Freda Carr Hospital/Maternity Health Centre, Ngora Uganda- July 2010

Introduction

Three health care professional from Nottingham and the Teso Development Trust (TDT) visited Freda Carr Hospital, the School of Nursing and Midwifery and the Maternity Health Centre during the first two weeks of July 2010 :-

Dr Margaret Ramsay- Consultant Obstetrician

Carol McCormick-Consultant Midwife

Liz Houghton- Diabetes Specialist Nurse

We were all made to feel extremely welcome by the staff particularly by Dr David and Mr John and all members of staff we meet were really helpful and more than happy to answer our questions and let us visit there departments and take photos and videos. Our initial visit included other members of our party from TDT – Clement and Honor Dixon and Andrew and Louise Third who have a done a separate report

During the two weeks we were able to provide training to the midwives, nurses and student nurses, complete a maternity audit and gather information about Freda Carr Hospital, the Maternity Health Centre and the School of Nursing and Midwifery. The aim was to explore how we may form a partnership to support Freda Carr hospital and consider our strategy for the future link, with emphasis on improving maternal and fetal outcomes.

Background Information

Freda Carr Hospital is a rural private non profit making hospital. It is set in Ngora, a small village in eastern Uganda which on the 1st July was made a district (previously it was part of the Kumi district) and serves a population of 136,619. The hospital has 180 beds plus outpatient clinics. It provides: immunisations, TB/leprosy surveillance, STD/HIV diagnosis/ treatment and testing and post test club, diagnosis and treatment of malaria and education, ultrasound, palliative care, epilepsy, dental services, mental health services, mixed medical and surgical male and female wards and paediatric wards.

The infrastructure is variable but very poor in some areas (theatres for example), running water is available in some departments and water dispensers and soap were available where there is not running water. Toilet facilities are usually “squat over” long drop.

Electricity supply is intermittent with some generators for emergency backup which are selectively used.

The land is Church owned.

School of Nursing & Midwifery is next to the hospital in a separate campus. The catchment area for trainees covers all the districts of Uganda as well as neighbouring countries.

Ngora School of Nursing and Midwifery is Non-Government, Private non profit making training school under the Church of Uganda. It was started in 1961 and training only enrolled midwives. The school closed in 1980s due to the insurgency and was reopened in 1995 again to train enrolled midwives and then in 1996 it started to train enrolled nurses.

In November 2004 the school started to train a new cadre of nurses called Enrolled Comprehensive Nurses (ECN) which comprises of midwifery, nursing, surgery, community health and computer and is two and a half years long (modular and competency based). This is in line with the Government policy to have all the private health training schools which were training the enrolled nurses and midwives fully converted to ECN by November 2006. In compliance with this the school received a grant for the European Funds which enabled new building, computers and books to be available. The school buildings were completed in 2009. The grant has now stopped. They currently have 214 male and female students (which is their maximum capacity number) with 11 teaching staff and 20 support staff.

The funding is mainly from student's school fees (75.8%), Primary Health Care (PHC) conditional grants (23%) and other sources (1.2%).

The Maternity Health Centre is set across the road from Freda Carr hospital and is the only service on Government owned land. The service is a level 3 government run health centre (see Table a) but in practice it is a maternity unit as it offers exclusively maternity services which include: - antenatal classes, antenatal clinics, antenatal admissions, birth (normal only), and post natal ward.

The building is poorly supplied with beds but has lots of space, which is underutilized. There is potential for four wards and a theatre but the theatre has never been developed or used. There is intermittent electricity and water. The main challenges for maternity services are that there is no medical input (during our visit there was no obstetrician in Freda Carr either) and women needing a caesarean section have to be transferred to Freda Carr hospital(FCH). The service in the government maternity unit if free and patients have to pay for services from FCH. This transfer is conducted over an uneven road on a trolley then through the hospital to the general theatres. This journey is very dangerous and an unacceptable aspect of maternity care.

There are two registered midwives, two enrolled midwives and a few support workers.

