

प्रणयन वर्ष २५, अङ्क ७, २०८१

ISSN (Print) : 2505-0818

Submitted Date : October 10, 2024

Accepted Date : January 15, 2025

त्रि.वि. प्राध्यापक सङ्घ, क्याम्पस एकाइ समिति,

तेह्रथुम बहुमुखी क्याम्पस, आठराई, चुहानडाँडा

Situation of Institutional Delivery in Aatharai Rural Municipality

Chakra Pani Bhattarai*

Abstract

The highest number of maternal deaths occurs during labor, delivery, and the first day after delivery, highlighting the critical need for good quality care during this period. This study examines the situation of institutional delivery at Aatharai Rural Municipality in Terhathum district using empirical research methodology. Data was collected from four birthing centers of Aatharai Rural municipality. The analysis shows that the number of mothers delivering in health institutions is gradually increasing as compared to the past years but not at the pace that is necessary in the present context. Various factors need to be considered to maximize the number of institutional deliveries in rural areas of Nepal.

Keywords: population, institutional delivery, four visit, situation

Introduction

Women population covers almost half of the total population. To develop the nation and achieve the agenda for Sustainable Development Goals (SDGs), this half of the population should be healthy and ready to take part in every aspect of development activities. Without women's full and equal participation in public and private decision-making as well as their access to equal opportunities in all spheres of social and economic activity, national progress cannot be realized. Health is an important aspect of human development.

Besides above facts, if we see another real world of health status of women, the situation is very tragic. Basic health care, family planning and obstetric services are essential for women yet they remain unavailable to millions. About half million women used to die

* Teaching Assistance of TEMC, Cpbhattarai27@gmail.com

each year in 1990s due to pregnancy related causes. High level of maternal mortality is not only a woman's problem but it affects to neonate, infant, child, men, family members and almost everyone. To overcome this, many efforts have been made globally and nationwide to change the health and overall status of women. In 1987, World Health Organization (WHO) conducted an international conference in Nairobi, Kenya about safe motherhood where all participating nations had agreed to implement safe mother program in their countries (UNFPA, 1996) which brought this issue to the attention of the world, and wealthy nations in particular, and led to a commitment to work toward lowering the death and morbidity associated with pregnancy and childbirth.

. In 2000, Millennium declaration targeted to reduce the maternal mortality rate by three quarters from 1990-2015 as part of MDGs. Between 2016-2030, as part of the Sustainable Development Goals (SDGs) the target is to reduce the global maternal mortality ratio to less than 70 per 100000 live birth (WHO, 2016).

In 1991, Nepal's first democratically elected government created the New Health strategy, which made safe motherhood a priority program and formalized it as a primary health care service. Safe pregnancy, safe delivery and safe births of new born are the major components of safe motherhood. To reduce the risks associated with pregnancy and child birth and address delays, three major strategies have been adopted in Nepal. One of the main strategies among them is encouraging mothers/families for institutional delivery.

Giving birth in a medical facility under the observation and care of qualified healthcare professionals who work to improve child survival and lower the chance of mother death is known as institutional delivery (Sugathan.et. al 2001). In order to lower the number of maternal deaths from pregnancy-related problems, it is crucial to raise the proportion of deliveries made in medical facilities. It is anticipated that in the event that issues emerge during childbirth at a medical facility, a trained attendant will be able to handle the issue or promptly refer the mother to the next level of care. Therefore, Nepal is encouraging safe motherhood through programs including offering financial support through maternity incentives and plans to women who want professional delivery care in a hospital.

According to NDHS-2022, survey data show that in Nepal, 79% births were delivered in a health facility. Delivery in a health facility varies widely by ecological region being lowest in the mountain zone (75.4%) and highest in the hill (81.6%).

Children in urban areas (83.7%) are found more to be delivered in an institutional setting than children born in rural areas (77.37%). Likewise, delivery in a health facility varies widely by federal states being lowest in Madhesh province (67%) and highest in the Bagmati & Gandaki province (88%) (Ministry of Health, 2017). Institutional delivery as percent of expected pregnancies have been in increasing trend even though the institutional delivery is not increasing in rural areas as per the expectation, as compared to highly-

facilitated urban areas. In this context, an attempt has been made to examine the situation of institutional births at Aatharai Rural Municipality in Terhathum district. This study gives the fact figures of institutional delivery in Aatharai Rural Municipality which can be a great referential value for the planners and policy makers of this Municipality. This also helps to formulate the plans and health policies in rural municipality sectors and more useful for the effective implementation of various future health development programs in the birthing centers.

