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**IMPACT OF DEMAND SIDE FINANCING IN MATERNAL  
HEALTH IN NEPAL**

**A Study of Safe Motherhood Programme**

**Thesis**

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**ABSTRACT**

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| <p>Demand side financing programme has been implemented in Nepal in order to improve health care service utilization in regards to maternal health. Perinatal health is vital in a woman's life and hence, health service utilization is vital in this period. Despite this fact, health service utilization during perinatal period is poor. This demands an immediate action such as a demand side financing programme. Given this situation, Aama programme was introduced in Nepal. The term 'Aama' means Mothers; meaning that the program is for mothers.</p> <p>The main objective of this study is to assess the impact of Aama programme in Nepal. This study will basically compare the situation of maternal health indicators before and after the implementation of the programme. Eventually, this study will prove how a demand side financing programme can play a vital role in developing countries like Nepal to improve the health status by taking the example of Maternity Health Indicators. In addition, this study will also reflect the challenges that are encountered when it comes to demand side financing. Moreover, the study will also include how such demand site financing programme needs to be monitored so as to assure its transparency. Secondary data is used in this study where the data from Nepal Demographic Health survey will be retrieved in order to illustrate the trend of the indicators. Eventually, this study has presented the positive impact of demand side financing in maternal health.</p> |                           |  |
| <b>Key words</b><br>Demand Side Financing, Maternal Health, Nepal Demographic Health Survey   |                           |  |

## CONCEPT DEFINITIONS

### Nepal Demographic Health Survey (NDHS)

This is an intensive national representative survey which is carried out by Ministry of Health and Population Nepal in technical assistance from New Era. This survey has been financially supported by United States Agency for International Development (USAID). This survey is carried out in every five years and the latest one was completed in 2016.

### Demand Side Financing

It is about providing finance to the consumer side in order to encourage the use of goods or services. In this study Demand side financing means government providing cash amount to the women for visiting health institution for child birth and also for undergoing pregnancy checkup for four times according to the protocol. This also includes government providing money to the institution for conducting child birth for free of charge.

### Ante natal checkup (ANC) and 4 ANC visit

This is explained as checkup done once the pregnancy is confirmed. According to the protocol, a woman should undergo pregnancy checkup four times in the fourth month, the sixth month, the eighth month and the ninth month. This is termed as 4 ANC in short in this study.

### Maternal Mortality Ratio (MMR)

It is the ratio of number of maternal deaths and number of live births in a certain area. The maternal Mortality Ratio is calculated by dividing the total number of maternal deaths recorded or estimated by the total number of live births in a certain place (Say 2012).

### Indicators

Indicators are the representative criteria which are measurable. These provide a specific summary of a specific topic and helps to measure the impact of an intervention. (Harvey 2012, 19.) In this study, indicators regarding maternal health is assessed so as to study the improvement of health status.

## **ABBREVIATIONS AND ACRONYMS**

|       |   |
|-------|---|
| ANC   | Antenatal Check up                                  |
| ANM   | Auxilliary Nurse Midwife                            |
| DoHS  | Department of Health Service                        |
| FCHV  | Female Community Health Volunteer                   |
| FWD   | Family Welfare Division                             |
| HMIS  | Health Management Information System                |
| MoHP  | Ministry of Health and Population                   |
| NDHS  | Nepal Demographic Health Survey                     |
| SBA   | Skilled Birth Attendants                            |
| PHRD  | Nepal Public Health Research and Development Center |
| UNFPA | United Nations Population Fund                      |
| USAID | United States Agency for International Development  |

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## 1 INTRODUCTION

Demand side financing programme has been implemented in developing countries and has been proven as an effective approach to improve the indicators of health. In those regions where many people fall under the poverty margin, this kind of scheme helps to uplift the use of health services. In this study, a similar case of demand side financing will be discussed and its impact will be assessed in terms of maternal health in Nepal. This programme is termed as 'Aama Programme' in which '*Aama*' means Mother. This is the programme entirely targeted to mothers to ensure the utilization of health services during the perinatal period. In the developing country like Nepal, many women are obliged to avoid the health services during perinatal period. The reasons behind this are financial issues and also the difficult topography. As Nepal is mountainous country, many villages have not yet been connected to roads. In such regions, the nearest health centers are reached on foot. This geographical region is being addressed by the government. But, in order to address the financial issues, the Aama programme has been introduced.

Awareness of maternal mortality issue was initiated since Safe Motherhood Conference was held at Nairobi in 1987. This conference drew the attention of the entire world regardless of developed or underdeveloped country. During the conference, commitment was obtained to attempt to reduce the child-birth and pregnancy related mortality and morbidity. (Family Health Division 2002.) This commitment was reinforced later in a conference held in Egypt in 1994. This conference received the common consensus for the achievement of universal access to reproductive and sexual health along with the reduction of maternal mortality. (UNFPA 2013.) Nepal was a co-signatory to the plan of action produced during this conference. Therefore, being a signatory, Nepal formulated Second Long-Term Plan (1997-2017) which gave high priority to safe motherhood issues. In 1997, Safe Motherhood Programme was formally commenced to provide the clear direction for the implementation through effective use of resources. This programme was then modified and improvised in later years and after huge lobbying and advocacy of the programme implementation of the rights mentioned in the constitution and National Health Policy. (United Nations 1995.) Therefore, *Aama* Programme is not a separately emerged programme but is the revision of various financial schemes in past.

The demand side financing programme is executed by Family Health Division (FHD) under the Department of Health Services (DoHS) and is the main institution for this programme. The programme is an innovative and evidence-based financing scheme designed to overcome the high cost of delivery by

providing institutional delivery care at free of cost along with incentive to cover the transportation cost which is done through direct cash payment. This means, under this programme, there is not only wipe off of entire cost of child birth but also an additional provision of providing the transportation cost through direct cash. The cash amount to be provided to the new mothers is not equal all over the nation. It is different along with the region. Nepal is geographically divided into three regions: Himalayan Region, Hilly Region and Terai Region. The impact of the program based on these regions will also be carefully inspected and represented in this study.

Nepal being a geographically challenging country, reaching to the health facility is one of the major challenges for the majority of citizens. Road access is not reached all over the nation. Walking is mandatory when one has to seek health service despite the fact that government health institution is located in each administrative unit (called 'Ward') in Nepal. Due to this challenge, people choose to give birth at home rather than reaching to the health facility. Moreover, poverty is also another major reason that people do not want to seek health service for childbirth. The number of people lying under the line of poverty is considerably high in Nepal. This results in people preferring to give birth to their child at home to avoid the financial burden regardless of the availability of road access. Given this situation, this demand side financial programme was proposed in the early 90s to ensure the utilization of maternity health services particularly in remote areas. This has been implanting successfully for around three decades.

The main objective of this study is to assess the impact of Aama programme in Nepal. This study will basically compare the situation of maternal health indicators before and after implementation of the programme. Eventually, this study will prove how demand side financing programme can play a vital role in developing countries like Nepal to improve the health status by taking the example of Maternity Health Indicators. In addition, this study will also reflect the challenges that are encountered when it comes to demand side financing. Moreover, the study will also include how such demand site financing programme needs to be monitored so as to assure its transparency. Secondary data is used in this study where the data from Nepal Demographic Health survey will be retrieved in order to illustrate the trend of the indicators. The survey is an authentic government survey carried out very four years all over the nation. This survey used to be carried out in Nepal since before the introduction of the demand side financing program. Therefore, the data before and after the introduction of this scheme can be conveniently retrieved. Moreover, annual report from Department of health survey will also be used as a source. The annual report consists of all the indicators of maternal and child health. Given that bureaucracy and

corruption exist in many countries, there are high chances of occurrence of irregularities while implementing the programme at bottom level. This programme has developed a monitoring plan to inspect the irregularities at service provider and user level in yearly basis.

There are various safe motherhood related indicators which are used to determine the milestone during the authentic survey conducted in Nepal. These indicators are used by the major surveys carried out all over the nation. A few major indicators reflecting the changes in maternal health will be illustrated in thesis study in the form of line graph which will easily display how the demand site financing programme is putting an impact over the maternal health. This study will try to illustrate the data of two decades based on the data from a national level health and demographics survey. The study shows both positive and negative impact of the programme. There is probability to produce a biased output in such case and hence, to avoid the bias, both positive aspects and negative aspects will be discussed. In addition, the strength and challenges of the programme are also a significant aspect of this study. This will support an in-depth study of the programme along with discussion of the coping methods that this ongoing programme has been adopting for its successful running.

