
Authors:
Meghnath Dhimal
Ranjeeta Subedi
Asthacharya
Bihungum Bista
Namita Ghimire
Mandira Lamichhane
Bir Rawal
Madhu Dixit Devkota
Pradip Gyanwali

Table of Contents

Table of Contents ................................................................. i
List of Tables .............................................................................. iii
List of Figures ............................................................................ iii
Acronyms .................................................................................. iii
Acknowledgement ...................................................................... iv
Executive summary ..................................................................... v
Chapter 1 Introduction .............................................................. 1
  Objectives ................................................................................. 4
Chapter 2 Methodology .............................................................. 5
  Study Design .............................................................................. 5
  Study Population ....................................................................... 5
  Sample size ............................................................................. 6
  Sampling Technique, Study Site and its Justification ................. 6
  Data collection tools ................................................................. 7
  Data collection technique ......................................................... 8
  Data Collection Orientation to the study team on data collection .. 9
  Pretesting .................................................................................. 9
  Validity and reliability of tool .................................................. 9
  Limitation of the study ............................................................. 9
  Supervision and monitoring .................................................... 10
  Ethical Consideration .............................................................. 10
  Data Management and Analysis ............................................. 10
Chapter 3 Findings ................................................................... 12
  Effect of COVID-19 on Safe Motherhood Services ................. 12
  Effect on Antenatal Services ................................................... 12
    Effect on Intranatal Services .................................................. 24
    Effect on Postnatal Services ................................................... 25
  Maternal Mortality ................................................................. 26
  Effect of COVID19 on Safe Abortion Services ....................... 39
List of Tables

Table 1: Study sites for In Depth Interview ............................................................................. 7
Table 2: Maternal Mortality prior to and after the COVID19 pandemic in Nepal .................. 27
Table 3: Immunization services obtained by children before and after COVID19 pandemic in Nepal ........................................................................................................... 53
Table 4: Nutrition services before and after COVID19 pandemic in Nepal ............................. 54
Table 5. Summary of demand side barriers and challenges on reproductive, maternal, neonatal and child health service utilization during lockdown due to COVID-19 in Nepal ........... 79
Table 6. Summary of supply side barriers and challenges on reproductive, maternal, neonatal and child health service utilization during lockdown due to COVID-19 in Nepal ............... 103

List of Figures

Figure 1: Change in number of women having first ANC visits before and after the COVID - 19 pandemic in Nepal ..................................................................................................... 13
Figure 2: Change in number of women having four ANC visits before and after COVID-19 pandemic in Nepal ..................................................................................................... 13
Figure 3: Number of institutional deliveries before and after COVID19 pandemic in Nepal ..... 24
Figure 4: Number of home deliveries conducted by health workers before and after COVID19 pandemic in Nepal ..................................................................................................... 25
Figure 5: Number of PNC visit within 24 hours of delivery before and after COVID19 pandemic in Nepal .................................................................................................................. 26
Figure 6: Number of 3 PNC visit as per protocol before and after COVID19 pandemic in Nepal ......................................................................................................................... 26
Figure 7: Number of Safe abortion Services provided before and after COVID19 pandemic in Nepal .......................................................................................................................... 39
Figure 8: New users of any permanent Family Planning methods before and after the COVID19 pandemic in Nepal .................................................................................................. 49
Figure 9: New users of any temporary Family Planning methods except condom prior to and after the COVID19 pandemic in Nepal ........................................................................ 50
Figure 10: Number of ARI/Pneumonia cases before and after COVID-19 pandemic in Nepal 51
Figure 11: Number of Diarrhea cases before and after COVID-19 pandemic in Nepal ........... 52
Figure 12: Number of child deaths (CB-IMNCI/IMAM) before and after COVID-19 pandemic in Nepal ..................................................................................................................... 52
Figure 13: Number of children admission due to acute malnutrition before and after COVID-19 pandemic in Nepal .................................................................................................. 52
Figure 14: Number of adolescents receiving ASRH counseling serving before and after COVID-19 pandemic in Nepal .................................................................................................. 69
Acronyms

COVID-19  Corona Virus Disease
DHIS-2  District Health Information System-2
ERB  Ethical Review Board
FCHVs  Female Community Health Volunteers
GON  Government of Nepal
IDI  In Depth Interview
IHIMS  Integrated Health Information Management Section
KII  Key Informant Interview
LMICs  Low and Middle-Income countries
MMR  Maternal Mortality Ratio
NHRC  Nepal Health Research Council
SDG  Sustainable Development Goals
SRMNCAH  Sexual Reproductive Maternal Neonatal Child and Adolescent Health
UNFPA  United Nations Population Fund
UNICEF  United Nations Children's Fund
WHO-SEARO  World Health Organization- South-East Asia Regional Office
Acknowledgement

A study on "Effect of COVID 19 pandemic and lockdown on provision and utilization of essential sexual reproductive maternal neonatal and adolescent, child health and nutrition services (SRMNCAH) in Nepal" was conducted to explore the effect of COVID 19 pandemic and lockdown on the provision and utilization of essential SRMNCAH services in Nepal. I express my gratitude to WHO SEARO, New Delhi, India for funding the study and I am grateful to all the members of the study team for their individual contribution at different aspects of the study in the process of completing it and producing this report. My sincere gratitude goes to Prof. Dr. Madhu Dixit Devkota, MNCH Expert, Dr. Mandira Lamichhane, Social Scientist and Mr. Bir Bahadur Rawal, Demographer/Statistical Officer, IHMIS for their continuous support and feedback throughout the study. I would like to offer my sincere thanks to Dr. Meghnath Dhimal, Chief, Research Section of Nepal Health Research Council (NHRC), Ms. Ranjeeta Subedi, Research Officer of NHRC and Ms. Astha Acharya, Assistant Research Officer of NHRC for the timely completion of this study. We are also thankful to Dr Meera Thapa Upadhaya, WHO SEARO for her technical advice during the conduction of this study.

My special thanks goes to Mr. Bihungum Bista, Senior Research Officer, NHRC and Dr. Shristi Karki, Research Officer, NHRC for their support in the tools development and quantitative analysis of the study the enumerators of this study for their tireless work during the data collection. Similarly, I offer my thanks to the Research Officers Mrs. Tamanna Neupane, Ms. Uma Dahal, Ms. Kopila Khadka and the Assistant Research Officers Ms. Sitashma Sharma, Ms. Bimala Dhamala, Ms. Janaki Pandey and Ms. Sabita Pandey from NHRC for their contribution in the qualitative part of the study.

I would like to acknowledge the contribution of the data enumerators for their tireless work during the data collection. Thanks also goes to the FCHVs and health coordinators in all the provinces for providing us the detailed list of the adolescent, mother having under five years children along with abortion, postnatal and antenatal mothers. I am also thankful to administrative and financial coordination efforts made by Mr. Yuba Raj Kharel, Mr. Subodh Kumar Karn and Mr. Bijay Kuamr Jha at NHRC. Last but not the least I am indebted to all experts who had directly or indirectly contributed and supported to carry out this study.

Dr. Pradip Gyawali
Member Secretary (Executive Chief)
Nepal Health Research Council
Executive summary

Background:

The COVID 19 pandemic has hard hit the nations worldwide and Nepal is not an exception. Not only are the lives of the people lost, it has affected the health system as a whole. The essential health care services including sexual reproductive maternal neonatal child and adolescent health (SRMNCAH) and nutrition services has been affected which ultimately is likely to increase the risk of maternal and child morbidity and mortality in future. WHO, UNICEF and UNFPA have highlighted the importance of SRMNCAH and Ministry of Health and Population (MoHP), Government of Nepal has issued SRMNCAH guidelines on COVID 19 pandemic for the continuity and effective services even during the pandemic. However, evidence on the status of the services and effect of COVID 19 on the services was lacking. Hence, this study aims at exploring the effect of COVID 19 and the lockdown on the provision and utilization of the services comparing pre and post COVID 19 situations that also help in making general estimate about the proportion of population availed from the services due to COVID 19 in Nepal.

Methodology:

This study adopted a mixed method design that included comparison of SRMNAH services provided in the eight months prior to COVID-19 [Magh 2075 (January 2019) to Bhadra 2076 (September 2019)] and the same months after COVID-19[Magh 2077 (January 2020) to Bhadra 2077 (September 2020)] for quantitative information. Data was obtained from the Integrated Health Management Information System (IHMIS) and analysis on the change in number of women/children receiving services was done and presented in graphs and tables.

For qualitative data, the seven provinces of the country were our sampling frame. Three districts were randomly chosen from each of the provinces, considering the ecological regions. Rural or urban areas were randomly chosen from each of the districts. Rural areas were represented by rural municipalities and metropolis/municipalities represented urban areas. Five categories of population from each area that includes adolescents, women in the reproductive age group,
pregnant women, postnatal mothers and mothers with children below the age of five years were interviewed for exploring the effect of COVID-19 in receiving SRMNCAH services. Health Coordinators, Health Workers at health post and birthing center, and Female Community Health Volunteers (FCHVs) of the selected districts’ municipalities were coordinated to obtain the contact number of the participants and in-depth interviews (IDIs) were taken through the phone call. Verbal consent for the participation and recording was obtained prior to IDI.

