FACTORS INFLUENCING CHOICE OF PLACE FOR CHILDBIRTH IN MPWAPWA DISTRICT

By

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CERTIFICATION

The undersigned certifies that he had read and hereby recommends for acceptance by the University of Dar es Salaam a dissertation entitled: *Factors influencing choice of place for childbirth in Mpwapwa district,* in partial fulfillment of the requirement for the degree of master of Public Health.

.....

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Date ..Sept 28th 2001

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Although a research is a collaborative undertaking, with only one person assumes the role of the investigator, I alone am responsible for any error of the study.

DEDICATION

This work is dedicated to my beloved mother, Theresa and my late father, Akilimali.

EXECUTIVE SUMMARY.

This social survey was done among parents who had children in the last five years in Mpwapwa district, from June to July 2001.

The broad objective of this study was to identify factors influencing the parents' choice of place for childbirth in Mpwapwa district . Structured interview was used for data collection. A total of 300 parents were involved in the study. The main findings of this study show that one third of the parents who participated in the study gave their last childbirth at health facilities as compared to non-health facility deliveries (71%).

The study also shows that the main factors influencing the parents' choice of place for childbirth include distance and education. Age, marital status, religion and the number of children (Parity) did not show statistical significancy to influence the choice of place for childbirth.

The main recommendations of this study include

Improve delivery health education of the community. That is providing effective communication on delivery during antenatal visits. This in turn will influence the utilization of delivery at the health facilities

Establish maternity waiting home for women who stay far away from the health facility and they are at risk.

Mobilize community-based transport for women with obstetric emergency for health facility delivery.

Provide health facilities within walking range of women in labour.

Improve the level of knowledge of TBA through periodic training to cope with t current advances in childbirth at village level.

Improve women's decision-making power with regard to health facility delivery.

Research on place of delivery. Periodic research on place of delivery to find out w few women deliver at health facility, should be done in order to improve the delivery the health facilities.

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LIST OF ABBREVIATION

AIDS = Acquired Immunodeficiency Syndrome

BBA = Born before arrival

CSPD = Child Survival, Protection and Development

DMO = District Medical Officer.

HIV = Human Immunodeficiency Virus

IMR = Infant Mortality Ratio.

MCHA = Maternal and Child Health Aide

MMR = Maternal Mortality Ratio.

MOH = Ministry Of Health.

DHMT = District Health Management Team

TBA = Traditional Birth Attendant

WHD = World Health Day

WHO =World Health Organization

1.0 INTRODUCTION

The rate for maternal of maternal mortality for Mpwapwa district is estimated at 339 per 100,000 live births (DHMT 2001) while that of its region Dodoma is 138 per 100,000 live births (MOH 1999).

The proportion of childbirths occurring in the health facilities in Mpwapwa is estimated at 48.5%(DHMT 2001) whilc that of its region, Dodoma is 42% (MOH 1999). In marked contrast 95 % of the expected mothers estimated do go to health facilities for antenatal care (MOH 1999).

Trained health workers for assisting women during childbirths are usually available in the health facilities. These health workers include MCHA, nurse midwife and clinical officer at a dispensary level. Only about half of the deliveries take place in the health facilities. The other half of the deliveries take place not in the health faculties and are assisted by un-skilled assistants such as TBAs, and relatives neighbours.

A trained health worker can identify complications related to childbirth such as heavy bleeding, retained placenta, foetal distress or maternal distress and take appropriate decision.

Hence the maternal morbidity and mortality could be minimized if all deliveries took place in health facilities where trained health workers are found.

1.1 Problem statement

The problem, which this research project set out to address, is how the utilization of obstetric services available in the health facilities can be improved.

The research problem taken up concerned with identifying the factors, which influence the choice of where to deliver

1.2 Research problem

What are the factors that influence the choice of place for childbirth in Mpwapwa district?

1.3 Rationale:

If the factors which influence the choice of where to deliver are identified, it would be easy to mount the appropriate interventions aimed at modifying these factors in order to get more women to deliver at health facilities.

2.0 REVIEW OF LITERATURE

Factors, which influence the choice of where to go for child delivery, differ from place to place. A review of the literature attests to this fact.

Antenatal attendance

Kaguna *at al* (2000) has observed that antenatal attendance may discourage delivery at a health unit. This is because women, who are told that their pregnancy is normal, see no reason to deliver at health units. Such women tend to choose to deliver at home and may succumb to complications during childbirth, which could not be predicted during the visits to the antenatal clinic.

McDonagh M (1996), on examining the effect of antenatal care in reducing maternal morbidity and mortality concluded that antenatal care has little effect on maternal mortality and morbidity in developing countries at the present time. Malpresentation is a case in point. This cannot be consistently identified during antenatal visits. Another example is low body weight, which cannot be corrected with antenatal care.

Piaggio G *et al* (1998), on comparing four study sites in different part of the world participating in WHO Antenatal Care Randomized Control Trial found a large variation across sites in the use of screening and laboratory tests and interventions that should be offered to all women. In other words, antenatal care does not constitute high quality care everywhere. In some clinics there were no antenatal care services while in some of

the clinics the services were only to fraction of the women. They suggested that result of the survey could guide efforts to improve antenatal care services.

Munjanja S. *et al* (1996) on examining whether a new program of antenatal care with fewer goal-oriented visits would result in equivalent or better pregnancy and delivery outcome compared to the standard one, concluded that, simpler and reduced visits for antenatal care could be reduced without adverse effect on the major intermediate causes of pregnancy outcomes

With regard to antenatal risks, Forney, J.A (1995), has found that obstetric history is a far more accurate predictor of risk than demographic factors when reviewing the value of various factors in predicting obstetric complications.