Table a- Health Care system levels

Level	Building Type
Level 5 (city)	Regional Government Hospital (eg Kampala)
Level 4 (Town/district)	Hospital / Health Centre –Dr's, Trained nurses and midwives (eg FCH)
Level 3	Health Centre (eg Ngora Maternity Unit)- Clinical officers, midwives,
Level 2	Trained Nurses
Level 1	Part time trained nurse, Traditional Birth Attendants

Levels 1, 2, 3 mainly community based.

Maternity Audit

The visiting team conducted an audit of 1129 women giving birth to 1142 babies (12 sets twins) during the preceding 5 months. The team then looked back further in the records to gather information about maternal and fetal outcomes from January 2009 to January 2010.

Feb 2010- June 2010

Outcome Measures	Numbers	Percentage %
Admissions	1254	
Mothers giving birth on that admission	1129	90%
Babies delivered	1142 (12 sets twins)	
Maternal deaths	1	
Fetal deaths	36	3.2%
Babies over 4kg	208	18%
Babies less than 2.5kg	28	2.5%
Caesarean Sections	94	8.3%
Twins	12	1%
Malaria cases	130	10.4%
HIV cases	29	2.5%
Transfers in	27	2.4%
Transfers out	13	1.1%

From these outcomes the team went on to observe further information for the preceding year from Jan 2009-Jan2010.

Outcome measures	Jan 10	Dec 09	Nov 09	Oct 09	Sept 09	Aug 09	July 09	June 09	May 09	April 09	Mar 09	Feb 09	Jan 09
Admissions (around 10% leave undelivered)	280	261	264	219	286	275	268	267	304	213	203	232	255
Normal births	213	209	214	200	225	211	210	189	241	174	178	208	215
Caesareans	15	13	18	18	21	15	16	18	12	8	12	15	27
Maternal deaths	0	0	1	0	1	0	0	1	0	0	1	0	1
Fetal deaths	6	5	8	6	5	9	13	9	7	3	3	0	12
Malaria Rates	32	20	20	18	16	28	30	49	46	6	8	7	8
HIV + delivery	5	3	4	19	7	7	3	10	3	4	5	2	7
Twins	5	3	2	6	5	4	4	7	3	4	2	4	2
Transfers out	5	0	1	0	0	1	0	3	8	5	2	3	1
Transfers in	4	2	2	12	3	4	6	5	1	0	4	2	1

Totals of above

Outcome Measures	Numbers	Percentage %
Admissions	3327	
Normal births	2687	92.8 % of women delivered
Caesareans	208	7.2 %
Maternal deaths	5	0.2 %
Fetal deaths	86	3.2%
Malaria rates	288	8.6%
HIV and delivery	97	3.6%
Twins	47	8.3%
Transfers in	29	
Transfers out	43	

Causes of maternal deaths

Date	Cause	Age	Parity
June 10	DIC (Disseminated Intravascular Coagulation) and PPH (Post partum Haemorrhage)-Baby died	36	9
Nov 09	Emergency C-section –stillbirth 3/11/09 Mother died 7/11/09	22	0

Sept 09	DIC and PPH. Had Antepartum Haemorrhage (APH) with small baby 1.2kg)	30	8
June 09	Cardiac arrest –died in theatre (live birth)		1
March 09	Ruptured uterus (attempted subtotal abdominal hysterectomy STAH) Delivered 18/03/09- died 5 days post delivery 23/03/09	28	2
Jan 09	PPH and STAH due to cervical lacerations (live birth)	27	7

Analysis of Approach

Before the teams visit to Uganda an approach to the visit was set by the whole team.

Approach to moving forward – May 2010.

	Introduction - This document aims to identify the main areas we plan to focus on. We hope this will help to communicate clearly our approach to moving forward, to act as a framework for discussion and agreement during our visit, and subsequent planning.
1.	**Medical Outcomes** **Key Point - Approach Point 1** Our focus should be on medical outcomes, in particular reducing the maternal and perinatal mortality rate. It is critical that we measure these now and on an ongoing basis so we can ensure our actions produce positive results or understand the reasons why results have not been achieved. Analyses July 2010- This has been measured in the above audit and on consideration the outcomes are excellent so we may need to concentrate on morbidity rather than mortality as theses outcome are extremely good, considering other areas of Africa and Uganda's published mortality rates.
1.1	**Maternal Deaths in the Hospital** **Key Point – Approach Point 2** By reviewing the reasons and root causes for maternal mortality on an annual basis; define, deploy and stabilise a process for continuous improvement year on year. Analysis July 2010-See audit above. Causes of maternal deaths similar, mostly