Similarly, for the effect of COVID-19 on providing SRMNCAH services, purposively selected key informant interviews with the representative from Ministry of Health and Population (MoHP), Department of Health Services (DoHS) and Family Welfare Division (FWD) was conducted. In addition, Focus Group Discussions was conducted with the health coordinators of the selected districts. Though the number of samples for IDIs and FGDs was predefined, theory of saturation was also considered.

For the qualitative analysis, data from the IDI, KII and FGDs were simultaneously translated and transcribed into English. Then accurate data was segmented manually using excel. Thus, results were generated through thematic analysis and the obtained information was triangulated with the quantitative data for the final findings.

**Findings:**

The COVID-19 Pandemic has influenced all the sexual and reproductive health services. The ASRH services were found to be highly affected by the pandemic from the initial months. During all months (from Magh to Bhadra/January-September) of COVID-19 pandemic, the ASRH services were continuously decreased while compared to the months before COVID-19 pandemic in the country. While, the number of women having antenatal visit, receiving safe abortion services and children receiving immunization services was profoundly decreased after the nationwide lockdown announced by the government of Nepal.

The home deliveries conducted by the health workers (skill birth attendants) were found to be decreased more during the pandemic compared to the same months before COVID-19. Though the hospital deliveries were not much affected by the pandemic during the initial six months of
COVID-19, it has been decreased drastically in Shrawan and Bhadra (Mid-July to Med-September), which was same for the PNC services within 24 hours of delivery. The study found that the maternal deaths during antepartum and intrapartum period in the eight months after pandemic had increased by 50% compared to the same months prior to the pandemic, and the postpartum death have been increased by 9%.

On the demand side, it was found that one of the common factors affecting all SRH services was widespread fear of the transmission of COVID-19 among service seekers. Other common factors influencing utilization of any SRMNCAH services during this pandemic includes travel restriction, economic problems, negative and changed attitude of clients towards health workers due to pandemic resulting in dissatisfaction of the service provided, unavailability of medicine, foods, fruits, vaccines, services and health workers. Beside this, for abortion services, the qualitative finding showed that most of the participants were not aware of the availability of abortion services during the pandemic. In case of adolescents, lack of peer support, lack of support from family and hesitation to share the SRH problems were found to be additional factors that affected adolescents to seek the services. From the demand side perspective, major barriers and challenges were unavailability of family planning devices, interrupted supply of logistics especially in rural areas, inadequate coordination, preference of home delivery at the time of pandemic and lack of training on sexual and reproductive services at the time of pandemic.

The major obstructions for the service providers were identified as the wide spread fear of COVID-19 transmission among the clients and health care providers; closure of health posts/hospitals as well as schools, lack and/or scarcity of family planning devices/vaccines, ICU and ventilators including many others. During the pandemic, lack of proper knowledge/training on SRHR services in crisis, unavailability of personal protective equipment and geographical difficulties also remained major concerns. They accepted limited preparation for the pandemic and observed gap between written guidelines and practices. Training/orientations on SRHR services, well coordination at local levels, appointment of SRHR focal point/additional healthcare staffs, Tele ANC/PNC services including the community mobilization were the suggestions to provide SRHR services more effectively.
Conclusion:

All the sexual and reproductive health services including child health services were found to be affected by the COVID-19 pandemic. Along with the pandemic, the strategies adopted by the government in order to control and prevent COVID-19 transmission had influenced the SRMNCH and nutrition services particularly by the national wide lockdown restricting the transportation. Widespread fear about COVID-19 transmission among the service seekers was found to be one of the common factors influencing any SRH services. Similarly, the changed behaviors and negative attitude of health care professionals towards the client because of the pandemic, unavailability of the services, vaccines, medicines, supplements, inadequate manpower, and lack of orientation/training to the health care providers had also influenced the service provision and utilization during the pandemic.
Chapter 1 Introduction

The corona disease (COVID-19) pandemic poses incremental challenges as it affects more in low and middle-income countries (LMICs) where the health system is not well prepared to cope with such catastrophic situations. Already the country’s over-burdened health system is further challenged in the context of COVID-19 preparedness and responses causing risk of disruptions in essential health and nutrition services for pregnant women, newborns and children. The pandemic has resulted in suspensions of healthcare services and transportation system including financial barriers leading to impediment of essential health services and/or supplies due to which pregnant mothers, newborns and children are highly susceptible to compromised health\[1,2\]. This can potentially lead to increased maternal, newborn and child morbidity and mortality. It is estimated that in low and middle-income countries (LMICs), even a modest decline of 10% in coverage of pregnancy related and newborn health care would result in an additional 28,000 maternal deaths and 168,000 newborn deaths\[3\].

The first COVID-19 case in Nepal was reported on 23 January 2020 ina Nepali student studying in Wuhan, China who travelled back to Nepal during the time\[4\]. The total confirmed cases reported to the WHO as of 5th August 2020 in Nepal was 21,007 in which total deaths reported were 57 with Transmission Classification rated as cluster of cases in 5 provinces and sporadic cases in Bagmati and Gandaki provinces. One of the deaths was reported during the post-partum period\[5\]. Similarly, a new evidence from a recent modeling study projected that there would be an additional 56,700 maternal and 1.2 million child mortality in 118 low and middle-income countries if coverage of essential maternal and child health services falls by about 45% for 6 months as a result of COVID-19 \[6\].

The COVID-19 pandemic is the biggest challenge the world has ever faced. Although people of all ages and genders are at risk of COVID-19, women, particularly pregnant mothers experience enormous stress as they might not have access to health facilities and obtain adequate attention by doctors in case of any difficulties or complexities due to hospitals closure and lockdown. \[7\]. Different sources have suggested that 56 recently delivered mothers died and 60,000 women were unable to receive the required checkup and other services during this lockdown in Nepal\[7\]. An additional 49 million women with an unmet need for modern contraception including additional
15 million unintended pregnancies over the period of a year are expected to result from a 10 percent proportional decrease in the usage of short- and long-acting reversible contraceptive methods in LMICs due to the reduced access. In addition, the closure of clinics during COVID-19 can lead to unsafe abortion[3].

In Nepal, the nationwide complete lockdown started on 24March 2020 (11th of Chaitra, 2076). Studies showed that there is rise in the neonatal deaths from 13 deaths per 1000 live births before lockdown to 40 deaths per 1000 live births during the lockdown. In addition, the institutional stillbirths increased from 14 per 1000 total births to 21 per 1000 total births during the lockdown. This increment indicates extremely late arrival or diminished quality of care at the health facility or both[8]. Moreover, in most institutions, preventive services such as antenatal and immunization or growth monitoring visits have completely stopped due to lockdown. While mortality rates for COVID-19 tend to be low in children and in women of reproductive age, the disruption of routine health services, especially in LMICs, may relatively affect these groups[9].

The pandemic had also significant effect on existing preventive public health programs, including immunization services. Furthermore, the disruption of these regular immunization initiatives, outreach facilities and preventive vaccination strategies was exacerbated by the lack of definite higher authority decisions[9]. Lockdown was taken as GoN's key strategy against COVID-19 and as a result, routine immunizations have been severely disrupted and there have been sporadic outbreaks of vaccine preventable diseases i.e. measles and diphtheria in some parts of Nepal[10]. Besides, there are many severe impacts on logistics and supply management including drugs and food supply shortages because of Covid-19[11]. The existing background of isolation and quarantine measures are likely to bring an increase in unwanted pregnancies while the teenagers have the highest unmet need for family planning (35 percent) as well as the rate of contraceptive use among migrant worker partners is extremely low.

During this pandemic, many women face obstacles to accessing maternity healthcare. Nepal has still high maternal deaths (239 per 100,000 live births) in the region. Specific attention to ensuring the continuity of basic services such as maternal and newborn health and sexual and reproductive health services and supplies is therefore crucial for health systems as COVID-19 can bring a huge challenge to control maternal deaths[12].
On top of that, the pandemic has forced more women to perform home delivery due to complete halt in the public transportation. In the last two months, at least 24 women have died of birth-related complications, compared to 80 deaths in the past year. Due to the fear of Covid-19 transmission, several health facilities have stopped offering the services. Lacking facilities and public transportation, there is a complete obstruction to antenatal and postnatal services. Because of Covid-19, even postnatal care given by the Health Institutions through qualified nursing staff who would visit the homes of new mothers has been completely stopped[13].

The COVID-19 pandemic is having a huge effect on the sexual and reproductive healthcare delivery system. The COVID-19 pandemic may increase the probability of increased pregnancies, which could be attributable to planning of family, increased unprotected sex and sexual activity as couples are less engaged in other leisure opportunities outside the home.[14] Since the onset of the COVID-19 pandemic in Nepal, the use of sexual and reproductive health services, including family planning, is beginning to decrease due to limited mobility. Owing to social distancing criteria, the availability of long-acting reversible contraceptives has also been decreased. Pharmacies, however, remain open, ensuring that emergency contraceptive pills and condoms are available[15].

