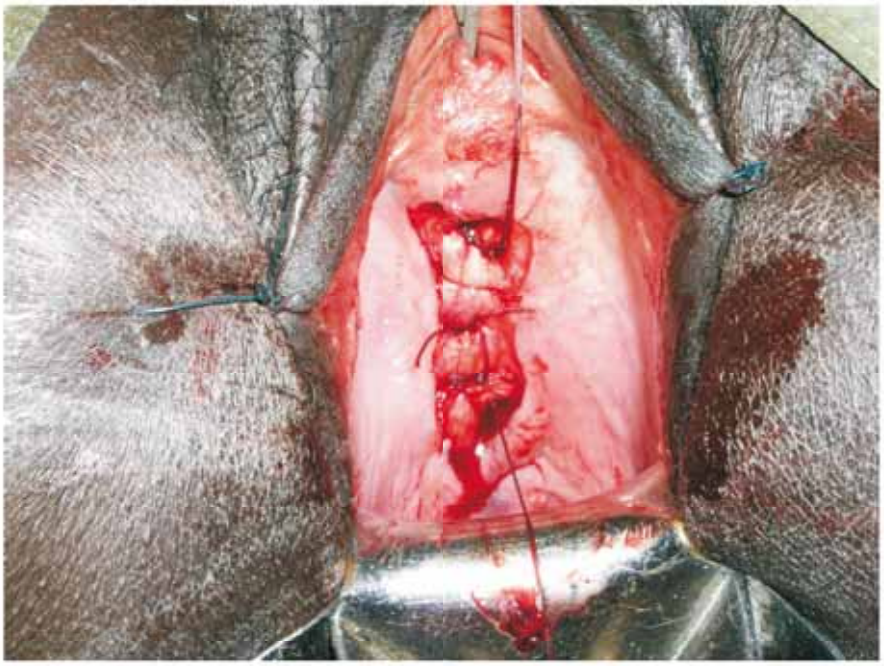
agreed to a review of the laws after five years and a "sunset clause" that will have them expire after 10. The laws, which must still be enacted by federal and state parliaments, would allow the authorities to detain terrorist suspects for up to 14 days without charge and give the police greater powers to search people at venues like sporting events. *Raymond Bonner (NYT)*

AFRICA

IVORY COAST: PRESIDENT RULES OUT ELECTIONS President Laurent Gbagbo said on state television that elections planned for Oct. 30 will not be held because rebels who control the northern half of the country had failed to disarm. He also said



incision



bladder closed

Laure Fistula Center Murtala Muhammad Hospital

KANO

Kano State

report on VVF/RVF repairs

1990-2005

VVF-repairs:	5,599
RVF-repairs:	592
total	**6,191 repairs**

the obstetric fistula service within Kano State should be a model for the other states since the rehabilitation center annex hostel is outside but near the hospital and managed by the Ministry of Social Welfare; so there is no conflict of interest; the cooperation is fine; both the Ministry of Health and the Ministry of Women Affairs and Social Welfare are highly committed

it is an excellent place for training nurses and other health personnel, and plays a major role in the training of doctors

the center was completely upgraded and renovated as preparation for the UNFPA exercise during which it became clear there is still a backlog in Kano State despite all the efforts made

some VVF-repairs are performed in Aminu Kano Teaching Hospital, Nassarawa Specialist Hospital, Sheikh Jiddah Hospital and other hospitals; all the doctors have been trained within the National VVF Project

Rotary International will supply the equipment for a VVF unit in Wudil General Hospital and will sponsor the training of doctors and nurses whilst also efforts will be made to do something about prevention

still more staff, doctors and nurses, have to be trained

surgeons: Dr Imam Amir, Dr Said Ahmed, Dr Zubairu Iliyasu, Dr Kabiru Abubakar, Dr Idris Abubakar Dr Hauwa Abdullahi, Dr Muktar Hamza, Dr Habib Gabari, Dr Hadiza Galadima, Dr Halliru Idris. Dr Abdulrasheed Yusuf, chief consultant and others

relatives cooking

new rehabilitation center

Babbar Ruga Fistula Hospital

KATSINA

Katsina State

report on VVF/RVF repairs

1984-2005

VVF-repairs:	9,151
RVF-repairs:	883
total	**10,034 repairs**

there are three main services within the hospital: obstetric fistula center, referral center for leprosy and referral center for tuberculosis

a start was made with the construction of a hostel annex rehabilitation center on the hospital land but outside the hospital premises and managed by the Ministry of Social Welfare to avoid conflict of interest; both the Ministry of Health and the Ministry of Women Affairs and Social Welfare are highly committed, as is the Governor himself

all requirements have been fulfilled to function as an (inter)national obstetric fistula training center with good infrastructure

the hospital was completely renovated as preparation for the UNFPA fortnight during which it became clear that the backlog in Katsina State has been **cleared**

also some fistula surgery is being performed in Funtua General Hospital, Katsina Maternity Hospital and Malumfashi ABU Hospital (55 repairs); all the doctors have been trained within the National VVF Project

still more staff, doctors and nurses, have to be trained

surgeons: Dr Yusha'u Armiya'u, Dr Shehu Bala, Dr Halliru Idris, Dr Jabir Mohammed, Dr Aminu Safana, Dr Isah Shafi'i, Dr Abdulrasheed Yusuf, Dr Moses I Sunday-Adeoye, chief consultant and others

