fortune Journals

Research Article

ARCHIVES OF INTERNAL MEDICINE RESEARCH

ISSN: 2688-5654

Determinants for Postpartum Care of Women in Rakhine State, Myanmar: A Descriptive Cross-sectional Study

Thiri Thazin Khine[1], Yothin Sawangdee[2]*

Abstract

Background: The maternal mortality ratio of Rakhine State is cited as being the highest level among the states of Myanmar. In contrast, the usage of healthcare providers for the delivery process is at the lowest rate in the Union. Therefore, this study sought to investigate the factors influencing women from Rakhine State in receiving postpartum care from healthcare providers.

Methods: Information from 278 women aged from 15 to 49 years collected from the Myanmar Demographic Health Survey (2015-2016) was used for this descriptive cross-sectional study. Binary logistic regression was likewise employed.

Results: Among the 104 cases receiving postpartum care, only 42 cases were home deliveries. Maternal health knowledge status, the role of healthcare providers, and places of delivery, rather than socioeconomic status and social structure, were the most essential factors in promoting postpartum care status The employment status of women also influenced their postpartum care receiving status positively.

Conclusion: By strengthening the health care system setting and promoting the job efficacy of women, the post-delivery care status of Rakhine state can be improved and the maternal death after childbirth can be reduced to reach the sustainable development goals.

Keywords: Maternal Death; Myanmar; Post-Partum Care; Rakhine State

Abbreviations: MDGs: Millennium Development Goals; SDGs: Sustainable Development Goals; WHO: World Health Organization; TBA: Traditional Birth Attendants; PPC: Postpartum Care; MDHS: Myanmar Demographic Health Survey; ANC: Antenatal Care; FLFP: Female Labor Force Participation

Introduction

Due to its importance, reducing maternal deaths, which can indicate the maternal healthcare status of a country, was considered in both the United Nations' Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) [1, 2]. Most maternal deaths occurred during the postdelivery time and therefore World Health Organization (WHO) defined the postdelivery period as the critical period [3]. And WHO declared that postpartum care by skilled healthcare providers should begin at least 24 hours after delivery for public sector facility deliveries and as early as possible after delivery for home delivery cases [3].

But, globally, merely 23% of home delivery cases received postpartum care (PPC) within two days of childbirth [3]. In China, although the government's priority policy is maternal health services development, less receiving of PPC services was found [4]. In Kenya and Nepal, fewer women receive PPC, and therefore most maternal deaths are due to postpartum hemorrhage [5, 6]. In developed countries too, most maternal deaths were occurring in the postpartum period [7].

In Myanmar, most maternal deaths are from vaginal bleeding, preeclampsia, unsafe abortions, and other medical diseases complicating pregnancy and delivery.

Affiliation:

[1]*Master Student, Institute of Population & Social Research, Mahidol University, Salaya, Thailand*

[2]*Associate Professor, Institute of Population and Social Research, Mahidol University, Salaya, Thailand*

***Corresponding author:**
Yothin Sawangdee, Associate Professor, Institute of Population and Social Research, Mahidol University, Salaya, Thailand

Citation: Thiri Thazin Khine, Yothin Sawangdee. Determinants for Postpartum Care of Women in Rakhine State, Myanmar: A Descriptive Cross-sectional Study. Archives of Internal Medicine Research 5 (2022): 333-339.

Received: June 07, 2022
Accepted: June 18, 2022
Published: July 18, 2022

Khine TT and Sawangdee Y., Arch Intern Med Res 2022
DOI:10.26502/aimr.0114

From 2012 to 2017, many maternal deaths occurred during the postpartum period, and as a consequence, the most common maternal death in Myanmar was postpartum hemorrhage [8-10]. Rakhine State, situated in the westernmost part of Myanmar, consists of 6.2% of the total population of the Union, with most people living in rural areas [11]. The maternal mortality ratio of Rakhine State was 314 per 100,000 live births in 2014 and 116 per 100,000 live births in 2015. These rates were the highest in the entire Union during those years [8, 12].