Just 58 percent of births in Nepal were attended by trained health workers prior to the pandemic and thus many women faced significant risks if complications occurred during childbirth. But today, women face even more obstacles to accessing maternal health care, including limitations on travel, transportation problems, and anxiety about potentially being exposed to the virus[16].

Existing reproductive health risks among girls can be worsened due to pandemic while facing the challenges in accessing menstrual hygiene products and sexual and reproductive health facilities[17]. Due to nationwide lockdown against COVID-19 and following closure of safe abortion services, it was difficult for both clients and service providers to provide and receive safe abortion services. However, the contact center for Marie Stopes Nepal saw more in calls from women seeking safe abortion care. Considering safe abortion as critical health care has enabled abortion service providers with special mobility passes to find the way even at lock down to reach their facilities. To date, 11 Marie Stopes clinics have re-opened and are providing surgical and medical abortion care using the COVID-19 clinical guidance to protect patients[18].
The WHO, UNICEF and UNFPA have issued regional guidelines highlighting the importance of continuing sexual, reproductive, maternal, neonatal, child and adolescent health (SRMNCAH) services during the pandemic with psychosocial support\(^\text{[19]}\). During the pandemic having risk of interrupted essential services, it is particularly important to monitor the prioritized SRMNCAH services within the national information system\(^\text{[19]}\). The Ministry of Health and Population has also developed guideline on RMNCAH services on COVID-19 pandemic for the provision of effective and continuous services during the pandemic too.\(^\text{[20]}\)

To achieve the country's 2030 Sustainable Development Goal’s (SDG) target on reducing maternal mortality ratio (MMR), Nepal is need to work rigorously. In addition, current pandemic and lockdown has restricted the access to the health care facilities making the situation even more worse\(^\text{[11]}\). Thus, to design appropriate strategies, it is important to understand the magnitude of disruption of the essential health and nutrition services for mothers, newborns and children, during the lockdown and the associated psychosocial stigma in the population. The study aims to identify the disruption of SRMNCAH services due to lockdown/pandemic by comparing the proportion of women and infants who availed the scheduled SRMNCAH services in the country. The findings of the study will help plan and implement related programs to continue availability and utilization of essential SRMNCAH services during this pandemic.

**Objectives**

The main objective of this study is to explore the effect of COVID 19 pandemic and lockdown on the provision and utilization of essential sexual reproductive maternal neonatal adolescent and child health (SRMNCAH) and nutrition services to women and children in Nepal.

The specific objectives are:

1. To compare the proportion change in the utilization of essential SRMNCAH and nutrition services to women and children before and after the COVID 19 pandemic.

2. To explore the demand and supply side barriers, challenges and facilitators in the utilization and provision of essential SRMNCAH and nutrition services due to COVID 19.
Chapter 2 Methodology

Study Design

A mixed method cross sectional study design was adopted which comprised both the quantitative and qualitative research methods with the aim of exploring the effect of COVID 19 pandemic and lockdown on the provision and utilization of essential sexual reproductive maternal neonatal adolescent and child health (SRMNCAH) and nutrition services to women and children in Nepal.

For qualitative information, In-depth interviews (IDIs) were taken with those who seek SRMNCAH services and Key informant interview (KIIs) and Focus Group Discussion (FGDs) with the higher-level authority and service providers were conducted respectively. For quantitative part, the number/proportion change in the utilization of SRMNCAH services were identified and compared as well as the information was linked with qualitative findings through data triangulation.

Study Population

Study population includes adolescents, women of reproductive age group (including with abortion services), pregnant women, intra-natal mothers, postnatal mothers, and mothers with children below five years of age, higher level authority at Ministry of Health and Population, Department of Health Services and Family Welfare Division and health workers who provide SRMNCAH services. Participants utilizing the SRMNCAH services after and during the COVID-19 were only included in the study. In case of adolescents, adolescents those who have not seek the ASRH services were also included.

People with the following characteristics were not included:

- Participants utilizing the SRMNCAH services before the pandemic
- Those who were physically unable and mentally unfit to participate in the study
- Those who were unwilling to give informed consent
Sample size

For quantitative data, the information was obtained from IHMIS. Information regarding SRMNCAH services obtained by all the adolescents, women and children from the public and private health facilities were taken.

For qualitative data, the sample size depends on theory of saturation. We combined the recommendation of theory of saturation by Glaser and Strauss (1967) for achieving an appropriate sample size in qualitative studies with suggestions of Morse (1994) for grounded theory. We used these recommendations to estimate the required number of participants until the saturation is reached. However, altogether 98 IDIs were taken from the selected districts of all seven provinces (21 municipalities covering lowland Terai, hill and mountain). Two FGDs were conducted with the health coordinators of the selected districts and four KIIIs were conducted with policy makers of MOHP and DOHS.

Sampling Technique, Study Site and its Justification

The study was done in all the seven provinces of the country.

The District Health Information System-2 (DHIS-2)/ IHMIS is a routine data collection system which collects information on the essential health care services provided by the public and private health facilities in Nepal. Monthly reporting is done by the health facilities to the DHIS-2 system. Hence, coordination was made with DHIS-2/ IHMIS and data on the utilization of essential SRMNCAH and nutrition services in the year prior to COVID 19 (Magh, 2075 to Bhadra, 2076/Jan-Sep 2019) and after COVID 19 (Magh, 2076 to Bhadra, 2077/Jan-Sep 2020) was obtained.

For qualitative data, province was our sampling frame. From each of the province three districts were randomly selected considering the ecological regions. The selected districts for the qualitative study are shown in table 1. From each of the districts rural or urban area was randomly selected. Rural area was represented by rural municipality and urban area was represented by metropolitan/sub-metropolitan city. From each area five individuals which includes adolescents, women of reproductive age group with abortion services, pregnant women, Intra-natal mothers,
postnatal mothers and mothers with children below five years of age, one from each category was taken. To identify the participants and their contact number, health coordinators, health workers at health post and birthing centers and FCHVs were contacted and IDIs were taken through telephone. Similarly, for the service provider side perspective, FGD was conducted online with health coordinators of the selected districts through zoom. KIIIs were also conducted through telephone as well as face to face interview in person.

Table 1: Study sites for In Depth Interview

<table>
<thead>
<tr>
<th>Province</th>
<th>Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province 1</td>
<td>Morang, Bhojpur, Solukhumbu</td>
</tr>
<tr>
<td>Province 2</td>
<td>Dhanusha, Rautahat, Bara</td>
</tr>
<tr>
<td>Bagmati Province</td>
<td>Sindhuli, Lalitpur, Rasuwa</td>
</tr>
<tr>
<td>Gandaki Province</td>
<td>Nawalparasi, Kashi, Mustang</td>
</tr>
<tr>
<td>Lumbini Province</td>
<td>Banke, Palpa, Rukum East</td>
</tr>
<tr>
<td>Karnali Province</td>
<td>Surkhet, Jumla, Humla</td>
</tr>
<tr>
<td>Sudoopaschim province</td>
<td>Kailali, Dandeldhura, Darchula</td>
</tr>
</tbody>
</table>

Data collection tools

Information from routine data collection tool of DHIS-2/ IHMIS for accessing the provision and utilization of SRMNCAH and nutrition services were extracted. Standard in-depth interview guideline was used for qualitative data however some of the modification was done as per needed after the pre testing. The questionnaire guidelines were translated and administered in local Nepali language. For the IDI, the questionnaire consisted of the socio-demographic information of the individual with their awareness on the ongoing SRMNCH services and the barriers, facilitators and challenges and the suggestions for utilization of SRMNCH services after the COVID-19 as below:
**Part I: Socio demographic information**

Name, province, district, ecological region, area, nearest public health institution, current age, age at marriage, age of the last baby, educational level and occupation

**Part II: SRH related information during COVID 19**

Aware of the essential sexual and reproductive health services (SRHR) services being provided during COVID-19 Pandemic as well

Utilization of SRH services

Facilitators and Barriers

Impact of COVID 19 on SRH services

Difference in the SRH services before and after the pandemic

Effect of government strategies of COVID-19 on the utilization of the services

Strategies required for the smooth delivery of the services

**Data collection technique**

Quantitative: Data and information were extracted from DHIS-2/IHMIS.

