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Nepal Health Sector Support Programme III

(NHSSP – III)

REVIEW OF

THE MATERNITY INCENTIVE AND FREE DELIVERY CARE PROGRAMME

(THE AAMA SURAKSHYA PROGRAMME) IN NEPAL

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Options

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CONTENTS

LIST OF ABBREVIATIONS

ANC	Antenatal Care
4ANC	Four Antenatal Care Visits
BC	Birthing Centre
BEONC	Basic Emergency Obstetric and Newborn Care
BHCP	Basic Health Care Package
BHS	Basic Health Services
BIA	Benefit Incidence Analysis
CEONC	Comprehensive Emergency Obstetric and Newborn Care
CS	Caesarean Section
FWD	Family Welfare Division
FY	Fiscal Year
GoN	Government of Nepal
HDI	Human Development Index
HMIS	Health Management Information System
MIS	Maternity Incentive Scheme
MoHP	Ministry of Health and Population
NDHS	Nepal Demographic and Health Survey
NGO	Non-governmental Organisation
NPR	Nepalese Rupees
PBF	Performance-based Financing
PHCC	Primary Health Care Centre
RA	Rapid Assessment
SBA	Skilled Birth Attendant
SDG	Sustainable Development Goal
SDIP	Safe Delivery Incentive Programme
SHI	Social Health Insurance
SSF	Social Security Fund
TABUCS	Transactional Accounting and Budget Control System

ABOUT THIS REPORT

This is report is a summary of the Aama review undertaken in 2019. The review was commissioned by DFID-NHSSP, and was conducted by Natasha Gabrielle Mesko, Timothy Ensor, Madhu Devkota and Devi Prasai. Inputs to the report were provided by NHSSP team members and Options Technical Team.

This report is being submitted to DFID as the Payment Deliverable 65.

EXECUTIVE SUMMARY

The Aama Surakshya Programme (abbreviated to the Aama Programme) is the Government of Nepal's (GoN's) popular Maternity Incentive Scheme (MIS) that provides free delivery care to all women at the point of use; a cash payment to contribute towards offsetting the transport costs of reaching a health facility; and an additional cash payment on completing Four Antenatal Care Visits (4ANC). Over time the Aama Programme has adapted to changes in the operational environment but more recently there have been fundamental changes in the health delivery system and service packages that necessitate a review of the programme. The objectives of the review were to:

- Understand whether and how the Aama Programme contributes to improved service provision (service utilisation, availability and quality of care) and any unintended effects
- Understand how the Aama Programme contributed towards increasing institutional delivery and understand why Aama has not influenced current non-users
- Review institutional arrangements to plan, budget and manage fund flow, and implement and monitor the Aama Programme at all levels of governance (including the private sector)
- Assess the process of programme planning, budgeting and fund allocations/flows using conditional grant modality at all levels (including the private sector)
- Analyse the evolution of Aama Programme policy provisions in light of the federal context (especially concurrent responsibilities) and adoption of the Basic Health Services Package (BHSP) and the Social Health Insurance (SHI) scheme; and provide policy, governance and operational recommendations on the future of Aama.

Recommendations will be drawn from analysis within Nepal and informed by learning from international experience from other countries with similar programmes.

The review took place from August to December 2019 and included:

- A desk review of national-level policies, strategies, and programme evaluations
- Semi-structured interviews with key policy and programme actors
- Semi-structured interviews with service providers and service managers
- Annual Rapid Assessment (RA) survey of the Aama Programme using standard questionnaires and additional questionnaires on health facility readiness and pre-discharge interviews with mothers
- Further analysis of data from the Nepal Demographic and Health Survey (NDHS) and the government's Health Management Information System (HMIS)
- Semi-structured interviews and focus group discussions with users and non-users of services
- Review of budget allocation, execution and efficiency.

The key findings were that the Aama Programme has had a positive effect on institutional deliveries over the programme period and the gap between rich women's and poor women's use of institutional delivery has decreased over time. There have been increases in the use of institutional delivery across all caste and ethnic groups. There is a less clear relationship between the Aama Programme and 4ANC. The upward trend in the proportion of women attending 4ANC started before the Aama Programme and the 4ANC incentive were introduced. Inequality in 4ANC as measured by a concentration index is now less than 10 percent.

Aama is a free government programme and yet in 2019, a decade after the programme started, half of women who gave birth in a health facility still pay for delivery services and only 53 percent of women received the full transport incentive to which they were entitled. There has been an increase in the number of government health facilities that provide delivery services but the services are unevenly distributed: there has been a proliferation of lower-level Birthing Centres (BCs) while most Comprehensive Emergency Obstetric and Newborn Care (CEONC) services remain available only in more accessible areas of the country.

The functionality of lower-level health facilities is poor and low caseloads in these facilities result in maternity staff being deskilled. Lower-level health facilities are still used for Antenatal Care (ANC) and for delivery by poorer women. However, women are bypassing lower-level health facilities and preferring to travel to higher-level health facilities to give birth, which results in overcrowding, of maternity wards in tertiary-level hospitals in particular. Private health facilities are accredited to the Aama Programme but payments for care are higher in these facilities and they are more likely to perform Caesarean Sections (CSs). Further, there are no private CEONC service sites in the rural mountain and hill areas where they are most needed.

There continue to be pockets where institutional delivery is not adopted. Low institutional delivery is found: in Mountain areas; in Province 2 and 6; among Madhesi, Dalit and Muslim women in the Terai; and among Janajati women living in the Hills. If a health facility is more than one hour away poor women are less likely to use the facility for childbirth; however, distance does not affect whether richer women use a service. The cost to households of accessing care in the Mountains remain excessive and prohibitive to use. Women's lack of agency to be able to decide where to give birth is a confounding factor. Barriers to care for excluded women living in accessible areas are complex and are embedded in social norms and cultural beliefs that affect women's mobility.

The review has a number of recommendations for policy, financing, service quality and implementation and monitoring, which include:

Policy

- Delivery services (normal, complicated, CS) should remain free of cost to all women who use government health services until the end of the Sustainable Development Goals (SDGs) in 2030
- Emergency referral should be made free to pregnant women who use government health services. The government's draft referral guideline and protocol should be endorsed and women should be referred according to the protocol
- Criteria set out in the GoN's 2019 Safe Motherhood and Newborn Care Roadmap should be adopted to ensure the rationalisation of lower-level BCs
- Private health institutions that are accredited to the SHI scheme should be reimbursed through the SHI mechanism
- Private health institutions should only remain in the Aama Programme if they are needed to increase access to delivery care and/or to reduce overcrowding in a nearby government CEONC institution
- A Strategic Framework for the Aama Programme that is owned by Federal, Provincial and Local Government should be prepared and endorsed with the changes proposed in this report; and the Aama Operational Guidelines should be updated and actively distributed with training sessions
- A National Health Protection Strategic Framework that is owned by Federal, Provincial and Local Governments should be prepared and endorsed, which identifies which health

services should be free at the point of use and for whom, and which services need to be incentivised with cash incentive mechanisms to encourage better uptake and/or compliance.

Financing

- When the costed BHS package is approved the cost of providing CS services should be added as an earmarked component of the conditional grant
- Transport and services for emergency referral should be provided as a conditional grant to Federal, Provincial and Local Governments where health institutions with CS services are available, as a case-based payment
- The 4ANC incentive should be discontinued and no more cash incentives added to the Aama Programme
- The transport incentive should be doubled in Local Government areas in the Mountains that have institutional delivery rates lower than 50 percent
- Allow Local Government to top up the transport incentive with local revenue.

Quality

- Monitor whether health institutions are investing the delivery services reimbursement in maternity care
- Monitor the use of the national reproductive clinical protocol in both public and private health institutions that participate in the Aama Programme.

Implementation and Monitoring

- Update the Aama Operational Guidelines in line with the endorsed Strategic Framework for the Aama Programme
- Distribute the updated Operational Guidelines to all Federal, Provincial and Local Government entities alongside resources to introduce the revised guidelines
- Simplify the annual Aama RA: it should be focused on identifying mismanagement and monitoring free care, the full incentive and health institutions' use of the national reproductive clinical protocol, and designed to detect trends.

1 BACKGROUND

1.1 THE HISTORY OF THE AAMA PROGRAMME

The Government of Nepal (GoN) has always prioritised maternal and child health. In 1998 the GoN's Safe Motherhood Policy adopted two key strategies to improve maternal health: ensuring that a selection of health facilities have emergency obstetric care services that are available 24 hours a day and the presence of health personnel with midwifery skills who are able to competently provide safe and effective delivery care. In 2001, only nine percent of Nepali women gave birth in a health institution and two in three women considered not having money for treatment to be a deterrent in accessing health care[1]. There were huge differences in access to health facilities across Nepal's geographic terrain, with only 41 percent of rural households living within 30 minutes' travel time from a health institution, compared to 89 percent of urban households; differences by wealth were also observed, with only 29 percent of the poorest quintile living within 30 minutes of a health institution compared to 57 percent of the richer and richest[2]. Given this situation, encouraging women to give birth at a health institution was considered by the GoN an important part of the strategy to improve maternal health.

The Maternity Incentive Scheme (MIS) was introduced by the GoN in 2005 with a cash payment being made directly to all women who delivered in a government health institution. The payment to women varied according to geography: NPR 1,500 in the mountains; NPR 1,000 in the hills; and NPR 500 in the Terai to reflect the higher travel costs in mountainous areas. The payment was meant to contribute to the transport costs of reaching a health institution but was not meant to fully compensate women for all the travel expenditures incurred.

In 2006, the scheme was renamed the Safe Delivery Incentive Programme (SDIP) and in addition to the transport incentive, free delivery care was introduced in a selection of districts. Government health institutions in 25 districts[1] with the lowest Human Development Index (HDI) were paid NPR 1,000 for every delivery performed regardless of the complexity of the delivery or the length of stay in a health institution. All mountain districts were among the 25 districts with the lowest HDI. Health workers in SDIP districts also received a payment of NPR 300 for each delivery conducted regardless of whether the delivery was in a health institution or at home. The payment for home-based delivery was gradually reduced and eventually dropped.

The scheme was re-named the Aama Surakshya Programme[2] in 2009 and the transport incentive and free delivery care were made available to all women across the country who delivered in a certified health institution. Reimbursement was made directly to health institutions and payment was differentiated by type of delivery and size of the health institution (Table 1). In order to increase access to facility-based delivery from 2009, accredited Non-governmental Organisation (NGO) facilities and some for-profit private facilities were included in the scheme.

[1] The 25 districts with the lowest HDI were 17 Mountain and 8 Hill districts
[2] In this report the Aama Surakshya Programme is abbreviated to the Aama Programme

Table 1: Aama Programme Payments, Including Increases in the Fiscal Year (FY) 2018/19 GoN Budget Speech

Incentives to Women		
Geographical Zone	**Transport Incentive**	**4ANC Incentive**
Mountain	NPR 3,000	NPR 800
Hill	NPR 2,000	NPR 800
Terai	NPR 1,000	NPR 800
Health Facility Reimbursement		
Type of Delivery	Reimbursement	Health Worker Incentive
Normal Delivery	<25 bed hospital, NPR 1,000 >25 bed hospital, NPR 1,500	NPR 300
Complicated Delivery	NPR 3,000	NPR 300
CS	NPR 7,000	NPR 300

The Aama Programme was merged in 2012 with a scheme that paid NPR 400 to women after completing Four Antenatal Care Visits (4ANC) according to protocols set by the GoN. In 2016, the free sick newborn care scheme was merged with the Aama Programme only to be removed in 2017. With the move to Federalism in 2017, 60 percent of the Aama Programme budget was allocated to Local Government administrations. In 2018, the Aama Programme budget was merged with other programme activities before being allocated to Local Government and the GoN announced the doubling of transport and 4ANC incentives (Table 1).

1.2 Rationale for the Aama Review

Since the start of the MIS in 2005, the Aama Programme has adapted to changes in the operational context and, to date, there have been three revisions of the Aama Programme Operational Guidelines. More recently there have been fundamental changes in the health delivery system and service packages, which necessitate a review of the programme. In 2014, for example, the Social Health Insurance (SHI) scheme was introduced and includes delivery services in the benefit package with different reimbursement rates for providers to the Aama Programme. In 2016, a federal system of government has been introduced and this, alongside the forthcoming Basic Health Services (BHS) package, means that Local, Provincial and Federal administrations will have different roles in the management and delivery of the Aama Programme.

There is some concern that investments in the supply side, in particular in hospital infrastructure, have not kept up with the demand for institutional delivery, with government tertiary-level hospitals, in particular, operating overcrowded maternity facilities compromising service quality. There has been an unmanaged increase in private sector participation in the Aama Programme and there are some indications that women are receiving over-medicalised care in private health institutions[3] [4]. The strategy to expand coverage in the Aama Programme has been to set up Birthing Centres (BCs) at health posts. These facilities are used for delivery, especially by poor women, but the large number of BCs means that the catchment population can be low and in addition they can be under-utilised with women preferring to travel, if feasible, to higher-level health institutions for childbirth.

