



ARTICLE

Factors influencing utilization of free deliveries services among women at kirinyaga county referral hospital, Kirinyaga County.

S. Kagoiyo Njeru ^{1*} | Sabinah W. Kagoiyo ²

¹Kirinyaga University, P.O. Box 143-10300, Kerugoya, Kenya

²Kirinyaga County Referral Hospital, P.O Box 24-10300, Kerugoya, Kenya

Abstract

Background: Free delivery services aim to reduce both maternal and infants' morbidities and mortalities. **Objective:** The objective of the study was to determine factors that influence utilization of free delivery services. **Study Design:** A cross-sectional study. **Study Setting:** Kirinyaga County Referral Hospital, Kirinyaga County **Subjects/participants:** One hundred and four questionnaires were given to mothers who met the inclusion criteria. **Results:** The younger the prospective mother, the less likely it become that she will utilize free delivery care service, 25% of respondents who were between the ages of 15-24 years' old. Correspondent to this study's results where 45.1% had attained secondary level of education, 21.7% had attained primary level, 22.1%, had attained college/ university while 11.1% had no education. On Knowledge about free delivery services in this study, 76.5% of the respondents indicated they had knowledge on free delivery services while 23.5% had no knowledge on free delivery. On health, related factor 89.1% of respondent upheld the quality of service to be good and 10.9% quality not good. **Conclusion:** Younger women and mothers were likely not to seek free delivery care services as compared to the older women. Those with a higher level of education were more likely to seek postnatal care services than those without education. Women with a source of income were likely to seek free delivery care more as compared to those without income. Women were more likely to seek services that were closer hence long distances to health facilities prevented them from seeking the services. Religion was a push factor for maternal health seeking behavior rather than a source of exclusion that would prevent women from receiving or seeking free hospital delivery care. The health care providers made information on free hospital delivery services readily available.

Keywords: Kirinyaga County Referral Hospital

Copyright : © 2021 The Authors. Published by Publisher. This is an open access article under the CC BY-NC-ND license (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

1 | INTRODUCTION

It is every mother's hope to hold her bundle of joy after the nine months' period of gestation. This is however not the case always as some mothers end up losing their babies or worse, losing their lives in the process due to lack of skilled assistance or access to health facilities. It is not fair for any woman to lose her life while giving one or have to live through the pain of losing a child or nursing complications due to delivery.

According to a recent study by World Health Organization (WHO, 2015) at least one woman dies every minute due to complications related to pregnancy or childbirth around the world. This equals to almost 300,000 women every year. A functional health system equipped with skilled personnel is key to saving women's and children lives. Improvement of maternal health is one of the goals in the Millennium Development Goals (MDG 5) and still an important global health challenge. (WHO., 2015)

Reducing maternal mortality has seen the government and the international agencies promote maternal healthcare services. Mothers benefit from free antenatal services as they are able to freely access reproductive health education, vaccinations, pregnancy supplements, physical exam and laboratory services at no cost from public hospitals (Lesser B, 2003) Free Delivery care influences lives of mothers as it ensures all have access to theatre services, midwife services, and medication to enable them deliver successfully. Free Emergency medical services influence maternal mortality rate as the wellbeing of the newborn and the mother is ensured.

Maternal and child health has remained a high priority for the government of Kenya and in particular the ministry of health. The Kenyan efforts are admirable and intended to help achieve the Sustainable Development Goals of reducing the maternal mortality rates and infant mortality rates. The free maternal health care initiative provides subsidized health insurance to pregnant women, giving them access to an existing range of insurance benefits that include comprehensive maternity care with some notable exceptions such as ambulance services and post-partum family planning counseling. It was supported from

the general pool of resources of the National Health Insurance Fund, Which includes international partners via the health sector budget support (Arhinful D., 2006)

Kenya is one of the countries considered having a high mortality rate. According to Kenya Demographic and Health Survey, report (KDHS, 2009) the national mortality ratio was 488 per 100,000 live births and that 43% of the total births took place in health facilities and 53% took place at home. This was due to limited access to maternal health services.