However, Bloom, S (1999) has observed that antenatal care utilization is an important determinant of safe delivery care.

Delivery Attendance.

Walraven *et al* (1995) examined the perinatal mortality in home deliveries in rural Tanzania with respect to those deliveries attended by trained or not trained attendants. It was found that more perinatal deaths occurred in home deliveries as compared to health facilities. It was concluded that adequately trained personnel should attend all births.

Wilson J.B *et al* (1997), have examined the maternity waiting home concept in which women who face barriers like long distance and lack of transport are required to stay

near the health facilities when they are due for delivery. The compliance was poor as it was not to the expectations of the community. It was concluded that it is important to consult potential users not only to identify problems but also to identify appropriate solutions.

With respect to mobilizing transport for obstetric emergencies in northern Nigeria, Shehu D *et al* (1997) has found that women with obstetric complications delayed in reach health facilities due to distance and transport problem. When commercial transport owners and communities were mobilized to provide affordable emergency transport for women with complications, the proportion of health facility deliveries increased. Hence he concluded that improving transport to emergency care does not necessarily require ambulances.

Olaniran, N *et al* (1997), on mobilizing the community to utilize obstetric services, by training of the community educators and doing education campaign. He found that more women with complications were attended at the health facilities. It was concluded that community education and mobilization can help increase awareness of obstetric complication. In addition, Gummi F.B *et al* (1997), have found that, community education does not encourage use of emergency obstetric services. That is increased awareness of the signs of obstetric complication and need for prompt treatment among community women and men did not result in greater utilization of emergency obstetric services at the facilities studied.

Complications

If the emergency obstetric care at district hospital is improved, women with obstetric complications will seek hospital care as noted by Senah *et al* (1997). And Leigh B. *et al* (1997). However, Oyesola *et al* (1997) caution that, improved obstetric services may not be sufficient to reverse declining of hospital utilization related to worsening economic conditions.

Also, improved services will result in reduction in case fatality rate and motivate more women with complication's to seek hospital care (Olukoya *et al*, 1997).

Education

Opoku *et al* (1997). Has found that community education aimed at improving utilization of emergency obstetric services can enhance utilization once services are available.

Kandeh, *et al* 1997, on analyzing community motivators' effort to promote use of obstetric services, he observed that, once services are of acceptable quality, many women will use them.

With respect to promoting the use of obstetric services through community loan funds Fofana *et al* (1997), concluded that, where community local funds are established, utilization of emergency obstetric care might increase. Also, Essien *et al* (1997) found, that such community loan funds can contribute towards reducing the delay in obtaining emergency obstetric care.

In contrast to a home delivery the National Bureau of statistics [Tanzania] and Macro International Inc. (2000), describe delivery at a health facility as being more hygienic, and having proper medical attention. Delivering at the health facility is expected to reduce the risks of complications and infections to both the mother and the newborn baby. Each health facility, is supposed to have basic structure and process for childbirth procedure such as a trained MCHA whose role include administration of delivery care to pregnant women. The health facility worker (MCHA) is expected to have an interpersonal relationship with pregnant women during childbirth. The health facility (dispensary) is also expected to have basic equipment and supplies for childbirth procedures such as delivery bed, gloves and containers for antiseptic solutions. The room should also provide privacy during delivery.

(MOH unpublished Report 2001) have found that about 50 percent of pregnant women prefer not to deliver in health facility. The reasons given include delivery at the health facility is required only when a woman is told to be at risk, or first pregnancy. Other reasons for home delivery include members of their community will provide support to help a woman if pregnancy related complications arises, pregnant women believe that TBAs can safely assist a woman during childbirth.

On the other hand, the risk of home delivery include being attended by untrained TBA, high risk of infections such as tetanus and HIV as it is more difficult to observe hygienic condition at home environment than at health facility. Gloves, antiseptic solutions and

clean containers may be difficulty to obtain at home. Also detection of complications such as tear and low blood pressure during childbirth can be missed.

Traditional birth attendants (TBA)

Smit JJ. (1994), regards TBAs and traditional healers as forming an important link in the chain of health personal providing primary health care in Malawi: 60% of the deliveries are assisted by TBAs. TBA training is seen as part of MCH services in Malawi.

Solomon MM *et al* (1989), on a need assessment of TBA in rural Kenya, revealed that for several reasons, TBAs still deliver the majority of women in many developing areas of the world. TBAs were found to good at abdominal palpation but did not do routine prenatal checks and rarely referred them to hospital. Hence training of TBAs were recommended.

Mpembeni *et al* (1999), has found that, TBA services were highly commended by those women who were attended by them. The training of TBAs was understood by the community as the government official declaration of the good delivery services offered by TBAs. The role of TBA is handle emergency delivery only, however, since any start of labour is emergency, it is suggested that TBA be restricted to areas where women have no access to modern delivery services.

Mlay *et al* (1994), on studying the recognition of risk factors in pregnancy by women found that the knowledge of women regarding risk factors in pregnancy was very low.

Hence a comprehensive antenatal intervention programme has been recommended to educate women on risk factors in pregnancy.

Walraven G.E *et al* (1994), on assessing maternal mortality in Tanzania, has found that the sisterhood method survey is easier and more convenient than a prospective community - based study. Hospital data tend to over estimate maternal mortality in these communities. This method can be applied in Mpwapwa district.

