Obstacles to Utilization of Institutionalized Delivery Care in Kenya: A Case Study of Teso District

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Abstract
This paper sets to establish the factors that underlie the choice of place of delivery among expectant women in Teso District. Seventy-six percent (76%) of 1170 women in the reproductive age and who had a birth during the five years preceding the study delivered their last born babies at home. The traditional birth attendants (TBAs) and nurse/midwives were the main providers of delivery care. TBAs were regarded as affordable, readily available and were respectful and humane to expectant mothers. The constraints to utilisation of institutionalised delivery care were manifold. The major constraints are unavailability and inaccessibility of health facilities, competing priorities, poverty, exorbitant user charges and associated costs aggravated by lack of provision of water and food supplies in most of health facilities, and relatively low quality of services offered at the local health facilities. Reducing or removing these constraints should result in increased utilisation of institutionalised delivery care in the study district.

Key words: Maternal health services, Utilisation, Delivery Care, Teso, Kenya
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Introduction

The health and survival status of the newly born child and its mother immediately before and after delivery, to a great extent, is determined by the skill of the birth attendant, the sanitary conditions of the place of delivery and the hygienic procedures followed during delivery. It is, therefore, recommended the mothers deliver their babies with the assistance of trained health personnel. Equally important, mothers should deliver their babies in health facilities, where proper medical attention and hygienic conditions can reduce the risk of complications and infections which may cause serious illness or even death to either the mother or the baby or both of them. Births that occur at home or the roadside are less likely to be attended by trained health personnel.

Most non-abortion maternal deaths occur around the time of labour and delivery or within the few hours after birth (Kwast *et al.* 1986, PSRI and UNICEF 1996, NCPD *et al* 2003). Many potentially fatal complications occur about this time not only to high risk women but also to women who do not fall into the traditional high risk groups and are therefore difficult to predict or prevent. Studies in Kenya indicate that the majority of non-abortion maternal deaths are due to direct obstetric causes such as haemorrhage, obstructed labour and puerperal complications, especially sepsis (Aggrawal 1980, Makokha 1980, Ngoka and Mati 1980).

In Kenya, the majority of mothers deliver their babies at home often without medical supervision (NCPD *et al,* 2003). It has also been found that most of the maternal deaths in Kenya

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occur among mothers who deliver at home or who stay away from health facilities (NCPD *et al* 1999). In such cases, access to services where obstetric complications can be managed is essential in preventing maternal deaths. While in many situations, the majority of births occur at home, prompt recognition and referral of the women who experience complication can save lives. Attendance by medically trained persons during labour and delivery can facilitate such referral or management and treatment of such complications.

Results from the 1998 and 2003 Kenya Demographic and Health Surveys for Western province, in which Teso District falls, indicate that over 73% of the births that occurred between 1995 and 2001, took place at home yet for nearly all the births their mothers had received antenatal care from medical personnel (NCPD *et al.* 1998, 2003). The factors responsible for this state of affairs have not been established and are thus poorly understood. This paper seeks to identify the main factors that underlie the seeming low preference for institutional delivery among women.

Methodology

This paper uses the data and information collected in a study carried out in Teso District between the year 2000 and 2001 under the auspices of the *Maternal Health care Utilisation in Teso District Research Project*. Three surveys were carried out; two of them focusing on women in the reproductive age and the other survey was a health facility survey. The main survey covered 1,200 women selected through stratified random sampling. The main survey covered four locations in Amukura Division and three locations in Amagoro Division. Kotur, Aremit and Akoreet locations were covered in Amukura Division whereas in Amagoro Division, Kocholya, Kokare, Okuleu and Amagoro locations were covered. The other survey on women was a follow-up, covering only 213 women who reported during the main survey that they were pregnant. The questionnaires used in these surveys had both closed and open-ended questions.

The health facility survey covered 5 health facilities in the study area. It sought to establish the strengths and weaknesses of the health facilities in the area. It used a detailed questionnaire that was similar in many respects to the one used in the 1999 Kenya Service Provision Assessment (MOH *et al* 2000). In-depth interviews with purposively selected health personnel were also held at each facility.

Information was also collected from all 109 traditional birth attendants in all the locations that were covered in the study. In total, 14 Focus Group Discussion sessions were held with all the traditional birth attendants in the seven study locations. Where appropriate this paper will be making references to most of these sources of data and information.