2 OBJECTIVES AND METHODOLOGY

2.1 OBJECTIVES OF AAMA REVIEW

The objectives of the Aama review were to:

- Understand whether and how the Aama Programme contributes to improved service provision (service utilisation, availability and quality of care) and any unintended effects
- Understand how the Aama Programme contributed towards increasing institutional delivery and understand why Aama has not influenced current non-users
- Review institutional arrangements to plan, budget and manage fund flow, and implement and monitor the Aama Programme at all levels of governance (including the private sector)
- Assess the process of programme planning, budgeting and fund allocations/flows using conditional grant modality at all levels (including the private sector)
- Analyse the evolution of Aama policy provisions in light of the federal context (especially concurrent responsibilities), BHS, SHI, and provide policy, governance and operational recommendations on the future of Aama. Recommendations will be drawn from analysis within Nepal and informed by learning from international experience from other countries with similar programmes.

2.2 METHODOLOGY

This review is a high-level summary of a number of different reports that collected information on the Aama Programme from August to December 2019. A review of the international literature on PBF and DSF[3] assisted in the development of an analytical framework to guide the Aama Review. The analytical framework ensured that the study objectives (Section 2.1) were covered and that appropriate data were collected. Data were collected through a series of different tools including:

- A desk review of national-level policies, strategies, and programme evaluations
- Semi-structured interviews with key policy and programme actors[4]
- Semi-structured interviews with service providers and service managers[5];
- Annual Rapid Assessment (RA) survey of the Aama Programme using standard questionnaires[6] and additional questionnaires on health facility readiness and pre-discharge interviews with mothers
- Further analysis of data from the Nepal Demographic and Health Survey (NDHS) and the GoN's Health Management Information System (HMIS)
- Semi-structured interviews and focus group discussions with users and non-users of services[7]

[3] The complete literature review is attached as Annex 1

[4] Six key informant interviews at the federal level

[5] Twelve key informant interviews at the provincial level and 10 at the local government level. The RA also conducted 165 in-depth interviews with key informants, including health managers and service providers.

[6] The RA had a number of different tools: questionnaires that were carried out with the service provider of a health facility, with a sample size of 59 health facilities (20 government hospitals, six teaching/private hospitals, 16 primary health care centres and 17 health posts); questionnaires for cross-verification of health facility records with information obtained by interviewing postpartum women in their homes, with a sample size of 1,303; and pre-discharge interviews, with a sample size of 221 postnatal women.

[7] Six key informant interviews with Female Community Health Volunteers, three key informant interviews with Health Coordinators, and 11 focus groups discussions with mothers (five groups with non-users of services and, six groups with users of services)

- Review of budget allocation, execution and efficiency.

The international literature review and the report on non-users of the programme are available as stand-alone reports.

2.3 LIMITATIONS

The study was not designed to be able to assess the impact of the programme on health outcomes such as maternal or neonatal mortality. In addition, the main source of quantitative data for this review was the Aama RA, which is an annual quantitative survey with a purposive sample of different health institutions. The design of the RA meant that data from the different RA surveys are not directly comparable and could not be used to determine trends in the implementation of the programme over time.

3 CONTEXT OF THE AAMA PROGRAMME

The Aama Programme evolved in the context of a broader health policy environment that was moving towards the provision of free basic health care for all. The Maternity Incentive Scheme (MIS) was introduced in 2005 and was expanded the following year with the introduction of the Safe Delivery Incentive Programme (SDIP) and free delivery care to all women in 25 of the lowest HDI districts of the country. The 2007 interim Constitution of Nepal stated that all of the Nepalese population had the *"right to basic health care, free of cost."* Free care expanded incrementally and in 2009 universal free care, covering a range of basic services, was made available at Primary Health Care Centres (PHCCs), health posts and sub-health posts alongside the launch of the Aama Programme, which entitled all women to free deliveries.

The new 2015 Constitution of Nepal reinforced the commitment to free care, stating that: *"every citizen shall have the right to free basic health services from the State and no one shall be deprived of emergency health services."* A free BHS package has been developed by the government and is expected to be endorsed in 2020. It covers Antenatal Care (ANC), postnatal care, normal delivery and the management of complications but does not include Caesarean Section (CS) services or emergency referral. All Local Governments and government health institutions that have the requisite facilities will be expected to provide the BHS package free of cost. Provincial or Federal Government hospitals that have the facilities to provide higher levels of care will be expected to provide CS services. CS services and the transport costs of emergency referral are not included in the free BHS package.

In the same year as the promulgation of the new Constitution, SHI was piloted in three districts and by 2017 was expanded to 38 districts. The government had an ambition to cover all 77 districts within two years; by 2017/18, 1,130,141 people were enrolled in the scheme[5]. Of those enrolled 129,148 were categorised as "ultra-poor", and their 'premium' contribution towards the insurance is covered by the government. The government's long-term vision is to provide free BHS for all and that other health services are covered by the SHI scheme.

There is a difference between reimbursement rates for delivery care in the Aama Programme and the SHI scheme. The Aama Programme reimbursement rates are NPR 1,500 for normal delivery, NPR 3,000 for complicated deliveries and NPR 7,000 for CS. The SHI scheme, however, reimburses health facilities NPR 5,000 for normal delivery, NPR 6,000 for complicated deliveries and NPR 18,000 for CS. The government mandates that a public health institution that is part of both the Aama Programme and the SHI scheme can only be reimbursed at the lower Aama Programme rates.

Alongside the constitution, free care, the BHS package, and the SHI programme, there are a number of acts, policies, plans and guidelines that refer to maternal health and are relevant to the Aama Programme. Table 2 below provides some examples, and highlights the areas that need to be harmonised with the Aama Programme (see columns 1 and 3 coloured in yellow). The Constitution states the right of all citizens to free basic health care but the free BHS package does not include emergency CS or emergency referral, although both are life-saving interventions for mothers and their newborn babies. The Public Health Service Act states that the BHS package could be topped up by Federal, Provincial and Local Governments but it is not clear where the budget for additional activities would come from. It will be important to ensure that there is a consistent approach so that all women have access to free emergency transport and free emergency CS.

Table 2: Constitution, Acts, Policies, Plans, Strategies and Guidelines that are Relevant to the Aama Programme

<table>
<tr><th>Areas shaded that need to be harmonised Aama</th><th colspan="2">Constitution, Acts, Policies, Plans, Strategies and Guidelines</th><th>Areas shaded that need to be harmonised with Aama</th></tr>
<tr><td>Emergency care is not free</td><td colspan="2">CONSTITUTION OF NEPAL
“right to free basic health care”
“right to emergency health services”</td><td></td></tr>
<tr><td>BHS can be topped up by Federal, Provincial and Local Government</td><td>Public Health Service Act</td><td>Health Insurance Act</td><td>Different provider reimbursement rates for SHI and Aama</td></tr>
<tr><td></td><td>Reproductive Health Act</td><td>Social Security Act</td><td>Introduction of maternity pay</td></tr>
<tr><td>1 SBA per ward</td><td colspan="2">National Health Policy</td><td>Provincial and Local Governments have developed own policies</td></tr>
<tr><td></td><td colspan="2">15th Periodic Plan</td><td>Provincial and Local Governments have developed own policies</td></tr>
<tr><td>BHS covers normal and complicated deliveries

Operational guidelines are population based; resulting in fewer Birthing Centres in mountain areas</td><td>Basic Health Services Operational Guidelines</td><td>Safe Motherhood and Newborn Health Roadmap</td><td>All women to deliver in BEONC/CEONC sites within 2 hours of walking distance

Where no BEONC/CEONC sites within 2 hours walking distance, then strategic Birthing Centres operating 24 hours and having referral links</td></tr>
</table>

The 2019 National Health Policy recommends that there be one Skilled Birth Attendant (SBA) per ward. The Operational Guidelines of the BHS package note that there should only be a BC in a health post that has a catchment population of 7,000 or more, which means that there will be fewer BCs in sparsely populated mountain and hill areas. The Safe Motherhood Roadmap recommends that all women should give birth in a Basic Emergency Obstetric and Newborn Care (BEONC) or Comprehensive Emergency Obstetric and Newborn Care (CEONC) site that is within two hours' walking distance; if this is not possible then strategic BCs are identified that provide normal delivery, obstetric first aid and referral. The Aama Programme Operational Guidelines have a checklist for the requisite infrastructure, staff and equipment that must be available before setting up a BC but do not have population- or geography-based criteria for establishing sites.

4 TRENDS IN ANTENATAL CARE AND INSTITUTIONAL DELIVERY

4.1 SKILLED BIRTH ATTENDANCE AND ANTENATAL CARE

Data from NDHS 1996 to 2016 (Figure 1) indicate that there was a rapid and statistically significant increase in births attended by a SBA, after the introduction of the MIS in 2005 and the SDIP in 2006[6]. Births with a skilled attendant continued to increase after the introduction of the Aama Programme in 2009 but not at an obviously higher rate.

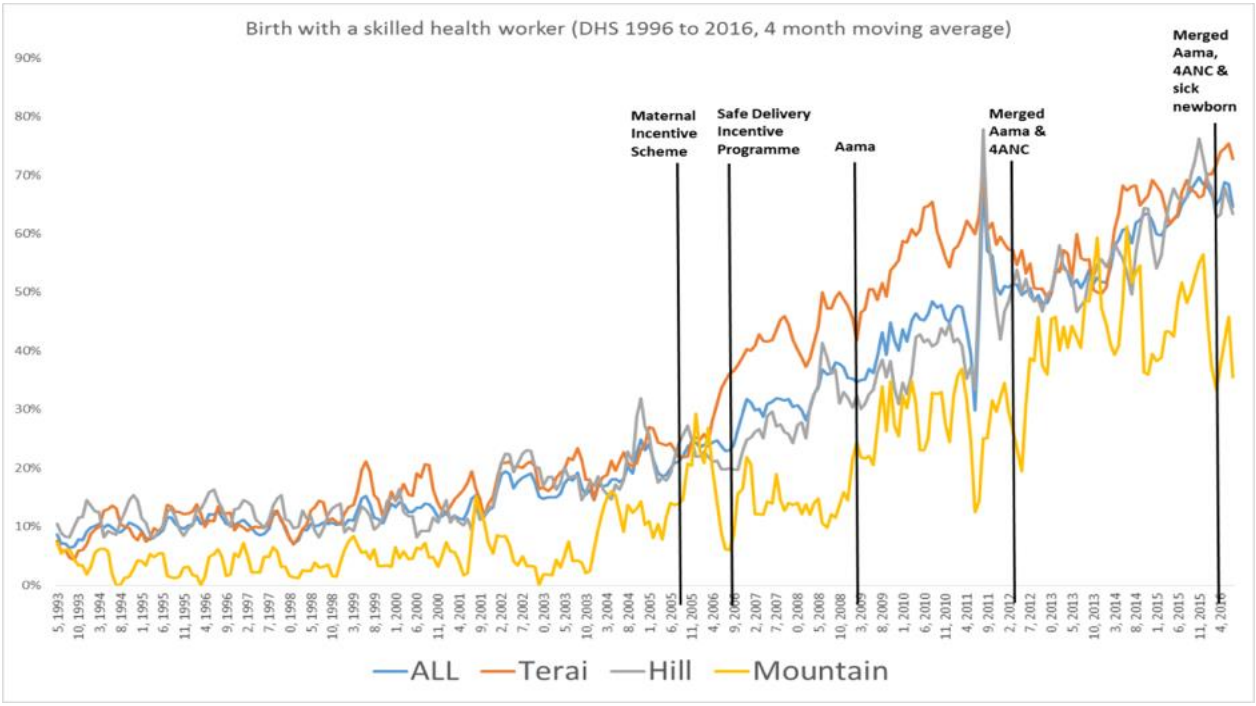


Figure 1 Percentage of Women Having Births with a Skilled Health Worker, NDHS 1996–2016

Variations were seen across the Terai, Hill and Mountain areas of Nepal[8] and the rates of skilled birth attendance in the Terai and Hills had reached, in 2016, similar levels. Skilled birth attendance in Mountain areas remains at a lower level than elsewhere.

The proportion of women completing 4ANC increased from about 2000, before the MIS and the 4ANC incentive were introduced (Figure 2). Trends in 4ANC have levelled off since 2011 and there is a convergence in the proportions of those completing 4ANC across geographical areas.