Special Fistula Unit

Ebonyi State University Teaching Hospital

ABAKALIKI

report on VVF/RVF repairs

2002-2005

VVF-repairs:	84
RVF-repairs:	7
total	**91 repairs**

this unit was set up during 2002-03 by Dr Moses I Sunday-Adeoye from the Department of Obstetrics and Gynecology who still is i/c

since the money allocated for obstetric fistula repair was exhausted the patients have to pay for their surgery

it is better to transfer the service to the Specialist Hospital where treatment is free of charge

more staff, doctors and nurses, have to be trained

surgeon: Dr Moses I Sunday-Adoye; once in a while chief consultant

Fistula Units

B_KUDU, HADEJIA and JAHUN

Jigawa State

report on VVF/RVF repairs

1996-2005

This is mostly the work of Dr Said AHMED who is involved in the VVF/RVF-repair since 1991. Unfortunately he left the government service

VVF-repairs:	1,940
RVF-repairs:	113
total	**2,053 repairs**

the fistula surgery is concentrated now in JAHUN General Hospital which definitely is in need of upgrading

since dr Said AHMED left the service as the most experienced Nigerian fistula surgeon (3,200 repairs!), other doctors took over from him; however, they are highly inexperienced

the workshop in November as sponsored by Jigawa State Government and UNFPA had to be shortened to one week since the postoperative care was overloaded

more staff, doctors and nurses, have to be trained

surgeons: Dr Said Ahmed, Dr Kabir Abubakar, Dr Isah Adamu, Dr Imam Amir, Dr Salisu Babura, Dr Sunday Lengmang, Dr Sunday-Adeoye, chief consul tant and others

Kofan Gayan Hospital

ZARIA

Kaduna State

report on VVF/RVF repairs

1998-2005

VVF-repairs:	434
RVF-repairs:	27
total	**461 repairs**

the complete structural reconstruction of the hospital is in its final stages; it is the only hospital where systematically a caesarean section is performed in future deliveries following a successful repair

Rotary International supports the obstetric fistula service by donating equipment and by sponsoring the training of doctors and nurses and by mobilizing community staff for the preventive aspects

Dr Ado Zakari and 4 nurses were trained but definitely more staff, doctors and nurses, have to be trained

in principle the team from Babbar Ruga Hospital comes once every 2-4 weeks to perform the "simple" surgery; the "difficult" surgery is referred to katsina; distance from Katsina 250 km and via Kano 400 km

also some VVF-repairs are performed in Kaduna Nursing Home by consultants trained within the National VVF Project: figures are not available

surgeons: Dr Halliru IDRIS, Dr Abdulrasheed YUSUF, Dr Joel ADZE, Dr Julius GAJERE and chief consultant

Special Fistula Center

B_KEBBI

Kebbi State

report on VVF/RVF repairs

1996-2005

VVF-repairs:	953
RVF-repairs:	33
total	**986 repairs**

a completely new **major** special VVF Hospital has been constructed by Kebbi State Government after the old center had been converted to school of nursing/midwifery

during the UNFPA fortnight it became clear that there is a large backlog in Kebbi State especially of patients with highly complicated fistulas

in its first year already 213 repairs were performed but that is not enough to cope with all the patients in need of a repair

after his initial training, the medical director Dr Lawal al Moustapha did a fine job, and the aim is 200-250 repairs a year

the team from Babbar Ruga Hospital makes a major effort (700 km from Katsina) to come every 2 weeks for only 1 day surgery of the complicated fistulas

definitely, more staff, doctors and nurses, have to be (re)trained

fistula surgeons: Dr Hassan Wara, Dr Lawal al Moustapha, Dr Oladapu Shittu, Prof Oladosu Ojengbede and chief consultant

Maryama Abacha Women and Children Hospital

SOKOTO

Sokoto State

report on VVF/RVF repairs

1994-2005

VVF-repairs:	2,016
RVF-repairs:	143
total	**2,159 repairs**

it is a very important center with good facilities and a high-quality service where many patients present for surgery; it needs further development with regards to manpower in order to perform the 250-300 repairs a year needed

the hospital was upgraded and renovated for the UNFPA fortnight during which 184 repairs were performed; and still patients waiting

the team from Babbar Ruga Hospital makes a major effort (550 km from Katsina) to come every 2 weeks for 2-3 days of surgery

many doctors were trained but somehow nobody stayed on; an effort has to be made to select and train a young doctor to perform the simple repairs

more staff, many doctors and many nurses, have to be trained

surgeons: Dr Abdullahi Gada, Dr Zubairu Iliyasu, Dr Bello Tsafe, Dr Abdulrasheed Yusuf, Dr Halliru Idris, Dr Abdulkarim Garba Mairiga, Dr Idris Abubakar, Dr Paul Hilton, Dr Abba Wali, Dr Bello Lawal and chief consultant