But in 1991, within Rakhine State, 70.4% of home deliveries used traditional birth attendants (TBA) [13], and 65% in 2007 [14]. Although this data was the principal indicator, the poor post-delivery care status could be estimated by using this data as proxy indicators. In 2014, the postpartum check for home and public sector facility deliveries in Rakhine State was only 40.3%, the third-lowest rate in Myanmar. Among these cases, only 30.2% of women received post-delivery care from healthcare providers [11]. Therefore, this study is interested in two objectives concerning the postpartum care status of Rakhine State. The first objective was to identify the proportions of home delivery cases that received PPC from healthcare providers. The second was to examine the factors influencing PPC in Rakhine State.

Methods

The data from Myanmar Demographic Health Survey (MDHS) from December 7, 2015, to July 7, 2016, were used to examine the postpartum care status of the Rakhine State. The questionnaires used in MDHS were taken from Global Demographic and Health Survey Program and they are targeted to households, men and women. Total 870 households (150 from urban and 720 from rural) were selected from 29 clusters (5 from urban and 24 from rural) as stratified two-stage sampling. The eligibility criteria for the 278 respondents were to be from Rakhine State between 15 to 49 years old and have given birth to their last child within 5 years of the survey. As the interviewers were trained and were from specific regions, language was not a problem [15].

Variable description

This study is interested in PPC received by women in Rakhine State from skilled healthcare providers irrespective of the places of delivery along with the WHO classification of types of birth attendants [3]. Based on Andersen's modern theory, the conceptual framework was structured with 1. predisposing factors including sociodemographic factors and social structure, 2. enabling factors, 3. need factors, and 4. healthcare system factors including (accessibility, affordability, availability) [16] Figure 1.

Statistical procedure

STATA 14 was used to analyze the data. As the variables were the categorized socioeconomic variables, and the outcomes had two options of whether or not to receive PPC from healthcare providers, binary logistic regression was employed [17].

Results

Descriptive statistics

Among 278 women, only 37% received PPC from healthcare providers. Of the respondents, 53% were 24-34 years old, 19% were younger than 24, and 27% were older than 35. Of the women, 45% had 2 to 4 children, 34% had only one child, and 21% had more than four children. Just 22% of women and 33% of their husbands had higher than primary education. For the occupation status of women, 53% were housewives, 32% were agricultural and manual workers and only 16% were officers. For husbands' occupation status, 84% worked as agricultural and manual workers, and 16% were officers. For decision-making to seek care, 44% of cases were decided by the husband alone, but 56% were done by the women alone or as a couple. Amazingly 81% of the women were poor. About 71% of women received ANC from healthcare providers. Over half (52%) of women received maternity healthcare knowledge during their ANC visits. Nearly 77% of cases were home delivery, and only 23% had institutional delivery. During the delivery process, 66% of women received care from TBA, and 34% received care from healthcare providers. Over half (51%) of women said that money was their big problem with receiving PPC. At last, over 87% of women were from rural areas.

Bivariate analysis

Bivariate analysis was used to investigate relationship between the two variables, age of mother and PPC, and parity of mother and PPC, at a 95% confidence interval. According to Table 1, the only variable, age of the respondent, analyzed by the Chi-2 test was not significantly associated with receiving PPC from healthcare providers as the distribution of each category for a dependent variable was quite similar.