In June 2013, the Government of Kenya through the Ministry of Health introduced free maternal health services in all public hospitals to ensure that all mothers access qualified care during pregnancy, delivery and after delivery. In Ghana for example, since the inception of the initiative in 2008, there has been a steady increase in number of facility – based deliveries from about 300,000 in 2007 to about 500,000 in 2011. (HERA, 2012)

Several observers from within the health system have expressed concern that these commitments will not be nearly enough to meet the additional demand placed on facilities and staff due to the free maternity health policy. Others have questioned the feasibility and the appropriateness of the policy altogether which, they warn, might lead to a decline in quality of services, could further increase reproductive inequalities across the country, and will do little to address – and could even worsen – human rights violations in health facilities. All parties agree: it will not be an easy road forward. (Bourbonnais N, 2013)

The efficiency and effectiveness of the program at all levels depends on among other things, the involvement of stakeholders in health. The stakeholders include client's/ end users of the product i.e. mothers, the service providers (facility based health care workers), the health management teams; the

Supplementary information The online version of this article ([10.15520/arjmcs.v7i08.361](https://doi.org/10.15520/arjmcs.v7i08.361)) contains supplementary material, which is available to authorized users.

Corresponding Author: *S. Kagoiyo Njeru*
Kirinyaga University, P.O. Box 143-10300, Kerugoya, Kenya

governance teams, the national government and the community at large. This will go a long way in eliminating implementation challenges and improving the quality of services during the provision of these services. (Bourbonnais N, 2013)

2 | MATERIALS AND METHODS

Study Design: A descriptive cross-section study design was the approach of obtaining quantitative data on factors influencing free delivery services.

Study area: The study was carried out at Kirinyaga County Referral Hospital in Kirinyaga County.

Study population : The study population targeted women of reproductive age (15 to 49 years) who were expectant or just delivered in the facility.

Sampling technique: Systematic and Purposive sampling technique was used where one has to match the criteria and must be an expectant mother of reproductive age (18-49 years) or already delivered mother attends the facility free delivery services.

2.1 | Selection criteria

Inclusion criteria

Already delivered mothers at 4th stage of labor who are of sound mind and 18 years and above.

Expectant mothers who are of sound mind and 18 years who previously delivered in the facility.

Exclusion criteria

Expectant mothers who are not of sound mind and those below the consent age.

Women of reproductive age but not expectant who visit the MCH.

Sample size determination

Andrew Fisher's method (1998) was used to determine the size because my target population less than 10,000

$$n = \frac{Z^2 pq}{d^2}$$

Where: n= sample size estimate for a population target for > 10,000

Z= standard deviation using 1.96 at 95% confidence level

P= proportion of the population to have a particular character (0.5)

d= degree of accuracy (0.5)

q= 1- p

Therefore:

$$n = \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}$$

$$= 384.16$$

The sample size was determined using Andrew Fisher's method (1994) where the respondents was less than 10,000

Formula n_f = desired sample size

n = sample size (384 constant)

N = total population size

$$n_f = \frac{384}{1 + (384/140)}$$

$$n_f = \frac{384}{1 + 2.7}$$

$$n_f = 104$$

Hence 104 respondents are the minimum sample size and since systematic sampling technique will be used, (N/n) therefore (140/104) every inclusive criterion will be used.

Sampling procedure

To select the already delivered woman of reproductive age, systematic and purposive sampling technique will be used where participants who match the inclusion criteria is interviewed.

Variables

Independent variables

Knowledge use of free delivery service

Social demographic factors

Health related factors.

Dependent variables

Increase in number of hospital deliveries with reduced number of expectant mothers and newborn mortality

Data Collection

Researcher administrated a questionnaire with closed ended questions

Data Analysis

Data were collected, cleaned, coded and checked for completeness and entered into SPSS version 23 and was run through descriptive statistics such as

FACTORS INFLUENCING UTILIZATION OF FREE DELIVERIES SERVICES AMONG WOMEN AT KIRINYAGA COUNTY REFERRAL HOSPITAL, KIRINYAGA COUNTY.

frequencies, percentages so as to present quantitative data that are presented in form of tables, graphs and pie charts.

Ethical Consideration

Permission to conduct the study was given by the medical superintendent of Kirinyaga County Referral Hospital. An informed consent was obtained from all the participants. Confidentiality of the patients was maintained by omitting their names and giving them codes.