[8] Along the South to North transect, Nepal can be divided into three landform regions: the Terai, the Hills and the Mountains. Terai is the low land plain region and borders with India and includes the Gangetic plain on the southern most parts of the country, while towards the inner areas lie the foothills of range of hills and mountains. The Hills are actually mountains which generally do not get much snow, and can be anywhere between 3000 to 9000 feet high. The Mountains refer to the Himal range which are at least 10,000 feet or substantially higher and are snow covered. Unlike the Hills the Mountains are not continuous across Nepal. Also refer to map provided in Annex 2

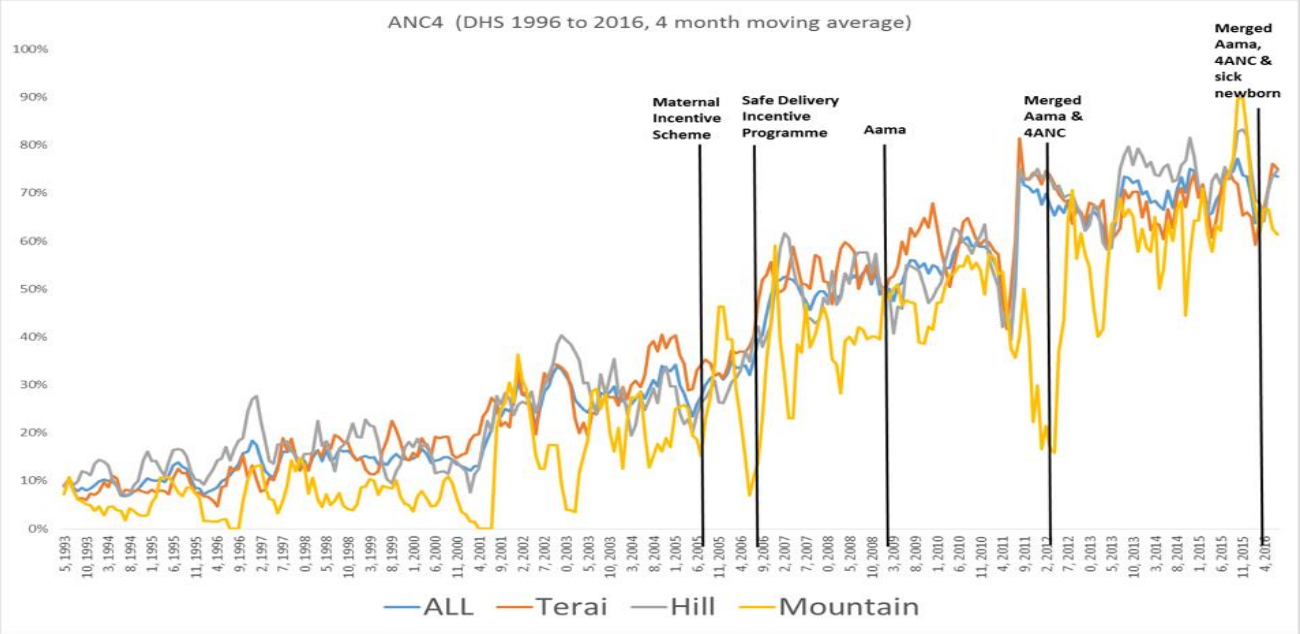


Figure 2 Percentage of Women Completing 4ANC, NDHS 1996–2016

4.2 Inequality: Wealth, Geography and Caste/Ethnicity

Data from the NDHS were used to generate a concentration index that measures the distribution of outcomes across socioeconomic groups based on an asset index[9]. A high value indicates high inequality and a low value indicates near equality.

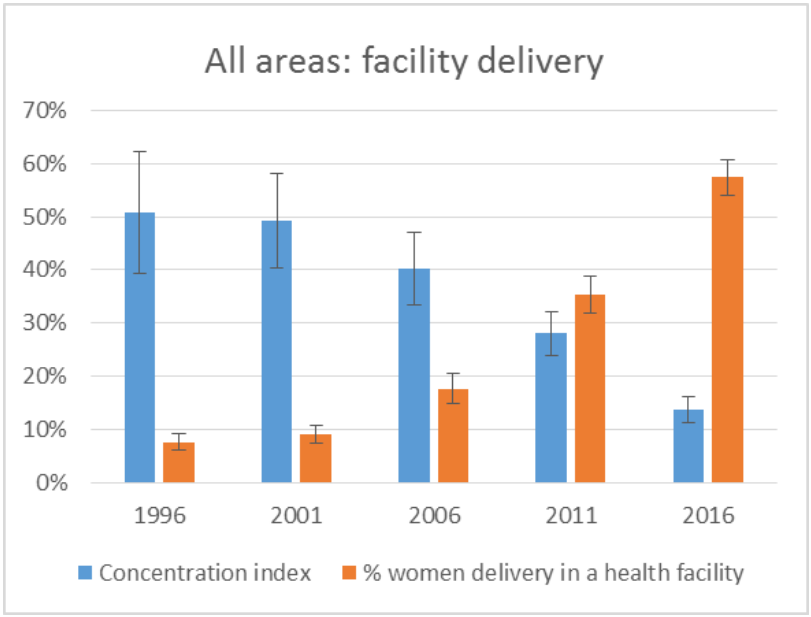


Figure 3 Concentration Index for Institutional Delivery, NDHS 1996 – 2016

Figure 3 shows that the proportion of women giving birth in a health facility has been increasing from 1996 to 2016: in 2016, 57 percent of women in Nepal gave birth in a health facility. The confidence intervals[10] for facility delivery do not overlap from 2006 onwards, which indicates that there is a high level of confidence that the results from the 2006, 2011 and 2016 surveys represent a real increase.

[9] The asset index is a measure of wealth that is broader than just income but does not include characteristics such as caste or ethnicity.

[10] A confidence interval gives an estimated range of values from a given set of sample data. In all the graphs illustrated here a 95 percent confidence interval is used which means that we are 95 percent confident that the mean is within the range provided.

Over the same time period, inequality in facility delivery, as measured by the concentration index, has been falling. There is no overlap between the confidence intervals from the 2011 and 2016 surveys, which suggests that there is confidence that inequality has declined between these two time periods.

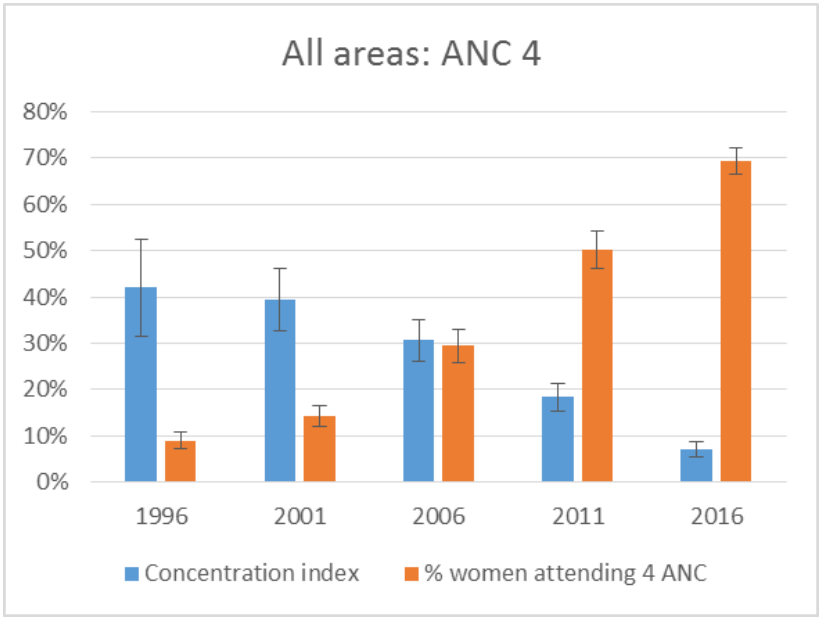


Figure 4 Concentration Index for 4ANC, NDHS 1996 – 2016

Figure 4 indicates that the proportion of women attending 4ANC has been increasing over the 20-year period from 1996, and that in 2016 nearly 70 percent of women in Nepal had completed 4ANC for their last live birth. Inequality in 4ANC as measured by the concentration index has been declining over the same time period and there is 95 percent confidence that the decline in the concentration index is an observed decline since 2006. In 2016, inequality, as measured by the concentration index, was very low (less than 10 percent) for women attending 4ANC. This means that there is little difference between women who have different levels of assets in completing 4ANC.

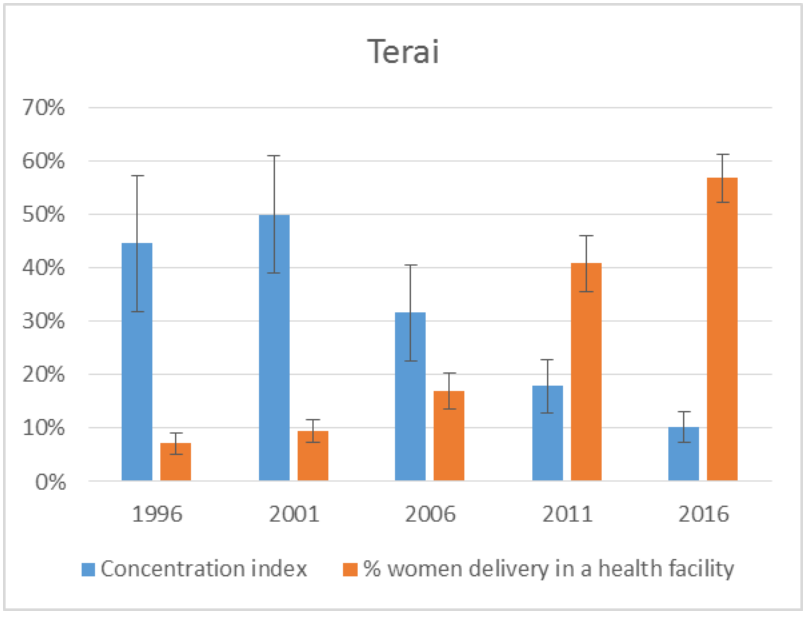


Figure 5 Concentration Index for Institutional Delivery, Terai, NDHS 1996–2016

Inequality in institutional delivery as measured by the concentration index has also fallen across all geographical areas. In the Terai the proportion of women giving birth in a health facility more than doubled between 2006 and 2011. In 2016, 57 percent of women in the Terai delivered in a health facility – the same level as for all Nepali women (Figure 5). The concentration index in access to facility delivery started to fall in the Terai from 2001 onwards. Between 2011 and 2016 there was no overlap in the confidence intervals, indicating that there is 95 percent confidence in this decline (Figure 6).

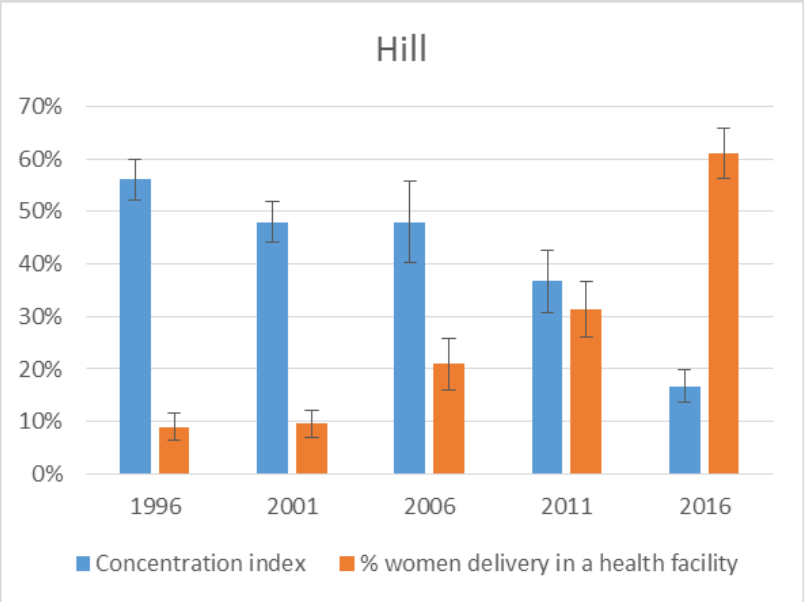


Figure 6 Concentration Index for Institutional Delivery, Hill, NDHS 1996–2016

Institutional delivery in the Hills has also increased and in 2016 was 61 percent, which is higher than the national average. In the Hills a decline in the concentration index started from 2006 onwards, with a 95 percent confidence in the decline between 2011 and 2016. The concentration index for 2016 is higher in the Hills (Figure 6) than in the Terai indicating that there is more inequality, as measured by the concentration index, in using facility delivery in the Hills than in the Terai.

