Intra-urban Differences in Maternal Health Care Service Utilization in Nepal: Results from Nepal DHS 2016

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Introduction

•Asia, less urbanized than other regions, is home to 54 percent of the world's urban population.
•Several studies on urbanization and health conclude that urban place should be the solutions to urban health (Eckert & Kohler, 2014).
•Study of Kumar and Mohanty (2011) found intra-urban differentials in the utilization of reproductive health across the Indian states.
•In resource deprived setting, role of education and household wealth in affecting women's health are highlighted in many studies (Onah et al., 2006; Magadi et al., 2003).

•It is estimated that 62.2 percent of the total population resides in urban place in Nepal (NPC, 2021).
•Only limited indicators of maternal health care are taken to see the differential in many literatures.
•This study, without conflict of interest, tries to present the exact situation of all care instead of covering limited indicators of maternal health, result of which may support to bring urban health policy.

Objective

The general objective of this study paper aims to explore the differentials in utilization of all the care designed for the course of reproduction from pregnancy, childbirth to two days of delivery among the urban poor and non-poor in Nepal. Moreover, differentials and roles in utilization of all care, full maternal health care Service utilization for the healthy pregnancy and childbirth is also highlighted among the two economic groups living in urban setting of Nepal.

Data sources and methods

This study has utilized Nepal demographic and health survey 2016 women's data file. The survey has captured 12,862 women of ages (15-49 years). Out of them, 8072(weighted) women from urban places were captured. Out of total, 2223(weighted) urban women who had given their last birth in the five years preceeding the survey are only included in the analysis.

•Women's education, Caste/Ethnicity, Religion, Province, Exposure to mass media, women's age at the birth of last child, Birth order, household size are some of the socio-demographic indicators which are considered for the multivariate analysis.

•Some major indicators of maternal health care utilization: Antenatal care (ANC) in the trimester, Number of ANC visits, Scheduled ANC visits as in recommended months; Delivery Assisted by Skilled birth attendants (SBA) and the postnatal care within 2 days after delivery are used to measure the utilization separately at first and then a composite indicator covering all care during antenatal period and all the care during pregnancy up to 2 days of child birth are analyzed to observe the differences.

Poverty Measurement

Since the official result of Nepal Living Standard Survey 2019/2020 has not been published yet, the earlier survey of 2010 is the latest poverty rate of Nepal which has shown 25 percent.
According to the latest data as mentioned in the 15th plan of Nepal, 18.7 percent of the total populations are below poverty line and 28.6 percent is the multidimenstional poverty index (NPC, 2021).

Defining urban poor and non-poor

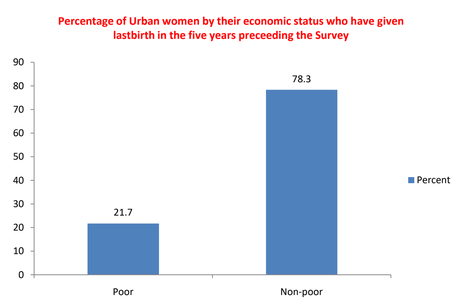
•Since nearly 20 percent of the total population is living below poverty line as measured by different approach than DHS in Nepal, the same has not been used to define poor and non-poor.
•By taking the lowest wealth quintile measured by DHS as poor and the remaining four quintiles (second, middle, fourth and the Highest) as non-poor may not differ much in the approach used.
• Wealth index based on the urban rural differential has been used to categorized urban poor and non-poor.

Methods

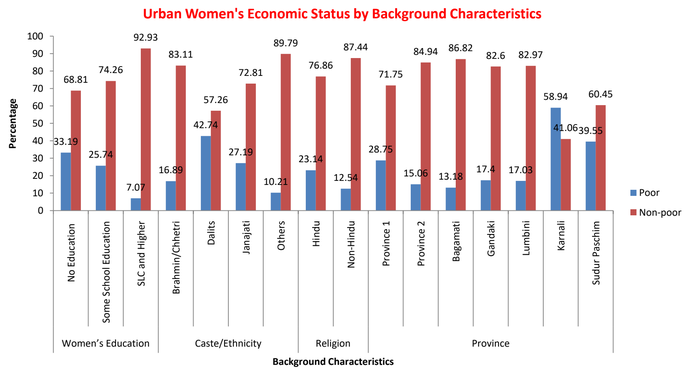
•Descriptive statistic is used to observe the poor and non-poor women in utilizing maternal health care. Multivariate analyses use binary logistic regression models to examine the effect of economic status of respondents in utilization of 'full maternal health care' .
•The net and gross effects are observed to see the differentials. Results are interpreted based on the change in the effects.