Data have been reduced using simple percentages and cross-tabulations so as to determine the general trends. Qualitative information is analysed descriptively, paying attention to the issues and matters that were mentioned by the majority of the informants and capturing any unique experiences reported.

Findings

Place of delivery

Analysis of the data from the first survey revealed that the majority (76%)[2] of the 1,170 respondents delivered at home. Only 24% of the respondents delivered their babies in a health facility (Table 1). In general, young women than older women were more likely to deliver at a health facility. Similarly, educated women were more likely to deliver in a health facility.

[2] These results were more or less the same as those obtained during the follow-up survey on the women who were pregnant during the main survey.

Table 1: Percentage distribution of the respondents by place of delivery of their last-born child and according to selected background characteristics for Teso District 2000

Characteristic	Health facility	At home	Cases (N)
Age			
< 20	27.5	72.7	128
20-29	24.4	75.6	614
30-39	23.8	76.2	332
40-49	13.0	87.0	92
Education			
None	18.6	81.4	204
Lower primary	14.4	85.6	188
Upper primary	23.0	77.0	605
Junior secondary	25.3	74.7	75
Complete secondary	56.5	43.5	85
Higher education	66.7	33.3	9
Location			
Amagoro	53.8	46.2	117
Okuleu	24.4	75.6	119
Akoreet	11.6	88.4	112
Aremit	11.9	88.1	236
Kocholia	19.6	80.4	230
Kokare	23.4	76.6	175
Kotur	32.2	67.8	177
All respondents	**23.7**	**76.3**	**1170**

Source: Primary Analysis of Survey data.

Similarly, women who had more contacts with the health facilities in terms of the number of antenatal clinic visits were more likely to deliver in a health facility than the women with less or no antenatal clinic visits. The majority of the women attended antenatal care, usually during the second trimester of their pregnancy.

Variation in the type of place of delivery was clearly evident in relation to the location of residence. Slightly over half of all the mothers in Amagoro location delivered at a health facility. Okuleu, Kokare and Kotur locations also had slightly higher proportion of women who delivered in a health facility. These four locations have a health facility in their neighbourhood. Aremit and Akoreet locations were worse off. These two do not have a nearby health facility that offers delivery care. There is a dispensary at Akoreet but the dispensary does not usually handle delivery cases.

Assistance at delivery

The results shown in Table 2 indicate that most of the 1,170 respondents gave birth without assistance of trained medical personnel. Only 24% of the respondents were assisted either by a doctor or a nurse/midwife. TBAs attended to 45% of the women. They were the largest single provider of the delivery care. Relatives were the second largest source of assistance during

Table 2: Percentage distribution of the respondents by type of assistance during delivery, and according to the selected background characteristics: Teso District 2000

Characteristic	Doctor	Nurse/ midwife	TBA	Relative	Nobody	Cases (N)
Age						
< 20	8.5	17.8	43.4	23.4	7.0	129
20-29	7.4	17.5	47.2	18.1	9.8	612
30-39	9.3	16.2	43.2	17.4	13.8	333
40-49	2.2	9.8	43.5	22.8	19.7	92
Education						
None	6.9	17.8	44.6	16.4	16.8	203
Lower primary	3.7	9.5	47.1	23.8	15.9	189
Upper primary	6.9	17.5	46.3	19.4	9.9	605
Junior secondary	10.7	18.7	45.3	18.6	6.7	75
Complete secondary	19.8	36.0	30.2	9.3	4.7	86
Higher education	11.1	44.4	11.1	22.2	11.1	9
Location						
Amagoro	23.1	29.9	14.5	12.0	20.5	117
Okuleu	7.5	16.7	49.2	15.7	10.0	120
Akoreet	6.3	5.4	62.2	8.1	18.0	111
Aremit	1.7	10.2	66.8	19.1	2.1	235
Kocholia	9.0	14.2	34.3	30.1	12.4	233
Kokare	6.4	18.0	50.0	19.8	5.8	172
Kotur	5.6	24.7	34.3	15.8	19.7	178
All respondents	**7.6**	**16.6**	**45.4**	**18.8**	**11.6**	**1170**

Source: Primary Analysis of Survey data

delivery. They were followed by nurses/ midwives. A doctor delivered eight percent of the women. About 12% of the respondents delivered on their own.