3 | RESULTS

A total of 104 questionnaires were distributed to mothers. Out of the population covered, 95 were responsive representing a response rate of 91.3 %. This was above the 50% which is considered adequate in descriptive statistics according to (Mugenda & Mugenda, 2008). The study sought to determine the demographic characteristics of the respondents; age, gender, their highest level of education attained and their level of income. The study also determined the age of the respondents. 40% of the respondents were 25-29 years, 20% of the respondents were 20-24 years, 30 % of the respondents were 30-39 years, 5% of the respondents were 15-19 years while 5 % of the respondents were >40 years.

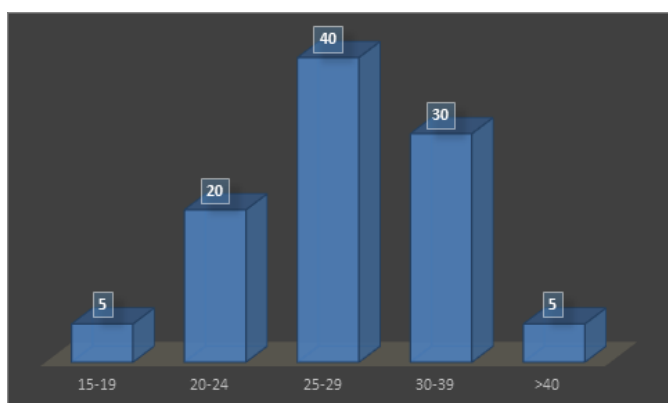


FIGURE 1: *Distribution of Respondents by Age*

The study determined the Marital Status of the respondents. The results summarized in the table below. The findings indicate that the majority respondents were married and this was at 78%, 11% were

single mothers, 9% widowed and the remaining 2% of the respondents were divorced

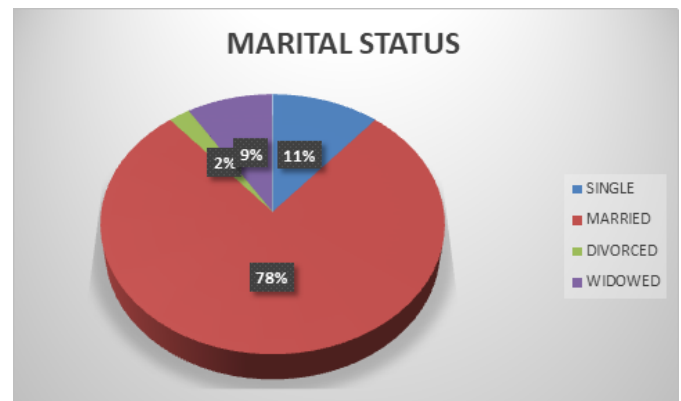


FIGURE 2: *Distribution of Respondents by Marital Status Respondents Living with Partner*

The respondents were asked to state if they were living with their Partner and the results were as captured. The results indicated that majority of the respondents 60.5 % were living with their Partner and 39.5% were not living with their Partner.

Distribution of respondents by Level of Education

The study determined the highest level of education attained by the respondents. From the findings the majority of the respondents 51.1% had attained secondary level, 21.7% had attained primary level, 22.1%, had attained college/ university while 11.1% had no education.

TABLE 1: *Distribution of Respondents by Level of Education*

	Frequency	Percent
PRIMARY	20	21.7
SECONDARY	46	51.1
COLLEGE/UNIVERSITY	20	22.1
NONE	9	11.1
Total	95	100

Distribution of respondents by Religion

The study determined the religion of the respondents. From the findings the majority of the respondents 52.3% were seventh day Adventist, 44.4% were Roman Catholic, 1.1 % were Muslims while 2.2%, had no religion.

TABLE 2: *Distribution of Respondents by Religion*

	Frequency	Percent
NONE	2	2.2
MUSLIM	1	1.1
ROMAN CATHOLIC	45	49.4
SDA	47	52.3
Total	95	100

Distribution of Respondents by Employment Status

The respondents were asked to indicate their Employment Status and the results were as captured in table 3. The results indicated that majority of the respondents 33.3% were not employed, 55.6% were self-employed and 11.1% were employed.

TABLE 3: *Distribution of Respondents by Employment Status*

	Frequency	Percent
EMPLOYED	10	11.1
SELF EMPLOYED	55	60.6
NONE	30	33.3
Total	95	100

Descriptive Statistics

The study sought to establish if the current pregnancy was the respondent's first pregnancy. majority of the respondents 58.89% indicated it was not their first pregnancy while 41.11% indicated it was their first pregnancy. The study also sought to establish the number of pregnancies the respondent has had in total. From the results in table 41.11% indicated they had had one pregnancy, 18.9% indicated they had had 2 pregnancies, 33.33% of the respondents indicated 3 pregnancies while 3.33% of them indicated 4 times the rest had more than 4 children.

