# **Evidence note** Disparities in access to maternal health services in Nepal and their determinants



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# Context

Nepal has taken significant steps to improve maternal health outcomes. The *Aama Surakshya* programme, a flagship programme of the Ministry of Health and Population (MoHP), encourages women to visit the government health facility to deliver their babies taking advantage of free service and the incentives for giving birth at a government health facility (Department of Health Services [DoHS], 2017). Besides that, the programme also incentivises the service users for the completion of four antenatal care (ANC) visits and the health facilities for providing delivery services and treatment of sick newborns (DoHS, 2017). Meanwhile, the MoHP has been continuously expanding around the clock service delivery sites (DoHS, 2019).



Figure 1: The percentage distribution of deliveries by place based on DHS surveys from 1996 to 2016

quality. The policy talks about a special programme that will be designed to address the social determinants, which influence women's health, based on coordination between relevant stakeholders. The policy also states that skilled providers will be posted in each ward to strengthen safe motherhood and reproductive health services.

The Constitution of Nepal, 2015 guarantees equal access to health services for all its citizens. Equitable access to health services is one of four strategic directions of the Nepal Health Sector Strategy (2015-2020) and leaving no one behind in the context of access to quality health services is one of the cornerstones of the NHP 2076 and 15<sup>th</sup> periodic plan (MoHP, 2015, 2019; National Planning Commission, 2019). The evidence, however, suggests that there is a disparity in the utilisation of routine safe motherhood services including antenatal care (ANC), Skilled Birth Attendant (SBA) delivery coverage, postnatal care (PNC) based on women's socioeconomic status, education level, place of residence, and geography and ethnicity (Aryal et al., 2019).

**Women:** refers to females from 15–49 years age group who had a live birth in the five or three years preceding the survey **DHS:** Demographic and health survey.

NDHS: Nepal demographic and health survey

These efforts have prevented the loss of lives, pregnancy-related mortality ratio has reduced from 543 deaths per 100,000 live births to 259 in between 1996 and 2016 (MoHP/Nepal, New Era/Nepal, & ICF International, 2017). Meanwhile, in 2016 for the first time the proportion of deliveries at the health facility (57%) was higher than home birth (41%). The National Health Policy (2014) put forth by the MoHP has mentioned that safe motherhood and reproductive service will be made universally accessible and of



**Figure 2:** Percentage distribution of women age 15-49 who had a live birth in the 5 years, except for 1996 DHS 3 years, preceding the survey who received ANC services by a skilled provider for the most recent birth, according to the background characteristics.

# The disparity

## Antenatal care

Studies have shown variations in the use of ANC services based on various socio-demographic characteristics. Women from richest families (AOR:5.08; 95%CI: 3.82-6.76); residing in urban areas (AOR:1.46; 95%CI: 1.19-1.79); educated (AOR:10.38; 95%CI: 6.81-15.81); coming from Newar community (AOR:2.57; 95% CI: 1.76-3.77) are more likely to receive four or more antenatal check-ups compared to women who come from poor families; live in rural areas; have no formal education; belong to Dalit community, respectively (Mehata et al., 2017). Likewise, the further analysis of the 2016 NDHS dataset reveals that half of the women from the low-income households (50%) had 4 ANC visits per protocol, but more than two-thirds (77.8) of the women from the high-income households went for 4 ANC visits (Aryal et al., 2019). Based on provinces, women from province 2 (Aryal et al., 2019). This indicates that beyond geographical barriers several other factors might be associated and that might require further exploration. Figures 2 shows that disparities in service uptake with regards to ANC have gradually narrowed in between 1996 and 2016, according to residence, educational and economic background (MoHP/Nepal, New Era/Nepal, & Macro International, 2002, 2007; MoHP/Nepal, New Era/Nepal, & ICF International, 2012, 2017; Pradhan et al., 1997).



**Figure 3:** Percentage distribution of women age 15-49 who had a live birth in the 5 years, except for 1996 DHS which is 3 years, preceding the survey who were attended by a skilled provider for the most recent birth, according to the background characteristics

#### Institutional delivery

Institutional delivery is all-time high (Figure 1), women who gave birth during 2009-2011 were more likely (AOR: 9.8; 95% CI: 7.65-12.55) to deliver their babies at a health facility than women who gave birth during the mid-90s (1994-1996) (Mehata et al., 2017). Nevertheless, there are variations in the utilisation of the services based on economic and educational background, residence and place of (MoHP/Nepal, New Era/Nepal, & Macro International, 2002, 2007; MoHP/Nepal, New Era/Nepal, & ICF International, 2012, 2017; Pradhan et al., 1997). The chances of home birth are higher when women are illiterate or poor or reside in province 2 as opposed to other provinces (Devkota et al., 2020). A disaggregated analysis of marginalised and non-marginalised women using the 2016 NDHS dataset revealed that almost half of the marginalised (47%) and quarter of non-marginalised (26%) women delivered their last child at home (Devkota et al., 2020). Nationally, as of 2016, the percentage of home births is about 41% (MoHP/Nepal, New Era/Nepal & ICF International, 2017).