	due to massive haemorrhage.
1.2	**Maternal Deaths in the Community** **Key Point – Approach Point 3** This is a key area where we can have significant impact on maternal mortality. We do not have enough information to have any view on how we approach this currently and we would plan to gather further information on this during our visit. Analysis July 2010- Very difficult to record. It does seem that very few women now deliver at home in Ngora district. The women will either deliver at Level 2 or 3 health centres or at Ngora Maternity Health Centre. Those that do deliver at home and which result in death may not be recorded as bodies will be buried within days. In some villages (info gained from Soroti District Office) a volunteer will keep a record and these will sometimes be used to survey areas. Some TBAs (Traditional Birth Attendants) may keep a record but a mother who dies in her care could cause great stigma to the TBA and so the death may be covered up.
1.3	**Perinatal Deaths in the Hospital - See Approach Point 2** Analysis July 2010- The numbers in the audit only include stillbirths, abortions and deaths within a few hours (prior to discharge) It was not possible to follow up any babies after discharge from the maternity Unit
1.4	**Perinatal Deaths in the community - See Approach Point 3** Analysis July 2010-Very difficult to record as we were not able to collect any data from the community deliveries. See part 1.2
2.	**Processes and Guidelines** **Key Point - Approach Point 4** We should focus on implementing relevant processes and guidelines aimed at reducing maternal and perinatal mortality in the Hospital and Community. Processes and guidelines must recognise local reality. Analysis July 2010- The only recognised guidelines used are Government Guidelines for malaria and also in the maternity health centre for managing a difficult labour. We saw a couple of others at another Health Centre we visited.
3.	**Staff** **Key Point – Approach Point 5** Identifying, defining and deploying the processes and guidelines require effort. The hospital is already severely understaffed and would not have time to do this. We need to address staffing as a key issue. The scope would be that relevant to Maternal and Perinatal Mortality in the Hospital and Community. Analysis July 2010- Staffing is a big issue. Staff at Freda Carr Hospital are being paid in arrears due to having money coming in through Poverty Action Grant (PAG) which the Government often delay in sending. At the moment they have

	not been paid for three months. Maternity staff are employed by the Government so do have regular payment. They do not however employ at Doctor and at this current time there is not currently a Dr at Freda Carr who is a specialist in Obstetrics so any Dr who is on duty will perform caesarean sections. If a Dr is not available women will be transferred to Kumi which is at least an hour's drive away. Ways to support staff would be to encourage them about how well they do manage, provide education and ongoing training and also improve staff accommodation. Possibly, one way transfers of specialist staff from UK for short periods of time could help deliver focussed training.
4.	**Infrastructure (Buildings and Equipment)** **Key Point – Approach Point 6** Our efforts in this area will be focussed on those elements which will impact on maternal and perinatal mortality only, in the Hospital and Community. Analysis July 2010- The theatre is in a poor state at Freda Carr Hospital. There is no functioning theatre at the Maternity Health Centre and women have to be transferred across to Freda Carr for Caesarean sections (a walk of at least 7 minutes- this is without pushing a trolley) on a poor trolley with only one cot side and no mattress. This can be treacherous as the road is in a poor state and at night there is no lighting Wards are underutilised and beds close together. The men's wards have broken windows. Only the children's wards have mosquito nets available. Staff accommodation is mainly in an appalling state (some is OK) and needs a lot of work to improve the standards of living. Electrical and water supplies are the same everywhere. There is some running water in the hospital and electricity back up from generators.