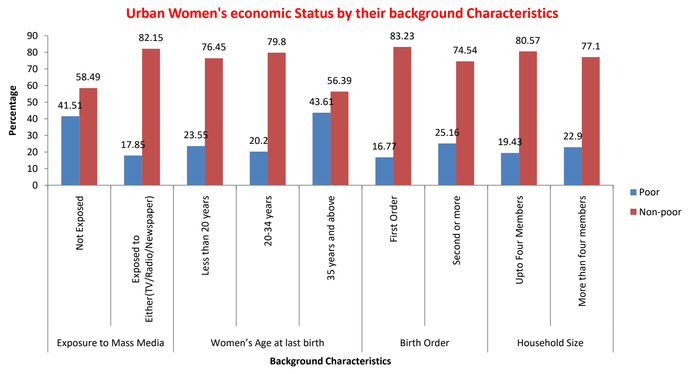
Results

Poor and Non-Poor in Urban Setting



Differentials by Socio-demographic Characteristics in Economic Status





Urbanites and the Maternal Health Care Service Utilization

Figure 4: ANC visits Made by Urban Women

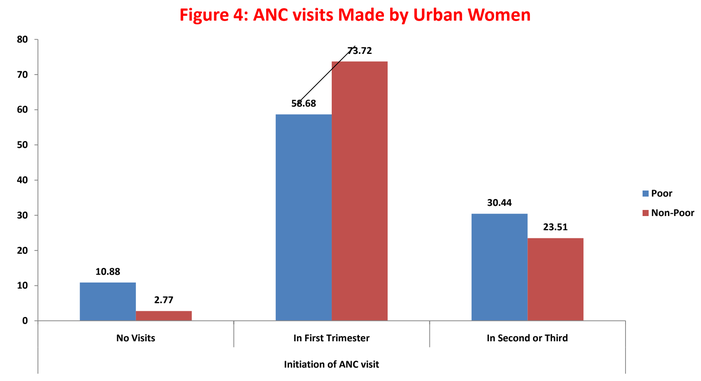


Figure 5: Number of ANC visits by Urban Women's Economic Status

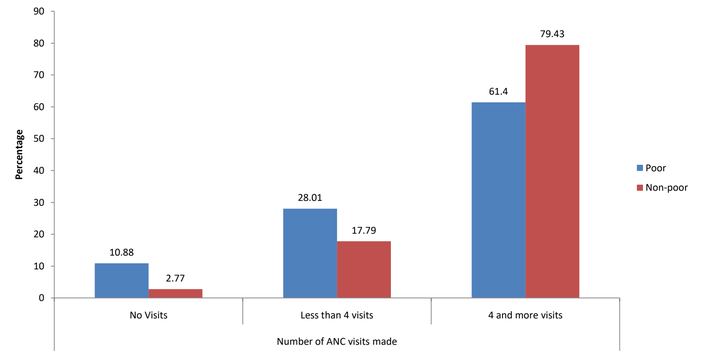


Figure 6 ANC visits at recommended month by urban women's economic status

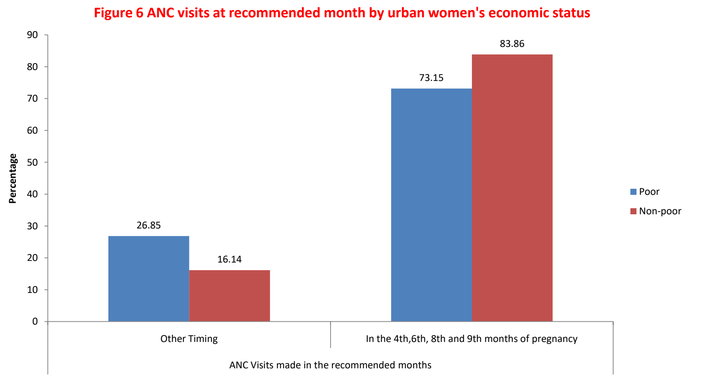