In Tanzania, the number of trained attendants is few. Hence, training of Community based Traditional Birth Attendants (TBAs) has been advocated to assist a woman, especially during un-expected labour (precipitate labour). However, most pregnant women have been attended by TBAs and this has led to a decline in utilization of health facilities delivery services from 53 percent in 1991-92 to 47 percent in 1996. In 1999 the rate dropped to 44 percent (National Bureau of statistics [Tanzania] and Macro International Inc. (2000).

Access to Maternal Health Services

The WHO (1998) accounts access to maternal health services as a barrier in most of the developing countries. The barriers explained include distance and lack of transport. In rural Tanzania, 84percent of women who intended to deliver at health facilities, gave birth at home due to distance and lack of transport. Cost influences access in that pregnant women are required to pay for transportation (fare), drugs and food. An interaction with health providers is another barrier as pregnant women perceive health

providers, as being unkind rude and uncaring (MOH Unpublished Report 2001). For example, in Tanzania, a study on interaction with health providers found that 21percent of women delivered at home because of the rudeness of health staff even though they thought delivering at health facilities was safer. The gender and dimension or socio-cultural factors influence the access to maternal health services as the women have also other responsibilities like care of children,cooking and collecting water. With respect to decision-making on maternal care, the decisions are often made by in laws, husbands or other members of the families. These barriers that influence choice of place for childbirth of pregnant women, have more effect in one community and less effect in another community.

In Mpwapwa out of 10043 deliveries in the district, 3184 (48.5%) were attended at health facilities (DHMT 2001). The 5 km radius coverage to a health facility is 25 percent. This shows that 75percent of the health facilities are inaccessible as far as distance is concerned. (DHMT 2001).

Environmental factors

The environment around the individual pregnant woman can greatly influence the choice of the woman. For example long distance to a health facility can reduce the chance of the health facility delivery. Other environmental factors that affect the individual woman include transport, culture, presence of TBAs and traditional healers. Religion may also influence the women in the community to utilize the service of the health facility. Also the community can increase the likelihood for health facility delivery by arranging for

fund raising programme or provision of transport to the pregnant women during childbirth.

National Bureau of statistics [Tanzania] and Macro International Inc. (2000) has found that most women with secondary education and above deliver at health facilities than those with less education. This could also be contributed by finding the majority of this educated pregnant women are employed and work near the health facilities. Yet about 20percent of educated women delivered at home. Therefore it indicates that there are other factors that contribute to the choice of utilization of delivery services. Some of the behavioral factors influencing the choice of place of delivery include attitude and practice

Rural population is least developed as compared to urban population. Most of the social services like hospitals, schools, water supply, pharmacies and transport, are found in urban population. National Bureau of statistics [Tanzania] and Macro International Inc. (2000), has found that most (34.8 percent) of the rural pregnant women are assisted by their relative during childbirth while 76.7 percent of the urban women, are assisted by nurse, midwife or doctor. In Mpwapwa district, 25 percent of the population is within a 5 km radius.

In addition, cost affordability, reflects the economic status of the individual and community. It has an influence towards the choice of the family or community on place for childbirth.

The community may influence the choice of place for childbirth of pregnant women to deliver at home or health facility due to its past experiences of the woman or similar women having normal childbirths. Some community puts more value to woman who complies with the cultural norms of community than to one who is not. For example, in the Bariba tribe in Benin, women are expected to be stoic. A woman who delivers at home is given higher status, whereas the one who delivers at hospital, is regarded as a failure (Anonymous 1992)

3.0 OBJECTIVES

3.1 Broad Objective

To identify the factors influencing the choice of place for childbirth in Mpwapwa district.

3.2 Specific Objectives

To identify the factors perceived by parents to have influenced their choice of place of delivery.

To determine which one among the two parents had a major say in the choice of place for delivery.

To determine the association between the socio-economic and demographic characteristics of the parents and parents choice of place for delivery.

4.0 METHODOLOGY

4.1 Study design

A cross sectional descriptive study was carried out among parents who had had children during the last five years in Mpwapwa district. The study was carried out over the period of 2 weeks. It was a social survey and an interview method was used. From each village, 50 mothers and 50 fathers who had children during the last five years were interviewed using a structured questionnaire.

4.2 The study area.

Mpwapwa district was selected because of convenience. It so happened that this district is one of the least developed districts in Tanzania and therefore findings from this study may have of relevance to similar districts.

Mpwapwa is one of the five districts in Dodoma region. The district is bounded by Kilosa district and Kongwa district to North, Iringa district to the South and Dodoma Rural to the West. The district has an area of 7,374 square kilometers and it has an estimated population of 235,690 people (DHMT 2001) It has a growth rate of 2.7percent per year.

Administratively, the district is made up of 3 divisions namely Mpwapwa, Kibakwe, and Rudi. The district has 18 Wards and 84 villages. The major ethnic groups of the district are the Wagogo, Wakaguru, Watiriko, and Wahehe. Wamang'ati and Wamasai are the pastoral ethnic groups that have migrated into the district and settled at the southern plains around Mtera and Ruaha rivers.

In order to ensure acceptable representation of parents in the district, the first stage of sample selection was at the ward level

Economic status.

The main occupations of the people in the district are agriculture and animal husbandry. The types of crops grown in the district include maize, millet, groundnuts, beans, rice, sweet, potatoes, onions and sunflower. The major cash crops are groundnuts and rice.