The results indicated that older women were more likely to receive no assistance at delivery. Young women were as likely as the old to seek assistance of the traditional birth attendants during delivery. The more educated women and women residing in Amagoro location were more likely to seek assistance of a doctor or a nurse/ midwife. TBAs were the main providers of delivery services in Aremit, Akoreet, Okuleu and Kokare locations.

Consistency in health seeking behaviour

During the main survey all the women who were pregnant then (n = 213) were asked to indicate their preferred place of delivery and the reasons. 42% of the 213 women indicated that they would deliver their babies in a health facility. The main reason being they would be attended to by properly trained and experienced health professionals and any complications would be properly managed. About 25% indicated that they would deliver their babies at home, citing their inability to meet the charges, the poor quality of care and associated disadvantages of delivering in a health facility. 33% of the women

were not sure about the place where they would deliver their babies.

During the follow-up survey a year later, all the women were asked where they actually delivered their babies. This information has been cross-classified with information about the intended place of delivery and is presented in Table 3. Only 46% of the women who had intended to deliver in a health facility were consistent in their behaviour. They actually delivered in a health facility as they had intended. While 54% of the women had indicated that they would deliver in a health facility behaved inconsistently. They delivered at home instead of delivering in a health facility as they had intended. The main reasons for the inconsistent behaviour were inability to meet expenses associated with institutionalised delivery, lack of transport and that labour pains started late in the night.

The majority (79%) of the women who had intended to deliver at home were consistent in their behaviour. About 21% of the women who had intended to deliver at home did change their minds and delivered their babies at a health facility instead. The majority of these women indicated they were encouraged to deliver at a health facility during their antenatal clinic visits. Others said that their husbands encouraged them to visit the facility to deliver since the husbands would meet the expenses.

Among the 64 women who were not sure about their preferred place of delivery, 95% delivered their babies at home and only 5% delivered at a health facility.

Obstacles to institutionalised delivery care

Analysis of the data and the in-depth interviews, field notes as well as audiotapes were reviewed to develop a comprehensive list of possible obstacles to utilisation of institutionalised delivery care mentioned, discussed, supported or refuted in the course of FGDs and in-depth interviews. Further insights into the constraints to utilisation were obtained during the dissemination workshop. The workshop participants included health care providers, head of departments and local leaders. For purposes of exposition and clarity, these are categorised as health delivery system factors or user factors. Each of these categories was further broken into specific clusters of factors.

Under the health delivery system, the following clusters of obstacles were identified:

i) Unavailability and lack of access to health facilities
ii) User charges and associated costs
iii) Low quality of care

Table 3: Distribution of 213 respondents according to their intended place of delivery and by actual place of delivery of the most recent born child: Teso District 2001

Intended place of delivery		Actual place of delivery	
Health facility	81	Health facility	37
		At home	44
Home	48	At home	38
		Health facility	10
Not sure	64	Health facility	3
		Home	61
Total	213	Total	213

Source: Primary Analysis of Follow-up Survey Data.

In the case of user factors, the specific cluster factors are:

i) Competing priorities and gender issues
ii) Poverty
iii) Low level of motivation
vii) Lack of or little knowledge about the preventive health measures

Perhaps it is proper to indicate that in most areas there was agreement between the users and providers assessment of potential barriers, but there was disagreement in some areas. First, some of the providers did not recognise the negative, don't care attitude and abusive language used by some of the providers that most mothers perceived to be a hindrance. However, during the dissemination workshop, most of the health personnel present admitted that it was a problem as it discouraged some expectant mothers from seeking delivery care in some public health facilities in the area. Secondly, some providers were of the opinion that the majority of the mothers did not seem to care much about preventive health care. Most of the users were of the opinion that this was a minor hindrance to utilisation of delivery care. Users as well as workshop participants were unanimous that competing priorities, poverty and lack of access, exorbitant user charges and associated costs and the low quality care offered were the major hindrances to utilisation of maternal health care in the area.

Health delivery system obstacles

Lack of access

All the women who delivered at home mentioned long distance to the nearest health facility as the main factor in the choice of place of delivery. The informants and almost all the participants of the FGDs were unanimous that modern maternal and child health care services, just like other modern health services, were either not available or were not accessible to the majority of the population in the study area. Hence most of the child deliveries took place at home unattended. Several of the respondents and participants at the dissemination workshop discussed the problems local people encountered in seeking maternity and other health services. The problems included lack of ambulances, lack of quick public transport, lack of maternity clinics in the neighbourhood, lack of trained traditional birth attendants, long distances to nearest maternity clinic and impassable rural access roads during the rainy season. The average distance to nearest health facility that offered both antenatal and delivery care was 10.2 km.