## **2 NEPAL PUBLIC HEALTH RESEARCH AND DEVELOPMENT CENTER**

Nepal Public Health Research and Development Center (PHRD) was established in 2017 by a group of public health professionals. It is a nonprofit making, non-governmental and non-political organization affiliated to Social Welfare Council. The head office is located at Kathmandu; the capital city of Nepal. This organization works in the broader field of research which includes various areas of health such as elderly health, maternal and neonatal health, nutrition, reproductive health, environment health and other cross cutting issues in health. Besides, its other focus areas are health infrastructure, communicable and non-communicable disease, water sanitation and hygiene, health information communication technology. The programs of PHRD are focused over the marginalized and poor population. Recently, Nepal has entered to federal system and hence ensuring the quality of health care in the new system is a challenge and hence PHRD aims to intensify the local governance. (Nepal Public Health Research and Development Center 2019.)

### **2.1 Mission and Vision**

The vision of the organization is to ensure the evidence based public health practices guided by evidence informed policies and guidelines for sustainable development in health. Further, its mission is to strengthen health system through various public health actions and efforts through high quality research. Health Research and Development Center is aimed at locating as a center of excellence by working in the sector of evidence-based planning. It also collaborates with the governmental and non-governmental organization while implementing projects in different districts. (Nepal Public Health Research and Development Center 2019.)

The director of the organization is Mr. Janak Kumar Thapa. Under the director there are seven staffs. The technical positions are Program Manager, Program officer and in administrative section there is documentation officer and Finance and Administration officer. The technical department staffs are responsible for handling the projects while administration section staffs are assigned for managerial and financial tasks. Director is responsible for planning, direction and monitoring of entire projects as well as administrative and financial matters. (Nepal Public Health Research and Development Center 2019.)

## **2.2 Major Activities**

The organization was established in 2017 and it has been carrying out projects since its establishment. Being a new organization, the organization is involved in five different projects so far.

The organization had supported to develop health and nutrition disaster contingency plan in 18 villages of three different districts under the funding from Save The Children. (Nepal Public Health Research and Development Center 2019.)

PHRD in collaboration with government body and developed a draft of basic health care service package. It was developed as a series of workshop and consultation including ministry of health and local government bodies. Under the constitution of Nepal has defined emergency health service as a basic health service and every citizen has right to get it. PHRD was assigned to developed emergency health service package development package so as to implement all over the nation. (Nepal Public Health Research and Development Center 2019.)

Another project for improving maternal newborn and child health has been implemented in selected region of Province 2, Karnali Province and Sudurpaschim Province. Its objective is to facilitate the preparation of three years action plan at local level through health bottle neck analysis. (Nepal Public Health Research and Development Center 2019.)

PHRD has carried out end line survey of the project that was implemented by another organization named HDCS for three years. This was carried out in Lamjung district of Nepal. Its objective was to explore the success, challenges, gaps during and after the implementation of the project. (Nepal Public Health Research and Development Center 2019.)

### 3 DEMAND SIDE FINANCING IN HEALTH

Demand side financing refers to government financing the privately used services. It is about providing finance to the consumer side in order to encourage the use of goods or services. The supply side financing, in opposite, is the system where the consumers' money directly goes to the suppliers. There is not sharp difference between demand side financing and supply side financing when it comes to the circulation of money. In demand side financing, the government finances the consumers while in supply side the government finances the service to the suppliers. Therefore, the public is dominant in demand side financing because the public can choose the supplier. The demand side financing in health in Asian countries is done by either conditional cash transfer or voucher. (Janseen, Maasland & Mendys-Kamphorst 2004.)

This demand side financing is often done in areas like health, education, etc. Regarding the health demand side financing, this concept was commenced to address the poor utilization of health services. Particularly in developing countries, there is comparatively low health service utilization due to financial problem and hence to address this situation, the concept of demand side financing in health was coined. (Gupta, Joe & Rudra 2010.)

The demand side financing has been applied in other South Asian countries as well. There is evidence of improvement in maternal health. Nepal has made a significant progress in reducing MMR over 23 years. The Maternal Mortality Ratio (MMR) in other countries are also in decreasing trend while in Afghanistan the ratio has drastically decreased. On the other hand, Bhutan and India appears to be successful to decrease MMR drastically. Such decline might have various other factors. But in case of Nepal, it had one of the highest MMR during 1996 among the other South East Asian countries i.e. 539 per 100,000 live births, but now Nepal has dramatically decreased this trend to almost its half. This achievement was possible only due to the introduction of demand side financing scheme. (Sameh & Ohno 2015.)

There are other non-governmental partners as well in the structure who assure the monitoring and evaluation and also take the responsibility of technical and managerial input. In case of Nepal, a non-governmental organization is carrying out rapid assessment with the motive to assess the process and output of the programme. (Gupta, Joe & Rudra 2010.)

### **3.1 Demand side financing programme in Nepal**

As in other developing countries, Nepal has also introduced demand side financing programme. This demand side program is based on the conditional cash transfer and voucher. In short, the program includes childbirth service free of cost and provision of transportation incentives to the mother. Moreover, this scheme also includes extra incentive for conducting Antenatal checkup (ANC) four times as per the guideline of government. For this, the health institution gets certain amount for conducting childbirth and the amount varies along with the type of childbirth; normal, complicated and cesarean section. The programme is named as 'Aama Programme' in which the term 'Aama' means mother in Nepalese language.

### **3.2 Evolution of Aama Programme**

Worldwide awareness of maternal mortality issue initiated since 1987 at the Safe Motherhood Conference in Nairobi. This conference drew the attention of the developed countries and even world, especially to this issue. Commitment was obtained to attempt to reduce the childbirth and pregnancy related mortality and morbidity. (Family Health Division 2002.) This commitment was reinforced in the International Conference on Population Development held at Cairo, Egypt in 1994. This conference received the common consensus for the achievement of universal access to reproductive and sexual health along with reduction of maternal mortality. (UNFPA 2013.) Nepal was a co-signatory to the Plan of Action of the International Conference on Population Development and had committed to improving reproductive health status throughout the nation. Therefore, to implement this approach in a cost-effective way, Second Long-Term Plan (1997-2017) was formulated which gave high priority to safe motherhood issues conceiving it as core component of reproductive Health and later, aimed at reducing Nepal's high maternal mortality. Further, in 1995 UN Fourth World Conference on Women held in Beijing provided a visionary agenda for the empowerment of women as the immediate and most effective means to deal with health and population problems. (United Nations 1995.)

On the other hand, National Health policy was approved in 1991 to bring out improvement of the health condition of Nepal. The policy stated that safe motherhood programme will be implemented under preventive health services. Moreover, under curative service, each level of maternal health services was determined such as establishment of zonal hospital with specialized services relating to gynecology. Besides, strengthening of referral service, extension of specialized services in remote areas, placement

of maternal and child health worker in health post were also stated in the policy which further contributed to innovation of the programme. It also declared that Nepal Red Cross Society is the authorized body to conduct all activities of blood transfusion service. This supported to prevent the mortality of women due to post-partum hemorrhage. (Department of Health Service 1991.)

Later, Safe Motherhood Programme was commenced in 1997 to provide clear and focus direction to ensure the effective use of resources. This was followed by development of Safe Motherhood Policy and clinical protocols. Besides, for better understanding of reasons behind maternal mortality, Family Health Division (recently developed as Family Welfare Division) under DoHS carried out a study entitled 'Maternal Mortality and Morbidity Study' in 1996. The study revealed that 71 percent of women died due to direct cause like post-partum hemorrhage, obstructed labour, eclampsia, puerperal sepsis and abortion. Likewise, majority (90%) of deliveries take place at home resulting 79 percent of death occurring in community. This was an overwhelming situation despite of being signatory of the aforementioned conferences. This demands for development of an innovative approach to deal in an integrated approach.

In 2000, Millennium Summit of United Nations was held in which 191 UN member states agreed to try to achieve Millennium Development Goals by 2015. Out of eight goals, the fifth goal was improving maternal health which stated to reduce the maternal mortality by three folds by the year 2015 and to achieve universal access to reproductive health. Nepal being one of the signatories, Nepal committed to maternal health status improving institutional delivery, delivery conducted by skilled birth attendant (SBA) and number of SBA. In 2007, interim constitution was introduced, which stated:

Every citizen shall have the right to basic health services free of cost from the State, as provided in law (United Nations 1995).