The primigravid women (pregnant for the first time) with higher education for themselves and their husbands, who, together with their husbands, worked at a job with regular salaries, were significantly associated with the usage of PPC services. Decision-making to seek care by women or both, and the family's wealth

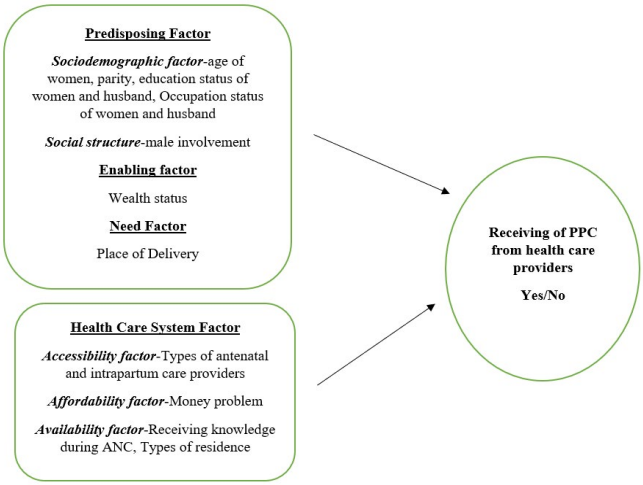

Figure 1: Conceptual Framework for the Study.

Khine TT and Sawangdee Y., Arch Intern Med Res 2022
DOI:10.26502/aimr.0114

Table 1: Bivariate Study for Receiving PPC from Healthcare Providers (N=278).

Variable	Category	Yes		No		Chi-squared
		n	(%)	n	(%)	
Age of women	<24	21	(39)	33	(61)	0.065
	24-34	55	(37)	93	(63)	
	≥35	28	(37)	48	(63)	
Parity	1	57	(60)	38	(40)	42.465***
	2-4	42	(34)	82	(66)	
	>4	5	(8)	54	(92)	
Education status of women	Primary education or no education	54	(25)	162	(75)	63.703***
	Higher than primary education	50	(81)	12	(19)	
Education status of husband	Primary education or no education	40	(22)	146	(78)	60.7194***
	Higher than primary education	64	(70)	28	(30)	
Occupation status of women	Not working	41	(28)	105	(72)	24.6570***
	Agricultural and manual workers	33	(38)	56	(62)	
	Officers	30	(70)	13	(30)	
Occupation status of husband	Agricultural and manual workers	75	(32)	159	(68)	18.1321***
	Officers	29	(66)	15	(34)	
Male involvement	Wife alone or both	71	(45)	86	(55)	9.4034***
	Husband alone	33	(27)	88	(73)	
Wealth status	Poor	63	(28)	163	(72)	46.9034***
	Moderate or rich	41	(79)	11	(21)	
Types of ANC providers	No ANC provider	3	(4)	78	(96)	55.461***
	Healthcare providers	101	(51)	96	(49)	
Receiving knowledge during ANC	Yes	87	(60)	58	(40)	66.054***
	No	17	(13)	116	(87)	
Place of delivery	Home	42	(20)	172	(80)	125.556***
	Public sector facility	62	(97)	2	(3)	
Types of intrapartum care providers	Traditional Birth Attendants	16	(9)	167	(91)	187.94***
	Healthcare providers	88	(93)	7	(7)	
Money problem	Not a problem	36	(27)	99	(73)	12.937***
	Significant problem	68	(48)	75	(52)	
Type of residence	Rural	74	(31)	167	(69)	34.764***
	Urban	30	(81)	7	(19)	

Note - ***= significant at 95% confidence interval (95%CI)

were factors in receiving PPC. The group which acquired ANC from healthcare providers was more likely to seek PPC services. The women who received maternal health knowledge during ANC visits, delivered their children using public sector facilities, and received delivery care from healthcare staff had significantly received PPC services. In the descriptive study, there is no difference in the number of respondents between the problem with money in receiving PPC. Still, using bivariate statistics, the women who could afford maternal healthcare had more chance of receiving PPC than those who could not. The respondents who lived in urban areas significantly used PPC services more than those in rural areas.