Qualitative: Key Informant interview (KII) was conducted with health workers who provide SRMNCAH services and FCHVs to explore supply side barriers in providing the services. Likewise, In-depth interview was done with the selected participants in order to assess the demand side barriers to access the services caused due to COVID 19. Altogether 98 IDIs were conducted from the entire seven province by fulfilling one category in each province. Questionnaires included open-ended questions depending upon the nature of the information expected to capture. With verbal consent, the interviews were via telephone and digitally recorded and then transcribed. The transcribe of the interviews were then translated in the word file. To de-identify the data, during the transcribing process the participants were allocated participants ID.
Data Collection Orientation to the study team on data collection

The orientation was given for a single day. The participants were explained about the purpose of the study and were told how to ask the questions with the participants. There were a total of 5 data enumerators in the study. Each data enumerator was assigned to take the interview of the given category. The data enumerators had an academic background either in public health, nursing or MBBS. Each member had specific roles and responsibilities. They were assigned to record one interview daily with the translation and transcription on the same day. The interview was taken via Telephone and note taking in case of technical problems.

Pretesting

Pretesting of IDI/KII guideline was done prior to data collection. Pretesting was done in one participant from each category. After pretesting the guidelines were modified as required.

Validity and reliability of tool

The IHMIS/DHIS-2 data collection tools are validated and used routinely by all the health facilities for recording and reporting. The same data was used. For qualitative method, IDI/KII guidelines were finalized after series of consultations with experts from the concerned field and modification through the findings from pretesting.

For the validity of interview taken through telephone, we recorded the telephone conversation with the consent of the participant whenever possible. Also, validity was maintained by noting down the information provided by the participants in case of any technical problem or connection problem when the conversation was not recorded.

Limitation of the study

As some of the component in SRMNCAH is sensitive and have some cultural taboos, few participants hesitated and did not really reveal their true difficulties in few queries.
For quantitative part, we relied on secondary data therefore, some information was not included and it was time consuming to collect, review and analyze many documents. In instances, when there was poor reporting by the health facilities, those health facilities were excluded from the study during the comparison. In that case, it affects the actual proportion change in service use.

Supervision and monitoring

Team at NHRC frequently monitor and supervise the data collection/interview daily and were provided with the daily update to ensure maintenance of standard procedures. In addition, the transcribed and translated data from the participants were checked regularly for any inconsistencies.

Ethical Consideration

Ethical approval was obtained from the Ethical Review Board (ERB) of Nepal Health Research Council (NHRC) prior to conducting the study. Verbal consent was obtained from each of participant via. Telephone. Participants were informed regarding their right to withdraw from the survey at any time if they are not ready to answer and were informed regarding the maintenance of confidentiality about their information. Information collected from the participants was only used for our study purpose. Some participants were informed about the provision of SRMNCAH services in this pandemic.

Data Management and Analysis

The quantitative information obtained from IHMIS was checked for the completeness and accuracy of data through comparing the number of health facilities reporting in each month prior to and after COVID-19 pandemic. Descriptive analysis was done and tables, graphs and figures were developed as appropriate.

The information obtained through the IDIs were simultaneously translated and transcribed into English by the enumerators who conducted the interviews on the same day of the interview. The transcriptions were re-read by listening to the audio and checked for accuracy by the research officer. Some of the translations were re-checked by the research officer for the accuracy. Any
inaccuracy in the transcript and translation was discussed to understand the cause of differences. The research team and qualitative expert independently read the data carefully and segmented the data. Meaningful segments were coded manually by the researcher and relevant themes/codes were developed and discussed in between the expertise and the researcher. Continual comparison of developed themes, concepts, and code within the research team was done. Several levels of data analysis were conducted, including data description, category construction and thematic coding. Thus, results were generated through thematic analysis.
Chapter 3 Findings

The chapter three provides information about the effect of COVID-19 at provision and utilization of SRMNCAH services comparing the data of the services provided during the months of Magh 2075 to Bhadra 2076 (Jan-Sep 2019), prior to the detection of COVID 19 and the same months of 2076/77 (Magh to Bhadra) (Jan-Sep 2020) after the detection of COVID 19 pandemic in the country. Further, qualitative study was done to explore the effect of COVID 19. The effect of the pandemic on each component of SRH service is described separately as follow:

Effect of COVID-19 on Safe Motherhood Services

Safe motherhood services include antenatal, delivery and postnatal services, which is one of the priority programs of the government of Nepal that primarily aims at reducing the maternal and neonatal mortality in the country. While comparing the safe motherhood services provided before and after the COVID 19, it was found that the overall services received by the women has been decreased perceptively after the COVID-19 pandemic.

Effect on Antenatal Services

Figure 1 describes the difference in number of women having first antenatal visits in the same months before and after the COVID 19 pandemic. The study found that the first antenatal services received by all women were low after the pandemic throughout the months. The number of women receiving first antenatal service was hugely decreased in the month of Chaitra (March) when the nationwide lockdown was first announced by the government of Nepal as one of the preventing and controlling measures against COVID-19.
Figure 1: Change in number of women having first ANC visits before and after the COVID-19 pandemic in Nepal

Figure 2 describes the differences in the number of women having four antenatal visits before and after COVID-19 pandemic in Nepal. It was found that the women receiving four antenatal services were decreased more after the nationwide lockdown (Chaitra). However, it seems that there was no effect of COVID-19 on the four ANC services during the initial months of COVID-19 prior to lockdown.

Figure 2: Change in number of women having four ANC visits before and after COVID-19 pandemic in Nepal
In qualitative study, the ANC services during COVID-19 were assessed with primary focus on service utilization, barriers and the facilitators, differences in services prior to/after the pandemic including strategies to effective SRHR services during the pandemic. The ANC mothers representing rural – urban as well as all three ecological zones as mountain – hill – Terai were interviewed.

Of the total 21 participants receiving ANC services, most had health facility at less than half an hour walking distance, but some had to go quite further. Though ranged from 3 to 9 months of pregnancy, most of the participants missed the complete ANC visits due to irregular services at health facilities caused by COVID19. However, almost all respondents had received iron, folic acid, TT (tetanus toxoid vaccine) deworming tablets but one of them had to purchase them in the market.

*I am having it (iron pills and folic acid) by purchasing. I have not taken worm medicine. It isn’t given.* (ANC women, Urban, Hill, Lalitpur, Bagmati Province)

Though the guidelines developed by Ministry of Health and Population for SRH services during the pandemic states about Tele ANC services during the pandemic, none of the participants had any ideas about the service. However, majority of the participants had knowledge about the provision of ANC/SRH services during the pandemic while the source of information they relied on were mostly from health posts/personnel, radios and very few from FCHVs and social network such as Facebook.

*There is no such thing as calling from telephone. They inform about the emergencies in every visit. Not from the phone.* (ANC women, Rural, Mountain, Mustang, Gandaki Province)

*I asked them on the phone whether health facilities were running during the time of pandemic or not. They said yes and we visited there.* (ANC women, Urban, Hill, Kaski, Gandaki Province)
Barriers on receiving ANC services during pandemic

a. Health system barriers:

One of the major factors influencing the services was found to be unavailability or limited availability of vaccines, radiological services (USG) as well as health workers and the services at the health facilities. Negative attitude of health care professionals during COVID 19 pandemic also acted as major barrier on receiving ANC services. In some cases, the ANC mothers had to visit the health facilities twice/thrice for the checkup, as the health workers were not available.

When somebody goes for checkup, the healthcare workers don’t do all the required things. Don’t measure the blood pressure; don’t like to touch anyone etc. (ANC women, Urban, Terai, Nawalparasi, Gandaki Province)

These vaccines (TT), they don’t give them to the pregnant women. They say that it hasn’t arrived. (ANC women, Rural, Terai, Rautahat, Province2)

When I went to health posts for checkup, I had to return3 times. They said one of the sisters have been infected from corona when I went for the first time and second time. (ANC women, Urban, Hill, Surkhet, Karnali province)

There was a doctor but there was no video x ray. Sometimes they said they were out of medicines and sometimes other things. (ANC women, Urban, Hill, Lalitpur, Bagmati province)

Some of the participants were not satisfied with the antenatal services provided during the pandemic as they didn’t get proper further information regarding next visit, danger signs during pregnancy counseling and other services. The participants also shared that the health care personnel even did not speak openly to them.

Before we used to get good food and good checkup services in good hospital but for now here in health post we got normal checkup. So, we are not getting good checkup. (ANC women, Rural, Hill, Sindhuli, Bagmati Province)
One must visit hospital with fear and there also, doctors don’t do checkups properly. (ANC women, Urban, Terai, Bara, Province 2)

We had to ask everything like when, after how many months to come for a checkup, on which date, outside with others. (ANC women, Urban, Terai, Banke, Province 2)

Many of the participants answered that they did not have to wait long for checkup due to a smaller number of patients due to pandemic. While, a few claimed they had to wait long for getting the services, which made them difficult to stay there.

There is only one nurse, so it takes a longer time. It opens at 10 am and when we go there at 10 am, we get our turns at 1 pm or 2 pm. (ANC women, Urban, Terai, Banke, Province 2)

Mostly, the health care personnel lacked positive behavior towards the patients during the time of pandemic. They did not touch the patients and only made verbal communication, which acted as barrier in availing ANC services. Lack of private and safe space for checkup, negligence of health care professionals in government setting hindered to avail ANC services. At the same time, the participants also have negative perceptions towards the health workers as well.