Institutional delivery in the Mountains has increased from very low levels in 1996, 2001 and 2006. In 2016, 42 percent of women gave birth in a health facility: the Mountains are the only geographical area that has levels of institutional delivery less than the national average. Inequality in institutional delivery, as measured by the concentration index, however, has less of a clear pattern over the 20-year period, increasing in 2011, but then appearing to have fallen between 2011 and 2016. Given the wide confidence intervals, which may be because of the small sample in the Mountain areas, and the overlap in the intervals for the concentration index there is very low confidence that this represents a real decline over the five survey periods. (Figure 7).

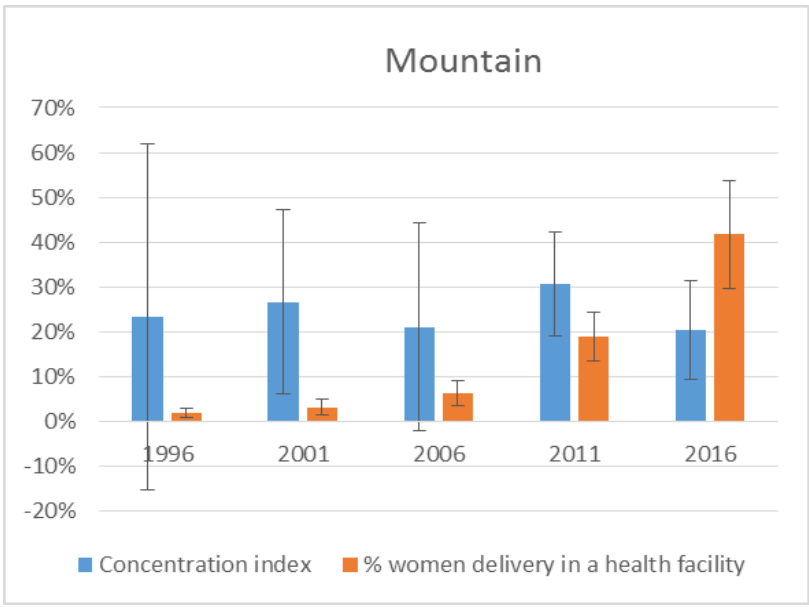


Figure 7 Concentration Index for Institutional Delivery, Mountain, NDHS 1996–2016

Another way of measuring inequality is with the Benefit Incidence Analysis (BIA), which is a monetary estimation of who benefits from the expenditure at a particular health facility. It is calculated by multiplying the use of services by the cost of care at each service level. The BIA does not take account of patient payments and is therefore a measure of gross rather than net benefit incidence. It also assumes that those women who received the transport incentive received the full payment.

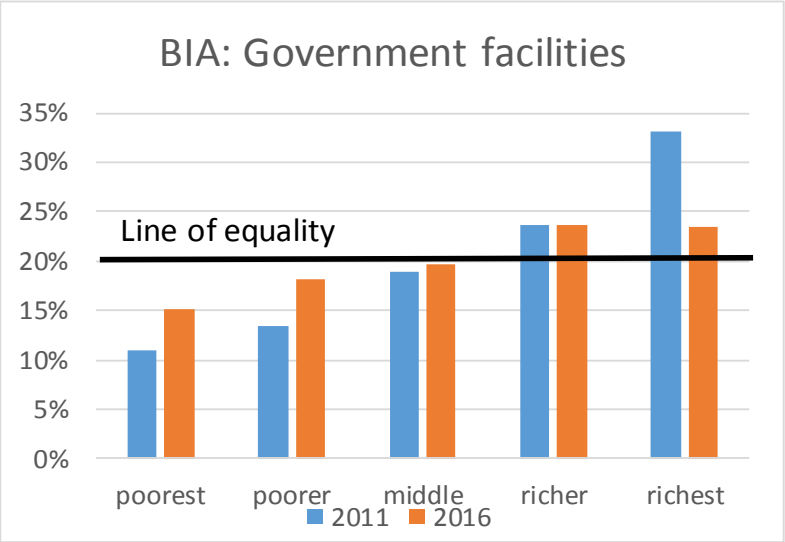


Figure 10 Benefit Incidence Analysis for Institutional Delivery, by Wealth Quintile in Government Health Facilities NDHS 2011–2016

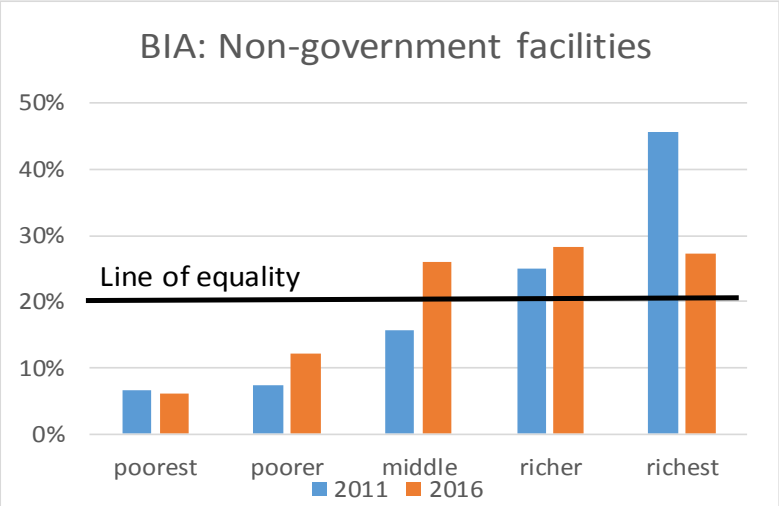


Figure 10 Benefit Incidence Analysis for Institutional Delivery, by Wealth Quintile in Non-government Health Facilities NDHS 2011–2016

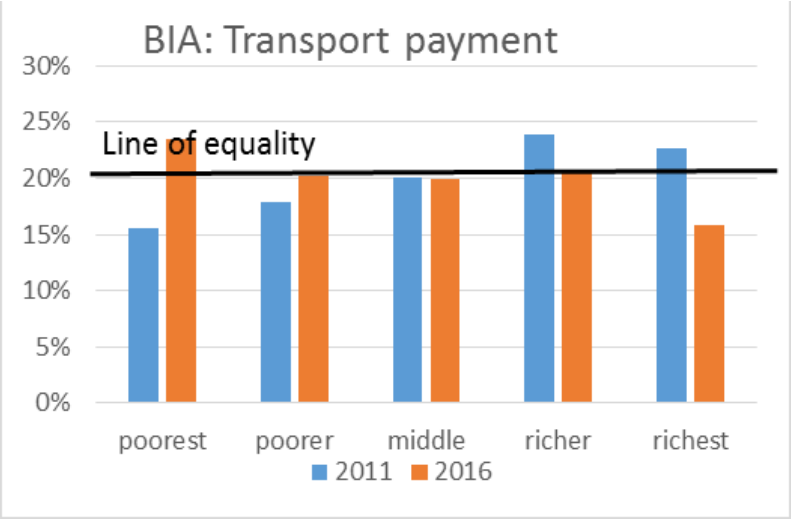


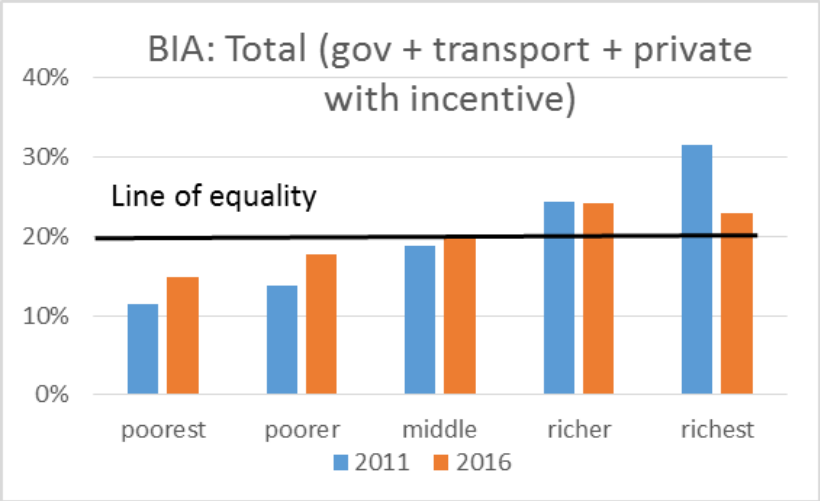
Figure 10 : Benefit Incidence Analysis for Transport Payment, by Wealth Quintile NDHS 2011–2016

Figures 8–11 present the results from BIA, and data from 2015 were used to estimate the costs of care[7]. Since each of the quintiles represent 20 percent of the population, if the benefits were distributed equally to each quintile, each would receive 20 percent of the benefits. This is represented in Figures 8–11 as the line of equality. Quintiles that are below the line of equality are groups that receive proportionately less benefit than expected given the size of the group, while those quintiles with benefits above the line are receiving proportionately greater benefit.

In general, the pattern observed across the BIA analysis is that the richer/richest women benefit more from the Aama Programme.

The wealthiest women benefit more than women in other wealth quintiles, in both government and non-government facilities. However, the women in the poorest quintile benefit more from expenditure in government health facilities than in non-government health facilities (Figures 8, 9).

Benefit incidence for the transport incentive (Figure 10) is more or less equal across wealth quintiles with, over time, an increase in the benefit to the poorest and a decrease in benefit to the richest.



Within the Aama Programme overall (Figure 11) when benefits from government and private sector and transport incentive are combined, all wealth quintiles seem to be moving towards the line of equality, and in particular in 2016, which means that the differences in BIA between wealth quintiles have been falling over time.

Figure 11 Benefit Incidence Analysis for All Inputs (Free Care in Public and Private Health Facilities and Transport Incentive) by Wealth Quintile NDHS 2011–2016

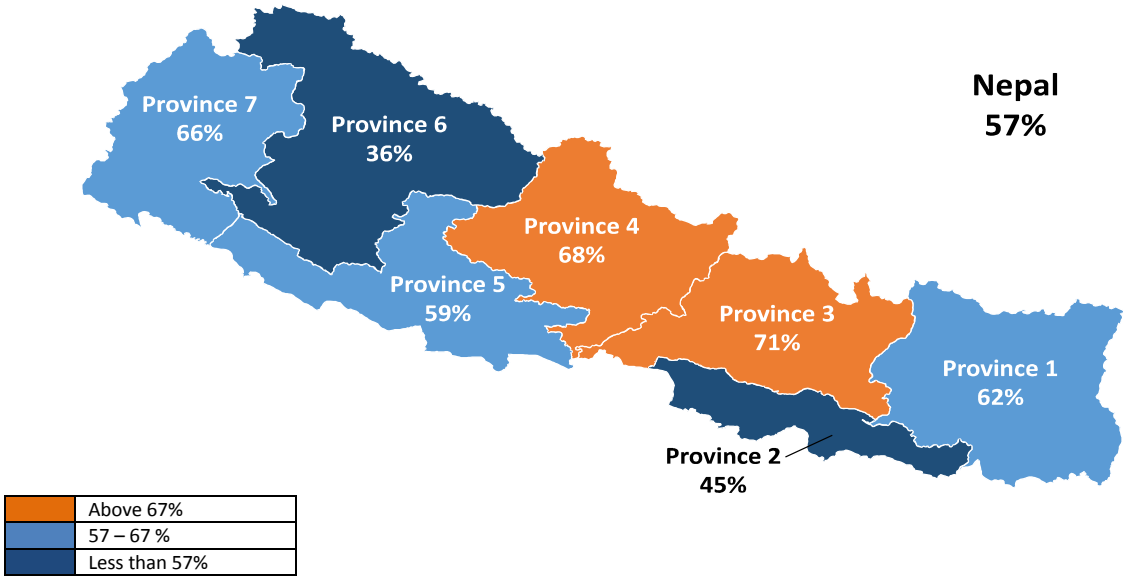


Figure 12 : Institutional Delivery by Province, NDHS 2016

Inequality has geographic and caste/ethnicity dimensions. Data from NDHS 2016 show that institutional delivery is above the national average of 57 percent in all Provinces other than Province 6 (36 percent) and Province 2 (45 percent) (Figure 12).

Between 2001 and 2016, there have been increases in institutional delivery across caste and ethnic groups in Nepal (Table 2). The highest increase was among Janajati women living in the Terai. Dalit women have increased attendance at a health facility for institutional delivery by 19 percentage points. Newar women experienced a smaller increase in attendance between the two survey periods but are already attending at very high levels.

Table 3 Institutional Delivery by Caste, Ethnicity, NDHS 2011–16

Ethnicity	2011	2016
Brahmin/Chhetri	44.1%	68.4%
Hill Brahmin	62.3%	84.8%
Hill Chhetri	34.4%	61%
Terai Brahmin/Chhetri	(57.4)	72.2%
Terai/Madhesi	37.9%	48.1%
Dalit	26.4%	45.4%
Hill Dalit	29.2%	53.3%
Terai Dalit	21.8%	35.8%
Newar	68%	74.6%
Janajati	28.9%	57.9%
Hill Janajati	28.7%	52.4%
Terai Janajati	29.7%	70.2%
Muslim	32.3%	51.6%
Others	-	-

The ethnic groups that in 2016 still had less than the national average (57 percent) of women giving birth in a health facility include Madhesi women living in the Terai, Dalit women living in both the Hills and in the Terai, Janajati women living in the hills and Muslim women (Table 3).