Figure 7 ANC visits with SBA among urban women having 4 and more visits

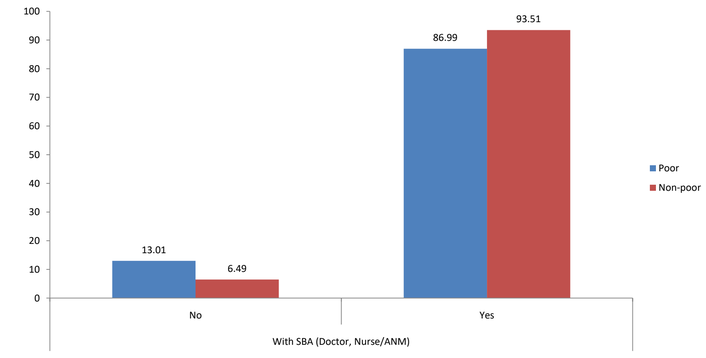
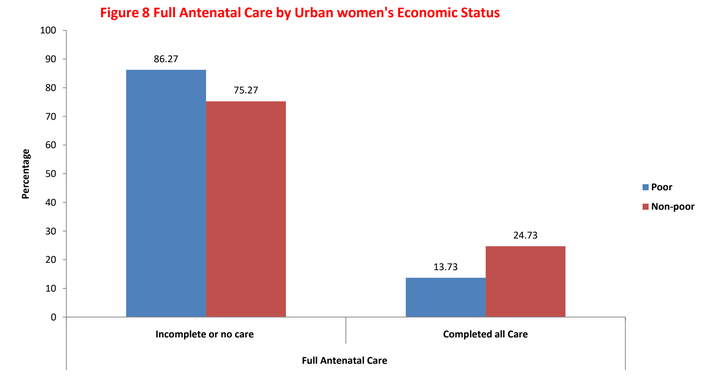
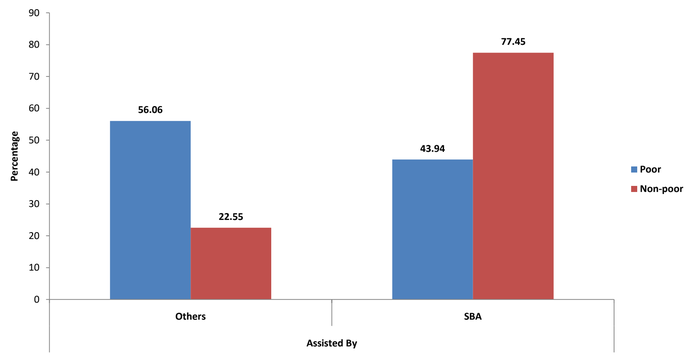


Figure 8 Full Antenatal Care by Urban women's Economic Status



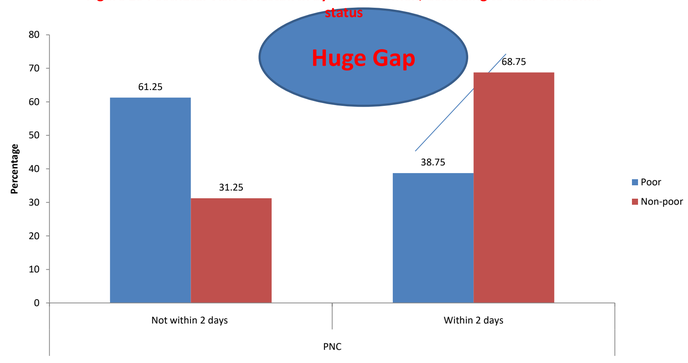
Delivery Assistance at Last Birth

Figure 9 Delivery Assistance utilized by Urban Women's Economic Status



Postnatal Visit

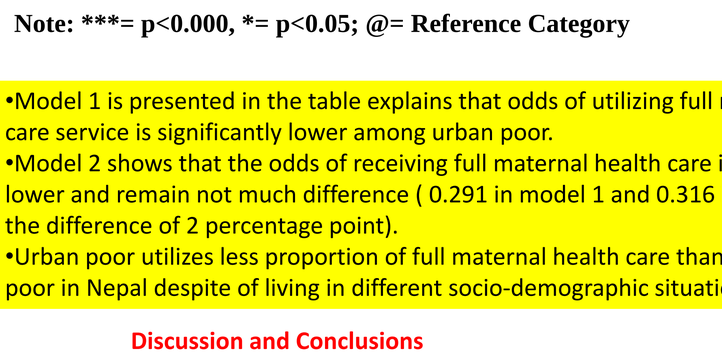
Figure 10 Postnatal Visit at lastbirth by urban women, according to their economic status