During corona they didn’t even measure blood pressure. Nurses and sisters didn’t like to touch us at all. They just responded verbally. (ANC women, Urban, Hill, Nawalparasi, Gandaki province)

In the government hospital, they observe from a bit far and in private they observe very properly. (ANC women, Rural, Terai, Rautahat, Province 2)

They (health workers) do not even want to check the sick people properly. They say to wear masks and sanitizers and to stay at distance, at that time I felt disheartened. (ANC women, Urban, Hill, Surkhet, Karnali Province)

One of the villagers went to the health post due to diarrhea. In the doubt of corona they sent him to rural municipality. Therefore, I didn’t go. I got to know that I was pregnant but I didn’t go for checkup. (ANC women, Rural, Mountain, Solukhumbu, Province 1)
b. Transportation:

Study shows that, huge challenge for pregnant women during the pandemic and lockdown to reach health care facilities was transportation. Lacking access to public vehicles, walking on foot to reach hospital within opening hours and travelling on motorbikes in off roads was riskier and difficult. Some complained that they did not get the allowable pass to travel to the hospital as they did not have the ANC cards. Besides, the participants mentioned that they had no access to good road facilities that they did not come up for ANC checkups.

*Now (during Pandemic), one cannot get vehicles at the time of their need to reach the health posts. Autos are also not available. As these vehicles are not available at villages, one has to go by walking, but if they cannot get on time, the services are not available for 24 hours.* (ANC women, Urban, Hill, Surkhet, Karnaliprovince)

*In the hospital, the card (ANC Card) is not made till the first 3 months. So, they don't allow us on the road unless we show the card.* (ANC women, Rural, Mountain, Jumla, Karnali province)

*I have my village in Bideha Municipality; there is no facility of the roadway. If there is an extremely critically sick person, even if they (health worker) are called there is no road access, so they cannot come.* (ANC women, Urban, Terai, Dhanusha, Province 2)

c. Fear and stigma:

Most of the participants mentioned that there was a fear of corona virus everywhere. They were frightened to visit the health facilities due to the risk of COVID 19 transmission. Even if they visited the health facilities/hospitals, the doctors/health personnel would not examine the patients properly as if the visitors had contracted corona virus and they would transmit to them. Lacking quality services at local health facilities, some respondents wanted to visit good hospitals but they gave up as they were afraid of COVID 19 transmission. However, one of the participants from Humla said that they had no such effect of corona virus there and thus they did not have fear of transmission either.
Sometimes while visiting health institutions there is presence of crowd and there’s a fear of transmission of corona to us and to our baby as well. (ANC women, Urban, Hill, Surkhet, Karnali Province)

I wanted to go for checkups in good hospital but I have not been able to go because of fear. Now, if I go there, I fear that I might contract corona. (ANC women, Urban, Terai, Bara, Province 2)

Ambulance facilities are available but they are using same ambulance for COVID patients and non-COVID patients. I am afraid if travelling in the ambulance may transmit COVID. (ANC women, Rural, Hill, Sindhuli, Province 1)

It did not hamper me at all. We had no fear of corona here. (ANC women, Rural, Mountain, Humla, Karnali Province)

There is even more fear for postpartum women. Due to that reason too, they do not go to the health facilities. (ANC women, Urban, Terai, Dhanusha, Province 2)

**Facilitators on receiving ANC services during pandemic**

The participants were asked if they had experienced enabling factors to receive ANC services during the pandemic. Some responded that it was easier to utilize the services due to proximity of the health post while others also mentioned that due to fewer crowds in the health post, they felt safe and easy in receiving the services.

It was just easier as the health facility is nearby. Otherwise, I would have to go to Pokhara. It has been easy until now because of the health post being here. (ANC women, Urban, Hill, Kaski, Gandaki Province)

Rather than going to the district hospital, there is health post at our own ward, near my house. There are the people from our ward only. Thus, no such crowd here either. (ANC women, Urban, Hill, Dadeldhura, Sudurpaschim Province)
Though most of the participants complained about unsatisfied healthcare services during the pandemic, some responded that the health care workers were very positive and performed very well health check–ups. Some also added that there would not be so crowd that they were getting quite good and fast services. They did not have to wait for such considerable time.

*They (healthcare workers) were nice. They checked me up in a nice way. They treated me well.*

(ANC women, Rural, Mountain, Solukhumbu, Province 1)

*It was easy. There was no much crowd. The doctors also seemed to serve and treat well.*

(ANC women, Rural, Hill, Palpa, Lumbini Province)

*If we go there (health post), they do it immediately. If it is not even done immediately, I have to wait just 12 minutes; it is done immediately.*

(ANC women, Rural, Mountain, Jumla, Karnali Province)

Moreover, some health care workers also suggested the participants visiting the facility if they had any problems and not going to district hospitals as they could receive such services at there. While most of the participants were unsatisfied for the supplies of medicines, vaccines and the services by the healthcare workers, some replied that all medicines needed for ANC mothers were available at the health facilities and they received them all.

*They (Health facilities) are giving services properly until now. They have also been suggesting me to come immediately if I have any such problem, and not to not go elsewhere (district hospital), that everything every service is there only.*

(ANC women, Urban, Hill, Dadeldhura, Sudurpaschim Province)

*All the medicines taken by pregnant women are being provided in the health post.*

(ANC women, Rural, Mountain, Darchula, Sudurpaschim Province)

Some mothers even added that, they received psychological support from the health care workers along with good services. Few other participants stated that health care workers were visiting the
communities on regular basis as they did before the pandemic. The FCHVs made inquiry whether any of them was pregnant in the villages taking records.

*It is nice here. All good doctors come here; there are facilities for everything. They tell me not to panic, and the things are good here; that I need not to worry.* (ANC women, Urban, Hill, Kaski, Gandaki Province)

*Since this coronavirus pandemic has started, there are health workers in the village who come to give vaccination; they come timely, once in a month. They come just as they did earlier, but they come wearing masks, sanitizer, wearing gloves in their hands. There are FCHVs in the villages who visit houses and find if there are any pregnant women treating us like their daughter-in-laws.* (ANC women, Urban, Mountain, Lalitpur, Bagmati province)

While inquiring about the government incentives and favorable environment in the families, almost half of the participants mentioned that they received money as well as clothes for them and their babies as government’s support. Some participants added that the rural municipality provided grants to the health facilities for maternity services too. Most of them asserted that their families were supportive during the time and provided proper care and advised them not to fear and eat enough foods accompanying them while needed.

*They give money and we get clothes as well, for baby and mother. Nowadays the deliveries do not take place at home frequently because of the money.* (ANC women, Rural, Mountain, Palpa, Lumbini Province)

*From family, I have been getting more care and support as compared to before pandemic.* (ANC women, Urban, Terai, Bara, Province 2)

*The family does well too. Everyone helps. They teach me what I do not know, like: what to do and what not to do during pregnancy. The family support is good here.* (ANC women, Rural, Mountain, Mustang, Gandaki Province)
Participant’s especially from rural areas answered that there was safe environment as there was not such crowd and the health care workers wore masks and gloves. However, some did not see any facilitators to receive ANC services during the pandemic.

*Nothing is easy, where is the convenience?* (ANC women, Rural, Terai, Rautahat, Province 2)

**Effect of Government strategies on COVID-19 prevention and control (Lockdown) to ANC services**

Most of the participants mentioned negative effects of government strategies (lockdown) to ANC services. They explained that the vehicles were shut down and the services as well as medical supplies were obstructed badly. So, many pregnant women instead of going to hospitals stayed at homes and even missed vaccines. Since the health facilities could not provide medicines, some participants said that they had to buy on their own in the market. One participant shared that due to the lockdown, jobs were not available, creating financial constrains for checkup. As most fruit supplies were stopped, some participants said that they could not get fruits as previously. Due to the lockdown, they could not get nutritious foods either.

*Now, when every vehicle is shut down with corona virus pandemic, there is scarcity of medicines as they got stuck at one place.* (Urban, Hill, Surkhet, Karnali Province)

*You must know, every work, everything has been shut down now. It has been difficult. Only my poor mother is there. There is no work. Yes, it was difficult to be checked up. Everything (problems) happened because of this lockdown!* (ANC women, Urban, Terai, Morang, Province 1)

*I have not gotten to eat anything as such like I was eating before. Fruit markets are all closed here...even if we have money, we don’t get to eat such things in time.* (ANC women, Rural, Hill, Rukum, Lumbini Province)

*For us, we could eat something, but the markets are not open. When we need something nutritious food, we cannot get them. The medicines are also not available these days. On the other hand, doctors say, I have deficiency of blood.* (ANC women, Rural, Terai, Rautahat, Province 2)
Differences in ANC services prior to the pandemic and after the pandemic

While the ANC mothers were asked about the differences in ANC services, almost all experienced huge differences in the services before and after the pandemic. The medicines as well as healthcare workers used to be available in the health facilities earlier and the clients had their checkups on time. But now, there is fear of corona virus and the doctors do not check them properly. They say to stay away due to fear of virus transmission though they wear PPE and try to check up in a hurry. Some participants mentioned that they had shifted to the village from the town fearing the corona virus and thus having difficulties in checkups now. Similarly, few asserted mostly the hospitals/health posts were closed. Even if they opened, the doctors would not check them well. Beside these, the health workers were found to be well aware on following the safety precaution for preventing COVID19.