5 MANAGEMENT AND IMPLEMENTATION OF THE AAMA PROGRAMME

5.1 EXPANSION OF DELIVERY SERVICES IN HEALTH FACILITIES

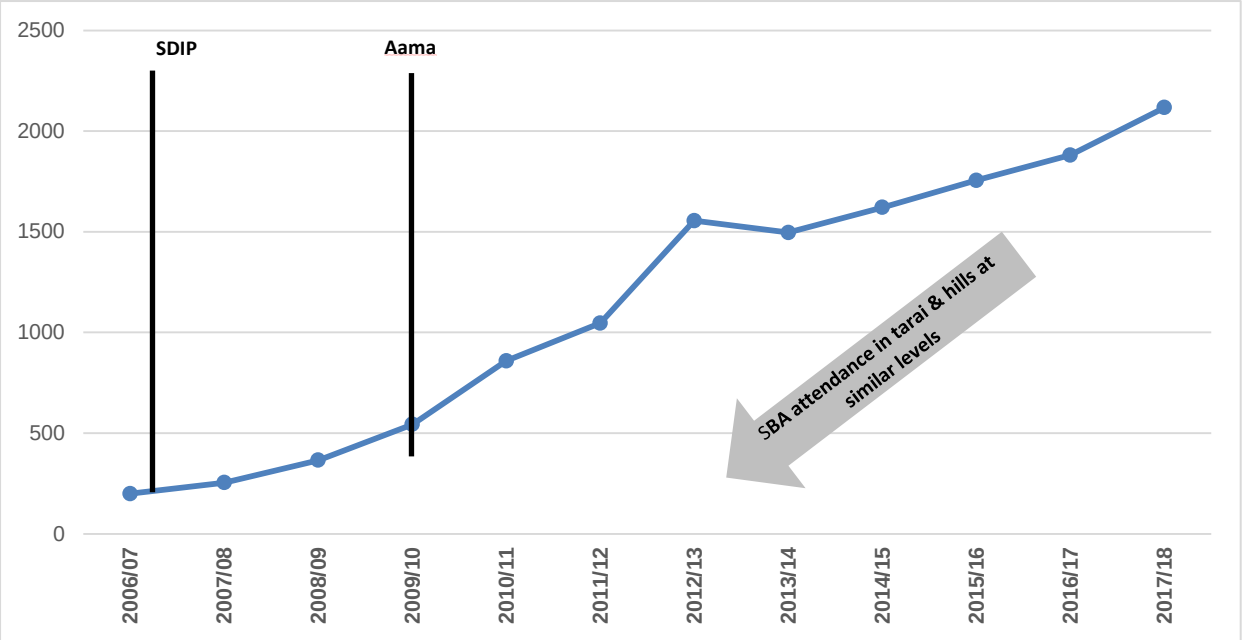


Figure 13 Increase in Birthing Centres at Health Posts over Time, HMIS

The number of health facilities with delivery services has increased over time. There was a quadrupling of BCs from about 500 to over 2,000 (Figure 13) and a tripling of Basic Emergency Obstetric and Newborn Care (BEONC) service sites from about 60 to 180 (Figure 14) driven by the targets in the GoN's Safe Motherhood and Neonatal Health Long-term Plan (2006–2017) and the

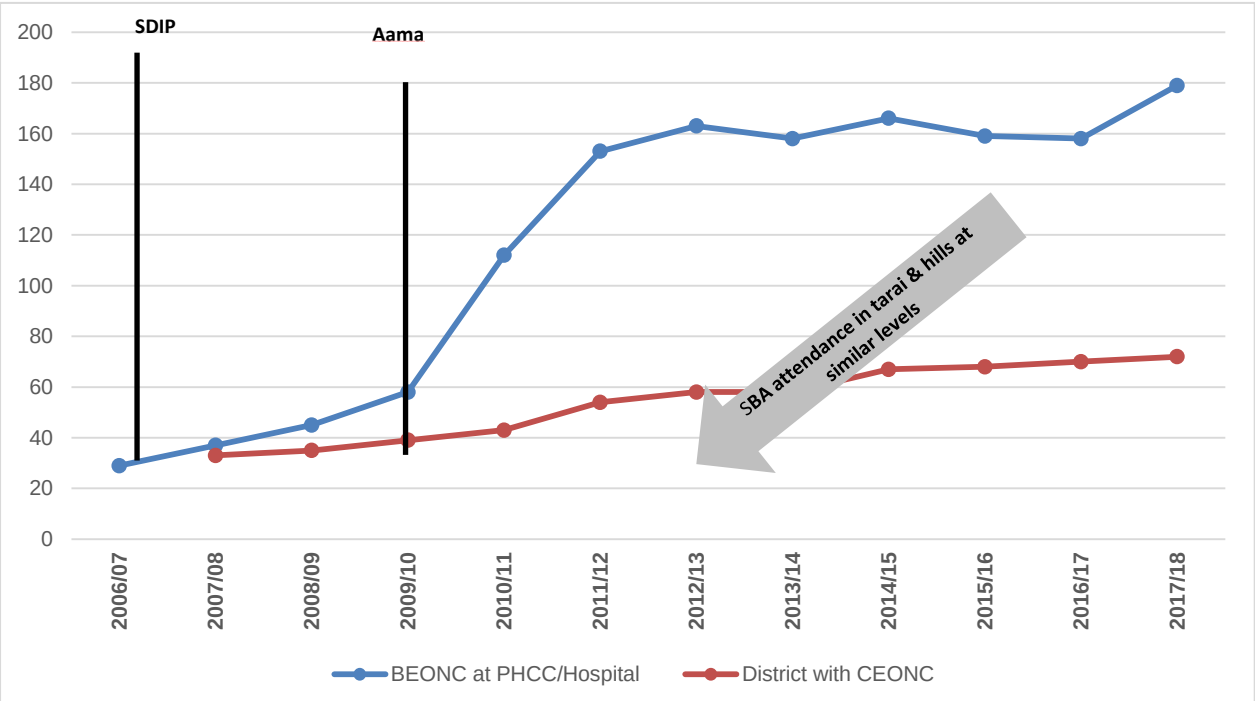


Figure 14 Increase in BEONC and CEONC Services over Time, HMIS

introduction of the Aama Programme in 2009. By 2017/8, CEONC services were available across 72 districts (out of the 77 districts); and 179 health facilities with BEONC services and 2,117 health posts with BCs were available across the country.

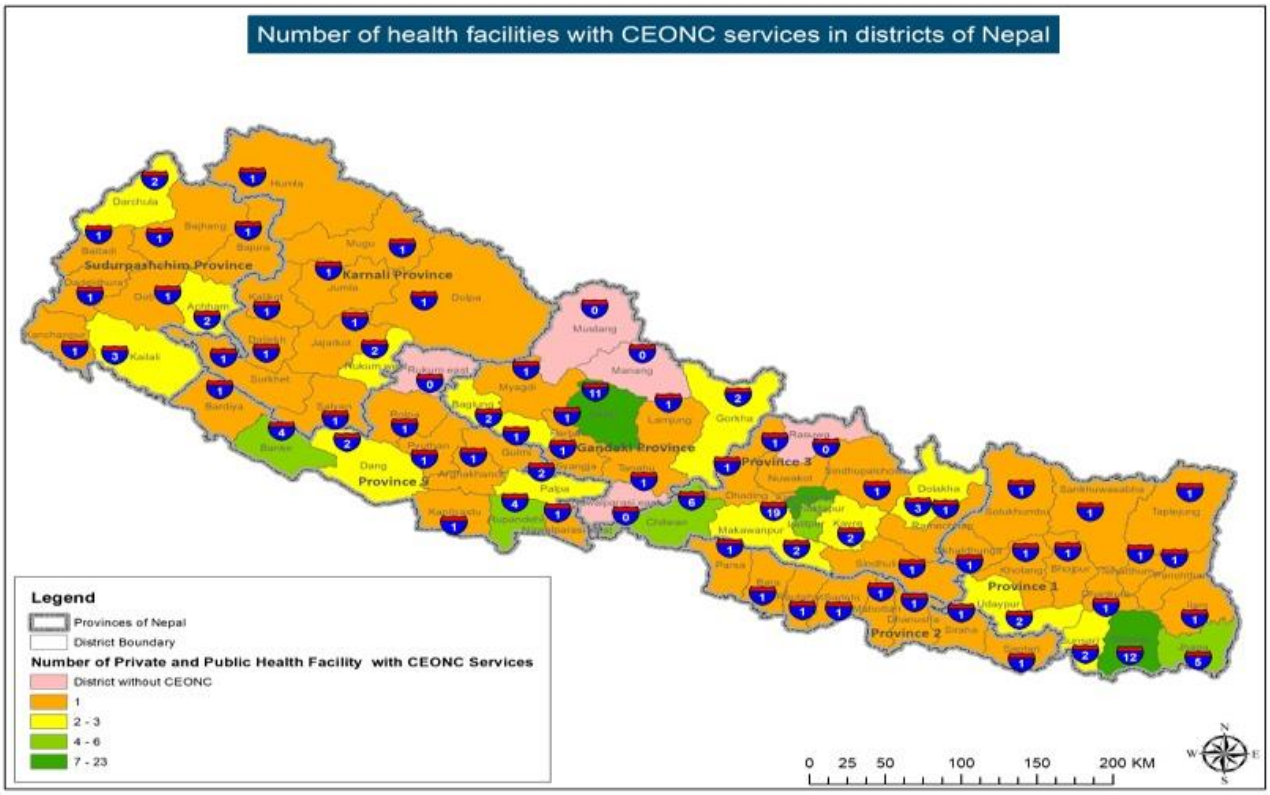


Figure 15 Provinces and Districts with CEONC services, HMIS

Initially the Aama Programme was only available in government health facilities. Over time there has been a rapid increase in participation from the private sector, with the Family Welfare Division (FWD) of the Ministry of Health and Population (MoHP) reporting more than 64 private health facilities accredited to the Aama Programme. CEONC services are particularly unevenly distributed (Figure 15) with a greater number of service sites in accessible areas. For example, in Morang there are 12 CEONC service sites; in neighbouring Jhapa there are five. Both districts are accessible with good transport links. There is at least one government CEONC institution in each Mountain district but there are no private CEONC facilities in the Mountain or Hill areas, other than in the Kathmandu Valley and in Pokhara.

5.2 UTILISATION PATTERNS FOR DELIVERY SERVICES

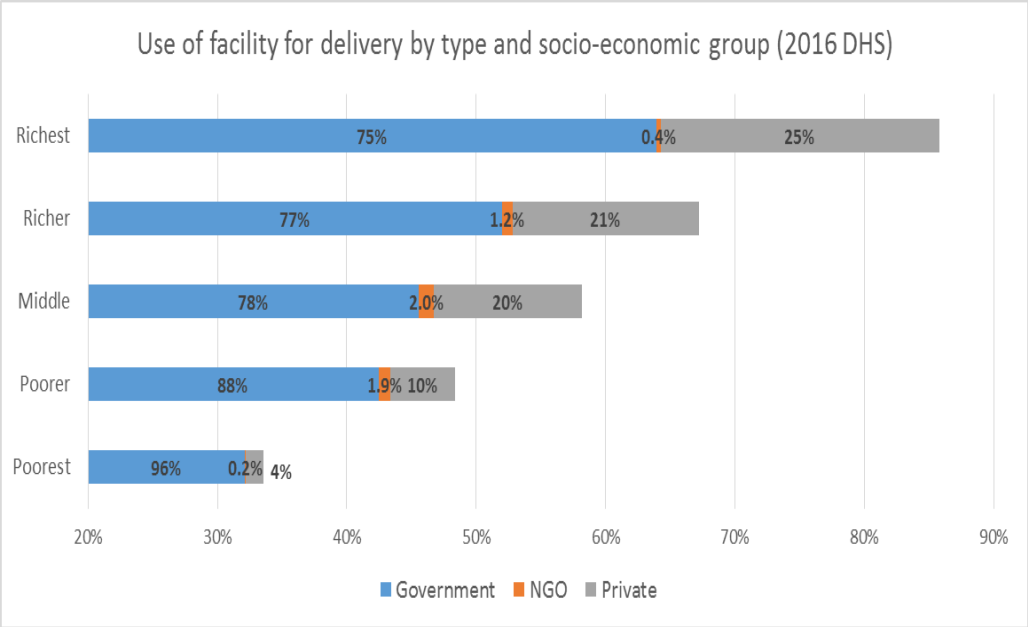


Figure 16 Institutional Delivery by Health Facility Type and Wealth Quintile, NDHS 2016

In 2016, the government continued to be the dominant provider of delivery services, with the majority of women across all wealth quintiles giving birth in a government health institution (Figure 16). More than 20 percent of women from the top three wealth quintiles delivered in a private health institution whereas only four percent of the poorest quintile do so. Provision of services though the NGO sector remains negligible.