Some of the respondents during the follow-up survey narrated their personal experiences while seeking health care. Mary's (names for respondents have been changed to protect their identity) experience is typical of the experiences that were reported to us. Mary, aged about 24, a mother of two and a Form IV school leaver, a resident of Abori village in Akoreet location, described her experience as follows:

> It was a Saturday night in January this year. I suddenly felt a sharp pain in the abdomen and earlier in the day I had a funny feeling. I was not just my usual self but I did not know what was exactly wrong. I realised my time to deliver was about. I sent for my husband from my brother-in-law's house where they had been entertaining visitors most of the day. Despite his apparently drunken state, my husband assisted by one of my sisters -in- law, carried me slowly on a bicycle to Amukura Health Centre (about 20 km away) at night. After covering about five kilometres of the hilly road, I gave birth to Akitui just by the roadside. After I gained a bit of strength we returned home with the baby. That is the situation of most women here'. [Field notes]

Jensen and Juma (1989) obtained similar responses when they interviewed women in two

sub-locations in Webuye Division in the neighbouring Bungoma District (Jensen and Juma 1989). For example, the women in Makuselwa sub-location gave the following comments unanimously:

> Women cannot reach hospitals easily because of poor roads and lack of transport and long distance. Expectant mothers, lactating mothers and young children don't go to clinics because the two hospitals, Misikhu and Lugulu, are too far and expensive. Therefore, children die sometimes due to lack of urgent medical attention (p.245).

The women in Muchi sub location commented as follows:

> Several women die at childbirth in this sub location. Last year, about 20 women died at childbirth. During the rainy season, Muchi is cut off from the rest of Bungoma due to very poor access roads. Pregnant women do not go to Webuye clinic which is the only health centre available and it is very far, about 20-30 km. Women's diseases and complications are not detected. Children die in big numbers, and they are not taken for clinic-immunisation etc. Last year, about 100-150 children died from malnutrition, measles, malaria, cough and typhoid (p. 246).

At the time of the study there were nine health facilities providing maternal health care in the study area. Four were located in Amukura Division. Of these, two were health centres and one was a dispensary. Five health facilities were located in Amagoro Division. Three of the facilities in Amagoro Division were small private clinics that were offering mainly curative services. One was a recently upgraded District Hospital and other was a medium sized private nursing home. In the sampled locations the situation was as summarised in Table 4.

Table 4: Distribution of health facilities, TBAs and female population (15-49 years), Teso District, 2001

Location	Number of TBAs identified	Number of health facilities	Estimated female population (15-49 years)	Number of HHs	Size of the location (Sq. km)
Amagoro	12	4[a]	936	1056	11.8
Okuleu	8	0	688	666	15.0
Kocholya	21	1[b]	941	903	15.5
Kokare	15	0	615	607	13.4
Kotur	17	0	1375	684	15.8
Aremit	24	0	1228	1312	18.4
Akoreet	12	1[c]	1050	1168	23.2
Total	**111**	**6**	**6814**	**6396**	**123.1**

Note: a= these are small-sized private clinics that offer antenatal care but no delivery care. b = District Hospital, and c= Dispensary that offer antenatal care but no delivery care. HHs stands for households.
Source: Field notes and FGD reports.

Table 5: Distribution of the health facilities according to infrastructure, Teso District, 2001

Facility type	Average age (in years)	Electricity available	Water available[a]	Telephone/radio available
Hospital	5	0	1	1[b]
Maternity/nursing home	3	0	0	0
Health centre	31	2	2	0
Dispensary	92	0	0	0
Total	**26.5**	**2**	**1**	**1**

Note: a: Borehole water. b Telephone was out of order and had been in that conditions for many months. **Source:** Primary Analysis of the Facility Inventory Data.

Infrastructure

The infrastructure of a health facility is indicative, and to a great extent determines the quality of care that the facility can provide. During the course of this study, information on key elements of a facility's infrastructure was obtained. This included the facility's age, availability of electricity, water, telephone and radio. Table 5 presents the summary of this information. The oldest health facility was the dispensary. It was started in 1909 and has been operating since then (92 years). The most recently started health facility was the nursing home that was only three years old at the time of the study.