There is a huge difference before and after corona. Before, when one visited the health posts/ institutions, there used to be checkups on time, sufficient medicines and healthcare workers too. But now, when one goes to health institutions, health workers also do not examine properly even if they are present. They do not want to do anything.... stay away from us. (ANC women, Urban, Hill, Surkhet, KarnaliProvince)

Before there was nothing like that but now, they wear PPE sets and do checkups. They stay far from patients and try to do checkups fast; that is about it. (ANC women, Urban, Terai, Bara, Province 2)

If we go without masks, they don’t give us vaccines, they don’t even do our checkups. (ANC women, Urban, Terai, Banke, Lumbini Province)

However, some of the participants did not observe any kind of differences in services before and after the pandemic. It was similar as they received all services as previously.
No, it has made no difference. I made checkup in Koshi there was nothing. I also visited the health post everything is fine there. So there has been any difference. (ANC women, Urban, Terai, Morang, Province 1)

They (health workers) have been giving the checkups from the health post itself. There is no specific difference. (ANC women, Urban, Hill, Kaski, Gandaki Province)

Strategies for effective ANC services during pandemic

The participants were also asked about the effective ways to ANC services during the pandemic. Participants suggested that the healthcare workers including the FCHVs should make frequent visit to the villages and provide information/service mainly to the children and pregnant women. Similarly, they suggested that the government should give more priority for pregnant women than other patients with mild problems and make proper checkups wearing protective equipment. According to them, the health centers should have sufficient medicines and be well equipped. Moreover, the health facilities should manage proper care of both mother and child after the childbirth as well. Some of the respondents suggested that lab test as well as video x-ray services and all types of medicines for pregnant women should be available at health facilities.

Now, more than anything, the health workers from health institutions and FCHVs of the wards should be called here in the villages. They must go around villages and tole to tell and check children, pregnant mothers and provide them with proper information like what to eat, what to do. (ANC women, Urban, Hill, Surkhet, Karnali Province)

I want heath center to have adequate medicine. May be the medicines are going to finish. May be its finished. I think they have only Iron tablet. I do not think they have other medicines in stock. I want government to manage all the equipment in the hospitals. In many places, there are no proper services in the hospital when someone needs delivery room. (ANC women, Rural, Mountain, Solukhumbu, Province 1)
Some participants suggested providing the Telephone services during this pandemic while others also suggested that the quality of services should be improved and the ANC checkups should be given at separate and safe space. Some suggested of increasing the number of doctors in the health facilities. One of the participants from Morang had faced financial hardship in obtaining the ANC services, hence she suggested for the waiver at checkups and medicines.

*It is better to inquire about the problems by phone now rather than visit to health centers.* (ANC women, Urban, Hill, Nawalparasi, Gandaki Province)

*We need better services and checkup at the time of our delivery. It is better to give safe environment and services, recruit more doctors in health posts. It is better to check in different room for pregnant women and delivery woman from other patients. They should ensure their safety too.* (ANC women, Urban, Terai, Dhangadi, Sudurpaschim Province)

**Effect on Intranatal Services**

The hospital delivery services were found to be decreased more during the later months of COVID19 transmission though effects were very minimal during the initial months. After the nationwide lockdown, the services were decreased slowly until Ashad. However, it notoriously declined since Shrawan compared to the same moths in the previous year 2019 before the pandemic as shown in the figure 3.

![Figure 3: Number of institutional deliveries before and after COVID19 pandemic in Nepal](image-url)
The number of deliveries at home conducted by the health professionals has been decreased significantly after the COVID-19 pandemic compared to previous year. However, the number of home deliveries attended by health workers during the month of Ashad was same as in the previous year shown in figure 4 below.

Figure 4: Number of home deliveries conducted by health workers before and after COVID-19 pandemic in Nepal

**Effect on Postnatal Services**

Figure 5 and 6 describes the differences in the number of women seeking postnatal services within 24 hours of delivery and women seeking 3 PNC services as per protocol in the same months before and after COVID-19 in Nepal. It has been observed that COVID-19 has not much affected to the postnatal services in Nepal. Interestingly, the data shows the women seeking three PNC services as per the protocol on 0, 3 and 7 days was higher in the months from Magh to Ashad after the COVID-19 pandemic while compared to the month prior to the pandemic though it has been decreased in Shrawan.
Figure 5: Number of PNC visit within 24 hours of delivery before and after COVID19 pandemic in Nepal

Figure 6: Number of 3 PNC visit as per protocol before and after COVID19 pandemic in Nepal

Maternal Mortality

While comparing the maternal mortality in the eight months (Magh to Bhadra) prior to the COVID 19 pandemic and after the pandemic in Nepal, it was found that the overall maternal death has been increased to 28.7% after the pandemic as described in the Table 1. The antepartum and intrapartum maternal death has been increased by around 50% whereas the intrapartum maternal
death increased by 9.1% in the eight months after the COVID19 compared to the same month data prior to the pandemic.

Table 2: Maternal Mortality prior to and after the COVID19 pandemic in Nepal

<table>
<thead>
<tr>
<th>Mortality</th>
<th>Before COVID19 (Magh2075Bhadra 2076)</th>
<th>After COVID19 (Magh2076Bhadra 2077)</th>
<th>Proportion Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antepartum Maternal Death</td>
<td>8</td>
<td>15</td>
<td>46.7</td>
</tr>
<tr>
<td>Intrapartum Maternal Death</td>
<td>14</td>
<td>28</td>
<td>50.0</td>
</tr>
<tr>
<td>Postpartum Maternal Death</td>
<td>40</td>
<td>44</td>
<td>9.1</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>77</td>
<td>28.7</td>
</tr>
</tbody>
</table>

Qualitative findings on the effect of COVID19 on Intranatal and Postnatal Services:

A total of 21 postnatal mothers within 45 days of pregnancy representing from Rural and Urban areas of Mountain, Hill and Terai regions of the country were interviewed to explore the effect of the pandemic on the delivery and the postnatal services. It was found that all the participants had delivered their babies at the health facilities and received immunization services for their babies. Many of them had made at least one PNC visit after the delivery. Some participants said health personnel had visited at their houses to provide services whereas few others received phone calls from the health posts to know about their health condition. However, some of the participants had not taken any PNC services after the first PNC service on the day of delivery. Some got iron tablets as well as vitamins but some complained they did not get any such services from the facility. Many participants responded that health facilities were less than half an hour walking distance esp. in urban areas.

*I have taken immunization only. My baby had not had any checkups; for myself, I had gone few days ago.* (PNC mother, Urban, Terai, Dhanusha, Province 2)

*They called me via phone time to time and asked my health condition. They called me on 3rd and 7th day of delivery.* (PNC mother, Rural, Hill, Bhojpur, Province 1)
The study identified many of the participants had knowledge about the health facilities providing SRHR services during the pandemic and the source of the information they relied on were health posts, hospitals, FCHVs including mothers’ groups and neighborhoods.

Yes, I know that SRHR services were being provided by the health posts at the times of COVID 19 as well. (PNC mother, Urban, Hill, Kaski, Gandaki Province)

Some other participants had not taken the services due to the lack of information about the required services. They said that they were not aware on how to make immunization/vaccination cards and when to immunize their newborns. One of them said that she would have made PNC visit to the health facility if she had known to go for the service.

Other people might also not know about when to vaccinate their children, just like us. It’s because of me not having the knowledge about it. It must be because of the corona. We didn’t get the information on time. (PNC mother, Rural, Mountain, Mustang, Gandaki Province)

I would have known if they had told me. But I didn’t know anything like that. I would have gone for PNC checkup if I had known. (PNC mother, Rural, Hill, Palpa, Lumbini Province)

**Barriers for seeking intranatal and postnatal services during the pandemic:**

The participants were asked about the obstacles they faced in getting intranatal and postnatal services during the pandemic that major ones were identified within health system, transportation, fear and stigma including financial adversities during the COVID19 pandemic in the country.

a. **Health System Barriers**

The major factors within the health system influencing the health seeking behavior of the participants during the pandemic were found to be lack sufficient medicines, closure of hospitals/health posts, blood scarcity, halted delivery and immunization services and negative attitude of the health workers. The participants shared that some health facilities were closed for the regular services including delivery and postnatal services due to large number of COVID19 cases in the facility.
I planned to go to Nobel hospital but the hospital was sealed due to corona. Then we thought to go to Birat hospital but the situation was the same. It was very difficult for us. (PNC mother, Urban, Terai, Morang, Province 1)

One of the participants from Lalitpur had to travel up to 13 km for delivery as the service of vacuum delivery was not available in the nearby health facility. Similarly, scarcity of blood was found another problem for the women undergoing delivery in the hospital. Many of the participants also faced hardship due to unavailability of even normal delivery services, medicines including iron and calcium supplements, vaccines and the health workers during the pandemic.