<u>Requests made to the team presented to us as challenges faced by the institutions</u>

From Freda Carr Hospital

<u>Erratic Funding</u>-Funding comes from user fees (which are low as the community is poor; typically 2000 Ugandan shillings for children and variable for adults depending on drugs and treatment needed) The Church channels money via the Uganda Protestant Medical Bureau (UPMB) but it is not clear whether this is regular or only for specific projects. The Ugandan Government is also supposed to send Poverty Action Funding (PAF) but this is erratic in amount and timing. The net effect is that staff salaries are in arrears for several months (currently 3 months). There is rarely any money for new developments, repairs and maintenance of buildings or equipment.

<u>Staffing shortages</u>-The staff population is not constant as those in government employment can be redeployed elsewhere at short notice (this is particularly the case for doctors). Many staff would prefer to work in government hospitals as the pay as regular and there are

additional pension benefits. Hence staff retention is poor. Part of pay and conditions is accommodation for staff and the extremely poor housing provided at Freda Carr hospital does not encourage people to stay there long term.

Transport Shortages- Freda Carr Hospital does not have a functional vehicle. This means that there can be delays in moving patients for necessary treatment. Relatives have to locate a vehicle and pay for fuel. Lack of vehicles also means that the hospital cannot do outreach clinics. (On our last visit during our stay, the hospital had found some funding to get the ambulance repaired).

Poor building and equipment- Due to chronic underfunding, there has not been regular maintenance or renovation in many areas. The wards are adequate (although some had broken windows) but the operating theatre is in a poor state of repair with the ceiling patched and in need of repair. The operating table and anaesthetic equipment are around 40 years old and in very poor condition. The main operating table has been borrowed from the Ugandan Protestant Medical Bureau and could be taken at anytime.

The staff accommodation varies in quality; much of what is available for nurses and midwives is squalid- the roofs are asbestos and leak; the cooking must be done outside and sanitation is very basic as water is only available from the outside tap.

Working relationships between Freda Carr Hospital and the government owned and run Maternity health Centre-It is evidently difficult both politically and operationally that the maternity HC is government owned and run, where as Freda Carr is a church – not for profit organisation. Women needing operative delivery have to be transferred across the road to the operating theatre; they will be transferred back for post operative care. If the operating theatre is developed on the government site, then FC doctors would still have to come and deliver women there, but without user fee (i.e. the doctor's time is used without any recompense to the hospital). There should be a government paid doctor posted to Ngora to support the maternity unit but this only seems to happen very erratically. The medical superintendent of FCH has no authority over the operational running of the maternity unit. There does not appear to be any formally agreed service agreement to ensure that there is monetary resource following work done.

Lack of specialised equipment-There is not a functional ultrasound machine. There is a portable x ray and there are plans to train a radiographer. Ongoing problems of maintenance persist.

Lack of staff education and development- Most doctors are "general practitioners" i.e. quite junior and they are largely work unsupervised. In the past there was specialist input from the Flying Doctor service. The doctors are enthusiastic to practice evidence based medicine. There is a lack of educational resources e.g. books, journals, internet and guidelines. What

materials that FC Hospital has are located in the medical superintendent's office, but staff are allowed access to this.

Lack of laboratory tests- The only lab tests available are –malaria films and test strips; heamacue for testing haemoglobin levels and HIV test strips (but not CD4 count). There is no means of testing liver or renal function. There is no blood bank at Ngora-(the nearest one being form a government blood bank in Mbale;. This is at least a 2-3 hr trip one way)

Lacks of computers- Records are kept on paper and record storage is haphazard. The staff would like to use computers more. There are ongoing problems of maintenance and the electricity supply is unreliable.

From the Maternity Health Centre

Transferring of women- When a woman has an emergency in labour she has to be transferred across to Freda Carr Hospital for a caesarean section. This can be hazardous at any time but particularly at night when it is dark and worse if it is raining too. There is a room in the maternity unit which was intended as an operating theatre but has never been developed. If this was developed it would stop this transfer for the women. However doctors from Freda Carr would still have to come over to operate as there is no regular doctor for the maternity health centre. The doctors would not be paid and user fee could be charged as it is government property.

Lack of staff/ongoing training- The staff work very hard and provide an excellent service but they need more trained midwives to provide care and regular ongoing training.