Animals grazed in the district include cattle sheep, donkeys) and pigs. Crops and livestock contribute 91 percent of the district income. The district per capital income is Tsh 120,000 per annum while the national one is Tsh.243, 000. In the rural area, women do most of the domestic work.

Essential social services

Essential social services that are available in the district include education, health, water. The number and level of health units in the district include one district hospital, 2 health centers, and 32 dispensaries. 25 of the dispensaries are government owned. There 5 voluntary agency and 2 are owned parastatal organization

4.3 The study population

The study population for this study was parents

4.4 The study sample

A sample of parents was selected from the household where a child was born in last five years.

4.5 Estimation of Sample Size

The major focus of the study was on parents' choice of the place for delivery. The proportion of women who delivered in health facilities is therefore the parameter used in sample size estimation. Since about half of the deliveries take place in the health facilities, the following formula was used:

$n=z^2pq/d^2$

where n= estimated total sample size

z= 1.96 which corresponds to 95 percent confidence interval,

p= proportion at health facility delivery (50%)

q= (1-p) proportion at home delivery (50%)

d= maximum likely error (6%)

Hence the required sample size was:

$n= 1.96^2 x50x5/6^2 = 267$

4.6 Sampling technique

Mpwapwa district is divided into 18 administrative wards. A multistage sampling strategy was used to select the sample population for the study. Finally a cluster sampling was used at the household level until 100-sample size for the population was reached. From the 18 wards of Mpwapwa district, 3 wards were randomly selected. That is the 18 wards were listed in alphabetical order and random numbers were used to select the wards. The wards selected included Luhundwa.Matomondo and Godegode. From each of the selected wards, only one village was selected randomly. The villages selected were Ikuyu, Tambi and Godegode.

Within each of the selected villages, households in which parents who had at least one child during the last five years were included in the study. The parent who had a

household closest to the village office was selected to be the first respondent. The next parent was the one nearest to the first household. This exercise continued until 50 female parents and 50 male parents were obtained from each each village. If the parent had two or more children, the interview based only to the last born child.

4.7 Recruiting and Training of Research Assistants

Due to time limitation for carrying out the study, 2 research assistants namely a female Nursing Officer and a male Nurse Grade B from Mpwapwa district hospital, were employed. Two days were used for training the research assistants. The training aimed at orientating the research assistants with that study and providing them with the necessary skills for data collection. Role-play was done to ensure that the training was successful. Research assistants also took part in pre-testing of the questionnaire at Isokwe village in Mpwapwa town. Problems identified, were rectified before going to the actual field.

4.8 Data collection

Data collection started in the fourth week of June up to the first week of July 2001. Data collection was done by the principal investigator (PI) and 2-research assistants (RA) in the same village during the daytime. Kiswahili, a national language was used to conduct the interview. The procedure for data collection entailed visiting the household; making self-introduction and brief explanation to every respondent. Each parent was asked whether she or he had a child in the last five years. The parent, who qualified, was interviewed basing only to the last born child. The parent was asked to show the child to

the interviewer and tell the name of the child. The respondent was interviewed in privacy and was insured that the information obtained will be kept confidential. At the end of each day session, the research team checked all filled questionnaire for correctness and completeness. After being satisfied that questionnaires are completely and correctly filled and 100 respondents have been interviewed, the team moved to the next village.

4.9 Data Quality Control and Data Processing.

The research team strictly followed the procedure and schedule for data collection. There was no circumstance that dictated major changes. At the end of each day, the research team reviewed the completed forms. Only minor problems regarding filling of the questionnaires were found and corrected. There was no necessity for an interview to be repeated. Open-ended questions was reviewed, categorized and coded.

4.10 Limitation of the study

. Due to time and financial limitation, only the perceptions, opinions and explanation regarding the choice of delivery were explored. Ideally other methods should have been used and the enquiry should also cover the health facilities that are not preferred or preferred, as the case may be.

Recall bias. Some few parents failed to recall well their birth dates. In such cases, the parent was asked to mention the year in which the parent was born.

4.11 Ethical consideration

Muhimbili University College of Health Sciences and publication committee provided ethical clearance for the study. Also, the Mpwapwa District Medical Officer (DMO) was asked for permission to conduct the study in his district. The DMO accepted the request. Similarly, the village leadership was requested for permission to carry out the study in their area of jurisdiction. It was also accepted to conduct the interview in the respective village. The village head facilitated the successful implementation of the field study, by proving a good environment to conduct the interview such as introducing the team members to the respondents. For each respondent, an informed consent was sought just before interview session began. All respective parents assented to be interviewed.

5.0 RESULTS

5.1 Background characteristics

Three hundred parents who had children during the last five years were involved in the study.

A total of 300 parents were involved in the study on factors influencing a choice of place for childbirth in Mpwapwa district. Out of 300 parents, 150 were male parents and the other 150 were female parents.

Table 1 shows the background characteristics of the respondents

1. Age: The age range of the female parents is from 16 years to 46 years, with a mean of 29. Median of 29 and a mode of 23.0 while that of male parents is from 20 years to 68 years, with a mean of 34.0 median 33.0 and a mode of 28.0

There was no male respondent in the age group of 16-19 years

Majority of the male respondents answered correctly when asked to mention the dates of their birthdays however, some female respondents couldn't and asked for assistance from their husbands:

"I don't know exactly. Please, the father of X can you remember my age?"

Others said.

"I know I am 40 years of age. But I am not certain of my birthday"

2.Education

Majority (71%) of the female parents had primary education, 28% had no formal education and the remaining 1% had secondary education. In comparison to male parents they were 79%, 13% and 7% respectively

Answers regarding the level of education included,

"I have completed primary school."