Guided by this statement, increasing access to quality health care service was one of the objectives of Second Long Term Health Plan (2010-2015). Further, National Health Policy, 2015 was introduced which stated that Quality health service which is basic right of citizen will be adopted in universal health coverage in an effective way and basic health care service will be provided at free of cost. This also further supported in providing health service at free of cost including maternal care as well. (Department of Health Service 2015.) Recently, Nepal has introduced new constitution which clearly mentioned:

Every woman shall have the right to safe maternity and reproduction, and abortion of fetus on the basis of identification of sex shall be punishable by law. (Government of Nepal 2007.)

This led to further strengthened right of women to seek maternal health service without compromising its quality and accessibility. Eventually, the programme was innovated after a huge lobbying and advocacy of the proper implementation of the rights mentioned in constitution and national health policy.

### **3.3 Introduction to Aama Programme**

Aama Programme is not a separately emerged programme but is the revision of various financing schemes implemented in past. Maternity Incentive Scheme was launched with major funding from Department for International Development in 2005. The programme aimed to increase utilization Skilled Birth Attendants (SBA) at childbirth. (Baral 2012.) The major component of the programme was providing both childbirth services and cash to women conducting child birth at health facility. Moreover, incentive was also provided to the health worker for each delivery attended at home or health facility. This scheme was further revised as the Safe Delivery Incentive Programme in 2006 implemented in 25 districts of Nepal with low human development index with emphasis on reduction of high cost of accessing care during childbirth. The goal of this programme was reduction of maternal mortality and morbidity in line with the Government of Nepal's commitment to millennium development goals. However, there was reduction in home delivery incentive in this programme. (Karki 2012.)

Further, to keep the uniformity in implementation of the programme and to avoid administrative delays, the programme was reformed and Aama Programme was introduced in 2009 to reduce financial barriers to women seeking institutional delivery which ultimately contributes to reduction of maternal mortality and morbidity. It was mainly signified by the removal of user fees for all types of child birth. (Aryal & Bhatt 2015.) This scheme was expanded to community and private hospitals as well. Furthermore in 2012, the programme was fostered by integration of Four Antenatal Care (ANC) incentive and information on monthly expenditure. According to this programme, the women who complete Four ANC visits (in the fourth, sixth, eighth and ninth month of pregnancy) and make at least one post natal care (PNC) visit will be provided cash incentives. It further reduced home delivery incentives to health workers so as to encourage institutional delivery. At present Aama programme integrated with 4 ANC visit is being implemented all over Nepal. (Lamichhane & Tiwari 2012.)

### 3.4 Features of Aama Programme

The programme is implemented by Family Welfare Division (FWD) under DoHS and it is the focal institution for this programme. The programme is an innovative and evidence-based financing scheme designed to overcome the high cost of delivery by providing institutional delivery care at free of cost along with incentive to cover the transportation cost which is done through direct cash payment. Six in every 10 women know about the free care and transport incentive that is available for delivering at a health facility. Locals know this as the Aama Programme, meaning the programme for mothers (Aryal & Bhatt 2015.)

### 3.5 Components of Aama Programme:

Aama programme is a package of demand side financing and is focused completely on mother. The cash incentive for the women to be handed after childbirth is strictly assured that if the money is given to the mother and not to any family members. (Department of Health Services 2016.)

#### a) Incentives to women

Mothers after the childbirth in health center are provided incentive to cover transportation cost for conducting childbirth at health facility. The incentive provided is different as per geographic region. The amount is high in mountain region as it is the most topographically difficult area. (Department of Health Services 2016.)

TABLE 1. Incentive amount as per the geographic region

| Amount                        | Geographic region |
|-------------------------------|-------------------|
| NPR 3,000                     | Mountain          |
| NPR 2,000                     | Hill              |
| NPR 1,000                     | Terai             |
| NPR 800 as Four ANC incentive |                   |

b) Free institutional delivery services

Payments are reimbursed to health facility for the provision of free care. Moreover, this cost is provided for the development of the institution. This is the unit cost which covers all the cost which is required to conduct a delivery. This cost varies according to the type of childbirth conducted at the health facility. (Ministry of Health and Population 2019.)

TABLE 2. Amount received by health institution for child delivery

| <b>Amount per Birth</b> | <b>Condition</b>              |
|-------------------------|-------------------------------|
| NPR 1,000               | < 25 beds for Normal Delivery |
| NPR 1,500               | > 25 beds for Normal Delivery |
| NPR 3,000               | Complicated Delivery          |
| NPR 7,000               | Caesarean section             |

c) Incentives to health workers for home delivery

There is provision of incentives for health workers for home delivery. There is reduction in incentive so as to promote institutional delivery ultimately. However, incentive for health worker for conducting childbirth at home is in the process of being phased out as it is challenging to implement and monitor. (Ministry of Health and Population 2019.)

TABLE 3. Incentive amount for conducting childbirth at home

| <b>Amount</b> | <b>Condition per birth</b> |
|---------------|----------------------------|
| NPR 300       | Health Facility            |
| NPR 100       | Health Facility            |

#### d) 4 ANC visit

An amount of NPR. 800 is provided to women on completion of four ANC visits in the fourth, sixth, eighth and ninth months of pregnancy and at least one PNC visit as well. The incentives for mothers, unit cost for health facility and incentive for health worker is equal regardless of the type and level of institution. For instance, the scheme applies for private health institutions, medical colleges, mission hospitals, community hospitals, etc. (Ministry of Health and Population 2019.)

To conclude, Aama program helps to reduce the financial barrier for health service utilization during child birth. By providing the transportation incentive, this scheme has become more popular. This type of scheme can be referred by other developing countries as well so as to improve the health service utilization. This helps in health promotion of the entire citizen of country regardless of their economic situation.

### **3.6 Strengths of Aama Programme**

The Programme has resulted in more service delivery sites and has been encouraging women for four ANC visits, institutional delivery and post-natal visit as well and has significantly contributed to correspond public private partnership in providing delivery services. The programme was further extended in private sectors as well. Forty-six private hospitals successfully implemented Aama programme in 2012.

The integration of Aama guideline has further strengthen the programme in the ANC service utilization which increased after this integration. In addition, criteria that private and community-based health facility need to fulfill so as to be able to implement the Aama Programme has also been added to the guideline. Besides, it also includes the reporting and recording forms. (Ministry of Health and Population Nepal 2014.)

Maternal, neonatal and child health has been addressed in constitution of Nepal and even in National Health Policy with emphasis on its promotion. Access to maternal health service has been quoted as a right of every woman in the constitution of Nepal, 2015. Further, equity has been identified as a vital approach for reaching the unreached community in Health Sector Strategy. Therefore, Aama programme is provided with a foundation of such strong policies which has fostered its proper implementation. Aama Programme has been a successful example of right based approach removing the financing barriers to seek the maternity services. (Ministry of Health and Population Nepal 2014.)

The programme is supported by the 57 non- state partners by providing Aama services. Besides, SBA training, capacity building training and monitoring has also provided support to the programme. (Ministry of Health and Population Nepal 2014.)

As mentioned above, rapid assessment is carried out every year for the monitoring of proper implementation of Aama programme. The assessment is designed in such a way that the assessment team cross verifies the women reaching to household level. This way, cases of fraud can be detected properly. Moreover, interview with the service providers is also conducted which helps to reveal the barriers and obstacles for providing the services under Aama Programme. (Aryal & Bhatt 2015.)

The health system of Nepal is designed in such a way to reach every community people. Mobilization of Female Community Health Volunteer (FCHV) is one of the best examples. FCHVs are mobilized in ward level who can reach to every household in the community through door to door visit. Moreover, Mothers Group meeting is also conducted every month in which FCHVs can disseminate knowledge about the schemes of Aama programme. They are responsible to keep records of all pregnant women of their ward and encourage seeking ANC visit, institutional delivery and PNC visit. They are also provided with incentives for bringing a woman in health facility to conduct delivery. (Ministry of Health and Population 2014.)

With the increment in number of health facilities (543 in 2009/10 to 1858 in 2013/16) providing Aama Programme services, the ownership of the community and other non-health actors like local governance has increased. Previously, the programme was financially supported by DFID but since last three years the pool fund has been decreased along with increment in investment of Government. (Ministry of Health and Population 2014.)

Due to remarkable achievement in Millennium Development Goals (MDG), Nepal has now been able to plan to achieve target of Sustainable Development Goal (SDG) as well. (Ministry of Health and Population 2014.)

### **3.7 Challenges of Aama Programme**

Despite the significant achievements and strengths of this programme, on the other hand, there are few challenges as well.