TABLE 4: *Number of Pregnancies*

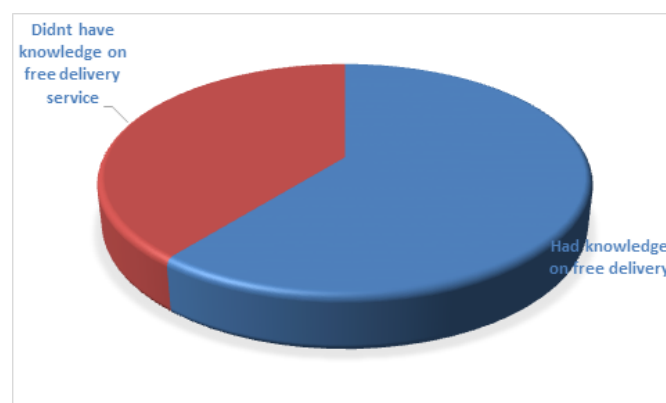
	Frequency	Percent
ONE TIME	37	41.11
TWO TIMES	17	18.90
THREE TIMES	38	38.33
FOUR TIMES	3	3.33
>FOUR TIMES	3	3.33
TOTAL	95	100

The respondents were asked to indicate how many live births they have had altogether. 41.11% of the respondents indicated they have had 1 live birth, 18.9% indicated they have had 2 live births, 33.33% of the respondents indicated 3, 3.33% indicated 4 live births while 3.33% of them indicated having other numbers of live births.

TABLE 5: *Number of Live Births*

	Frequency	%ge
ONE	37	41.11
TWO	17	18.9
THREE	38	38.33
FOUR	3	3.33
OTHERS	3	3.33
Total	95	100

The study sought to establish the respondents' knowledge on free delivery service. They were asked to indicate their knowledge and the results were as follows. 60.8% of the respondents indicated they had knowledge while 39.2% of them indicated they did not have any knowledge on postnatal services. The mean for the responses on knowledge of free delivery service was 1.39 while the standard deviation was 0.491.

**FIGURE 3:** *Knowledge on free delivery Services*

Knowledge on free delivery Services

82.5% of the respondents indicated they had knowledge on free delivery services while 17.5% indicated that they had no knowledge on free delivery service

Attitude of Mothers on the Utilization of free delivery service

FACTORS INFLUENCING UTILIZATION OF FREE DELIVERIES SERVICES AMONG WOMEN AT KIRINYAGA COUNTY REFERRAL HOSPITAL, KIRINYAGA COUNTY.

When asked to indicate the sources of information they acquired free delivery service information from, 52% of the respondents indicated they got it from a nurse, 21% indicated it was from a midwife, 21% indicated from other sources while 6% indicated the information was acquired from a doctor.