I couldn’t do the delivery at health post because it was a vacuum delivery. (PNC mother, Rural, Hill, Lalitpur, Bagmati province)

In that health post (near) there is no birthing center so I went Swasthya Sangi Hospital for delivery. (PNC mother, Urban, Terai, Banke, Lumbini Province)

There were not availability of required services on time. The delivery did not take place at time and there was scarcity of blood though I had a huge loss of blood and needed urgently. There were not vehicles to travel as well. (PNC mother, Rural, Hill, Rukum, Lumbini Province)

The only things we get in the health post are medicines, and slight suggestions. Even if we say we are getting them, sometimes the medicines are unavailable on time. We had to reach Nijgadh for checkups. Sometimes there are no doctors in the hospital. (PNC mother, Urban, Terai, Bara, Province 2)

The study found that at some health facilities, the health care workers had negative attitudes towards patients. The participants complained that the health workers did not perform proper checkup and avoided touching them due to the pandemic.

As of now, it’s very difficult to do checkups at hospital, doctors don’t even touch and that’s why there are lots of problems while going for checkups there. (PNC mother, Urban, Terai, Dhanusha, Province 2)
b. Disruption of transportation:

Very limited or no transportation services during the lockdown heavily affected women to reach the health facility for delivery and PNC services. The study found that almost no participants received proper transportation facilities during the lockdown. Some asserted ambulances and motorbikes were the prime means of transportation at the time; however, some others said even the ambulance services were halted, as they did not show any interest to take the patients to hospitals. And in some cases, the participants had to reserve auto rickshaw paying just double charges. One of the participants even mentioned that she had to go to the health facility on the stretcher while there was no transportation service available during the lockdown.

*If some women have to travel to a distant place for PNC checkup, due to lockdown there are no transportation service available. It is not even feasible for postpartum women to walk.* (PNC mother, Rural, Hill, Rukum, Lumbini Province)

*The ambulances would not be ready to go and take us back. We had to face that problem.* (PNC mother, Urban, Terai, Nawalparasi, Lumbini Province)

*It is difficult. Now, we have to reserve auto rickshaws or use own vehicles. If we use auto, they just ask double fare. The place we used to reach with Rs 500 has reached Rs 1000.* (PNC mother, Urban, Terai, Bara, Province 2)

*In that time, my family and some neighbor took me to the health post by carrying me to the stretcher.* (PNC mother, Rural, Mountain, Jumla, Karnali Province)

Besides pandemic, due to poor condition of roads and remoteness, some participants said that there was delay on reaching the health facility. Even for those who stayed near to health post, faced the difficulty in transportation when they had to go to tertiary hospital for complication or advanced services.

*Vehicles were not available due to muddy roads. I went there walking.* (PNC mother, Rural, Hill, Sindhuli, Bagmati Province)
When there are complications and needs to take them to better hospital or places, there is a transportation problem. They cannot walk for long routes without transportation facility (vehicle).
(PNC mother, Rural, Mountain, Mustang, Gandaki Province)

c. Fear of disease transmission:
The study found widespread fear among the participants especially fear of uncertainty that what would happen to their babies while visiting the health facilities to receive the services. They experienced dilemma whether to take their babies for immunization or not. Some participants also mentioned that even the health personnel were in fear that they did not make any checkup properly at some health centers. The participants also feared with health care providers that they could have contracted with the corona virus, and transmit to them if they visit for checkups. One of the participants even rumored that she would have never given birth to her baby if she had known the pandemic would appear.

I was very much afraid. Normal people also get afraid during this condition. What will happen to my baby; these things come in mind. (PNC mother, Rural,Hill, Sindhuli, Bagmati Province)

Health workers also feel the fear to checkup; you know they are scared of even to touch us. (Rural, Hill, Rukum, Lumbini Province)

For immunization, there is a fear. If someone happens to be infected by corona, then I have a fear that if me and my baby might contract it too. There is a dilemma whether to take vaccine or not. (PNC mother, Rural, Mountain, Darchula, Sudur Pashchim Province)

I was very much afraid to go at the health post due to the fear of contact with health care providers. (PNC mother, Urban, Terai, Morang, Province 1)

One of the participants mentioned about preference to go to the private health facility due to safer environment and less fear of contracting the virus than in the government health facilities.
Everyone in the society had said there are corona patients; do not go there (government facility), rather go to a private hospital for the delivery and other service. (Urban, Terai, Nawalparasi, Lumbini Province)

d. Financial problems due to lockdown:

Due to the lockdown effect, the participants shared that they had faced financial problems to get SRHR services particularly for delivery services. They responded that due to pandemic, people/relatives had lost their work as well as trade and business, which affected their income. Some participants mentioned that due to lack of money, they faced problems in travelling, as they needed to hire private vehicles paying high cost. Even some participants had borrowed money from neighbors to visit the hospitals. One of the participants added that lacking birthing center, she had to spend huge amount of money for delivery and after care services as she needed to go to advanced health facility.

There are some financial problems. My husband could not work. (PNC mother, Rural, Mountain, Rasuwa, Bagmati Province)

We faced some money related problems. I had to go there by Vehicle (auto), so I took credit from my neighbor. (PNC mother, Urban, Terai, Banke, Lumbini Province)

I did not have enough money for delivery. It cost 50,000 but I did not have money. Therefore, I asked it from my villager; that’s’ how I was affected. If birthing centre was open in my village here, then I would have gone there only but that was not available here. (PNC mother, Rural, Terai, Rautahat, Province 2)

Facilitators to receive intranatal and postnatal services during the pandemic:

While the participants of this study were asked about the enabling environment to receive the delivery and postnatal services during the pandemic, some of them said that the health personnel visited their homes and provided PNC services, while others mentioned that the health facilities
provided them with clothes and money. The FCHVs also provided services visiting their houses. One of the participants even mentioned that the sister visited to her house and helped her in breastfeeding as she had problems on that. The participants also mentioned that the vaccination was also taking place smoothly and they received some allowances given by the government easily. Others said that it was good to receive such services during the pandemic too. One of the participants mentioned that she received various services from SUAAHARA program as well.

*The health workers visit the postpartum mothers frequently, do checkups of both the mother and the child, and ask about our health situations.* (PNC mother, Rural, Hill, Rukum, Lumbini Province)

*There were two sisters/nurses in the health post and all the needed health resources were available. It was easy; I had not faced any difficulties as such.* (PNC mother, Rural, Mountain, Darchula, Sudur Pashchim Province)

*I had received Rs 1000 and clothes for the baby and a pair of gowns for me. We have been able to take these medicines easily and free of cost because these services are from the government—* (PNC mother, Urban, Terai, Bara, Province 2)

*The health providers did our special care there. I got Rs. 2800. I brought that with me instead. A sister from SUAAHARA came at regular basis at the time of checking and gave things like eggs. She also taught us on how to feed children; what are the nutritious foods at the postpartum phase too. She keeps calling.* (PNC mother, Rural, Hill, Palpa, Lumbini Province)

Some participants stated that the health facilities provided good services as well as the family members were supportive to them at the time of pandemic. While others added the good attitudes of doctors made them visit the health posts instead of going to advanced hospitals. The health personnel's supportive behavior was also found to be motivating factor for receiving the services during the pandemic.
I am so happy that they are nice towards postpartum mothers, pregnant women and children. If such kinds of doctors stay here then people will not go for delivery outside. (PNC mother, Rural, Terai, Rautahat, Province 2)

**Effects of Lockdown on the intranatal and postnatal services**

Though favorable to minimize the risk and/or the cases of COVID19 pandemic in the country, the government strategies especially lockdown had severe impact in the services everywhere. The participants (PNC mothers) shared various difficulties to receive the services due to the lockdown. Firstly, the transportation service was blocked during the lockdown that affected the mothers a lot in receiving proper services. They did not get vehicles, even the ambulances to go to the health facilities while in need. They had to walk on foot as well to receive the services. Equally, the medicines were unavailable in the health facilities due to lockdown, while the health care providers were also making many excuses such as scarcity of medicines including other services like Norplant, pills and Depo-Provera due to lockdown. The participants also mentioned that, there was the scarcity of fruits and vegetables in the market due to the lockdown. Even if available, they were too expensive and thus PNC mothers were deprived of getting nutritious foods. Some added that unwanted pregnancies might be increased due to the lack sufficient SRH services.