The programme scheme has to be changed once we approach towards achieving Universal Health Coverage. Therefore, there is lack of sustainability plan after approaching for UHC. A technical and policy level discussion is required to integrate this programme towards achieving UHC. (Aryal & Bhatt 2015.)

Nationally the programmes are planned annually in the beginning of fiscal year, which results problem in providing incentives after delivery. Studies have shown that they need to wait for months go get the incentive. (Aryal & Bhatt 2015.)

Incentive per delivery is provided to the health worker attending childbirth. But especially in case of hospitals, there are other staff as well who work 24 hours but they are not provided with any incentives. Therefore, it is likely to raise such incentive conflict is coming future. (Aryal & Bhatt 2015.)

Women receive free delivery care and incentives indifferent of level health facilities. Therefore, they seek service from high level health facility bypassing the local health facility. This results in overcrowding in high level health facilities. On the other hand, community level health facilities are not overcrowded, skilled birth attendants are not secured. Therefore, the programme is limited to address the financial barriers and hence, should be widened to address social issues as well. (Aryal & Bhatt 2015.)

### 1. Monitoring

Currently rapid assessment for monitoring is done selecting only a few samples of districts. However, this assessment is yet to be extended to nationwide. Furthermore, Aama Programme has not yet been built in Health Management Information System (HMIS). This needs to be incorporated for strong monitoring of the programme. (Upreti, Baral, Tiwari, Elsey, Aryal, Tandan, Aryal, Lamichhane, & Lievens 2013.)

## **4 SOURCES OF SECONDARY DATA**

The study obtains secondary data in order to illustrate the impact of demand side financing scheme in safe motherhood programme in Nepal. There are various national surveys carried out by Ministry of Health (MoH) out of which Nepal Demographic Health Survey (NDHS) is the major one. Moreover, annual report is produced by DoHS which is extracted by the Health Management Information system from the health facilities of all over the nation. In this chapter, the detail discussion about the sources of information that are to be used in his study for illustrating the impact of demand side financing will be done. The study type of the reports, how they are collected and analyzed will be explained. This will help to ensure the quality of the illustrated data later in findings section.

### **4.1 Annual Report of DoHS**

DoHS is one of the three departments under the Ministry of Health. DoHS aims at providing the promotive, preventive and curative health all over the nation. It has five division and six centers. The divisions are Family Welfare Division, Management Division, Curative Service Division, Nursing and Social Security Division and Epidemiology & Disease Control Division. The demand side financing program is being held under the Family Welfare division. Similarly, the six centers are National Aids and Sexually Transmitted Disease Control Center, National Health Training Center, Nepal Public Health Laboratory, National Health Education Information and Communication center and National Tuberculosis Control Center. These divisions are responsible for overall health promotion of Nepalese citizens all over the nation. (Department of Health Service 2019.)

DoHS provides technical advice to the Ministry of Health (MoH) supporting to formulate health related policies. It clears auditing related irregularities at central and regional level. The department also maintains the data, statistics and all information collected from health services from all over Nepal and publish them as per the necessity. It also addresses the problems aroused due to disasters or epidemic. It is responsible for supplying drugs, equipment and instruments to all the health services and keeping the track record of it. (Department of Health Service 2019.)

There are various publications of DoHS regarding health-related issues and statistics. Its major publication is Annual report which is produced in each fiscal year. This report contains the data of overall health

indicators. It also includes maternal health indicators. This information is not accumulated through any cross-sectional study, but it is collected through the mixture of Health Management Information System. The data and figures displayed in the report gives a clear picture of health status of country. There has never been any interruption in the series of annual report for twenty-two years. (Department of Health Service 2019.)

## **4.2 Health Management Information System**

Health Management Information System is a common system which is used by all the health workers at the grassroots level. This system provides required information about the health service system and status. The main objective of HMIS is to produce the annual report which provides the reflection of entire health system. It helps to support the planning, monitoring and evaluation of health system. It also supports policy making by providing the evidences. The process of HMIS includes collection, transmission, storage of data, analysis of information, interpretation of information, preparing for utilization and presentation of information. (Ghimire 2015.)

There are two types of forms in HMIS, recording and reporting form. The recording form is used by health workers to record the information while the reporting tool is used to report those recorded data to the higher levels. The forms are modified and updated regularly, and refresher training is given to the health service providers. (Neupane 2007.)

Explaining about Health Management Information system, at the grassroots level there are Female Community Health Volunteer (FCHV). They work voluntarily and covers their assigned certain geographical area. They provide birth spacing commodities, vitamin capsules and play an integral role in health system. They are the one who reach to door to door of the community people and provide health education and refer to the health center if needed. They also have reporting form and they report to the staffs of health post of the area. (Khatri, Mishra & Khanal 2017.) There are sanctioned health workers entitled Auxiliary Health Worker (AHW) and Auxiliary Nurse Mid Wife (ANM). They are assigned in the health post in villages which are the grassroots level health center where basic health care is provided at free of cost and in majority of them Birthing center is also established where ANM conducts the normal or some type of complicated delivery. In case of surgery, the ANM has to refer to the upper level that is Primary Health Care Center or District Hospital. The data of maternity health is also included in the HMIS tool where maternal mortality, morbidity, child birth at home, child delivery at birthing center, complicated

cases, etc. are recorded. This study will use this information to assess the change in maternal health after the introduction of demand side financing scheme. (Ghimire 2015.)

The AHW and ANM are responsible to fill up HMIS form for whichever case that arrives in their respective health center. The information collected in this form is then reported to the Primary Health Care Center. From Primary Health Care Center, the information is collected and reported to the District Hospital. District Health Office then reports to the DoHS. Then DoHS collects information from the District Health Offices from all over the nation. Then the information is processed and analyzed. This way, information is processed and then finally published in the form of annual report. This source is being used in this study to assess the impact of the demand side financing in maternal health. (Ghimire 2015.)

### **4.3 Nepal Demographic Health Survey (NDHS)**

Nepal Demographic Health Survey is a countrywide demonstrative household survey series. The topics of this survey includes child and maternal health, family planning, nutrition, health behaviors, immunization, health care access, etc. This survey is carried out by Ministry of Health and Population (MoHP) under the technical support of a non-governmental organization named New Era. This survey has been financially supported by United States Agency for International Development (USAID). This survey was first carried out in 1976 with the title of Nepal Fertility Survey which was the first nationally representative survey of Nepal. From 2001, this survey became a part of worldwide Demographic and Health Survey which collects, analyze and publishes the data regarding family planning and maternity health. This survey produces reliable database which is possible due to the expert technical committee who works with tireless effort. (Family Health Division 1997.)

In Nepal census is conducted in every ten years. Therefore, this kind of demographic survey provides detail information about the demography and health status of country. Like in other developing countries, Nepal also lacks information and registration of the vital events. This shortage of records halts in estimation of future data and also in policy formulation. Such lack of information is a serious issue and hence demand for authentic survey. In this situation, Nepal Health Demographic Survey was initiated to provide the reliable evidence about the overall health status of the country by collecting primary data. In 1996 this survey was entitled as Nepal Family Health Survey which was aimed at collecting data of specific area. (Family Health Division 1997.) This survey is carried out by MoHP along with technical

support from a non-governmental organization named New Era and short description of those agencies is given below.

#### **4.4 Ministry of Health and Population (MoHP)**

MoHP is the governing body that is responsible for the overall management, coordination, planning, organization of health sector from grassroot level to center level. Its aim is to develop the health status of all citizen residing in country through the means of effective planning and policy formulation based on evidences. The major responsibilities of MoHP are health policy planning and implementation of health programs; research and development of preventive, curative and promotive health services; providing health and nutrition education; environmental related health programme, etc. Research is one of the major focuses and hence, national level survey (NDHS) is implemented every five years. (Ministry of Health & Population 2019.)

#### **4.5 New Era**

New Era is nonprofit and is amongst the first non-governmental organizations in Nepal. It was founded in 1971 by a group of Peace Corps volunteers and educators in order to provide assistance in research for the implementation of the National Education System. Its main goal is to illustrate an independent outlook to implement design and implementation of policies. This organization is conducting the Nepal Demographic Health survey and besides this, there are various other studies this organization has been carrying out for example Human Trafficking Survey, End Line survey of Feed the Future 2019, Nepal Zone of Influence, etc. This organization consists of an expert team of health professionals due to which the demographic health survey is being successfully conducted.