The hospital was a health centre before it was upgraded in 1996. According to the staff interviewed, it was yet to attain the status of a hospital (a District Hospital) as it lacked staff, equipment and supplies required in a hospital. For example, it did not have a MCH doctor and a blood bank. Thus, many medical procedures such as caesarean sections that require a doctor could not be carried out at the hospital.

Only the two health centres had electricity and it was available on a 24-hour basis. The rest of the health facilities, including the hospital, did not have electricity. The staff interviewed in the facilities reported that lack of electric power was an obstacle to the provision of care, particularly at night. Similarly, the two health centres and the hospital had access to a year–round supply of water. The water was obtained from boreholes and supplemented with rain-fed water (trapped and stored in tanks).

A health facility should have a telephone or a short wave radio to refer their emergency patients and to communicate with other stakeholders, particularly the District Medical Officer of Health. At the time of the study, none of the health facilities had a telephone and or short-wave radio. The hospital had a telephone facility but was out of order. According to the staff, the telephone had been in that condition for a long time. There was no public telephone booth in the hospital compound and in the neighbourhood. A similar study conducted countrywide in 1999 indicate that Western Province had the lowest proportion of health facilities that had access to a means of communication (MOH *et al* 2000).

Operating time

All the five health facilities reported being open for at least six days a week and all of them were open to serve out patients for at least 8 hours a day. They all reported that emergency cases could be attended to at any time. The nursing

home was open for 7 days a week and on a 24 hour basis. These results are consistent with those of the KSPA (MOH *et al* 2000, 2004).

However, most of the patients interviewed at the health facilities indicated that although the facilities were open early (at 8 a.m.), they started operating (attending to patients) at about 9 a.m. and stopped operating long before 5 p.m. The lunch break usually took about two hours. This was particularly common in the public health facilities. This is because the majority of the staff stayed away from the health facilities and the facilities had to be cleaned in the morning before actual work began.

Availability of maternity services

Table 6 summarizes the maternal health services available at the sampled facilities. Antenatal care was available in all the five health facilities. Four of the five health facilities were offering delivery care as they had the staff, equipment for normal delivery and in-patient beds. The dispensary was reportedly able to assist with a few normal deliveries but one at a time since there was no labour ward and in-patient beds. They had one examining room and one couch. The room was usually turned into a labour ward when providing delivery care. All the mothers they assist to deliver must be discharged on the same day of the delivery. Otherwise they refer expectant mothers seeking delivery care to Alupe Hospital, Amukura Mission Health Centre and Busia District Hospital. All these facilities are far and difficult to reach at night since there is no public transport.

The hospital had 8 maternity beds and performed, on the average, 50 deliveries per month. It charged KSh. 110 per delivery. At the hospital the average length of stay of a post-partum woman after a normal delivery was 6 hours. The nursing home had 3 maternity beds and had 2 deliveries per month. It charged KSh. 500 per delivery. The two health centres had a total of 15 maternity beds. The public health centre had 16 deliveries per month and charged KSh. 40 per delivery while the privately run health centre had an average of 5 deliveries per month and charged KSh. 500 per delivery. These results seem to indicate that the number of deliveries performed per month was influenced by the cost of delivery, among other factors.

Table 6: Availability of maternal health services at the sampled facilities, Teso District, 2001

Facility type	Antenatal care	Delivery care	Post natal care	Out-reach services
Hospital	1	1	1	1
Maternity/nursing home	1	1	0	0
Health centre	2	2	2	1
Dispensary	1	*	0	0
Total	**5**	**4**	**3**	**2**

Note: * The Dispensary handles only emergency delivery cases.
Source: Primary Analysis of the Facility Inventory Data.

Capacity to manage obstetric complications

Attempts were also made to assess the capacity of the health facilities to respond to a wide range of obstetric complications. Basic essential obstetric care (BEOC) involves care for normal pregnancy as well as treatment of haemorrhage (excessive blooding), eclampsia, sepsis, retained placenta and provision of assisted vaginal delivery, post-abortion care and neonatal resuscitation. All the facilities providing delivery care should be able to manage most of these complications (MOH *et al* 2000). Lower level facilities such as dispensaries should be able to diagnose complications, provide basic first aid and refer to higher levels of care for definitive treatment. All the elements of the BOEC should be provided at the first referral level (Health Centre). Comprehensive Essential Obstetric Care (CEOC) involves, in addition to all the elements of BOEC, the provision of caesarean section and blood transfusion.