Multivariate analysis

According to the bivariate analysis, almost all variables were significant for maternal PPC except the age of women. To interest the relationship of outcome variables with all factors, each variable from the sociodemographic factors, social structure, enabling factors, need factors, and healthcare system factors were selected for binary logistic regression; occupation status of women, male involvement, wealth status, types of ANC providers, place of delivery, residency, and knowledge received during the ANC visits. According to the low rates of working women with regular salaries, the relationship between female labor force participation (FLFP) and the outcome was interesting. Therefore, women's occupation status was chosen and was then recategorized into two categories. The first group was a combination of not working and agricultural and manual workers, and the category for the officers remained the same for FLFP. To conduct multivariate analysis, some variable scales and categories were changed. The women's ages and their parity would be used as the controlling factors by ratio scales. Sometimes, the multiparous and older women thought they had already experienced the delivery process and did not need maternal and neonatal care.

Binary logistic regression

According to the binary logistic analysis (Table 2), after

Khine TT and Sawangdee Y., Arch Intern Med Res 2022
DOI:10.26502/aimr.0114

controlling for age and parity of women, the women who delivered their child using public sector facilities had 49.76 times the chance to receive PPC from healthcare providers than the women who gave birth at home. Women who received ANC from healthcare providers were 4.21 times more likely to receive PPC from healthcare providers than those who did not. Women who participated in the labor force were 2.85 times more likely to receive PPC from healthcare providers than the women who did not. Acquiring knowledge about the danger signs of pregnancy during ANC visits was also significantly associated with receiving PPC from skilled healthcare providers, with an odds ratio of 2.98, compared to the women who did not. However, the decision-making by the husband alone, the wealth status of the women, and residency were not significantly associated with receiving PPC from healthcare providers.

The three marginal effect analyses were done to explore the important factors of this study for promoting the PPC status [13] as it is challenging to interpret directly from multivariate results. Therefore, applying marginal effects analysis enabled and supported the study when discussing this finding. The first marginal analysis was between receiving knowledge during ANC visits and place of delivery (Table 3). If the women did not receive healthcare knowledge during their ANC visits and their delivery process was at home, the probability of seeking PPC from skilled healthcare providers was only 16%. At the same time, if the women received maternal healthcare knowledge during their ANC visits, the probability of receiving PPC was 32%, even though for home delivery cases. For institutional delivery cases, the probability of receiving PPC from healthcare providers with women who did not previously obtain healthcare knowledge was 79%, and the likelihood for the women who obtained healthcare knowledge was 90%.

The second marginal analysis was between receiving knowledge during ANC visits and FLFP (Table 4).If the women did not obtain information about the risk of pregnancy and were from the manual and agricultural workers group, the probability of receiving PPC was only 29%. Even though they were general officers, clerical officers, or managers, their likelihood of receiving PPC was only 39%. If the women obtained the maternal health information during ANC visits, the outcome probability was 40% for the manual and agricultural workers and 55% for the women from the officers' group. The last marginal analysis was between receiving knowledge status and types of ANC providers (Table 5). If the women did not receive ANC visits and did not receive maternal health knowledge, their probability of receiving PPC was only 22%. If the women received ANC visits from healthcare providers but did not receive maternal healthcare knowledge, the outcome probability was only 33%. If the women received healthcare knowledge during ANC visits, but that ANC was not from healthcare providers, the probability of receiving PPC from providers was only 30%. If the women received ANC and health knowledge from health staff, their probability of receiving PPC was 47%.

Discussion

The nature of the women from Rakhine State was associated with low education and low economic status. Most of the women were housewives and from rural communities. The usage of healthcare providers was low, and their delivery process was dependent on traditional birth attendants. According to binary logistic regression and three marginal analyses (marginal effects of receiving healthcare knowledge during ANC visits and place of delivery, marginal effects for receiving healthcare knowledge during

Table 2: Binary Logistic Regression Between the Receiving of PPC from Healthcare Providers and the Selected Variables.