## **5 RESEARCH METHODS**

In this section, the objective of the study and the research question are explained. The research question clarifies the output of study while the objective will explain how the output will be achieved. Further, approaches to this study are described to clarify the methodology in practical perspective. Ultimately, the analyzed data will be produced and illustrated in this section. Moreover, validity and reliability are also discussed under this section.

The realm of demand side financing in health care is discussed in this study. In the developing countries like Nepal where there is high poverty and hence people cannot afford health care services, such demand side financing scheme is significant. This helps to reduce out of pocket payment system as well. Therefore, when financing is provided to the consumer side for utilizing health service, then it might bring change over the utilization of health service. This factor is also associated with the means of transportation to reach the health facility. The incentive is actually focused on transportation incentive. Therefore, this kind of study is important to highlight the idea of demand side financing. This scheme is an innovative approach and hence other developing countries can also take this as an example to improve the health service utilization. There are various studies done in past assessing the impact of demand side financing, but this study will provide updated information from the latest NDHS with ample amount of theory.

The objective of this study is to assess the impact of demand side financing scheme particularly in safe motherhood programme in Nepal. This study will assess both positive and negative impact of this scheme. Certain identified indicators will be assessed in this study and will be demonstrated in the form of line graph.

### **5.1 Study Approaches**

The study will use the secondary data from the external source to present the output of the study. There are two types of sources of data; primary and secondary. Secondary data sources are already collected information which are instantly available for analysis. Such data can be obtained through internal sources or external sources. The internal sources mean when the raw data is abstracted within an organization while the external sources means when it is outside the organization. (Junega 2019.) In this study, data

is retrieved from the external source as the published report from DoHS and MoHP are being used. These are already analyzed quantitative data to be used to assess the change in the indicators of maternal health.

Secondary data are time saving and save time and effort that are invested while collecting primary data. Even though we need to buy the secondary data from its owner, the cost is comparatively lower than conducting the entire survey. The cost of human resources, training, transportation, data entry, etc. as in primary resource is always higher than buying and using the data. Most importantly, those data are frequently reviewed and reviewed as well. (Boslaugh 2007.)

While referring to the secondary sources, there are some issues to be considered. Relevance and accuracy of data needs to be taken into consideration while taking those sources as reference. In this study, the chosen secondary data are authentic and accurate because it is nationally representative sample carried out by government. The research steps in primary data collection and secondary data collection are different. As this study follows secondary data collection rule, there are four steps for this study. (Junega 2019.)

The first step is development of research question. The research question in any study helps to assess if the study was successful to retrieve the expected findings. The research question in this study is developed as: What are the impacts of demand side financing programme in maternal health in Nepal?

Indicators are the representative criteria which are measurable. This is the second step which provide a specific summary of a specific topic. Indicators helps to measure the impact of an intervention. (Harvey 2012,19.) In this study indicators are assessed in order to evaluate the impact of health demand side financing in Nepal. The indicators are specific regarding maternal health. There are various indicators regarding safe motherhood but here in this study, four indicators are selected as they are major indicators to assess the health care service utilization. The indicators are Maternal Mortality ratio, Percentage of childbirth at home, Percentage of childbirth at institution and Four Antenatal Checkup (ANC).

Secondary data evaluation is done when the secondary data is raw and needs to be evaluated. In case of this study, the extracted data are already evaluated and published. Therefore, the data evaluation process is skipped in this case.

The data will be illustrated in line graph in order to understand the changes in the data regarding aforementioned indicators over the period of 20 years. The data are taken from the secondary source from the respective years and then plotted and finally a line graph is produced which represents the trend of twenty years.

## **5.2 Validity and Reliability**

Validity and reliability are an elementary measure of evaluation of the research tools and resources used in a research. The term validity refers the way something is measured in a study and whether the tools and methodology is valid. On the other hand, the term reliability refers to the extent to which a researcher can rely on the output produced by a research. (Haradhan 2017, 58-82.) The validity and reliability in the research using secondary sources can be explained in terms of the evaluation of the sources of data. Moreover, reliability is measured in terms of relevancy of the data in the study. The source has a huge data and only the relevant to this study is extracted. The data is extracted from the chapter regarding maternal health where the exact indicators which are used in this study is clearly explained. The secondary sources used in this study are nationwide survey which is published by government; Ministry of Health and Population and Department of Health Service. (Pierce 2008.) Therefore, the sources chosen to assess the impact of demand side financing programme are valid and reliable.

## 6 FINDINGS

This section includes the trend of various indicators under maternal health status of Nepal over 20 years (from 1996 to 2016). It shows whether there is rise or fall in the health status of maternal health in Nepal due to demand side financing in health. NDHS survey and annual report of DoHS will be used here in order to create the illustrative diagram. These diagrams will be related to the four above mentioned indicators. The line graphs are produced during the study by plotting the data obtained from the secondary sources.

### Maternal Mortality Ratio (MMR)

The maternal Mortality Ratio is calculated by dividing total number of maternal deaths recorded or estimated by total number of live births in the certain place (Say 2012). The trend in the maternal mortality ratio has been decreasing over the past 20 years. The data of MMR in year 2001 is missing in Demographic Health Survey. In 1996, the MMR was 539 per 100,000 which was the highest among the South-east Asian Countries. There were various factors and the factor was financial reason and lack of education.

In 2006, when demand side financial program was already implemented, the MMR was significantly dropped to 281 per 100,000 live births. This is a remarkable achievement in the sector of maternal health. This was further decreased to 229 per 100,000 live births in the year 2011 and slightly increased to 239 per 100,000 in 2016. The entire illustration shows that there is decreasing trend of mortality ratio in Nepal.

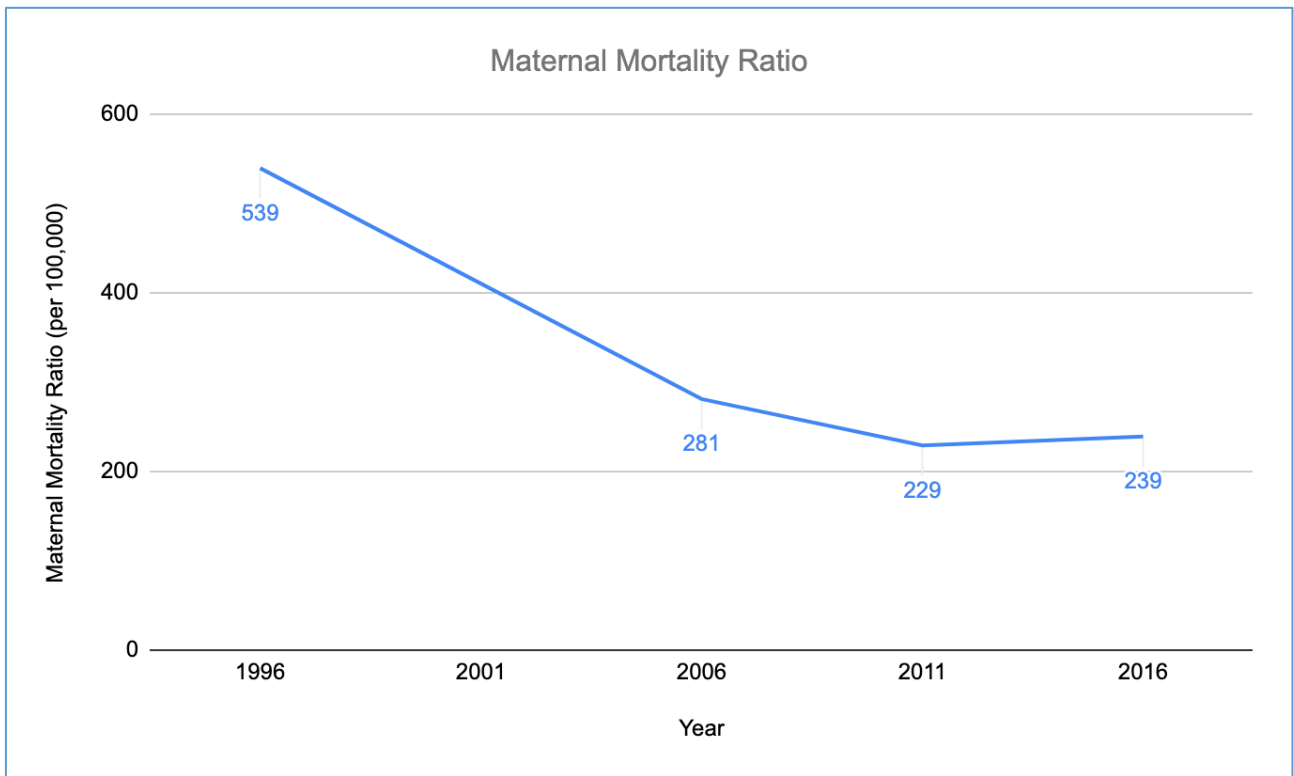


FIGURE 1. Trend of Maternal Mortality Ratio (Adapted from Nepal Demographic Health Survey 1996-2016)

### Place of childbirth

The childbirth at home was common during the year 1996. It was a major challenge to the health system to decrease the rate of childbirth at home. The above picture depicts the decreasing trend of childbirth at home. In year 1996, the percentage of home delivery was 92, which slightly decreased to 89 percent in 2000. This further decreased to 81 percentage in 2006. In 2011, the percentage of childbirth at home significantly decreased to 63 percentage over the duration of four years (2006 to 2011). This continued to decrease to 41 percentage in year 2016. This expresses that the number of women giving birth to child at home has been also decreasing since the last 20 years.