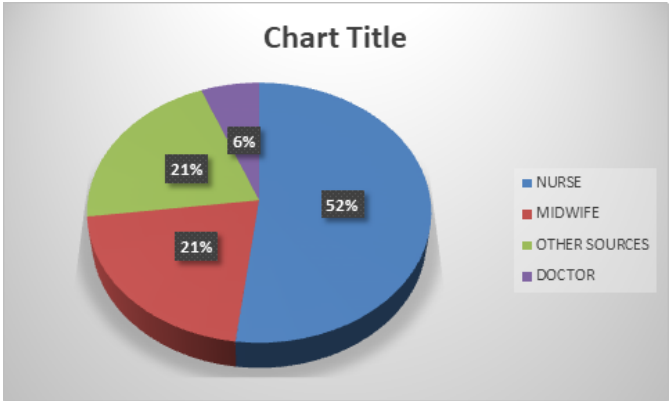


FIGURE 4: Sources of Information

The study sought find out if the respondents paid for delivery service. 91.2% of them indicated they did not pay for the services while 8.8% indicated that they had to pay for the services. When asked how much they indicated they paid less than 500. When asked whether their religion prohibited modern medicine use, 100% of the respondents indicated that religion did not prohibit modern medicine use. The study sought to find out the reasons the respondents sought free delivery care. Of the respondents' responses, 13.7% indicated they sought the services due to illness. 35.3% of the respondents indicated that they sought services so as their child could be vaccinated after delivery. 19.6% of the respondents indicated that they sought postnatal services to get family planning service after delivery. 2% of the respondents indicated that they sought postnatal services because they were instructed by the midwife to do so. Of the responses, 25.5% indicated that they sought service to confirm their wellness. When asked to indicate the distance to the nearest health facility, responses were given as shown in figure 5. 70% of the respondents indicated it was 0-5kilometers, 20% of the respondents indicated the distance was 6-10 kilometers while 10% indicated it was more than 11 kilometers.

When asked to indicate whether they thought the distance was far or near, 74.9% of the respondents

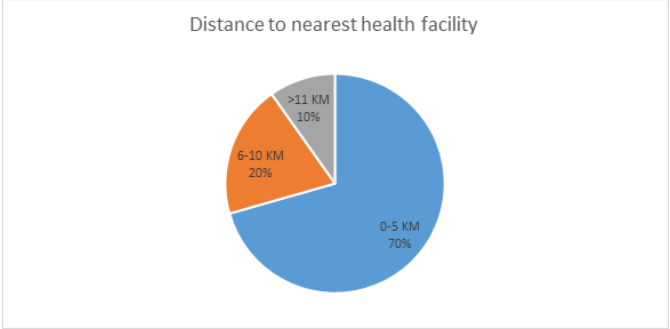


FIGURE 5: DistanceTo the Nearest Health Facility

indicated that the distance was near while 25.1% of them indicated it was far. The mean for the statement was 1.254 while the standard deviation was 0.416. this is indicated in table 6.

TABLE 6: Distance Near or Far

	Fre- quency	Per- cent	Mean	Std. Deviation
NEAR	70	77.8	1.25	0.428
FAR	25	27.2		
Total	95	100		

The respondents were asked to indicate the means of transport they use to get to the

4 | DISCUSSION

The younger the prospective mother, the less likely it become that she will utilize free delivery care service, according to (Pandey, Lama & Lee 2012; Sakalaet al. 2011). Pandey, Lama & Lee 2012; Sakalaet al. 2011 findings in their studies correspondents to the 25% of respondents who were between the ages of 15-24 years old in this study whose data was collected at Rongai sub county Hospital.

According to Sakala & Kazembe (2011) 54% of women with secondary school education were more likely seek free delivery service, compared to 29% of women with no education. It has been established that education affects utilization of free delivery care service, concluding that better educated mothers are more likely to utilize free delivery care service (Rahman et al., 2011; Neupane & Doku, 2013). This is also correspondent to this study's results where

45.1% had attained secondary level of education, 21.7% had attained primary level, 22.1%, had attained college/ university while 11.1% had no education.

Working women have better financial resources and thus will access free delivery service care. It is assumed that women who are employed will have enough finance to pay for things like transport to access the service. The type of employment a woman is involved in determines her use of these services (Pandey et al, 2012). The responses of the respondents of this study indicated that majority of the respondents 55.6% were self-employed, 33.3% were not employed and 11.1% were employed.

Commonly held beliefs and norms in form of religious practices shape the way women perceive their own health and their response to the health services available. These values or beliefs that women hold may prevent women from utilizing free delivery care service. Religious belief has been found to be a push factor or source of exclusion from maternal health care utilization (Ochakoet al., 2011). As correspondent to the results indicated in this study, majority of the respondents had a religion indicating that religion was a push factor for seeking maternal health care.

Already during antenatal clinic visits midwives/nurses need to sensitize mothers and their families on the importance of hospital delivery when giving antenatal health talks. (Ebony et al. 2011). In this study, the sources of information they acquired postnatal information from, was 52 from a nurse, 21% from a midwife, and 21% from other sources while 6% indicated the information was acquired from a doctor.

A lack of knowledge regarding the importance or benefits of hospital delivery among mothers, their family and the community, has been reported as one of the reasons for non-utilization of free delivery service (Jammahet al. 2011). In this study, 76.5% of the respondents indicated they had knowledge on family planning services while 23.5% had no knowledge on family planning services.