CS rates are an important indicator of access to and quality of care. CSs are an important intervention that can save the lives of mothers and babies; however, at a population level, CS rates that are higher than 10 percent are not associated with reductions in maternal and newborn mortality rates[11].

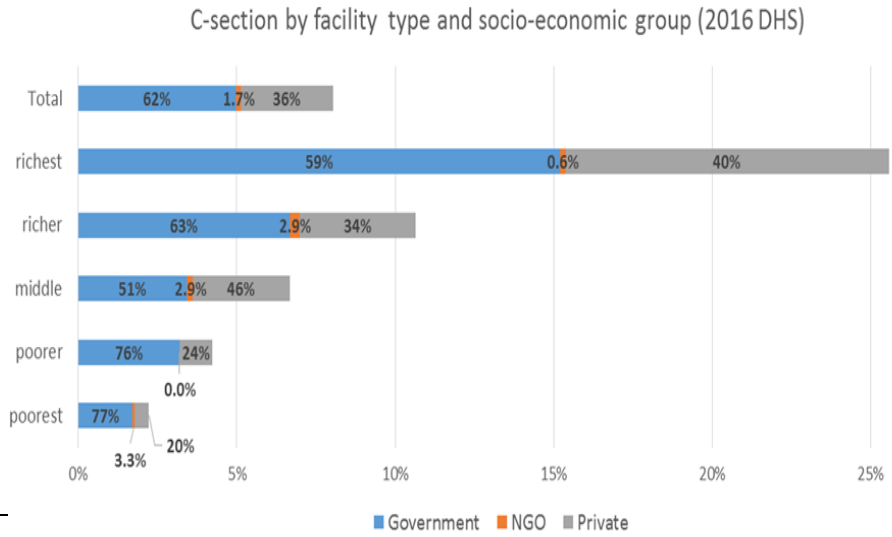


Figure 17 Caesarean Section Rates by Health Facility Type and Wealth Quintile, NDHS 2016

[11] WHO (2005)

In Nepal, in 2016, the national population-based CS rate was less than 10 percent (Figure 17), and the rates for the middle, poorer and poorest wealth quintiles are all below 10 percent. However, a very high CS rate (29 percent) is observed among the richest wealth quintile. And a disproportionate number of CS surgeries are performed in private health facilities relative to the overall number of deliveries in these facilities.

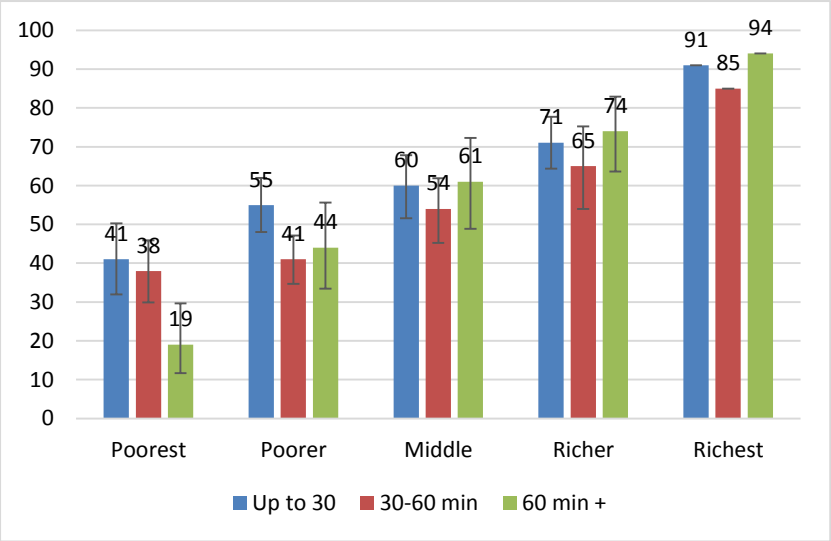


Figure 19 Institutional Delivery by Distance (Time Taken) and Wealth Quintile, NDHS 2016

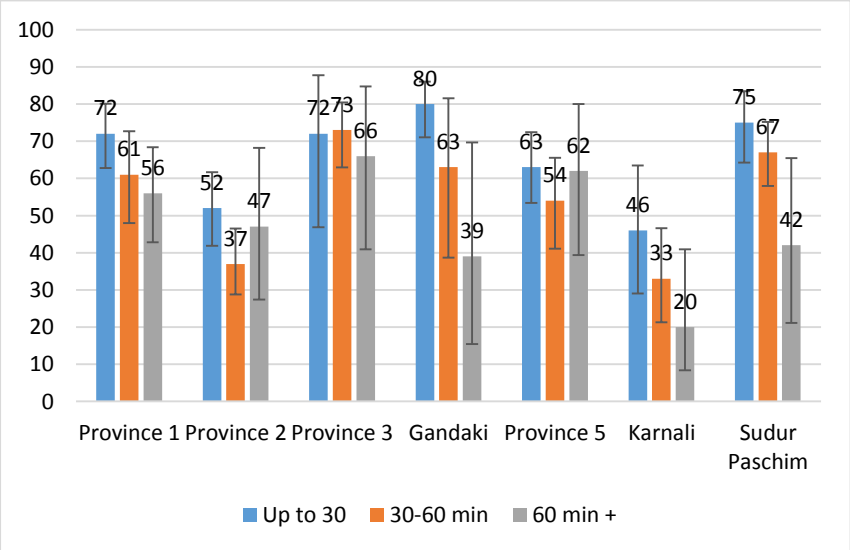


Figure 19 Institutional Delivery by Distance (Time Taken) and Province, NDHS 2016

There are many factors that influence whether a woman will use a health institution for childbirth. The time taken to travel to a health institution is often an important factor. Figure 18 shows that if a health institution is more than 60 minutes away, the uptake of institutional delivery amongst the poorest women, is half the level of the uptake when the health institution is less than 30 minutes' away. The confidence intervals for the categories 30–60 minutes and 60+ minutes do not overlap for the poorest quintile indicating a high level of confidence that this difference in uptake is significant.

For some Provinces (Provinces 2, 3, and 5) the time taken to travel to a health institution does not appear to have a regular pattern or an effect on whether a woman will give birth in a health facility (Figure 19). However, for Province 1 and Gandaki, Karnali and Sudur-pashchim Provinces, women who live more than one hour away from a health institution are less likely to have an institutional delivery than those women living closer to a health institution. The confidence intervals, however, do overlap, indicating that these differences are not significant.

Where women are able to access and travel to a health institution they tend to prefer to give birth in a higher-level health facility. Bypassing lower-level health institutions is costly and inefficient for the health system and yet is common both in Nepal and in other countries[8 9 10].

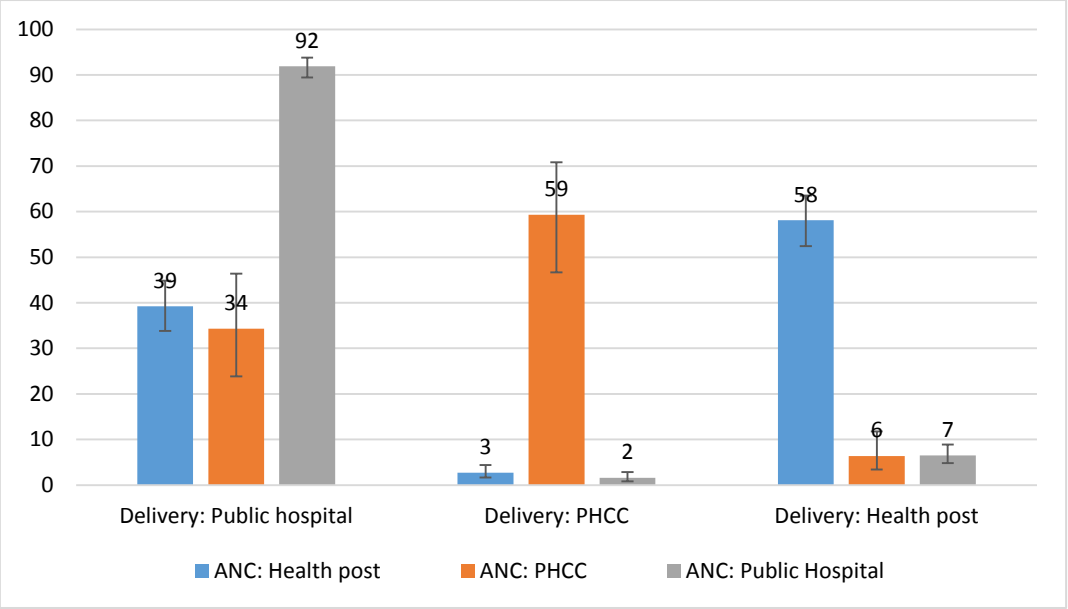


Figure 20 Use of Health Facilities for ANC and Institutional Delivery, NDHS 2016

Figure 20 shows that 58 percent of women who had any ANC care at a health post also gave birth at a health post and that 59 percent of women who had any ANC at a PHCC also gave birth at a PHCC. At the hospital level however, the utilisation pattern changes, with more women who had had ANC at lower levels of health facility (health post and PHCC) giving birth in a public hospital. For example, 39 percent of women who had had ANC at a health post and 34 percent of women who had had ANC at a PHCC gave birth in a public hospital.

5.3 Utilisation of Private Sector Health Facilities

Giving birth in a private health institution is a choice for a wider range of women, with data from the 2016 NDHS indicating that 20–25 percent of the richest three wealth quintiles gave birth in a private health institution compared to four percent of women in the poorest wealth quintile (Figure 16). Also an urban wealthy woman who gives birth in a private health institution is much more likely to have a CS. The CS rate is higher for births in private facilities (35 percent) compared to government facilities (12 percent); is twice as high in urban areas (12 percent) than in rural areas (six percent); and 28 percent of women in the highest wealth quintile had a CS compared to two percent of the poorest women. Data from 2019 for 29 hospitals covering a sample of 4,380 delivery records indicated that the CS rate was higher in government and private hospitals that do not participate in the Aama Programme (44 percent in private hospitals, 37 percent in government hospitals) and lower in hospitals that do participate in the Aama Programme (37 percent in private hospitals, 21 percent in government hospitals)[11].

Even if private health facilities are participating in the Aama Programme, delivery care is less likely to be free. The 2019 RA of the Aama Programme showed that 49.5 percent of women across all health institutions paid for delivery care; and while 46.5 percent of those who gave birth in government hospitals paid for the care, 61.6 percent of those who gave birth in private hospitals paid for it.

5.4 Readiness and Functionality of Health Facilities to Provide Delivery Services

Early neonatal deaths are more closely associated with pregnancy-related factors and maternal health than later neonatal deaths. Delivery in a health facility with a skilled provider should reduce early neonatal mortality.

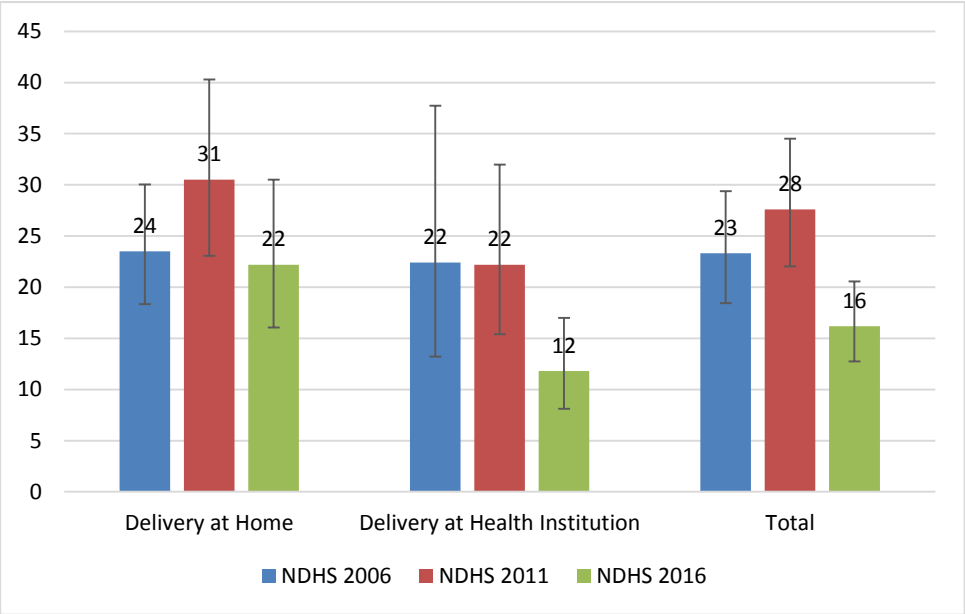


Figure 21 Early Neonatal Mortality Rate by Place of Delivery, NDHS 2006 – 2016

Figure 21 shows that early neonatal mortality rate[12] has reduced over the survey periods and in particular has reduced among those women who gave birth in a health institution. However, early neonatal deaths among those women who gave birth at home has not declined. The observed decline in deaths, however is not significant as evident from the confidence intervals.