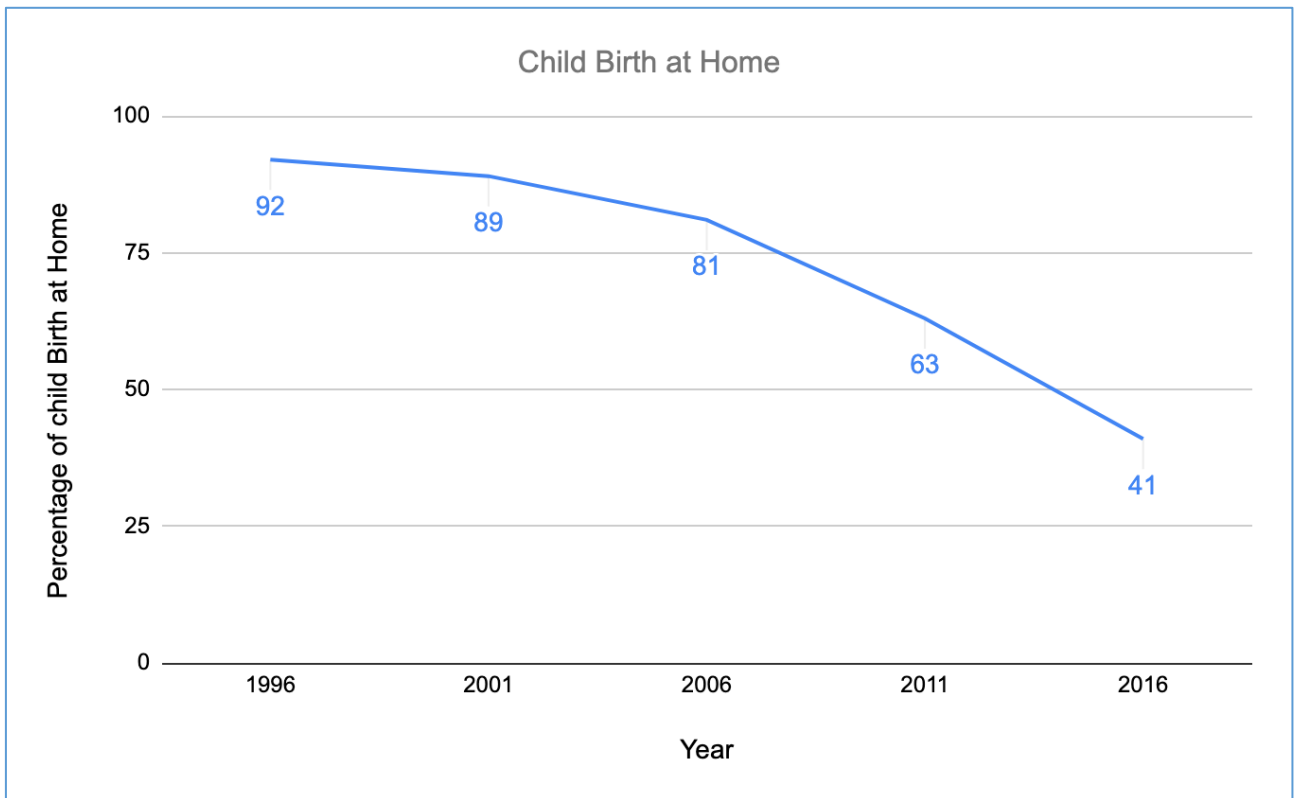


FIGURE 2. Trend of childbirth at home (Adapted from Nepal Demographic Health Survey 1996-2016)

### Childbirth at health institution

The childbirth at institution was very low during the year 1996 i.e. 8 percentage of total delivery. It slightly increased to 9 percentage in 2001. The percentage doubled to 18 percentage in the year 2006. In 2011, the number of childbirths at institution again almost doubled to 35 percentage. In the latest report of 2016, this rate significantly increased to 57 percentage. There is increasing trend as illustrated in the line graph given below.

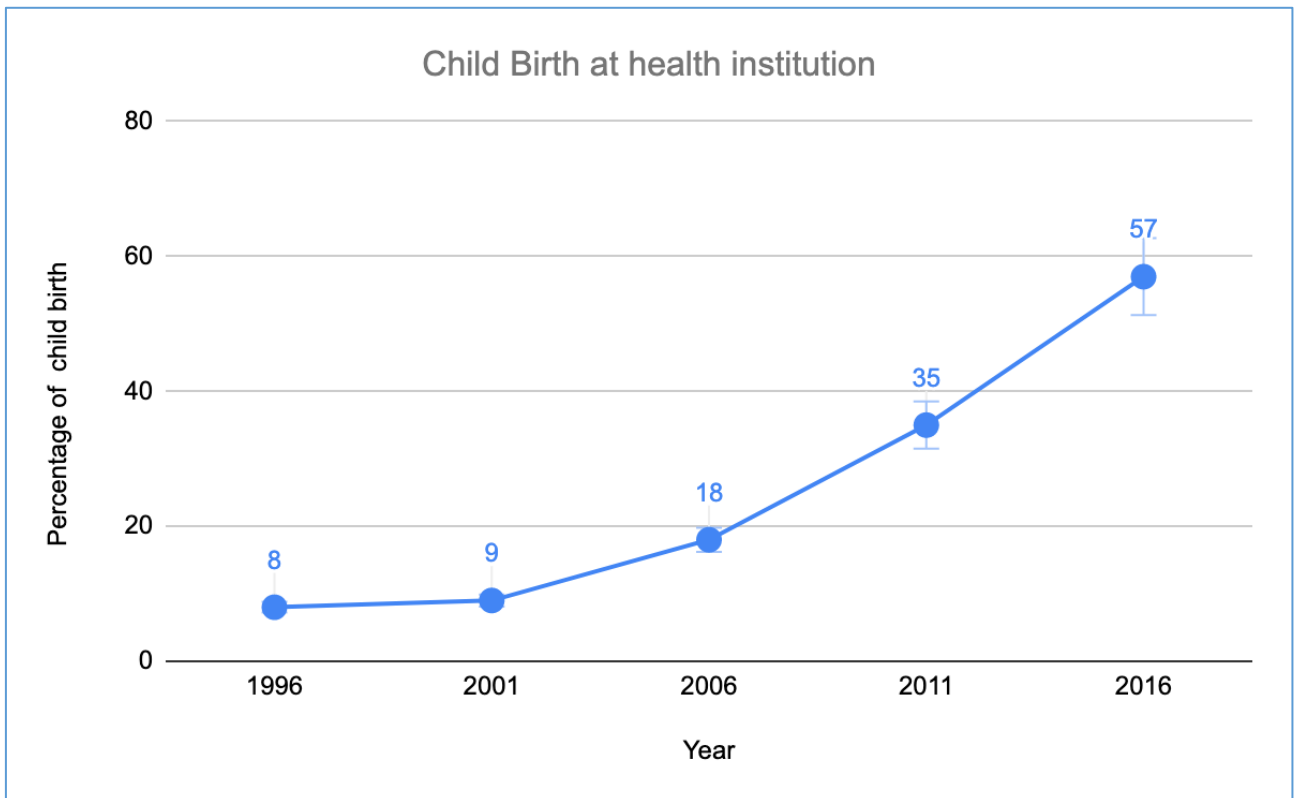


FIGURE 3. Trend of childbirth at health institution (Adapted from Nepal Demographic Health Survey 1996-2016)

#### Institutional childbirth by household wealth

The picture below illustrates the percentage of institutional childbirth as per the financial status of the family. The bar diagram clearly shows that percentage of institutional birth is directly proportional to the financial status of the family. The prevalence of institutional childbirth is directly proportional to the financial status of family. Majority (90%) of institutional childbirth is done by the women belonging to the wealthiest families. This is followed by 70 percentage and 58 percentage of institutional childbirth among the comparatively wealthy family. This depicts the role of finance in health service utilization.