The difference in the percentage of births assisted by the skilled service provider has gradually reduced for women residing in urban and rural areas, stagnant based on educational level and begun to narrow, especially after 2011, based on family income (wealth quintile) and ethnicity (Figure 3). Women from wealthy families (AOR:11.16; 95%CI: 4.70-26.49); (Aryal et al., 2019) those living in urban areas

(AOR:2.72; 95%CI: 2.23-3.31); (Mehata et al., 2017) belonging to Gandaki Province (AOR:2.46; 95%CI: 1.26-4.83); (Aryal et al., 2019) were more likely to have their babies delivered at a health facility than women from poor families, rural setting and Karnali Province respectively.

Meanwhile, a study carried out in Achham district reported that more than three-fourths (88 %) of the women who gave birth at home considered institutional delivery as the safe option (Maru et al., 2016). A qualitative study conducted in Dailekh, Bajhang, and Kanchanpur districts revealed that women preferred home delivery because they were ashamed to get to the health facility, despite being near to their residence (Onta et al., 2014). Likewise, past experiences of a mother-in-law who delivered at home discouraged traveling to a health facility for childbirth (Morrison et al., 2014).

Table 1 reveals that awareness level about maternity incentive schemes was higher in women from richest households than poorest households (Mehata et al., 2013) which, due in part, can be attributed to the disparities highlighted in figure 3. Likewise, Nepal Living Standards Survey 2010/11 states that only about half of the poorest households (51.4%) can get to the health post or sub-health post within 30 minutes, whereas more than two-thirds (79.7%) of the richest households can do that (Central Bureau of Statistics, 2011). Likewise, the survey reports that less than 2 in 10 poorest households (15.2%) can get to the public hospital and primary health care centres within 30 minutes, compared to 6 in 10 richest households (61.4%) that can access services from those health facilities. Hence, it is possibly one of the factors that might have possibly resulted in disparities in the use of maternity services.

Table 1: Awareness level among women from the poorest and the richest households with regards to incentives on institutional delivery

Awareness	Lowest wealth quintile	Highest wealth quintile
Free care for normal deliveries (%)	59.4	71.9
Free care for assisted vaginal deliveries (%)	17.2	35.1
Free care for cesarean section deliveries (%)	10.2	27.5
Transport incentive for institutional delivery	52.5	66.3

# Postnatal care

In the context of PNC, figure 4 details the disparities based on residence, education, and wealth. It has been observed that women who received advice for PNC check-up as opposed to those who did not(AOR:2.62; 95%CI: 1.50-4.59), women from Province 1 compared to Karnali Province (AOR:3.60; 95%CI: 1.35-9.59), and women who gave birth at the health facility compared to home birth (AOR:30.08; 95%CI: 15.56-58.12) had higher chances of having a postnatal check-up within 7-days of delivery (Aryal et al., 2019).

# Continuum of care

The continuum of care (CoC) approach in maternal health services has been one of the important strategies of the Government of Nepal, that calls for the continuity of maternal health services (Chalise et al., 2019). Analysis of the 2016 NDHS dataset has revealed that three in four women (75%) who completed 4 ANC as per the national protocol were more likely to give birth at a health facility as opposed to women who did not (42%). Likewise, four in five women (80%) who delivered their babies at a health facility had a PNC check-up as opposed to women who gave birth at home, where the proportion was less than one in five (13%) (Aryal et al., 2019). Meanwhile, considering several barriers including cultural, the Nepal safe motherhood and newborn health programme road map 2030 recommends home-based PNC.

The analysis of the 2014 Nepal Multiple Indicator Cluster Survey dataset reported that women from rural areas (AOR:0.25; 95%CI: 0.18-0.36) were less likely to receive CoC and as expected women coming from the advantaged ethnic group (AOR:1.61; 95%CI: 1.18-2.19), belonging to the middle (AOR:2.56; 95%CI: 1.68-



Figure 4: Percentage of women giving birth in the two years preceding the survey who received their first postnatal check-up in the first two days after birth from a doctor, nurse or midwife 3.91) and upper (AOR:4.50; 95%CI: 3.07-6.59) economic status, those having access to media (AOR:1.76; 95%CI: 1.31-2.37) had a higher probability of receiving CoC (Chalise et al., 2019).

#### Recommendations

The difference between the ANC and institutional delivery coverage (referring to figure 2 and 3) among women of the lowest income households is 39.9% (73.8%-33.9%), whereas, this difference comes down to 6.8% (95.5%-88.7%) for the highestincome households. This indicates that two in five women from the poorest households who come in contact with the health system to seek ANC care fail to make their way back to the health facility for institutional delivery. Considering the first ANC visit as an opportunity, pregnant women should be provided information about the availability and ways to access the maternity incentives for normal deliveries including caesarean section which could be useful in encouraging women from the poorest households to deliver in a health facility. Apart from this, follow up of potential drop out cases through FCHVs can also contribute to the improvement of institutional delivery rates. Further research exploring why a relatively higher proportion of poorest household women attending first ANC fail

to deliver baby in health facility could be useful in designing targeted interventions that can be cost-effective.

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