The results of this assessment are set out in Table 7. Haemorrhage is a common cause of maternal death. Therefore, a quick and definitive response to excessive blooding is important. Treatment for this complication was available in only one facility (the Nursing Home). All the other facilities, including the hospital, did not have the capacity (manpower, equipment and medicines) to treat this obstetric complication.

As evident from the table, no health facility was able to provide treatment for eclampsia at the time of the study. Except for the dispensary, all the health facilities were able to treat sepsis. Two facilities were able to provide neonatal resuscitation. These were the hospital and the mission operated health centre.

Treatment of the retained placenta was available in three health facilities. This entailed manual removal of the placenta. No facility reported ability to provide assisted vaginal delivery. Similarly, no facility was able to provide caesarean section and blood transfusion.

These results clearly indicate that the facilities included in this study were not able to provide most of the elements included in the BOEC and CEOC. It can be concluded that they were not able to effectively respond to obstetric complications. As indicated earlier, most of the facilities did not have emergency referral systems as they lacked the capacity to transfer women rapidly in the event of obstetric emergency. They did not have reliable transport and or a means of communication by which to summon help.

Table 7: Availability of Basic and Comprehensive obstetric care, Teso District, 2001

Emergency service	Hospital	Nursing home	Health centre	Dispensary
Haemorrhage	0	1	0	0
Eclampsia	0	0	0	0
Sepsis	1	1	2	0
Neonatal Resuscitation	1	0	1	0
Assisted vaginal delivery	0	0	0	0
Retained placenta	1	1	1	0
Post-abortion care	0	0	0	0
Blood transfusion	0	0	0	0
Caesarean section	0	0	0	0

Note: * The Dispensary handles only emergency delivery cases. **Source**: Primary Analysis of the Facility Inventory Data.

Table 8: Staffing strength for the delivery of maternal health care, Teso District, 2001

Type of MCH staff	Hospital	Nursing home	Health centre	Dispensary	Total
Doctor	0	0	1*	0	**1**
Clinical officer	1	2	1	0	**2**
Registered nurse	1	0	1	0	**2**
Enrolled nurse	4	2	7	3	**16**
Pharmacists	0	0	0	0	**0**
Laboratory technicians	2	1	2	0	**5**
Total	**8**	**5**	**12**	**3**	**28**

Note: * Available at the Mission Health Centre;
Source: Primary Analysis of the Facility Inventory Data.

Personnel at the maternal health facilities

Table 8 presents a summary of the information regarding the staffing situation in the health facilities. There were a total of 23 personnel providing maternal health care in the five health facilities included in this study. 5 laboratory technicians assisted them. The majority of these staff were enrolled nurses. Except for the mission health centre, all the other facilities did not have a medical doctor to provide maternal health services. All the health facilities did not have a pharmacist. These results show that the health facilities were understaffed with personnel to provide maternal health services.

Equipment and supplies for normal delivery care

The results on the availability of equipment and supplies for normal delivery care are presented in Table 9. These results indicate the hospital and the dispensary had equipment necessary for a normal delivery. Both sets were reported as being complete in the two facilities. Both of health centres had delivery sets. But it was complete in only one of them. The nursing home did not have the MCH and delivery kit but had other items (such as forceps, scissors, speculum, needle holder and gloves) and other supplies as shown in the table. In general, the facilities had the necessary equipment and supplies for providing a normal delivery care.

Equipment for obstetric complications

The results regarding the availability of equipment to managing obstetric complications are presented in Table 10. To be able to handle common obstetric complications such as obstructed delivery, the health facility should at the very minimum have the following equipment: perineal repair set, vacuum extraction set and obstetric/caesarean set. These results indicate the health facilities included in this study lacked the necessary equipment to respond to obstetric complications. The hospital and dispensary had equipment necessary for a normal delivery. The perineal repair set was present in the hospital and in the two health centres. But it was incomplete in one of the health centres. The neonatal resuscitation set was present in one of the health centres and the dispensary. However, it was incomplete in the dispensary.