Faridat Yakubu VVF Hospital

GUSAU

Zamfara State

report on VVF/RVF repairs

1998-2004

VVF-repairs:	360
RVF-repairs:	26
total	**386 repairs**

the existing general hospital has become a federal center and then this hospital has become a general hospital, and the VVF work has come to a standstill

several doctors have been trained but they left and went abroad for further training

definitely, more staff, doctors and nurses, have to be trained

the chielf consultant and his team could not come due to organizational problems as this is the only general hospital in Gusau

once the construction of the other separate hospital for women and children has been completed an effort has to be made to restart the VVF service

surgeons: Dr Halliru Idris, Dr Abdulrasheed Yusuf, Dr Sa'ad Idris and chief consultant

Hopital National /Centre Hospitalier/Maternité Centrale Départemental

NIAMEY/MARADI/ZINDER

République du Niger

report on VVF/RVF repairs

1996-2004

VVF-repairs:	666
RVF-repairs:	42
total	**708 repairs**

the service in Zinder has been set up by Dr Lucien Djangnikpo, and the new 20-bed VVF unit is functioning well

it has all the requirements to become in the near future the fistula training center for République du Niger

Dr Lucien Djangnikpo came for an advanced-level training programme whilst Dr Abdoullahi Idrissa from Agadez came for his first training

Dr Abdoullahi will try to set up a VVF-repair center in Niamey

the team from Babbar Ruga Hospital makes an effort (275 km from Katsina) to come once every 2 months

surgeons: Dr Lucien Djangnikpo, Dr Akpaki Faustin, Dr Halliru Idris, Dr Tijjani Mamman Hina and chief consultant

hostel

operation room

operations chief consultant 1984-2005

	VVF	RVF	total
nigeria			
ebonyi	17	5	22
jigawa	18	1	19
kaduna	258	20	278
kano	4,295	584	4,879
katsina	7,571	862	8,433
kebbi	107	14	121
sokoto	901	120	1,021
zamfara	204	20	224
république du Niger			
maradi	72	6	78
niamey	57	9	66
zinder	191	18	209
kenya			
machakos	13	2	27
tanzania			
dar es salaam	51	7	58
mwanza	14	2	16
burkina Faso			
dori	18	3	21
total	**13,787**	**1,673**	**15,460**

performance of trainees 1984-2005

Dr Said Ahmed	3,200 repairs
Dr Immam Amir	1,300 repairs
Dr Halliru Idris	900 repairs
Dr Hassan Wara	750 repairs
Dr Abdulrasheed Yusuf	750 repairs
Dr Zubairu Iliyasu	750 repairs
Dr Aliyu Shettima	450 repairs
Dr Jabir Mohammed	300 repairs
Dr Lucien Djangnikpo	400 repairs
Dr Idris Abubakar	400 repairs
Dr Khisa Wakasiaka	300 repairs
Dr Meryl Nicol	400 repairs
Dr Aminu Safana	150 repairs
Dr Isah Shafi'i	150 repairs
Dr Fred Kirya	150 repairs
Dr Kabiru Abubakar	100 repairs
Dr Moses ADEOYE	100 repairs
Dr Odong Emintone	100 repairs
Dr Julius KIIRU	70 repairs
Dr Lawal al Moustapha	50 repairs

other trainees: no data available

this is a continuous process; based upon a meticulous documentation and evidence-based postoperative check-ups up to 6 months postoperatively (with over 2.5 million parameters in total) the following could be developed and demonstrated, with peer-reviewed articles in leading international journals

minimum surgery

immediate management by catheter and/or early closure; ?why become an outcast?

preoperative high oral fluid intake

no routine antibiotics

spinal anesthesia

the vagina as route of choice

exaggerated lithotomy position

good access by episiotomy(ies)

classification of VVF

classification of RVF

one-layer bladder closure, water-tight

no MARTIUS fibrofatty pad graft

two-layer rectum closure, air-tight

half-open adaptation of anterior and/or posterior vagina wall

circumferential repair by end-to-end vesicourethrostomy of type IIAb fistulas

continent urethra reconstruction

a variety of rotation/advancement flaps

end-to-end adaptation of sphincter ani rupture

postoperative high oral fluid intake

vaginoplasty in vagina atresia

bladder drill as conservative treatment of stress incontinence

urethralization and fasciocolposuspension in severe total stress incontinence

meticulous repair of endopelvic fascia to reduce postoperative stress incontinence

peer-reviewed scientific work

scientific papers

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