PPC_HCP (No reference)	Odd ratio	P>|z|	95%CI
Age of women	1.04	0.30	0.96-1.13
Parity	0.74	0.04	0.55-0.99
Place of Delivery (Home delivery_ref)			
Public sector facilities	49.76	0.00	10.32-239.88
Types of ANC providers (No ANC_ref)			
Healthcare providers	4.21	0.05	0.95-18.73
FLFP (agricultural and manual_ref)			
Officers	2.85	0.04	1.05-7.78
Receiving knowledge during ANC (no_ref)			
Yes	2.98	0.01	1.20-7.40
Male involvement (wife alone and both _ref)			
Husband alone	0.52	0.11	0.23-1.17
Wealth status (poor_ref)			
Moderate and rich	0.99	0.98	0.28-3.37
Type of residence (rural_ref)			
Urban	1.92	0.32	0.52-7.06
_cons	0.03	0.003	0.00-0.30

Table 3: The Marginal Effects of Receiving Healthcare Knowledge During ANC Visits and Place of Delivery.

Variable	Margin	P>|z|	95%CI
Receiving knowledge during ANC			
no	0.30	0.000	0.25-0.37
yes	0.42	0.000	0.36-0.48
Place of Delivery			
Home	0.26	0.000	0.21-0.33
Public sector facility	0.82	0.000	0.65-1.00
Interaction between receiving knowledge during ANC visits and Place of delivery			
Women who did not acquire knowledge and delivered at home	0.16	0.001	0.70-0.25
Women who did not acquire knowledge and delivered at a public sector facility	0.79	0.000	0.58-1.003
Women who received knowledge and delivered at home	0.32	0.000	0.23-0.40
Women who received knowledge and delivered at a public sector facility	0.90	0.000	0.76-1.04

Table 4: Marginal Effects for Receiving Healthcare Knowledge During ANC Visits and Female Labor Force Participation (FLFP).

Variable	Margin	P>|z|	95%CI
Receiving knowledge during ANC			
no	0.31	0.000	0.25-0.37
yes	0.42	0.000	0.36-0.48
FLFP			
Women who worked in the manual and agricultural group	0.36	0.000	0.32-0.50
Women who worked in the officers' groups	0.47	0.000	0.40-0.59
Interaction between receiving knowledge during ANC visits and FLFP			
Women who did not acquire knowledge and worked in the manual and agricultural group	0.29	0.000	0.23-0.35
Women who did not acquire knowledge and worked in the officers' group	0.39	0.000	0.27-0.52
Women who received knowledge and worked in the manual and agricultural group	0.40	0.000	0.33-0.47
Women who received knowledge and worked in the officers' group	0.55	0.000	0.38-0.71

Table 5: Marginal Effects for Received Healthcare Knowledge During ANC visits and Types of ANC providers.

Variable	Margin	P>|z|	95%CI
Receiving knowledge during ANC			
no	0.31	0.000	0.25-0.37
yes	0.42	0.000	0.36-0.48
Types of ANC providers			
No ANC visits	0.27	0.000	0.17-0.37
Healthcare providers	0.40	0.000	0.35-0.45
Interaction between receiving knowledge during ANC visits and types of ANC providers			
Women who did not acquire knowledge and did not receive ANC visit	0.22	0.000	0.12-0.31
Women who did not acquire knowledge and received ANC visits from healthcare providers	0.33	0.000	0.25-0.41
Women who acquired knowledge and did not receive ANC visit	0.30	0.000	0.16-0.44
Women who received knowledge and received ANC visits from healthcare providers	0.47	0.000	0.40-0.54

ANC visits and FLFP, and marginal effects for received healthcare knowledge during ANC visits and types of ANC providers), the place of delivery, types of ANC providers, female labor force participation, and receiving knowledge during ANC visits were important factors for receiving PPC from healthcare providers. Well-trained healthcare providers could share the danger signs of pregnancy and childbirth during the ANC period. Moreover, they are present at the healthcare facilities, and they could give

Khine TT and Sawangdee Y., Arch Intern Med Res 2022
DOI:10.26502/aimr.0114

proper medical treatment, and the potential of receiving care can be promoted. In contrast, TBA lacked healthcare knowledge and could not provide appropriate maternity care [18]. Studies from Kenya, Nepal, and Bangladesh agreed on the vital roles of different types of ANC providers and delivery facilities [5, 6, 19].