The facilities included in the study were not able to provide most of the elements included in the basic obstetric emergency care and comprehensive obstetric emergency care. They did not have the capacity to respond to and

Table 9: Availability of equipment and supplies for normal delivery care, Teso District, 2001

Equipment item	Hospital	Nursing home	Health centre	Dispensary	Total
A) **Equipment**					
MCH basic equipment kit					
Present	1	0	1	1	3
Complete	1	0	1	1	3
Delivery set					
Present	1	0	2	1	4
Complete	1	0	1	1	3
B) **Supplies**					
Cord ties	1	1	1	0	3
Disposable needles	1	1	2	1	5
Protective clothing	1	0	1	0	2
Partographs	1	0	1	0	2

Source: Primary Analysis of the Facility Inventory Data.

Table 10: Availability of equipments to handle obstetric complications and neonatal resuscitation, Teso District, 2001

Equipment item	Hospital	Nursing home	Health centre	Dispensary	Total
Perineal repair set					
Present	1	0	2	0	3
Complete	1	0	1	0	2
Vacuum extraction set					
Present	0	0	0	0	0
Complete	0	0	0	0	0
Caesarean section set					
Present	0	0	0	0	0
Complete	0	0	0	0	0
Neonatal Resuscitation kit					
Present	0	0	1	1	2
Complete	0	0	1	0	1

Source: Primary Analysis of the Facility Inventory Data.

manage obstetric complications, as they did not have the relevant staff, medical supplies and equipment. Neither did they have effective emergency referral systems as they lacked the capacity to transfer women rapidly in the event of an obstetric emergency. They did not have reliable transport and or a means of communication by which to summon help. This meant that expectant women requiring obstetric emergency care had to seek for the care in the neighbouring districts. Lack of access had been found to limit utilisation of maternal health care in many societies (Leslie and Gupta 1989, Adenkule *et al.* 1990, Niraula 1994, Okafor and Rizzuto 1994).

User charges and associated costs

The second most common reason given for the reluctance of women to deliver in a health facility was the sheer physical inconvenience associated with institutionalised delivery. The actual costs incurred could be prohibitive to the average person, leave alone the poor village woman. These costs included transport expense to the health facility, charges for delivery and any drugs used. Sometimes the drugs had to be bought from elsewhere as they were often out of stock in the local health facilities. For instance, delivery charges ranged from KSh. 40 in a public health centre to KSh. 500 in a private health facility. The additional cost included the cost of daily trips by a relative to the health facility with food and necessities for the mother and new baby since these basic needs were not available in the local health facilities. Food was not usually provided to the in-patients by the local health facilities. Relatives had to supply food to their sick relatives. To avoid all these problems and difficulties, most women preferred to deliver at home under the care of their relatives and traditional birth attendants who were readily available and cheap. Furthermore, the respondents pointed out that when they delivered at home, they chose their own diet, had access to adequate water supply and continued to influence and make decisions about other things at their households. User charges and associated costs have been found elsewhere to constrain utilisation of maternal health care (Basu 1990).

Poor services

Most of the respondents and workshop participants were of the opinion that the quality of care offered in most of the health facilities in the study area was poor and that this was one of the major hindrances to utilisation of institutionalised delivery care. Respondents complained of being handled rather casually, rudely and abusively during labour and delivery by some nurses in public health facilities. In fact 80 % of the 213 respondents who participated in the follow-up survey reported that some nurses in public health facilities humiliated women during labour and delivery and that some nurses were inconsiderate and there were always delays in being served. Some respondents indicated that they themselves had been humiliated often in the presence or hearing of other in-patients. On the other hand, the traditional birth attendants were reported as being caring, understanding, gentle and very supportive.

Compounding the issue of quality of care is the fact most of the health facilities in the study area lacked emergency transport, had inadequate staff and almost no capacity to respond to and manage obstetric complications. They did not have water and electricity supply. The facilities relied on trapped rain-water and or borehole water supply. Due to water supply problem, the wards in some health facilities were reportedly often untidy and smelly. In-patients had to depend on their own water and food supplies brought by their relatives. This means basic needs must be regularly supplied to patients by their relatives and a relative must always stay within to look after the admitted relative. In some facilities, the wards

were crowded and were sometimes used as 'labour rooms' as they were no theatres. Poor quality of care has been found in the literature to limit utilisation of maternal health care (Basu 1990, Nhindhiri *et al.* 1996, Adenkule *et al.* 1990, Okafor 1991, Niraula 1994).