Methodology

This study is based on quantitative or empirical research methodology under which data collection is done, the data is converted into information and analyzed. The selection of the four birthing centre by census method. The data is reviewed data aggregation and monthly monitoring work sheet from the four birthing centers of Aatharai Rural Municipality where they are provided 24 hour delivery services by Skilled Birth Attendants (SBAs) for pregnant women. The case study included the 6 years' records of four birthing center we. Raw data are collected from the data aggregation and Monthly Monitoring work Sheets 2075, 2076, 2077, 2078, 2079 and 2080. Those raw data were analyzed with the generation of necessary tables and percentage distribution.

Results and Data Analysis

Age Wise Distribution of Institutional Delivery by Year

Age wise distributions of women who give birth to their baby in health institution by year are shown in table 1, for the period 2075-2080. It is clearly seen that in the age groups (20-34), there is a high number of women giving birth to their baby in Health institution. The table shows that the highest 77.15% women who give birth their baby in institution 20-34 years of age group in the 2079; it is followed by 76.5% in the year 2076. And then, the third comes in the year 2078, which has 75.31 percent.

In the same way, the table also reflects that most of the delivery takes place in the age group 20-34 years. In the age group of 35+, the institutional delivery is highest (16.44%) in the year 2075, followed by 16.12% in 2080, 15.79% in 2077 respectively.

Table 1

Age wise Distribution of Institutional Delivery by Year

Age/Year	2075	2076	2077	2078	2079	2080
<20	12(16.44%)	7(9.85%)	7(12.29%)	9(11.11%)	4(11.42%)	4(12.91%)
20-34	49(67.12%)	54(76.06%)	41(71.92%)	61(75.31%)	27(77.15%)	22(70.97%)
35+	12(16.44%)	10(14.09%)	9(15.79%)	11(13.58%)	4(11.43%)	5(16.12%)
Total	73	71	57	81	35	31

Source: Data Aggregation and Monthly monitoring Work sheet, 2075, 2076, 2077, 2078, 2079 & 2080.

Caste-Wise Distribution of Institutional Delivery by Year

This study has listed four groups of casts in east (Brahmin/ Chhetri, Janjati, Dalit & others) in table 2, who are involved in institutional delivery. Table 2 shows that the highest proportion of institutional delivery has been found in janjati(56.17%) in the year 2075, 35.21% Brahmin in 2076, 16% Dalit in 2078, 12.29% other caste in 2077.

The involvement of institutional delivery in between 2077to 2078 is raised from 49.12% to 58.02% in Janjati, Over the period of 2075to 2080, the trend of institutional delivery of Janjati is in increasing order in the year 2076 to 2078.

Likewise, observing the data mentioned in table 2, we can see the highest percentage of institutional delivery in Janjati all over the year 2075 to 2080. Then secondly, Brahmin comes with 30.14 percentage in 2075, 35.21 percentage in 2076, 33.33 percent in 2077, 25.93 percent in 2078, 34.28 percent in 2079 & 29.03 percent in 2080 respectively. While observing the data, we can also find that, institutional delivery of Dalit and others caste have the lowest percentage.

Table 2

Caste Wise Distribution of Institutional Delivery by Year

Caste/Year	2075	2076	2077	2078	2079	2080
Brahmin/chhetry	22(30.14%)	25(35.21%)	19(33.33%)	21(25.93%)	12(34.28%)	9(29.03%)
Janjati	41(56.17%)	32(45.07%)	28(49.12%)	47(58.02%)	18(51.43%)	16(51.62%)
Dalit	10(13.69%)	7(9.86%)	3(5.26%)	13(16.05%)	5(14.29%)	4(12.90%)
Others	NA	7(9.86%)	7(12.29%)	NA	NA	2(6.45%)
Total	73	71	57	81	35	31

Source: Data Aggregation and Monthly monitoring work sheet, 2075, 2076, 2077, 2078, 2079 and 2080,four birthing center of Aatharai Rural municipality.