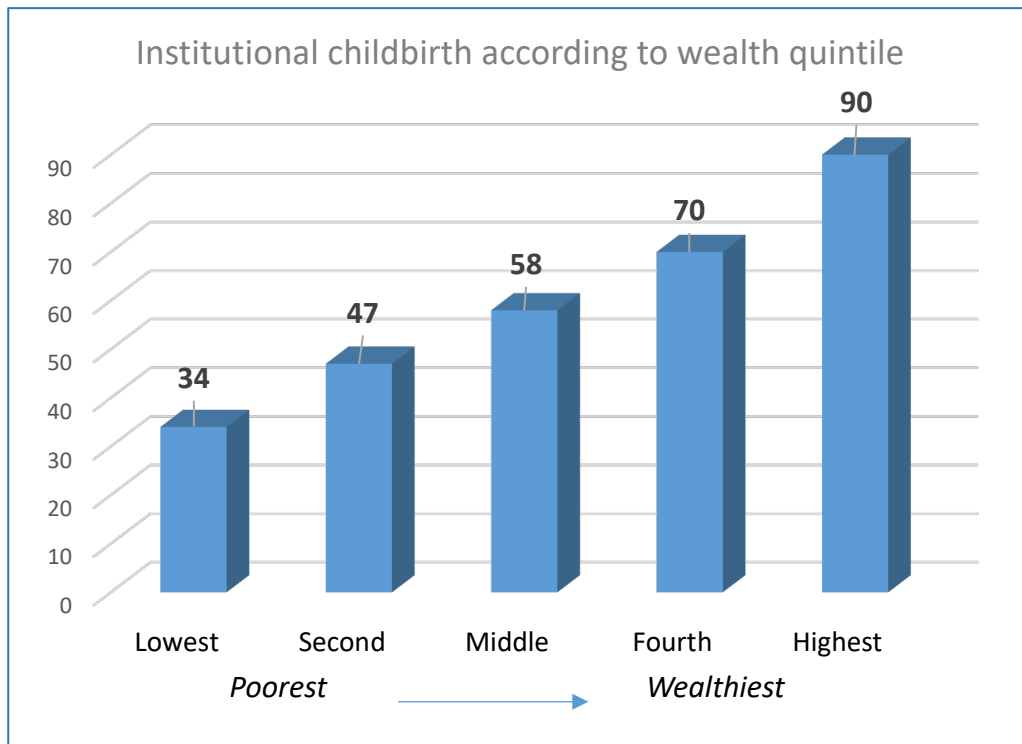


FIGURE 4. Institutional childbirth by wealth quintile (Adapted from Nepal Demographic Health Survey 2016)

#### Antenatal Checkup (ANC checkup)

According to the protocol of government, a pregnant woman should visit health institution for checkup for minimum four times. This protocol has also mentioned the specific months for checkup i.e. fourth, sixth, eighth and ninth month of pregnancy. The iron tablets are given for free of cost during this checkup.

The small checkup has increased in the last 20 years from 9 percent to 69 percent. In the year 1996, only 9 percentage of women had gone for four ANC visits. This slightly increased in 2001 with 14 percentage. In 2006, this lifted to 29 percentage and in 2011, almost half of total women went for four ANC checkup. In 2014, this even more increased to 60 percentage. The latest report of NDHS of 2016 shows that 69 percentage of women went for checkup for minimum of four times.

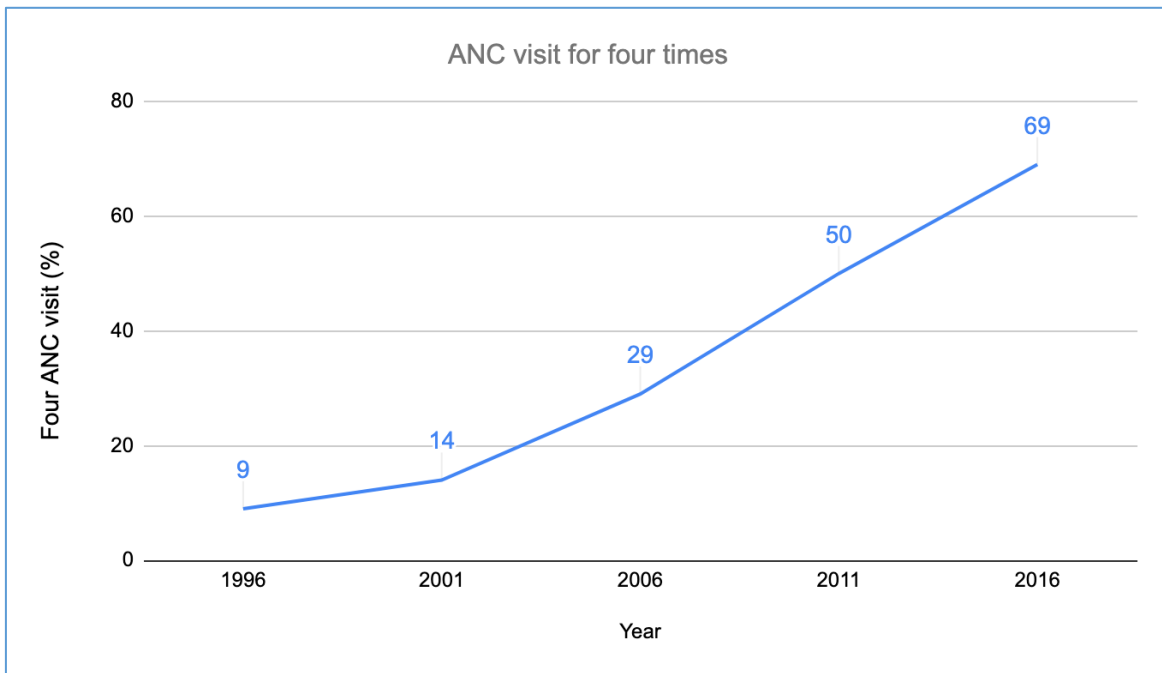


FIGURE 5. Trend of ANC visit (Adapted from Nepal Demographic Health Survey 1996-2016)

## **7 DISCUSSION AND RECOMMENDATION**

The aim of this study was to find out the impact of demand side financing scheme in safe motherhood programme in Nepal. The impact was measured through the use of secondary data retrieved from the NDHS which is a nationally representative survey. The survey was carried out all over nation once in half decade. The data from year 1994 to 2016 was examined, retrieved and plotted in a line graph in order to study the trend of pre-determined health indicators. Four major indicators were selected regarding safe motherhood. They were selected because they are the major indicators to represent the overall safe motherhood status in the country. Those indicators could support to evaluate the situation of overall maternal health in Nepal. Regarding validity and reliability of the source of data, the source of data was valid, authentic and recognized.

The survey reports from 1996 to 2016; for the time span of 20 years were assessed in order to see the impact over the major indicators of maternal health. The research question of the study was intended to assess the impact of the financing scheme in maternal health in Nepal. The assessment was done with the assumption that the impact could be positive or negative. Secondary data was referred so as to save time and resources. On the other hand, a huge amount of sample is required as equivalent to NDHS in order to study the impact of the programme through primary data collection. This demands huge amount of time and resources. As this is an academic thesis with limited time period, therefore, secondary was preferable.

### **7.1 Discussion on findings**

During 1996, maternal mortality rate was exceptionally high in Nepal. Childbirth at home was common during the time due to various reasons. Lack of transportation means, financial barriers, lack of health education were the major reasons behind this situation. Many women died at home due to complications in childbirth. Social norms and values also played huge role for encouraging childbirth at home. Given all these situations, demand side financing programme was introduced to remove the financial barrier to reach health institution. The amount given to the newly delivered women is intended to cover the transportation cost. This way, women are encouraged to seek childbirth service from health institution. Over the 20 years, now the childbirth at home is remarkably low. Majority of women visit health facility for ANC checkup and for childbirth.