For women's employment status, the findings from Tehsil Silanwali revealed that homemakers were more likely to use healthcare services than working women [20]. But according to our study, the women's employment status was also a significant factor in their healthcare-seeking behavior. Almost all of the women employed with regular income were educated, and thus, they might have more knowledge than the manual workers. Their workmates were also educated so appropriate information could be easily distributed among them. In that way, the post-delivery care status of the working mothers could be expected to increase. Another reason may be that they could utilize their income as they wished. This finding was concurred by the Mru community's study [21]. But the study from Myanmar and China [4, 22] stated that occupation status was not significant to obtain health services. The importance of receiving healthcare knowledge during ANC visits was supported by most studies. Attaining the knowledge of at least one dangerous sign of pregnancy could probably cause the mothers to seek follow-up care, but incorrect knowledge and false belief or opinion were barriers to that cautious behavior [23].

The study done in Nepal found that women receiving healthcare services depended on their husbands [23]. However, the women from the Rakhine State could make their own decisions for their health, seeing as the patriarchal society was not well developed in that state. Due to the promotion of healthcare facility status in rural and peri-urban areas, residency was not expected as an influential factor for women of the Rakhine ethnic group seeking care from health staff [24]. That result was supported by a study in China [4]. However, studies in Myanmar [22] and Kenya [5] noted that women from urban areas had more chances to use maternal healthcare services than rural communities. Promoting maternal and child healthcare programs to reduce maternal morbidity and mortality and the community cost-sharing system was one of the strategies that the government of Myanmar developed to narrow the differentiation of affordability [24]. Thus, for the women from Rakhine State, wealth status was likely not important for receiving healthcare, and this finding was consistent with the results of Bangladesh maternal care services [19].

Limitation, strength, and weakness

This study does not analyze the education status of the husbands as the educated persons can get a good job. Since all of the cesarean sections done at the hospital receive PPC, the mode of delivery was excluded from the analysis. But some obstetrics complications such as hypertension that need to receive care cannot be calculated due to data unavailability. As this is a secondary analysis, some background history, such as traditional beliefs and women's satisfaction with receiving healthcare, cannot be investigated. The perception of both clients and providers for PPC is challenging to measure as a quantitative study. The findings of this study can assist to do more research about maternal health care services in that area as there was no specific research about that service in that state.

Conclusion

The study revealed that the PPC status of Rakhine state was low and the women with low socioeconomic status had less chance to receive that care. The role of the health care system like health care person accessibility and existing infrastructure for giving services were also played importantly. To strengthen the maternal healthcare system, promoting the quality and quantity of the healthcare providers, promoting institutional deliveries, and reinforcing healthcare literacy should be done. Creating job opportunities for women may expand their network, and empowerment for their health status will be increased. In addition, it is imperative to promote and support women to access this welfare by using public information and policies. Further, the role of the ANC program needs to be followed up. The method that can be applied should be a mobile team visit. Since we learned that the healthcare providers are essential, the findings of this paper can support the implementation of the Sexual and Reproductive Health Rights policy, and the target of SDGs could be reached by reducing postpartum maternal death.

Ethics Approval and Consent to Participation

Ethical approval for this study was received from the Institute of Population and Social Research-Institutional Review Board (IRB), (No. 2020/05-257). The Demographic Health Survey Program also endorsed using the data for secondary analysis. All the procedures were accomplished with the relevant guidelines and regulations.