Ward wise Distribution of Institutional Delivery by Year

From the table 3, it may be noted that the institutional delivery is highest in Sakranti ward number 1. It was 28.77 percent in 2075, 32.39percent Ward number 6,Chuhandanda in 2076, 35.08percent in 2077, 24.69 percent in 2078 respectively and highest in Sakranti ward number1, 25.1 percent in 2079. It means that most of the women are involved in institutional delivery in ward number 1 Sakranti& ward number 6 Chuhandanda. Among the catchment area of health post, Thoklung- Ward No: 7 and Ewa- Ward No: 4 have lowest percent of institutional delivery. The trend of institutional delivery is decreasing over the period of 2075-2080.

Table3

Ward Wise Distribution of Institutional Delivery by Year

Ward/Year	2075	2076	2077	2078	2079	2080
1.Sakranti	21(28.77%)	17(23.94%)	10(17.55%)	19(23.46%)	9(25.71%)	7(22.58%)
2.Khamlalung	9(12.33%)	8(11.27%)	5(8.78%)	10(12.35%)	5(14.29%)	4(12.90%)
3.Hawaku	7(9.59%)	9(12.68%)	4(7.01%)	8(9.88%)	6(17.14%)	4(12.90%)
4.Iwa	17(23.29%)	12(16.9%)	9(15.79%)	10(12.35%)	7(20%)	5(16.13%)
5.Chhate	3(4.10%)	NA	6(10.53%)	12(14.81%)	3(8.57%)	2(6.46%)
6.Chuhandada	15(20.56%)	23(32.39%)	20(35.08%)	20(24.69%)	4(11.43%)	8(25.80%)
7.Thoklung	1(1.36%)	2(2.82%)	3(5.26%)2(2.46%)	1(2.86%)	1(3.23%)	
Total	73	71	57	81	35	31

Source: Data Aggregation and Monthly monitoring work sheet, 2075, 2076, 2077, 2078, 2079 and 2080, of four birthing center of Aatharai Rural municipality.

Expected Pregnancy, Institutional Delivery, First ANC visit four visits between the Years. The expected pregnancy, institutional delivery as a percent of expected pregnancy, first ANC visit and four visits for the various fiscal years is shown in table 4. It shows that expected pregnancies are low in 2079, while in 2076, 2075 and 2078 fiscal years expected pregnancies are found higher.

Institutional delivery as a percentage of expected pregnancies have been in decreasing trend from 40 to 16 percent among the years 2078 to 2080. Likewise, table 4 shows the percentage of pregnant women attending at least first ANC visits. The first ANC visit among women has increased from 50% in 2075 to 143 percent in 2077. The first ANC visit between women has decreased from 89 percentages to 70 percent from year 2079 to 2080.

Mothers are encouraged to make at least four ante natal check-ups and monitoring system is in place to track the timing of ANC visits as per the protocol since 2066/067. The table 3 also shows the number and percentage of pregnant women attending at least 4 ANC visits. Four ANC visits as per protocol have increased from 2075 to 2077. Only four ANC visits have decreasing in the year 2078 & 2080.

Table 4

Expected Pregnancy, Institutional Delivery, First ANC visit and 4 Visit among the Years

Year	Expected pregnancy	Institutional Delivery	First ANC visit	4 visit
2075	263	73(27.5%)	134(50%)	72(27%)
2076	264	71(26%)	170(64%)	84(31%)
2077	171	57(33%)	246(143%)	107(62%)
2078	202	81(40%)	172(85%)	95(47%)
2079	164	35(21%)	146(89%)	107(65%)
2080	187	31(16%)	132(70%)	33(17%)

Source: Data Aggregation and Monthly monitoring work sheet, 2075, 2076, 2077, 2078, 2079 and 2080, of four birthing center of Aatharai Rural municipality.