While others replied,

"I have no formal education (Sijasoma)"

3.Religion:

Most (94%) of the female parents were Christians while Muslims were 4.7% pagan 0.7%. In contrast, male parents were 93%, 5% and 2% in that order.

All questions were answered correctly. One male respondent replied,

"I am a Roman"

Which meant that he was a Christian of the Roman Catholic demination.

4.Tribe:

The Wagogo female parents were the majority (57%) followed by Wahehe 17%, Wakaguru 13% and the remaining 12%belonged to other tribes. These included Wamasai and Watiriko For male parents the result was similar i.e. Wagogo were the

majority (48%), followed by Wahehe 25%, Wakaguru 11% and the remaining tribes were 15%

The responses with respect to tribe included the following,

"I am Mgogo"

Another one said,

" I belong to Wahehe tribe"

5.Marital status –

Majority (69%) of the female parents were cohabiting, followed by 23% married and the remaining 8% were, single, divorced or widowed. Also the majority (83%) of the male parents were cohabiting, followed by 17% married and the remaining 1% was separated.

The respondent's answer to this question included,

"We are just living together. We don't have a wedding certificate" or

"I am married and I have 2 children"

6. Economic activities

Female peasants contributed 69% of the economic activities followed by both agriculture and business (25%) similarly male peasants contributed 73% of the economic activities, followed by agriculture and business (19%) and the rest was 3%

For economic activities, one peasant said,

"I have got plot in which I grow maize and groundnuts"

Another said,

" I am a shopkeeper. I am selling some consumer products like sugar and salt to my customers"

7.Parity:

The number of children per female parent varied from a single child to 10 children. The mean was 4 children, the mode was 2 children and median was 4 children. The number of children reported by male parent varied from a single child to 11 children. The mean was 4 children, the mode was 2 children and median was 4 children.

One female respondent who had a large family said,

"We are old. We have 8 children. We are not prepared to get another child. We are planning to visit a district hospital for tubal ligation (Kufunga kizazi)"

8.Age of the children.

The age range reported for female parents was from one month to 59 months, mean was 16 months, median 13 months and the mode was 4 months whereas from male parents the range was from 1 to 59, mean 22 median 18 and mode of 1month respectively.

Majority of the respondents had no difficult in answering this question on date of delivery for their children as many of them had ANC cards. Some of the responses are,

" My child was born on... at our dispensary and was given this card"

Table 1. Background Characteristics Of The Study Sample

	PARENTS	%
AGE		
15-19	8	2.7
20-39	245	81.7
40+	47	15.6
N	300	100
MARRITAL STATUS		
Married	59	19.7
Single	5	1.7
Divorced	4	1.3
Co-habiting	227	75.7
Separated	1	0.3
Widow	4	1.3
N	300	100
NO. OF CHILDREN		%
1	54	18
2-3	109	36
4-5	77	26
6+	60	20
N	300	100

(Continue table 1)

	PARENTS	%
ECONOMIC STATUS		
Peasant	213	71
Peasant + Animal husbandry	9	3
Peasant + Business	56	18.7
Civil Servant	10	3.3
Business	11	3.7
Others	1	0.3
N	300	100
EDUCATIONAL STATUS		%
Primary	225	75
Secondary	13	4.3
Adult	17	5.7
No Education	45	15
N	300	100
RELIGION		
Christian	281	93.7
Muslim	14	4.6
Others	5	1.7
N	300	100

5.2 Place of Delivery

While 96% of the parents reported going for antenatal care a much lower proportion of 30% delivered at health facilities.

The female parents who gave not at health facilities were 73% at health facility was 27% and the remaining 8 (2%) of parents gave birth on the way to health facility or elsewhere

Seventy one percent of the male parents reported that their partners delivered at home. Another 27 % reported about their partners having delivered at health facilities. The remaining 2% said that their partners gave birth while on the way to health facility

Assistance during labour

Out of the 300 female parents, assisted by TBA was 57%, health worker 32%, herself 3% others (mothers, neighbour and sisters (8%) Report from male parents include TBA (70%) health worker (24.7%) herself (1%) others (mothers, neighbour and sisters (4.3%). Some TBAs assist women for childbirth at the health facility'

One female respondent who was attended by a TBA and was satisfied with her assistance said,

"I was attended by the TBA quite well. There were no problems"

Another one said,

"Those TBAs (Wakunga wa Jadi) are trained at the hospital and are given go ahead to conduct deliveries in our village. Most of the time the TBAs can do well her job. If a TBA fails to deliver the woman then the TBA will advise you where to go next"

5.3 Associations

Association between the socio-economic and demographic characteristics with place of delivery

Table 2a shows the relationship between parents' background characteristics and the place of childbirth'

Table 2a Relationship Between Socio-Demographic Characteristics And Choice Of Place For Delivery

	Place for delivery									
	Health Facility Respondents (%)			Home Respondents (%)			Others Respondents (%)			N
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total	
16-19	0	2.5	1.25	0	5.7	2.85	0	25	12.5	8
20-40	77.5	87.5	82.5	79	86.8	83	50	50	50	246
>40	22.5	10	16.25	21	35.15	14.15	50	25	37.5	46
N	40	80	106	106	212	4	4	8	8	300
Marital Status										
Married	15	27.5	21.25	17	20.7	18.85	0	0	0	57
Cohabit	82.5	62.5	72.5	83	71.7.	77.	100	100	100	230
Single	0	7.5	3.75	0	1	0.5	0	0	0	4
Divorced	0	0	0	0	3.8	1.8	0	0	0	4
Separated	2.5	0	72	0	0	0	0	0	0	1
Widow	0	2.5	2.5	0	2.8	1.4	0	0	0	4
N	40	40	80	106	106	212	4	4	8	300