From the School of Nursing & Midwifery

New Structures/equipment-The European Union have provided some wonderful new buildings and equipment but their funding and support has now stopped and so there is no support for maintenance. The internet system has been broken since February; there is still a lack of obstetric models for teaching and books in the library (although they do have some new books provided again from the EU). The water supply was connected to the national grid and the School of Nursing would prefer this to be from a solar source which was the original intention of the EU.

Options considered by the visiting team

The team's purpose for this visit was to try and help services which would reduce maternal and fetal mortality and for this reason the options proposed are concentrating on this area only at this point in time. We have considered both short and long term goals.

Short Term Goals

1) Transfer box/bag- As there is not adequate neonatal resuscitation equipment in Freda Carr Hospital we agreed with the midwifery staff that we would supply a neonatal "ambubag", towels, educational support and 2 head torches. This bag will travel with the women and back to the maternity health centre. The midwives will be responsible for cleaning and checking the equipment prior to its next use
2) Journal subscription and books- We agreed to subscribe for the next year to a journal of their choice at Freda Carr which will be MERA-Medical education resource Africa. Books will be sent in the next shipment.
3) Urine testing strips-Multitest urine strips to be sent to the maternity Health Centre to pick up glucose (diabetes) and protein.
4) Freda Carr website-We agreed together with other members of our team to help develop the Freda Carr website and to keep this going.
5) Friends of Freda Carr- We discussed re-establishing Friends of Freda Carr but need to discuss this with the people who originally set this up and with the Teso Development Trust (TDT).

Long Term Goals

The fact that Freda Carr Hospital is income generating and on Church land and the maternity Health Centre is not included in the service makes the options for improving the journey for women and the associated outcomes in terms of morbidity very difficult. We offer the following options for discussion:

1) Develop a maternity unit which includes an operating theatre in the government buildings. This would shorten delivery time and address the transfer issue. Women would not have to pay. But it would be helping the government not Freda Carr hospital and we may face a lot of bureaucracy doing this and it is unlikely that the government would supply an obstetrician. This may set up a competing service.
2) Develop, renovate and extend current theatres at Freda Carr. This would improve facilities for staff would like improved working conditions. Women would still have to be transferred. (We have since met with the Archbishop of Uganda - the Most Reverend Henry Luke Orombi, who has informed us that the Ugandan government has funds available to renovate outdated operating theatres, such as that at Ngora and that the Bishop for Ngora area- Bishop Thomas can approach the Ministry of Health and himself on how best to do this after discussion with the hospital board).

3) Develop a whole new maternity service within Freda Carr Hospital. This would increase income generation, complete the service model and increase status for the hospital. It was thought that a current ward could be adapted for this purpose (i.e. the male ward which is underutilised). Mothers would stay in one service and have no emergency transfers. However it would cost the women money as the government service (92% normal birth rate) is free. Staffing would be an issue to employ and retain midwives at FCH.
4) In light of the fact that the outcomes for maternal and fetal mortality were so low at the Maternal Health Centre and Freda Carr Hospital and this is the area which we were concentrating on and hoping to support it may be that we have to change the area of support. This is something that we need to decide, following discussion with all parties.

Other long term plans for issues that need addressing

1) Transport of patients and staff to attend clinics (we were told at the last meeting that the hospital had felt encouraged by our visit and that they had found some funds to repair the ambulance for now-however this is only a short term solution to the problem)
2) Staffing
3) Accommodation- particularly some of the staff accommodation which is in desperate need of repair and update.
4) Improved filing system for hospital records (? Using hospital numbers and filing in order so notes can be easily found)
5) Integration of services
6) Expansion of services (?Flying doctors to allow involvement of medical specialists)
7) Setting a strategy for the future and defining current and future services
8) More solar power for electricity.

Conclusion

The team visiting had a wonderful and productive visit. They received a very warm welcome, generous hospitality and help when ever needed. There were a lot of positive aspects of the Ugandans delivering health care in difficult circumstances, with warmth, enthusiasm and care shown by all the staff. We hope that our visit will be the first of many and that the suggestions proposed within this report will be fully considered so that we may move forward together to improve the health and well being of pregnant women and their babies.

Liz Houghton Dr Margaret Ramsay, Carol McCormick

July 2010