User factors

Competing priorities

According to most of the respondents and other informants, one set of the most important barriers to utilisation of preventive health care were competing priorities in everyday life of a mother in a male dominated society. She has to look for food and prepare it, do *shamba* work, do household chores, attend to children's needs, fetch firewood, water, do community work and undertake a host of other duties considered more compelling than seeking preventive health care. This scheme of things does not support a reduced workload during pregnancy. Subsistence needs affect the economically disadvantaged more directly in that poorer families tend to depend on a day-to-day acquisition of food and cannot afford to spend a day seeking preventive health care services in distant health facilities at the expense of acquiring and preparing the day's meal. Since the 1990's, most families in the study area had not had good crop harvests due to bad weather conditions and lack of farm inputs and therefore had to purchase food, mostly maize grain, from the markets. For most families, it was a very difficult situation; most of them did not have money with which to purchase the maize or cassava for food. They had look for the money almost on a daily basis, a responsibility that often fell on women.

On the basis of my observation and interviewing a cross-section of people, the overall impression of the economic situation of women in the district is that the majority and consequently their families were at the minimum limit of existence and had to struggle daily to meet the basic needs of their families and certainly delivering in a health facility was seen as an extra burden that very few families could bear. The situation, according to most of the informants, was deteriorating as a result of the stringent structural adjustment programmes being implemented in the country and the debilitating effect of HIV/AIDS.

Low motivation

Several health personnel as well as some respondents mentioned low motivation as another key factor contributing to low hospital deliveries in the study area. It was reported that some people were aware and knowledgeable about the need for preventive health care but were just negligent. Most of the respondents reported there was low motivation among people in the study area to seek preventive health care. Due to their cultural orientation, some people seemed not to care, some because they could not be bothered and others who simply lacked concern for preventive health care. Some families accorded low value to preventive health care in general and tended to neglect seeking modern curative treatment for medical treatment. Such people go or take the sick relatives to hospital only when they are extremely ill. The majority rarely seek health care until their illness has progressed to the point that it is 'too late' for treatment. Some others appear unconvinced about the efficacy of modern maternal health care. Some considered pregnancy and delivery as normal processes that do not require medical attention and certainly not hospitalisation (Okafor 1991, Obermeyer and Potter 1991).

Lack or little knowledge

The information obtained from the interviews held with some health personnel and during the follow-up survey suggest that some mothers felt that they did not need modern ante-natal and delivery care because they thought that clinic-based ante-natal care was meant for women who were having their first pregnancy, or women who had experienced problems with

their previous pregnancies, and those whose physiological development (stature) do not permit a normal delivery. For example, during the follow-up survey one of the respondents had the following to say:

> I have never gone to any clinic when I am pregnant. I did not experience any problem with my first pregnancy. I did not have any problem with the other five pregnancies. I had normal deliveries here at home with the help of Veronica, our TBA. I did not see or have any reason for wasting my time and money to go to the clinic. But some of my neighbours have to go to the clinic because they usually have problems with the pregnancy and or delivery. For example, Kefina, had to go to the clinic during her second pregnancy because she nearly died during her first pregnancy. [Field notes]

Poverty

All the respondents and workshop participants were unanimously in agreement that poverty was the single most important constraint to utilisation of modern maternal health care in the entire district. Teso district is one of the poorest districts in the country. Most of the people in the district are poor and as a result they cannot easily afford health care and the associated costs. The mainstay of the local economy is subsistence agriculture. Due to bad weather conditions and crop and livestock diseases, agricultural production has declined substantially over the decades. There are no industries or factories for people to find alternative employment.

HIV/AIDs, which is quite widespread in the study area, is further complicating the poverty situation. In addition to its direct fatal effects, HIV/AIDs epidemic is causing a lot of poverty in the study area. Many parents (bread winners) have died as the result of the disease. Ignorant about the fact the disease is incurable, many families reportedly exhaust their resources and some even sell their land and livestock in the search of treatment for sick relatives. Most families seek treatment from witch doctors, herbalists, spiritual healers and from medical doctors, on discovering that their relatives are suffering from HIV/AIDS.

Conclusion

The results reported in this paper indicate that most respondents in the study said that more child births took place at home. Traditional birth attendants and nurse midwives were the main providers of delivery care. The obstacles to utilisation of institutionalised delivery care were manifold. The major constraints were lack of access, competing priorities, poverty, user charges and associated costs and the sheer inconveniences of giving birth at the local health facilities. Reducing or removing these barriers and inconveniences would result in increased utilisation of institutionalised delivery care in the study area.

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