Discussion

Institutional delivery as a percentage of expected pregnancy has increased dramatically in the past five years. According to NDHS-2022, In national level, the institutional delivery as a percentage of live births has increased over a time from 8 percent in 1996 and 20 percent in 2006 to 64 percent in 2016 and 79 percent in 2022 A.D. (DOHS, 2072). But our study shows that this trend has just reversed. Institutional delivery has taken place in Aatharai Rural Municipality only 73 percent from 2075 to 31 percent in 2080 except 81 percent in 2078 B.S. .According to NDHS- 2022, survey data shows that in Nepal 79 percent births are delivered in a health institution. According to the ecological zone, 81.6 percent women were involved to deliver their baby in a health institution in the hill. This study shows lower percentage of institutional delivery than that was reported in several studies conducted in Nepal. This is also less than the national 79 percent and regional average of Koshi province (81.8%). Similarly, we have lower institutional delivery than some of our south Asian neighboring countries-India: 74 percent, Bhutan: 75 percent and Sri Lanka 99 percent.

The above table no.4 shows that 50 percent of mothers received first ANC visit in 2075. Likewise, 64 in 2076, 143 percent in 2077 and 85,89&70 percent in 2078,2079&2080 respectively in Aatharai Rural Municipality. It is near about the national level that is 69 percent. NDHS-2022 data shows that 54 percent of women made their first ante natal care visit before the four months of pregnancy. So, we have more first ANC visits all over the years except 2075 compared to national level. The study area is situated in Koshi province in the eastern development region of hilly rural area. The 2022 NDHS results show that the percentage of mothers received 4 ANC visits was 80.2 in national level, 78.8

in Koshi province, 86.5 in Koshi hill and 81.8 in Koshi rural sector. As per our study, 27 percent of mothers received 4 ANC visit in the year 2075, 31 percent in 2076, 62 percent in 2077, 47 percent in 2078 and only 65 percent and 17 percent in the years 2079 and 2080 respectively. So, we do not have 4-ANC visits near about to the visits in national, regional and provincial level. The government of Nepal's target for SDG 3.1.2 is that 79 percent of births are delivered with assistance from skilled provider by 2022 and achieve 90% by 2030 A.D. If we do not continuously pay our efforts it will still be a doubt on hitting the target aimed.

Conclusion

Normal institutional delivery as a percentage of expected pregnancy registration was observed to be 27% in 2075, however, the highest percentage of institutional delivery 40% was in 2078. About 140% first ANC visits and 65% 4ANC visits were recorded in 2077 and 2079 respectively which is closer to national target (90%) for 2030 A.D. Majority of janjati was observed as 58.02% in 2078, 56.17 percent in 2075, 51.62 percent in 2080, was recorded as women who delivered their baby in health post. It was followed by Brahmin/Chhetri with 35.21%, 34.28%, 33.33%, and 30.14% in 2076, 2079, 2077 and 2075 respectively. The study suggests that continuous efforts are needed to hit the government's target for SDG 3.1.2, which is that 79 percent of births are delivered with assistance from skilled provider by 2022 and achieve 90% by 2030 A.D. The establishment of pregnancy monitoring and counseling system to improve their compliance and strengthening the primary level health care facilities will further increase institutional delivery.

References

- Department of Health Services (DOHS) (2072). *Annual report 2014/2015*. DOHS.
- Ministry of Health of His Majesty's Government of Nepal (MOH) (1997). *Second long term health plan 1997-2017*. MOH.
- Ministry of Health, Nepal, New ERA and ICF (2017). *Nepal demographic and health survey (2016)*. Ministry of Health, Nepal, New ERA and ICF, Ministry of Health, Nepal.
- Ministry of Health, Nepal, New ERA and ICF (2023). *Nepal demographic and health survey (2022), key indicators*. Ministry of Health.
- Sugathan K. S., Mishra V K., Retherford, R. D. (2001). *Promoting institutional deliveries in Rural India: The role of antenatal care services*. International institute for population sciences and East-West center, population and health studies.
- United Nations Population Fund (UNFPA) (1996). *Programme of action*. International conference on population and development (ICPD).
- World Health Organization (WHO) (2016). *Maternal mortality fact sheet 2016*. Retrieved From <http://www.who.int/mediacentre/factsheets/fs348/en/>