Health facilities should have all the required drugs, equipment and supplies in order to be ready to provide safe services. The quality component of the 2019 RA indicated that 89 percent of BCs at health posts had the drugs, equipment and supplies to be able to perform obstetric first aid and 82 percent had the drugs, equipment and supplies to be able to perform newborn resuscitation. Twenty-one percent of primary health care facilities that provide BEONC services had the drugs, equipment and supplies to be able to carry out seven of the nine signal functions that are mandated at this level. Five out of 22 (22.7 percent) CEONC service sites at hospitals had the drugs, equipment and supplies to be able to carry out all nine signal functions. On an average, BEONC and CEONC health facilities were less likely to have the requisite drugs, equipment and supplies for the management of a retained placenta, compared to other signal functions. Lack of readiness is reflected in poor functionality of health institutions. Health services are not always functional in

[12] Early Neonatal Mortality Rate is defined as “Deaths from 0 to 6 days after birth among live born children expressed per 1,000”

Nepal: around one-third of zonal and higher-level hospitals and one-fifth of district hospitals had not carried out all CEONC signal functions at least once in the three months[13] preceding a 2015 survey.

Skilled health workers need protocols and guidelines to be able to provide effective care. The quality component of the 2019 RA recorded that only 66 percent of health institutions had a SBA reference manual and only 57 percent of all health institutions had copies of the Reproductive Health standard treatment protocols, and this was less than half (40 percent) among health posts. In terms of skills, 57 percent of all health institutions reviewed had filled in the partograph for the last three deliveries but only 10 percent of health posts had done so. Although, almost all mothers and their newborn babies were examined within one hour of delivery; and 80 percent of mothers and 74 percent of newborns were examined before discharge, this was only 66 percent amongst mothers discharged from government hospitals. Skills are developed not just from training and guidance but from practice too, and in Nepal only nine percent of SBAs meet the World Health Organization's recommended level of managing 15 deliveries per month in order to maintain skills[12], which fell to just four percent of SBAs in lower-level facilities as compared to 18 percent of SBAs working in hospitals.

5.5 Free Delivery Care, Transport and 4ANC Incentive

The Aama Programme Operational Guidelines clearly state which services, drugs and equipment should be provided free of cost to women. However, the 2019 RA of the Aama Programme indicated that about half of the women paid for a portion of "free" delivery care. More women paid for delivery services in private hospitals that participate in the Aama Programme than in government hospitals. Of those women who paid, the average was NPR 3,315 for a normal delivery (median NPR 2,000), NPR 5,476 for a complicated delivery (median NPR 3,000) and NPR 7,225 for a CS (median NPR 4,000). Of those women who paid for services, women paid most often for medicines, registration feesand clothes for the mother and newborn baby. However, this data should be interpreted with caution as the guidelines for the Aama Programme outline what standard services and drugs the heath facility should not charge for, but there is no guidance as to whether the health facility can charge a registration or a cleaning fee or items such as sweets. About 29% of women spent money on medicine and the median amount spent was NPR 3, while 15% of women spent money on medicine and the median amount spent was NPR 10, and 12% of women spent money on medicine and the median amount spent was NPR 150.

The majority of women (94 percent) who gave birth in a health institution received the transport incentive. But 41 percent of these women did not receive the full amount to which they were entitled at the time of discharge. Of all women who were eligible for the 4ANC incentive only 50 percent reported receiving it.

5.6 Budget and Fund Flow

At the start of the Aama Programme the GoN received technical and financial support from the UK Government; from 2013 the GoN has been the sole funder of the programme and technical support from the UK has gradually reduced. The amount of money allocated by the GoN to the Aama Programme (free care, transport and 4ANC incentive) has increased over time from NPR 574 million in 2009/10 to NPR 1.15 billion in 2016/17 and at this time the Aama budget represented 36

[13] Signal functions performed in the last three months is a standard measure of functionality for emergency obstetric care in large-scale surveys. However, health facilities can be penalised if the catchment area and caseload is low as in the Mountains of Nepal.

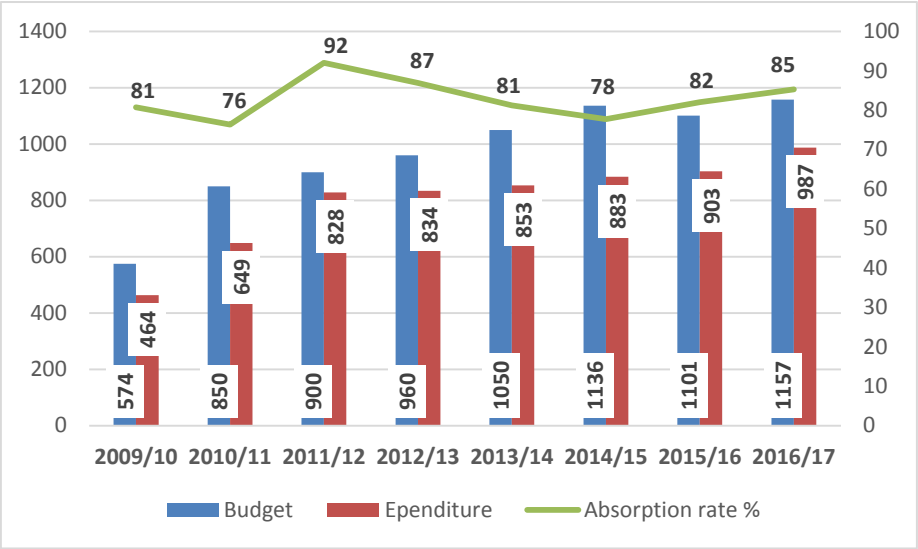


Figure 22 Allocation, Expenditure and Absorption of Aama Programme Budget in NPR Millions

percent of the FWD's budget and 2.85 percent of the MoHP budget. In 2018/19, NPR 1.94 billion was allocated to the Aama Programme; this allocation included money for the transport and 4ANC incentives and reimbursement to health facilities for free care alongside money for other activities such as free baby clothes and safe abortion. The spending as a proportion of the allocated budget (absorption rate) of the Aama Programme is on average 85 percent which is higher than the absorption rate of the national budget (81.8 percent).

In 2018/19, the Federal MoHP allocated NPR 1.08 billion (56 percent) of the Aama Programme budget to Local Government, NPR 0.63 billion (33 percent) to the Provincial Governments and NPR 0.22 billion (11 percent) as a conditional grant for health facilities under their jurisdiction to implement the Aama Programme, such as PHCCs, Health Posts and the private hospitals that are accredited to the programme. Approximately NPR 4 million was allocated to the Federal Government as a conditional grant to implement the Aama Programme in the National Maternity Hospital.

The 2018/19 budget speech announced that the transport and 4ANC incentives should be doubled and an additional NPR 18 million was allocated to the Aama Programme budget. However, it is estimated that an additional NPR 27 million will be needed to satisfy this commitment. Delays in the flow of funds from the centre to lower levels affect the absorption rate of the budget. During this period of transition to a Federal system there have been delays in the release of funds owing to a lack of authorisation letters and budget operational guidelines.

5.7 Management and Monitoring

The management of the Aama Programme is the responsibility of the relevant government administration. As is noted in the literature review, gaps in implementation fidelity are common across PBF programmes and are often a key reason for why programmes fail to meet their objectives. The 2019 RA indicated that 42 percent of Local Governments and 66 percent of health facilities had a copy of the most recent 3rd edition of the 2017 Aama Programme Operational Guidelines. However, most administrators and health staff were managing the programme based on

their own past experience; some health staff did not know that there had been updates to the Aama guidelines and were referring to 1st or 2nd editions. A key part of the Operational Guidelines is a description of how to provide incentives to women and how health institutions should spend the reimbursement costs for delivery in maternal health care. However, most of the health institutions (80 percent) in the 2019 RA reported that they are spending more than 50 percent of the reimbursement on topping up health workers salaries and making smaller allocations to buying medicine and equipment.

It is expected that the overall quality of health services, including maternal health services, would be monitored by the government. The recently updated 2017 National Quality Assurance and Improvement System Implementation Guideline has clear directions about the roles and responsibilities of different levels of government and health facilities within the federal context. The GoN has also developed Minimum Service Standards for all levels of health institutions. However, in interviews with key stakeholders it became clear that there is limited leadership and ownership on quality from within the health system. Moreover, at this time during the transition to a Federal State, many provincial- and local-level political leaders are focused on investing in infrastructure as "visible" development outcomes.

6 NON-USERS OF THE AAMA PROGRAMME

Data from the 2016 NDHS indicate that Province 2 and Province 6 still have low levels of women giving birth in a health institution (Figure 13). According to the 2016 NDHS, amongst those who delivered at home, a majority (80 percent) of mothers in Province 2 stated that it was not necessary to go to a health institution to give birth and 40 percent of mothers in Province 6 reported that the health institution was too far or transport was not available[13]. These constitute significant and context-specific barriers to access for the poor, remote and disadvantaged women that need to be addressed.

Distance to a health institution is still a barrier to institutional delivery particularly for poor women and those living in geographically remote areas. As shown in the previous section, poor women who live more than one hour from a health institution are less likely to use a health institution for delivery care, whereas the use of a health institution for childbirth is not affected by distance for wealthier women.

The geographical barriers in remote mountain areas cannot be underestimated and the cost of reaching care is often prohibitive to use. Yet it is not cost-effective or safe to have many health facilities in areas with low caseloads. Women interviewed in the mountains only considered going to a health institution if a complication occurred during pregnancy or labour. Women could negotiate whether to seek care for a complication or an obvious ailment for themselves or a newborn but appeared unable to discuss planning for routine delivery care with key family members.

Birth preparedness in the mountains is insufficient, with planning for emergencies, including means of transport, rarely part of a birth plan: in interviews with women they recalled that they were often told by health workers to come to the health institution when labour starts. Given that life-threatening complications can arise for approximately 15 percent of all pregnant women and knowing who will develop these complications is largely unpredictable, better birth preparation and planning is needed for all women.

Sociocultural factors play a leading role in inhibiting the use of services. Madhesi, Dalit, and Muslim women living in accessible areas still have low utilisation levels of facility delivery. Interviews with Madhesi, Dalit and Muslim women indicated that barriers are complex and involve a combination of a lack of agency, language barriers, need to seek permission and restrictions to movement. However, local solutions were also found in some communities, with traditional attendants still attending births but having paramedics waiting outside the house in case of complications or to provide oxytocin to “assist” in deliveries. The safety of this kind of provision needs to be examined more closely.

7 DISCUSSION AND RECOMMENDATIONS

The MIS, SDIP, and the Aama Programme have made an important contribution to ensuring the better health of mothers and their newborns in Nepal. The context in which maternal health is delivered has changed dramatically since 2005, including the creation of the Federal State. Given both the progress and the changes outlined above, the GoN should consider adopting the following recommendations:

7.1 POLICY

Summary of Policy Recommendations

- Delivery services (normal, complicated, CS should remain free of cost to all women who use government health services until the end of the Sustainable Development Goals (SDGs) in 2030
- Emergency referral (transport support) should be free to women who use government health services. The government's draft referral guideline and protocol should be endorsed and women referred according to the protocol
- Prepare and endorse a Strategic Framework for the Aama Programme that is owned by Federal, Provincial and Local Government, which would include:
    - New roles and responsibilities of health institutions in the federal context
    - Adoption of criteria set out in the GoN's 2019 Safe Motherhood and Newborn Care Roadmap for the rationalisation of birthing centres
    - Free delivery care for all women giving birth in a government health institution and reimbursement for transport and service costs associated with emergency referral
    - All levels of government health facilities being mandated to provide BHS package and/or the Aama Programme and reimbursed for services through these mechanisms
    - Private health institutions that are accredited to the SHI scheme being reimbursed through the SHI mechanism
    - Private health institutions only remaining in the Aama Programme if they are needed to increase access to delivery care and/or to reduce overcrowding in a nearby government CEONC institution
    - Local Government having the authority to top up the transport incentive with money generated from local revenue
    - Programme monitoring through rapid annual assessments
- Prepare and endorse a National Health Protection Strategic Framework that is owned by Federal, Provincial and Local Government and identifies which health services that should be free at the point of use and for whom, and which services need to be incentivised with DSF mechanisms to encourage better uptake and/or compliance

The costs associated with delivery care remain a key barrier to the use of health facilities for childbirth for many Nepali women. Women are still paying for care even though health institutions accredited to the Aama Programme should provide free delivery services to the user. The GoN should ensure that all components of the Aama Programme remain free until the end of the SDGs period in 2030. The transport and service costs associated with emergency referral to a higher-level health institution should also be free at the point of use.