(Continue Table 2a)

	Place for delivery									
	Health Facility Respondents (%)			Home Respondents (%)			Others Respondents (%)			N
Education	Male	Female	Total	Male	Female	Total	Male	Female	Total	
No educa	15	25	20	13	30	21.7	0	0	0	62
Primary	67.5	75	71	83	68	75.5	100	100	100	225
Secondary	17.5	0	9	4	2	2.8	0	0	0	13
N	40	40	80	106	106	212	4	4	8	300
Religion										
Christian	92.5	95	94	93.4	93.4	93.4	100	100	100	281
Muslim	7.5	5	6	3.8	4.7	4.2	0	0	0	14
Others	0	0	0	2.8	1.9	2.4	0	0	0	5
N	40	40	80	106	106	212	4	4	8	300
No. of children										
1	25	15	20	18	17	17.5	0	25	12.5	54
2-5	62.5	70	66	67	54.7	60.8	50	50	50	186
6+	12.5	15	14	15	28.3	21.7	50	25	37.5	60
N	40	40	80	106	106	212	4	4	8	300

(Continue Table 2a)

	Place for delivery									
	Health Facility Respondents (%)			Home Respondents (%)			Others Respondents (%)			N
Distance (km)	Male	Female	Total	Male	Female	Total	Male	Female	Total	
<5	62.5	75	68.75	42.4	48	45.3	75	25	50	155
5+	37.5	25	31.25	57.6	52	54.7	25	75	50	145
N	40	40	80	106	106	212	4	4	8	300

Age

As per table 2a, there was no male respondent who was under 20 years. Female respondents under 20 years were 8. Non-health facility delivery was more when compared to facility delivery. The proportion of health facility utilization for delivery in the age group 20-40 years was very small. However, above 40 years there were more non-health facility deliveries as compared to health facility deliveries.

Marital Status

In addition, table2a shows the percentage of married respondents (21.25%) who delivered at health facility level is more than the corresponding percentage of married

respondents who delivery at home (18.9%). Statistically the proportions were not significant.

Also the proportion of single parents who deliver at the health facility (3.75) is seven folds more that of home delivery (0.5%). There was no male respondent who was a single parent.

Cohabiting - the proportion of cohabiting respondents who delivered at health facility level was less (72.5%) as compared to home (99.3%). Of the home deliveries, 83% was reported by male respondents and 71.7% by female respondents. The respective proportions were 82.5% and 62.5% for health facility d20% of the respondents who had a single child, gave birth at the health facility level in contrast to 17% who gave birth at home.

Education

The table 2a shows a proportion of respondents with no education were higher at home delivery (21.7%) in contrast to health facility delivery (20%). Both at health facility delivery and home delivery level, the proportion of female respondents was higher (25%) and 30%) respectively than the corresponding proportion of males (15%) and 13%).

At primary school level, 71% of the respondents who delivered at the health facility had a primary education as compared to 75.5% of home delivery. The proportion for health facility delivery was more reported by female respondents (75%) as compared to that of

male respondent (67.5%) while for home delivery, the corresponding proportions were 68% and 83%.

Table 2b shows that at secondary school level, the proportions of health facility delivery are two folds more as compared to home delivery. Nevertheless, statistically was not significant However, there was no female respondent who had secondary education that delivered at the health facility Also at home delivery, there was more delivery reported by male respondents as compared to female respondents.

Table 2b Relationship Between Level Of Education And The Utilization Of Delivery Services

	Place for delivery									
	Health Facility Respondents (%)			Home Respondents (%)			Others Respondents (%)			N
Education	Male	Female	Total	Male	Female	Total	Male	Female	Total	
<Secondary	33 (11)	40 (14)	73 (25)	102 (35.8)	104 (36.2)	206 (72)	4 (1.5)	4 (1.5)	8 (2.7)	287 (100 %)
>Secondary	7 (54)	0 (0)	7 (54)	4 (31)	2 (15)	6 (46)	0	0	0	13 (100)
N	40	40	80	106	106	212	4	4	8	300

Religion

From table 2a, the proportion of Christians delivering at the health facility (94%) is slightly more than those delivering at home (93.4%) Statistically it was not significant. At health facility level, female Christian respondents were more (95%) as compared to male Christian respondents (92.5%). There was no difference between male and female Christian respondents at home delivery (93.4%).

For Muslim respondents, the percentage of respondents was for health facility delivery 6% as compared to home delivery 4.2%. In both health facility delivery and home delivery, the percentage of female respondents out weighed that of the male respondents.

Number of Children

Moreover, table 2a shows the proportion of respondents who had a family size of 2-5 children who gave birth at health facility level was more (66%) than at home (61%) the

female respondents proportion for health facility is more (70%) than the male respondent (62.5%). The percentages for home delivery are more for male respondents (67%) as compared to male respondents (54.7%).

For the family size with 5 or more children, the proportion of home delivery is more (22%) than health facility delivery (14%). The percentages reported by male respondents for both health facility and home are less (12.5%) and 15% compared that reported by female respondents (15% and 28.3%) respectively. Statistically the proportions were not significant.