The ease of access to free delivery care services may be facilitated or hindered by the location and physical distance of the service from the client. When it is near, it enables mothers to have the means and

knowledge of getting to those services which encourages the utilization of these vital medical service (Sharma, 2012). Distance has also been a factor of consideration in this study. When asked to indicate whether they thought the distance was far or near, 25.5% of the respondents of this study indicated that the distance to the health facility was far.

Birth order is an important predictor in explaining the utilization of free delivery care services. Due to the uncertainty and the perception of risk associated with first pregnancies, women are more likely to seek medical attention for first-order births than for subsequent ones (Singh et al., 2013). This study sought to establish the number of pregnancies the respondent has had in total and it was found that 41.1% had one pregnancy, 18.9% had 2 pregnancies, 33.33% of the respondents 3 pregnancies while 3.33% of them 4 times according to the responses

5 | CONCLUSION

Younger women and mothers are likely not to seek free delivery care services as compared to the older women. Those with a higher level of education are more likely to seek postnatal care services than those without. Women with a source of income will seek free delivery care more as compared to those without.

Religion is a push factor for maternal health seeking behavior, rather than a source of exclusion that may prevent women from receiving or seeking free hospital delivery care. The health care providers made information on free hospital delivery services readily available.

Majority of women already have knowledge on availability of free hospital care service. Women are more likely to seek services that are close to them, long distance to health facilities prevents them from seeking the services. A positive attitude has been established for free hospital delivery care with the services being rated as good.

FACTORS INFLUENCING UTILIZATION OF FREE DELIVERIES SERVICES AMONG WOMEN AT KIRINYAGA COUNTY REFERRAL HOSPITAL, KIRINYAGA COUNTY.

6 | REFERENCES

1. Arhinful D. (2006). Effects of free policy on provision and utilization of skilled care at delivery. Volta.
2. Banchani and Tenkorang. (2014). Implementation challenges of maternal health care in Ghana: the case of health care providers in Tamale Metropolis. BMC Health Services Research 2014 14:7.
3. Bourbonnais N, .. (2013). Implementing Free Maternal Health Care in Kenya: Challenges, Strategies and Recommendations.
4. HERA, B. a. (2012). 2012 Ghana: Evaluation of the free maternal health care initiative in Ghana. Ghana.
5. IS Yar'Zever, IY Said 2013 Knowledge and barriers in utilization of maternal care services in Kano state, Nigeria.
6. Ingati S and Mangera F, .. (2013). Kenya's free maternity services popular, but challenges remain. Xinhua News Agency.
7. KDHS. (2009). Kenya Demographic and Health Survey,. Lale say, Rosalind Raine (2007) Bulletin of the World Health Organization 85, 812-819
8. Lang'at E and Mwanri L. (2015). Healthcare providers' and facility administrators perspective of the free maternal healthcare services policy in Malindi District, Kenya: a qualitative study. Reproductive Health.
9. Lesser B, .. (2003). Lesser, B. (Effects of free delivery policy on provision and utilisation of skilled care at delivery. Volta.
10. Makinde T. (2005). Problems of policy implementation in developing nations: the Nigerian experience. J Soc Sci , 11 (1):63-69.
11. Mwaniki P.K. Kabiru, E. M. (2002). Utilisation of antenatal and maternity services by mothers seeking child welfare services in Mbeere District, Eastern Province, Kenya. East Africa Medical Journal, 184-187.
12. Ndayikeza, B. (2006). A new policy of free medical care for Burundian mothers and children was intended to improve their lives; instead it has cripple the nation's health system. BUJUMBURA: IRIN.
13. Ong'ech J. (2012). Provision of services and care for HIV-exposed infants: a comparison of maternal and child health clinic and HIV comprehensive care clinic models.
14. Toili, E. (2015). Free maternity services directive is great, but the government must do more. Africa Institute for Development Policy. UNICEF, Progress for children: A Report Card on Maternal Mortality, 2008 WHO, Millennium Development Goal 5: improve maternal health care.
15. Wamalwa E.W. (2015). Implementation challenges of free maternity services policy in Kenya: the health workers perspective. The pan African Medical Journal. 2015;22:375. Doi:10.11604/pamj.2015.22.375.6708.

How to cite this article: S.K.N., S.W.K. **Factors influencing utilization of free deliveries services among women at kirinyaga county referral hospital, Kirinyaga County.** Advance Research Journal of medical and clinical science. 2021;648–654. <https://doi.org/10.15520/arjmcs.v7i08.361>