Regarding childbirth at home, it was remarkably high in 1996 (92%). Childbirth at home was one of the major causes of MMR. Many women lost their lives at home which could have been saved if it was at health center. The associated factors regarding childbirth at home are time to reach health services, lack of transportation and financial barriers. Besides socio cultural norms and values and accessibility to the health center are also additional reasons for preferring childbirth at home rather than seeking health service. (Shah, Rehfuess, Paudel, Maskey, & Delius 018.) The financial problem is further supported by the bar diagram which illustrates increment of institutional childbirth along with increment in wealth quintile of the family. The poor family group has the lowest percentage of institutional childbirth while family with high wealth quintile has highest rate of childbirth at health institution. The demand side scheme has removed the financial barrier due to which private vehicle could be arranged and go to nearest health center where roads are available.

The improvement in coverage of ANC visit has supported to decrease MMR and increase institutional birth. This has also improved the iron tablet consumption. According to the protocol of government, a woman should go for ANC checkup for at least four times in duration of nine months. Iron tablets are provided to the pregnant women in each visit. Moreover, Tetanus injection is also given twice in this visit. All the services are entirely free of cost. Therefore, incentives for ANC visit (which is also a part of demand side financing scheme) has encouraged women to go to health facility during pregnancy. During this visit, health workers can provide health education to the woman regarding nutritious food and importance to visit health institution for childbirth. Therefore, this decreases economic burden of investing huge amount of money in Iron Deficiency diseases and also increases the percentage of woman in institution. (Acharya 2018.)

Women also lack knowledge about Aama Programme. This demands for an awareness campaign to spread the knowledge about the scheme. Social media, newspapers and other electronic media can be referred in the campaign. Moreover, geographical barrier still persists in Nepal. This has still brought challenge in the programme. Although, women have knowledge about importance of health care service utilization, geographical barrier still pulls her back to seek health care during perinatal period. This hindrance is especially during pregnancy checkup. According to the government protocol, a woman is recommended to visit health institution for at least four times during pregnancy period. The travelling for four times during pregnancy is a major challenge for women. There are also other hidden costs for childbirth which the programme has not yet explored. (Bhusal, et.al.2011.) Moreover, timely payment is also

not received on time. The budget flow is not smooth and hence health institution is not able to provide cash to the mother right after childbirth. Therefore, this also hinders the impression of Aama programme among the women. These problems are not covered by this study. Therefore, future researches can be done covering these issues. This is significant as this also plays vital role in increasing or decreasing utilization of health service through Aama Programme during childbirth. (Lamichhane & Tiwari 2012.)

A separate survey by different institution is carried out as a rapid assessment of the implementation of this programme. This survey examines if the women are receiving the correct amount after childbirth. This survey also examines the process of flow of cash from top level to end consumer. However, such survey does not cover the impact of the scheme. A systematic evaluation of such impact of demand side financing scheme is required to learn the real impact. A huge amount of budget is spared from pool funding for this scheme and hence, a separate survey or study needs to be carried out to carefully examine the impact of the financing scheme. This opens path for the new researchers in future. Moreover, exercise is required to incorporate the programme with the current health issues. This supports for sustainability of the programme.

## **7.2 Recommendation**

The Aama Programme was not a separately evolved programme but is the result of various modification on the schemes. This programme was gradually improved and eventually at present, the programme has achieved great success in terms of health service utilization. The programme has both positive and negative aspects as well. The negative aspects are intact regarding the monitoring system. There are few recommendations based on the findings and discussion as described below.

The incentive amount to be given to the mothers needs to be updated according to the situation. According to the clients during the monitoring of the programme, the given amount is not enough for the transportation. Therefore, the amount needs to be decided based on the evidence. A study can be carried out in order to know the inflation rate. Recently, the amount has been increased but the increment needs to be done every time based on evidence. This will lead to the sustainability of the scheme.

Currently, the concept of UHC is introduced which means that all people will get all types of health service without any financial barrier. The concept is somewhat similar to the concept of demand side financing and hence, the integration of these two different but similar aimed concept needs to be technically integrated and implemented together.

Nepal has recently entered to federal system resulting to the changes in entire health system. However, a concrete health system has yet to be built and hence, a defined system for the flow of budget through health system needs to be decided and monitoring system needs to be integrated in the system rather than outsourcing. There could be other hindrances in implementing the scheme in the current system. Those hindrances need to be discussed and strategically improvised in the new system.

The records of Aama Programme have not yet been yet included in Health Management Information System (HMIS) which is the main recording and reporting system of health in Nepal. Therefore, a separate section is recommended to be included in the recording and reporting form. This will help to keep the track records in a systematic method. In addition, this produces a valid and reliable data record for the entire demand side financing scheme.

Under the demand side financing scheme, the health institution also receives money so as to provide the free childbirth service to the client. The amount varies according to the type of childbirth. At times, there has been issues that the rate of cesarean delivery is alarmingly high because the institution receives highest amount for conducting this type of delivery. (The Himalayan Times 2019.) Given this situation, a strong monitoring system needs to be developed to examine this situation.

Ministry of Health and Population has recently introduced National Social Health Insurance in Nepal. In this situation, the demand side financing needs to be integrated in health insurance system. A technical and strategic level discussion is very important to integrate Aama programme with social health insurance. This would be an important step towards achieving Universal Health Coverage. (Aryal & Bhatt 2015.)

The major challenge for this programme is its sustainability. The programme needs to allocate a sustainable source for fund in order to continue until the target is achieved. Many changes in health strategy and health system occur and the program needs to incorporate those changes and execute smoothly.

## 8 CONCLUSION

The study was entirely based on the discussion of the degree of impact that a demand side financing has put over the maternal health programme in Nepal. This study used a secondary source of data retrieved from a nationally representative survey. The major indicators were chosen and then illustrated in the line graph to present the trend of those indicators over 20 years. The study has presented the positive impacts of the programme while discussing its challenges in later part.

The programme is an innovative and evidence-based financing scheme designed to overcome the high cost of delivery by providing institutional delivery care at free of cost along with incentive to cover the transportation cost which is done through direct cash payment. The programme has dramatically increased the health care service utilization while reducing the financial barrier to reach the health facility. This strategy could be replicated by the other developing countries not only for maternity health but also in improving other health care sectors. This clearly reflects the level of financial barrier in developing countries.

The term demand side financing seems to be a cost burden. Financing the public for seeking the health service seems to be practically challenging. But on the other hand, it also reduces the cost burden in various ways. For instance, the cost of reducing MMR will be definitely less. Moreover, the burden of Anemia, tetanus and other complication during pregnancy has been reduced. This is possible due to the increase in Ante natal visit percentage. Health education is also provided during the ante natal visit which encourages the women to go to institution for delivery as well. Therefore, there is a triangulation of the process to reduce the economic burden of disease related to maternal health; financing in one way and gaining profit from various ways.

The programme needs to be incorporated in the changing health system of Nepal. Nepal has recently entered to federalism and there will be certain changes in the health system at federal level. Therefore, the flow of budget and reporting system require to modify accordingly. This could also be an opportunity to improvise the management level errors while entering into a new system. In addition, the integration with National Social Health Insurance is also an important issue. This requires a technical and policy level discussion. Other policies may also be formulated in future which needs to be incorporated by the programme and continue in a sustainable way.

There are various hindrances which prevent women to seek health care service for childbirth and ante-natal checkup. Nepal is a mountainous country and many remote areas are not connected with road access. This makes the situation even worse to reach the health institution. Moreover, social norms and lack of health education delay the decision-making process. Financial barrier is not only the obstacle for seeking health care service. But, Aama programme has proved that financial intervention can make a significant difference despite of other challenges. Health service utilization plays vital role in improving the health status of a country. This helps in all levels of prevention. Poor health indicators are the result of low health care service utilization. Demand side financing helps to reduce the barriers and improve the health status of people. Lack of financial transparency still persists in this scheme. Monitoring survey is done but still monitoring survey does not cover all the financial areas. Therefore, if the system is strengthened and the monitoring system is strong then the programme will be more effective.

The financing scheme is designed to improve the maternal health service utilization by removing the financial barrier. There is a pool fund from various sources from which this program gets fund and has been continuing. This financing programme has led to the gradual improvement in the indicators of maternal health. Therefore, this innovative scheme can be replicated by other developing countries in order to improve the health service utilization. The amount invested in demand side helps to reduce the burden of cost by reducing the maternal mortality ratio and also the infant mortality ratio. The programme has reduced the out of pocket payment for the poor population who cannot afford extra financial burden cost during childbirth at health institution. This scheme has received Resolve Award in 2012 by the Global Leaders for managing a financing scheme by public sector (My Republica 2012). This marks the success of this scheme through years.

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