Distance:

The distance reported by female parents varied from less than a kilometers to 25 kilometers to a nearest health facility. This was estimated from either the walking time or just personal estimation. The mean distance was 6 km, median 3 km and mode was 1km. In contrast, the distance reported by male parents was from less than 1kilometers to 18 kilometers. The mean was 7-kilometers median 6 kilometers and mode was 1 kilometers. Statistically the proportions were not significant.

The table (2a) indicates that 68.2% of respondents who delivered at the health facility came within the radius of 5 kilometers. These comprised 62.5% and 75% respectively. The corresponding respondents' proportions for home delivery were 45.3%, 42.4% and 48% of the male and female respondents respectively. That is, within a radius of 5 kilometers from the health facilities, the proportion of women who gave birth at health facility level is twice (36.4%) that of 5kilometers or more from home. (See table 2d) The

difference is statistically significant at 0.05' That is, there is a significant association between distance and utilization of health facilities for childbirth

Table 2c. The Relationship Between Distance And The Place Of Delivery.

Distance (Km)	Place of delivery		
	Health facility	Home +Others	Total
< 5	55 (36%)	100 (64%)	155 (100%)
5+	25 (17%)	120 (83%)	145 (100%)
N	80	220	300

Chi-square = 12.81

p-value = 0.0030

Long distance especially when coupled with lack of transport appears to prevent mothers from delivering at health facilities. When one is in labour it is difficult for her to walk some few kilometers. One parent said it:

"Once labour starts, you are unable to withstand one or two hours of walk. Sometimes you deliver along the way to the health facility."

5.4 Why parents deliver at health facilities

Table 3. Reasons That Parents Gave, For Health Facility Delivery

	Reasons given out	Respondents		
		Male	Female	Total (%)
1.	Better delivery services	7 (17.5%)	14 (35%)	28(35%)
2.	Safer place	7 (17.5%)	1 (0.25%)	8 (10%)
3.	Advised by health worker	3(7.5%)	4 (10%)	7 (8.75%)
4.	First Pregnancy	3(7.5%)	1 (2.5%)	4 (5%)
5	Health facility is nearby	0(0)%	4 (10%)	4 (5%)
6	Risk factor (Nyota) present	2 (5.%)	2 (5%)	4 (5%)
7.	Advised by TBA	1 (2.5%)	2 (5%)	3 (3.75%)
8	Had pregnancy complication	1 (2.5%)	0 (0%)	1 (1.25%)
9	Available health worker	1 (2.5%)	0 (0%)	1 (1.25%)
10	Others	15 (37.5%	12 (30%)	20 (25%)
N		40	40	80

Reasons given out by the respondents for delivering at the health facilities included a better quality of health facilities. That is parents choose to go to health facility a better

health services can be offered, expectant mothers could deliver safely and could advised accordingly with respect to delivery.

Women deliver at heath facilities if they have some complications like anemia, high parity and multiple pregnancies.

Also they attend at health facilities because traditions birth attendants advise them. Other reasons for choosing health facilities for delivery include first pregnancy. First pregnancies are always associated with complications. Health worker at ANC usually advises first pregnancy women to deliver at hospital.

Also pregnancy women deliver tat health facilities because the health facilities is nearby.

5.5 Reasons for non-health facility (home) delivery

Table 4. Reasons That Parents Gave For Not Delivering At Health Facility

		Respondents		
	Reasons given out	Male	Female	Total(%)
1.	Sudden labour	34%	26%	30.0%
2.	No risky factor (Nyota)	31%	32%	31.5%
3.	Health Facility is far away	22%	15%	18.5%
4.	TBA available	3%	8%	5.5%
5.	Labour occurred at night	5%	3%	4.0%
6.	Advised by parent	3%	4%	3.5%
7.	Past experience	0%	3%	1.5%
8	Husband's decision	0%	2%	1.0%
9.	No transport	1%	1%	1.0%
10.	Others	1%	6%	3.5%
N		110	110	110

As per table 4, reasons for home deliveries include the following.

Sudden labour-The labour that lasts for some few minutes to hours.

The pregnant woman even if she wishes to deliver at health facility, she will not be able to attend at health facility for child birth assistance if she happens to get sudden labour (precipitate labour).

Also pregnant women deliver at home due to lack of risk factors. That is if a pregnant woman is told to be risk free, then she takes for granted that she won't have any problems during her delivery. In most cases she chooses to deliver at home.

Some women deliver at home due to lack of health facilities within a walking range of distance such as five kilometers. It is very difficult to walk for an hour or so when a woman is in labour.

Other factors for home deliveries are: Availability of traditional birth attendants. TBAs are considered as delivery assistant officials of the government, as they are being trained at the hospital.

In addition, it will be difficult to get transport and escort the woman to the health facility if . labour occurs at night.

Other reasons given out included the advice given by their parents of delivering at home, past experience of the expectant mother and husband decision.

Lack of transport also predisposes the woman in labour to deliver at home.

5.6 Major say on Place of delivery

The male respondents made the decision in about 1/3 of the cases, the female respondents made decision in 1/5 of the cases and both decided (17%) TBA (19%), parents 12% and health worker (2%). For the males parents the decisions were, decision made by the father31%, mother 13% both 27% TBA 15% and others 3%

When a female was asked regarding the decision on delivery said,

" I was in labour pains. My husband went to call a TBA to assist me."

As shown in table 6 the female parents believed that the father has a major say was 54%, mother 41% both 3% parent1% and others 1%. For male respondent the responses were 84%, 10%, 3%, 0%, and 2% respectively.