A Strategic Framework for the Aama Programme should be developed to make the Programme relevant to the Federal context and the roles and responsibilities of the different levels of government. The framework should address the relationship between the Aama Programme and more recent policy commitments such as the SHI and the BHS package. The current Aama Guidelines do not have any population or geographic criteria for setting up BCs. Given the

proliferation of these facilities, the proposed framework should support the rationalisation of lower-level BCs as outlined in the government's 2030 Safe Motherhood and Newborn Health Roadmap[14].

The international literature indicated that over the longer term, PBF programmes should evolve to cover a wider range of services and serve more of the health system[14,15]. In Nepal, some components of the Aama Programme are already included in the free BHS package. After the costed BHS package has been rolled out across the country the reimbursement to health institutions for normal delivery and the management of complications should therefore be removed from the Aama Programme. CS and transport support for emergency referral are not included in the BHS package but should be provided free of charge at the point of use. All levels of government health institution should be mandated to provide the BHS package and what remains of the Aama Programme (CS and emergency referral).

It is no longer clear how private sector participation is benefiting the Aama Programme. There are no private sector CEONC services in the Mountains where they are needed the most and the majority are located in the Terai. Private health institutions should only remain in the Aama Programme if they are more than two hours' travel time from a government CEONC site and/or if the private CEONC site is needed to reduce overcrowding in a nearby government CEONC institution. Overcrowding in a government CEONC site could be measured by more than 90 percent bed occupancy in maternity wards. This would mean that, over time, fewer private health facilities would participate in the Aama Programme.

Besides the Aama Programme, there are a number of activities in the MoHP that are designed to protect the poorest people in Nepali society from catastrophic health expenditure, some of which include: the BHS package; free essential drugs; a subsidy for the poorest in the SHI Programme; payments to providers to perform for sterilisation, uterine prolapse and the treatment of chronic illness for the poor; incentives to tuberculosis and HIV patients to complete treatment and so on. The system is ad-hoc, complex, inefficient and costly. A National Health Protection Strategic Framework that is owned by Federal, Provincial and Local Government should be drafted and endorsed, which identifies which health services and medicines should be free at the point of use and for whom. It should also identify which services need to be incentivised with DSF mechanisms, such as cash transfer, to encourage better uptake and/or compliance of services.

[14] The 2030 Safe Motherhood and Newborn Health Roadmap states that all women should be encouraged to give birth in a BEONC/CEONC site, and the site should be accessed easily within approximately two hours' walking distance. Selected BCs in the Mountains and Hills that are more than 2 hours' walking distance from a BEONC/CEONC site should be upgraded as a Strategic Birthing Centre able to provide 24 hours normal delivery and obstetric first aid services with referral links, including means of transport and communication, with pre-identified functional CEONC sites.

7.2 FINANCING

Summary of Financing Recommendations

- When the costed BHS package is approved the cost of providing CS services should be added as an earmarked component of the conditional grant
- Transport and services for emergency referral should be provided as a conditional grant to Federal, Provincial and Local Governments where health institutions with CS services are available, as a case-based payment
- Discontinue the 4ANC incentive and do not add any further demand-side incentives to the Aama Programme
- Double the transport incentive in Local Government areas in the Mountains that have institutional delivery rates lower than 50%
- Allow the Local Government to top up the transport incentive with local revenue
- In the future, if the Government decides to transform the SHI scheme into a central pooling mechanism for health, the "free delivery" component of Aama and the BHS package should be integrated and the transport incentive component of the Aama Programme should be part of the National Health Protection Strategic Framework, as outlined in Section 7.1.

Normal delivery and the management of complications are part of the free costed BHS package and will be channelled in the future as a conditional grant to different levels of government. CS should be free and added as an earmarked component to the BHS conditional grant and made available to Federal and Provincial Government health institutions that already provide CS services. Transport for emergency referral from a lower- to a higher-level health institution should be free and provided as a conditional grant to Federal, Provincial and Local Governments where health facilities with CS services are available. The FWD's draft referral protocol and guidelines should be approved to ensure that referrals are appropriate and necessary. The transport costs associated with an emergency referral should be refunded to health institutions as a case-based payment.

The Aama Programme was costed in 2015 [16] and key findings indicated that the rate of reimbursement for delivery care was sufficient to compensate for the direct costs in both public and private health facilities, for different levels of facility, for different levels of care, and for all geographical regions. However, the rate of reimbursement was not sufficient to cover the indirect costs of delivery care. This is one of the reasons why private health care institutions do not want to participate in the Aama Programme or, if they do participate, they tend to shift the indirect costs to the patient and charge for delivery services.

Private health institutions that are empanelled in the SHI scheme should be reimbursed for delivery services through the insurance scheme. The reimbursement rates in the SHI scheme are higher as they include direct and indirect costs and are therefore more suited to private health institutions that are not part of a large government health system able to share and cross-subsidise indirect costs. The proposed Strategic Framework for the Aama Programme should explain that the reimbursement for delivery care is designed to be sufficient to cover only the direct costs of delivery care and that the provision of free delivery services by the health care provider will be monitored in both public and private health care institutions participating in the Aama Programme.

In order to encourage better practice and to manage escalating costs, the 2015 costing study recommended that a comprehensive national reproductive health clinical protocol should be developed to ensure that delivery practices, drugs, prescribing patterns, involvement of trained health workers, use of diagnostic services and use of supplies in both public and private health facilities are more uniformly applied. There is now a National Reproductive Health Clinical Protocol

but the application and enforcement of the protocol is not uniform or monitored in both public and private health institutions. The RA of the Aama Programme should include questions on the use of the protocol in participating health institutions.

Given that 4ANC attendance has already reached reasonably high levels (69 percent of women in 2016) and that inequality between income groups in the use of 4ANC is almost zero, the 4ANC incentive should be discontinued and the NPR 300 cash incentive for completing 4ANC according to protocol should be dropped. We do not recommend adding any other demand-side incentives, such as for postnatal care, to the Aama Programme but to focus on providing the transport incentive to 100 percent of women at the time of discharge and have targets for an annual increase from the current 2019 level of 50 percent of women receiving the full transport incentive. The Aama Strategic Framework and Operational Guidelines should be updated accordingly.

The transport incentive should continue to be geographically targeted with different rates in the Mountains, Hills and Terai. The international literature indicates that demand-side incentives may not be high enough to overcome socio-cultural issues, such as those associated with home births[17181920212223] but they need to be high enough to offset the opportunity costs of accessing a service, particularly for the poor and those living in mountainous areas. In FY 2018/19, the transport incentive was doubled across all geographical areas: women who live in the Mountains now receive NPR 3,000, those in the Hills NPR 2,000 and those in the Terai NPR 1,000. However, NPR 3,000 is still not enough to offset the prohibitive costs of accessing care in the Mountains and the transport incentive should be increased to NPR 6,000 in Local Government areas in the Mountains and difficult hills that have low rates of health facility delivery (less than 50 percent of women).

As noted above, financial incentives tend not be high enough or even appropriate to overcome sociocultural issues, such as those associated with home births. Data show that the combination of free delivery care and the transport subsidy of the Aama Programme is not enough to encourage Dalit, Muslim and Madhesi women to give birth in a health facility. We recommend that in all areas, Local Government should have the ability to top up the transport incentive with money generated from local revenue and/or provide other kinds of financial or in-kind incentives to encourage facility delivery. But critically, financial incentives should be complemented with additional activities at the facility and community level designed to address the cultural, social and health systems barriers to accessing care and to increase use among those women who still have low levels of institutional delivery.

If, in the future, the GoN decides to transform the SHI scheme into a central pooling mechanism for health, the “free delivery” component of the Aama Programme (including free CS and free referral) and the BHS package should be integrated into the SHI at the same time. The Aama Programme’s transport incentive should be part of the National Health Protection Strategic Framework as outlined above in Section 7.1.

In 2018 the GoN introduced the Social Security Fund (SSF). Registered employers and their employees each contribute 20 percent of the employee’s monthly salary to the SSF; these contributions will cover benefits such as pensions and accident, disability and medical treatment, including delivery services for women. To date, the uptake from employers has been low and the fund is confined to the distribution of pensions. However, in the future, the SSF will expand and the government will need to consider consolidating delivery services between different financing mechanisms. We would recommend that delivery services continue to be free at the point of use in government health institutions and that the benefits in the SSF and the SHI scheme be consolidated. This would mean in practice that if a pregnant mother is not insured through the SHI or through the SSF she will be able to get free delivery services at government health institutions

and facilities. If a pregnant mother is insured through the SHI scheme, she can use either government services or private health institutions that are empanelled with the SHI. If a pregnant mother is insured through the SSF she can use government services or any other private provider of her choice. Empanelment ensures that private health care providers adhere to clinical standards and provide high-quality services. The SSF does not have a system of empanelment of private providers and would benefit from the SHI scheme's system and knowledge in this area.

7.3 SERVICE QUALITY

Summary of Quality Recommendations

- Monitor whether health institutions are investing the delivery services reimbursement on maternity care
- Monitor the use of the National Reproductive Health Clinical Protocol in both public and private health institutions that participate in the Aama Programme.

Maintaining quality and providing respectful care is a systemic issue that cannot be addressed by the Aama Programme alone. Systems are in place to monitor the quality of services with, for example, the Operational Guidelines for Quality Assurance and Improvement Systems, the Minimum Service Standards and activities to support improved clinical skills, which need to be enforced and scaled up.

A key area in which the Aama Programme could contribute to service quality is that the Operational Guidelines clearly state that health institutions are required to spend the Aama reimbursement on maternity care. To date, this had not been enforced. The government should establish normative guidelines for expenditure on key maternal health items that are outlined in The National Reproductive Health Clinical Protocol and are based on average spending at different levels of health institution. Information on expenditure on key maternal health items could then be entered into the Transactional Accounting and Budget Control System (TABUCS) and monitored by the government on an annual basis.

Expenditure on maternal health should be examined in more detail in a random sample of government health institutions. The outcome of both the national expenditure information from TABUCS and of the smaller sample of health facilities should be reported in a government letter. The letter should instruct authorities to provide additional support to health institutions that are not investing in maternity care and periodically assess progress. If a health institution continues to fail to spend the Aama Programme reimbursement on maternity care then the health institution is at risk of providing poor quality services and should be deselected from providing delivery care.

7.4 IMPLEMENTATION AND MONITORING

Summary of Implementation and Monitoring Recommendations

- Update the Aama Operational Guidelines in line with the endorsed Strategic Framework for the Aama Programme
- Distribute the updated Operational Guidelines to all Federal, Provincial and Local Government entities alongside resources to introduce the revised guidelines
- Simplify the annual Aama RA: it should be focused on identifying mismanagement and monitoring free care, the full incentive and health institutions' use of the national reproductive clinical protocol, and designed to detect trends.

A key area of the Aama Programme that needs improvement is, as the international literature emphasised, implementation fidelity. Very few levels of government administration and health institutions have copies of the Aama Operational Guidelines, and those that do, tend to have old versions. Given the changes in the Federal, Provincial and Local Government roles, the possibility of a conditional grant being introduced for the costed BHS package, and the need to update the Aama Operational Guidelines to be harmonised with other policies and programmes, allocating resources to specifically introduce the revised Aama Operational Guidelines and the BHS package to all levels of government administration and health facilities will be important.

The annual RA of the Aama Programme should be simplified and streamlined to focus on: identifying mismanagement; monitoring whether the incentive is received by women in full and at the time of discharge; whether free delivery care is received and if charges are made; the amount of the reimbursement for delivery services that is invested in maternal health care; and the use of the reproductive health protocol. The streamlining of the RA could involve removing redundancies and repetitions in the tools, introducing cross-checks to ensure validity of the data, and updating tools to make them more responsive to current data needs. Free care should be monitored for delivery services and for other "tracer" services in the BHS package. As in Section 7.3, a sub-sample of health institutions should be monitored to ensure that funds are being invested in maternity care.

The RA should have a robust sampling frame to be able to identify trends in key indicators over time with confidence. The outcomes of the RA should continue to be reported through a government management note and must include direct feedback to relevant health authorities and facilities.

Targets and indicators for maternal and newborn health have been identified as part of the government's Safe Motherhood Roadmap and should be monitored annually in National and Provincial Reviews.

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