Full Maternal Health Care Service Utilization

Full Maternal Health Care Service Utilization by Urban women

figure 11



Role of Economic Status

Odds ratio estimates from logistic regression models showing the effects of economic status of urban women in utilization of full maternal health care and by socio-demographic characteristics

Variables	Categories	Model 1 Odds Ratio	Model 2 Odds Ratio
Economic Status	Poor	0.291***[0.197-0.429]	0.316***[0.207-0.482]
	Non-poor (@)		
Women's Education	No Education (@)		
	Some School Education		1.463 [0.864-2.476]
	SLC and Higher		1.683 [0.973-2.927]
Caste/Ethnicity	Brahmin/Chhetri(@)		
	Dalits		0.570*[0.334-0.974]
	Janajati		0.859 [0.582-1.267]
	Others		0.551*[0.331-0.917]
Religion	Hindu(@)		
	Non-Hindu		1.037 [0.658-1.634]
Province	Province 1(@)		
	Province 2		0.377*[0.658-1.634]
	Bagamati		0.873 [0.458-1.662]
	Gandaki		1.676 [0.955-2.940]
	Lumbini		1.266 [0.720-2.224]
	Karnali		1.140 [0.645-2.013]
	Sudur Paschim		1.481 [0.824-2.659]
Exposure to Mass Media	Not Exposed(@)		
	Exposed to Either(TV/Radio/Newspaper)		1.097 [0.667-1.804]
Women's Age at the birth of Most recent Child	Less than 20 years(@)		
	20-34 years		1.50 [0.995-2.262]
	35 years and above		1.119 [0.426-2.937]
Birth Order	First Order(@)		
	Second or more		0.680*[0.505-0.919]
Household Size	Upto Four Members(@)		
	More than four members		1.102 [0.890-1.429]
Constant		**0.249***[0.205-0.303]**	**0.166***[0.068-0.426]**

Note: ***= p<0.000, *= p<0.05; @= Reference Category

•Model 1 is presented in the table explains that odds of utilizing full maternal health care service is significantly lower among urban poor.
•Model 2 shows that the odds of receiving full maternal health care is significantly lower and remain not much difference (0.291 in model 1 and 0.316 in model 2; only the difference of 2 percentage point).
•Urban poor utilizes less proportion of full maternal health care than urban non-poor in Nepal despite of living in different socio-demographic situation.

Discussion and Conclusions

•Out of 70 percent of the urban women who initiated care in the first trimester of their pregnancy, only 59 percent of the urban poor initiated care in the first trimester of pregnancy in against 74 of non-poor.
•Among urban women who could made 4 and more visits, the differences also observed in utilizing scheduled ANC visits and further differences also observed in getting ANC visit from SBA.
•Only one-fifth of the urban women utilize all ANC care offered in health facility which has also differences among urban poor and non-poor.
•A huge difference has been observed in receiving SBA assistance during last birth.
•7 out of 10 urban non-poor women had received postnatal visits within 2 days of delivery however only 4 out of 10 urban poor received such care, showing a huge difference.
•Nearly 2 out of 10 urban women received full maternal health care offered by health institutions in Nepal which is nearly only 1 by urban poor women.

•Current scenario of rising urban population and migration trends towards cities of Nepal may bring health crisis in the future.
•Local bodies of Nepal have to pay much attention in arranging urban health facilities in those areas where there was no facilities or facilities with minimum standards.
•Despite showing the better and improved overall result of maternal health care in Nepal, in fact, urban poor show comparatively low status.
•The analysis also suggests that the existing level of poverty also hits in utilization of maternal health care even living in urban area.
• Harder life style among urban poor might have resulted less time in caring their health especially during ANC visits therefore establishment or arrangement of services targeting to urban poor may increase their use status.
•Those women who were earlier in rural settings will be disadvantageous in many aspects of maternal health care utilization.