The percentage of the respondent for health facility delivery who believed that a male parent has a major say was 57.5%, while those who delivered at home as 74.5% of the health facility delivery proportions 77.5% was reported by male respondents and 37.5% was reported by female respondents. For home delivery, the corresponding proportion were 86.7% and 62%.

Regarding women to have a major say, the proportion of respondents at the health facility level was 31% and at home level was 26.6% a males respondent proportion at health facility level was 7.5% and for home delivery was 11.3%. The corresponding proportion for female respondent was 37.5% and 62%.

For both parents to have a major was three times more at health facility as compared to home level. The proportion reported by male respondent was 10% and 1% for health facility delivery and home level respectively. The corresponding proportion for female respondents were 5% and 3% in that order. The proportion of respondents who advocated for other people e.g. Health worker, TBA and in laws to make a decision regarding a place of delivery was only for the health facility. The proportion was 5% for male respondent and 2-5% for female respondent.

Regarding having a major say one male respondent said,

" I am decision-maker s my as I am the head of my family"

Table 5.Relationship Of A Major Say Among The Two Parents And Choice Of Place For Childbirth

Major Say	Place for delivery					
	Health Facility			Home +Others		
	Male Respondent	Female Respondent	Total	Male Respondent	Female Respondent	Total
Male parent	77.5%	37.5%	57.5%	83.6%	60%	74.5%
Female parent	7.5%	55%	31%	13.6%	36.3%	22.6%
Both	10%	5%	7.5%	1.8%	2.7%	1.9%
Parents	0%	0%	0%	1%	1%	1%
Others	5%	2.5%	4%	0%	0%	0%
N	40	40	80	110	110	220

Expected next place for childbirth

Most of the female parents (88%) wished to deliver at health facility. This shows that the respondents have confidence in the health facility 10% of the respondents preferred at home, other 2% any where while Male parents reports to have been informed by female parents that next delivery is expected to be 83% at health facility 15% at home and 2% elsewhere.

One female respondent said,

"It will be at our dispensary. You never know when complication will arise"

6.0 DISCUSSION

The main objective of this study was to identify factors influencing the parents' choice of place for childbirth in Mpwapwa district.

The study sample was made up of the parents who had children during the last five years. The male and female parents involved in the study were not of the same child.. The main findings of the study show that few (27%) of the parents gave birth at health facilities a compared to non-health facility deliveries (73%). The percentage of health facility delivery is less than that shown by TDHS of 1996, which is 44%.

The main factors that have been found to influence the parents' choice of place of delivery included: -

Education

It has been found that parent respondents with secondary education and above delivers at health facility 2 folds as compared to home delivery. This is comparable to TDHS of 1996 Education assist the parents to identify a health facility to be a better place of delivery than home delivery. The same was observed by Opoku et al (1997) and Olaniran, N *et al* (1997). That is through education one knows what type of health services are offered at the health facility and at what level. Also one with secondary education and above will easily understand when told that she has a risk factor. And when advised regarding the risk factor, the compliance is high.

In addition, one with education will always ask questions for assistance in determining the best place for delivery. Also information on delivery can easily be disseminated through literature and the one with secondary education can easily understand and follow the advice given.

Distance

Within a 5Km distance, more (68%) people attended at health facility for deliver than than at a longer distance. This is in agreement with the TDHS of 1996 which says to be about 70% of the population should be within 5Km radius for optimal utilization of the health facilities.

If the distance is short, the transport cost will be less. Expectant mothers will just have to walk to the dispensary or pay some small affordable fare to the health facility for delivery.

Distance more than 5 Km, will be a barrier to attend a health facility a the woman in labour will be unable to walk the long distance to the health facility for delivery or pay some transport cost to the health facility for delivery. Shehu D *et al* (1997) and Wilson J.B *et al* (1997) also found long distance and lack of transport as barriers towards utilization of delivery services at the health facilities.

Lack of transport

If this problem is improved then more people will utilize the health facilities more effectively. The literature reviewed shows that the problems of transportation can be

reduced through community participation such as through establishment of community health funds.

In addition, utilization of the health facilities is more when the health facilities deliver its services as expected by the parents. Wilson J.B *et al (*1997 gives an example of maternity waiting home. The expectations of the clients should considered be during its initial planning. That is if the quality of health service is good, then more clients will deliver at the health facility.

Sudden Labour

The Influence of sudden labour can be minimized by having a health facility nearby or having a trained health worker such as a nurse midwife at the village post level.

Other factors that were analyzed with regard to have an influence on choice of delivery include age, marital status religion and parity. These were not found to be statistically significant.

7.0 CONCLUSION AND RECOMMENDATIONS

The study findings show that less than one third of the total deliveries occurred at health facilities as compared to non-health facilities deliveries

The major reasons identified in this study as contributing for health facilities delivery include education; short distance and first pregnancies, while those that prevent delivery at the health facility include long distance and sudden labour.

In order to promote health services delivery, at the health facilities the following recommendations are suggested:

Improve delivery of health education at the community level. That is providing effective communication on delivery during antenatal visits and in the community in order to reach husbands who do not accompany their wives to antenatal clinics. Establish maternity waiting home for women who stay far away from the health facility.

Mobilize community-based transport for women with obstetric emergency for health facility delivery.

Improve the level of knowledge of TBA through periodic training so that they can cope with the current advances when assisting in childbirth at village level.

Improve women's decision-making power with regard to health facility delivery.

There is need for carrying out periodic research on place of delivery to find out any emerging factor that might influence the choice for delivery.

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