Conflicts of Interest

Not applicable

Acknowledgment

Not applicable

References

1. United Nation. The Millenium Development Goals Report United Nation, NewYork (2015).
2. United Nations. The Sustainable Development Goals Report 2020. Division UNS (2020).
3. World Health Organization. Postnatal Care for Mothers and Newborns, Highlights from World Health Organization 2013 guidelines (2013).
4. Xiang Y-x, Xiong J-y, Tian M-m, et al. Factors influencing the utilization of postpartum visits among rural women in China. Journal of Huazhong University of Science Technology 34 (2014): 869-874.
5. Akunga D, Menya D, Kabue M. Determinants of postnatal care use in Kenya. African Population Studies, 28 (2014): 1447-1459.
6. Khatri RB, Karkee R. Social determinants of health affecting utilisation of routine maternity services in Nepal a narrative review of the evidence. Reproductive Health Matters 26 (2018): 32-46.

Khine TT and Sawangdee Y., Arch Intern Med Res 2022
DOI:10.26502/aimr.0114

7. Cristina Rossi A, Mullin P. The etiology of maternal mortality in developed countries: a systematic review of literature. Archives of Gynecology and Obstetrics 285 (6): 1499-1503.

8. Maternal and Reproductive Health Division; MOHS. MDSR Report 2017. Ministry of Health and Sports, Myanmar (2018).

9. Maternal and Reproductive Health Division. MOHS. Maternal Death Review Report 2013. Ministry of Health and Sports, Myanmar (2013).

10. Maternal and Reproductive Health Division. MOHS. Maternal Death Review Report, 2015. Ministry of Health and Sports, Myanmar (2017).

11. Ministry of Immigration and Population. The 2014 Myanmar Population and Housing Census, Rakhine State Report. Ministry of Immigration and Population, Naypyitaw, Myanmar (2015).

12. Thermatic Report On Maternal Mortality. Ministry of Labour, Immigration and Population, Nay Pyi Taw (2016).

13. Immigration and Population Department. 1991 Population Changes and Fertility Survey. Ministry of Immigration and Population, Myanmar (1995).

14. Department of Population. Country Report on 2007 Fertility and Reproductive Health Survey. Ministry of Immigration and Population, Myanmar (2009).

15. Ministry of Health and Sports- MOHS/Myanmar I. Myanmar Demographic and Health Survey 2015-16. Nay Pyi Taw, Myanmar: MOHS and ICF (2017).

16. Babitsch B, Gohl D, von Lengerke T. Re-revisiting Andersen's Behavioral Model of Health Services Use: a systematic review of studies from 1998-2011. Psychosoc Med 9 (2012): Doc11-Doc.

17. Norton EC, Dowd BE, Maciejewski ML. Marginal Effects—Quantifying the Effect of Changes in Risk Factors in Logistic Regression Models. JAMA 321 (2019): 1304-1305.

18. Milkowska-Shibata MA, Aye TT, Yi SM, et al. Understanding Barriers and Facilitators of Maternal Health Care Utilization in Central Myanmar. International Journal of Environmental Research and Public Health 17 (2020): 1464.

19. Chakraborty N, Islam MA, Chowdhury RI, et al. Utilisation of postnatal care in Bangladesh: evidence from a longitudinal study. Health & Social Care in the Community 10 (2002): 492-502.

20. Sana Ejaz MS. Socio-economic Implications towards the Postpartum care among Primigravida:A case study of Tehsil Silanwali, Sargodha. ISRA Medical Journal 9 (2017): 338-341.

21. Islam, Odland JO. Determinants of antenatal and postnatal care visits among Indigenous people in Bangladesh: A study of the Mru Community. Rural and Remote Health 11 (2011): 13.

22. Sein KK. Maternal Health Care Utilization Among Ever Married Youths in Kyimyindaing Township, Myanmar. Maternal and Child Health Journal 16 (2012): 1021-1030.

23. Karkee R, Lee AH, Binns CW. Why women do not utilize maternity services in Nepal: a literature review. BMC International Health and Human Rights 13 (2013): 135-141.

24. National Health Plan Implementation Monitoring Unit (NIMU). National Health Plan 2017-2021. Ministry of Health and Sports, Myanmar (2018).