*Lockdown has caused a lot of effect. One cannot travel if one gets unwell and has to go for checkups. It is not feasible to travel by walking as well.* (PNC mother, Rural, Hill, Rukum, Karnali Province)

*Doctors make different types of excuses like medicines are not available and they say they cannot provide services due to lockdown. For any services they must provide like Norplant, Pills and Depo, they get irritated.* (PNC mother, Rural, Terai, Rautahat, Province 2)

However, some of the participants said that the government strategy (lockdown) had positive effect and it was required. They mentioned that the strategies especially the lockdown helped to avoid gatherings, staying at certain distances and taught wearing masks while going out in the crowds.
Lockdown, forbidding gatherings are good and from that, people must also be aware and avoid corona virus; one must stay at distant from people and walk around by wearing masks only. It helps to avoid corona virus. (PNC mother, Urban, Terai, Dhanusha, Province 2)

For some participants, they could not make ANC cards due to lockdown and their ANC and delivery allowances by the government were cut off in the health facilities.

They told me the card wasn’t there due to corona and it would be available after few days. But at the delivery, they told me that if I had the card, I would get Rs 1800. So I got only Rs 1000. (PNC mother, Urban, Terai, Bara, Province 2)

Differences in intranatal and postnatal services prior to and after the pandemic:

The participants shared the varied range of experiences about the delivery and postnatal services before and after the pandemic in which many of them mentioned that the doctors did not properly check the patients during the pandemic and the transportation was heavily disrupted. Some other asserted that the hygiene practices were also changed as they would wash their hands now properly before entering the hospital. Now there are soap, water and sanitizer outside each health facility. Similarly, mask has been compulsory after the pandemic while going outside and/or the health facilities.

It has affected very badly. Doctors do not checkup the patient in scheduled time and they see from distance only. I have heard that doctors make proper checkup at private health institutions. The services are not like before. (PNC mother, Urban, Terai, Morang, Province 1)

Whereas some other participants mentioned that due to fear, it's hard to go to hospitals now. Previously, there used to be crowds of patients but now, these crowds are not seen, however, the doctors appear differently wearing gloves, masks and people return faster from the health facilities. The way doctors make checkup are completely different as prior to the pandemic they used to check just by near, but after that they want us to stay at distance while checkups. If somebody has common colds, they are not allowed to enter the room.
Now it’s not like before. I think, the services are not given properly and nicely now. Before people used to gather around and talk; but now, it is not like that. People wear masks and there are no gatherings and they return faster from health post. (PNC mother, Rural, Mountain, Darchula, Sudur Pashchim Province)

Similarly, some participants complained that the health facilities did not admit the patients rather asked them to test for corona virus before admitting at the hospital. However, some of the participants said that they had not experienced any differences in the services before and after the pandemic.

*They did not admit her (my friend) to the hospital. We had gone after crossing the due date, and when we went there, they did not take the admission without doing the COVID test. I felt like there was no convenient environment at all. It is not like before.* (PNC mother, Urban, Terai, Nawalparasi, Lumbini Province)

*There is no difference; it is the same before and after COVID19.* (PNC mother, Rural, Mountain, Humla, Karnali Province)

**Strategies for effective intranatal and postnatal services during the pandemic**

The participants of this study referred to number of strategies for effective delivery and postnatal services during the pandemic. They mentioned the services should be provided as fast as possible without any delays. Planning and preparations are very important beforehand so that the health resources (medicines, vaccines and health workers) are sufficient for those who come to receive these services. People should be sensitized through various Medias like radios and phone calls for effective SRH services as well as one must follow the rules and regulations such as wearing facemasks, washing hands and maintaining social distance. Some said that one should not get panic during the time of pandemic and the health facilities should be running properly providing these services.

*Everything must be ready beforehand. The list of people visiting at the health post should be made so that the sufficient health resources can be made available on time. It is good if people are*
sensitized through different Medias like radio, phone, etc. For effective provision of these services, one must follow all the rules and regulations like wearing masks, maintaining social distance, and washing hands. If such things are done then, I think such services can be effectively provided. (PNC mother, Rural, Mountain, Darchula, Sudur Pashchim Province)

I would like to suggest that one should not panic during these times. Health institutions should be run, information has been given, and it is good. (PNC mother, Rural, Hill, Palpa, Lumbini Province)

The participants also mentioned that the public also needs to be aware while visiting the hospitals and follow security measures rather than walking freely. Due to fear of transmission, now health services can be provided via phone calls, radios and TVs. The participants also suggested that the medicines and other services could be provided through FCHVs in the villages. They also suggested that the health care workers should visit the communities/homes and provide these services maintaining 3 to 4 meter distances.

People should also be safe while going to hospitals. They should walk by maintaining distance and not touching others. Even in hospitals, people are walking freely as if nothing has happened; they walk without being safe. What more could the hospital do. (PNC mother, Urban, Terai, Nawalparasi, Lumbini Province)

Currently, one cannot speak from very near, so using phones, radios, and TVs, public health services can be provided and public awareness can be spread through them. What else can I say now; this time is of mobile and internet. (PNC mother, Urban, Hill, Surkhet, Karnali Province)

In my opinion, the healthcare workers can provide these services by coming at homes/villages and by maintaining 3 to 4 feet distance among 24 people. (PNC mother, Rural, Terai, Rautahat, Province 2)
While some other participants suggested there should be more trained health care workers and the nearby health facilities should be opened as well as the ambulance services should be easier and more accessible.

_We should get timely treatment. There should be trained health workers. If government opens hospital nearby, it would be good. Ambulance services are also required._ (PNC mother, Rural, Hill, Bhojpur, Province 1)

As there were not birthing centers available everywhere, the participants suggested these should be available at all places whereas other health care services should be available nearby and they should be well equipment such as with video x-ray machines, etc.

_It is better to have good health workers in health posts. Video X-ray service is not available in our village so it is easy for us if it is available. It is better if health posts are nearby and we get all services from there._ (PNC mother, Rural, Mountain, Jumla, Karnali Province)
Effect of COVID19 on Safe Abortion Services

Safe abortion services refer to the provision of abortion through trained health workers in certified health facilities. The figure shows that the number of safe abortion services has not been affected in the initial months of the COVID19 pandemic. However, the services remarkably decreased from the month of lockdown (Chaitra) until Bhadra while compared to the services in the same months prior to the pandemic in Nepal.

![Figure 7: Number of Safe abortion Services provided before and after COVID19 pandemic in Nepal](image)

For the qualitative study, a total of 12 women who had taken abortion services during the period of COVID19 pandemic were interviewed to explore the effect of COVID19 on the safe abortion services in Nepal. The women were from both rural and urban areas and from the mountain, hills and Terai regions. The study found that majority of the women received post abortion family planning services along with abortion while few others had received only the abortion services. Though the distance of health facility for the services for many women was within 30 minutes’ walk, some women in the hills needed to walk for 3 hours to reach the health facility and some travelled for 2025 minutes in private vehicle for the services. Though the participants had taken the abortion services during the pandemic, many of them were not aware that the SRH services were available during this period as well.
Before I took services, I did not have information that these services were provided in this time too. (Client of abortion service, Urban, Terai, Dhanusha, Province 2)

I only heard about it after I received the service from health post. (Client of abortion service, Urban, Terai, Dhangadi, Sudurpaschim Province)

While at the same time, few were well aware on the SRH services provided by the health facilities during the pandemic and the source of information they relied on were the health workers, neighbors, friends and sisters. Some even obtain the information from the poster displayed outside the facility.

I know that health facility gives all services like ANC, PNC, abortion services, FP, general checkup and the delivery services to woman in this pandemic) too. (Women of reproductive age group, Urban, Hill, Lalitpur, Bagmati Province)

Almost everything is available. Services like family planning, pregnant checkup, general health checkup, free condom distribution etc. are available. (Women of reproductive age group, Urban, Terai, Bara, Province 2)

**Barriers for seeking safe abortion services during the pandemic:**

The participants were asked about the difficulties they faced in seeking the abortion services during the pandemic in order to identify the barriers for the service utilization. The qualitative analysis found that the major barrier during the pandemic were within the health system, transportation services, lack of information and fear on transmission of COVID19.

**a. Health System Barriers:**

The government of Nepal has developed guideline to provide essential SRHR services (which includes safe abortion services too) during the pandemic. However, some of the factors within the health system had affected the service utilization. The major health system factors influencing safe abortion services were found to be unavailability of medicines and services due to the COVID19 and the negative attitude of health workers towards the clients due to fear regarding the transmission of COVID19.
The study found that there was shortage of essential medicines in the health facilities during the pandemic. Some participants shared that they were referred to the next health facility due to unavailability of medicines while one of the women was even asked to buy the essential medicines outside in the pharmacy. Besides, some mentioned the absence of services like urine test and was referred to the lab outside for the test.

*There was no medicine available at the nearest Health Post. I was referred to Simara Health Post for my problem.* (Women of reproductive age group, Urban, Terai, Bara, Province 2)

*When I went to buy the Gulaafchakki for me, they (health worker) said that there was no supply of the medicine and tablets at the health post at that time of pandemic. So I came back home.* (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

*I needed to buy a medicine outside. She (health worker) said, "Actually this Burfein is also provided from here but now it is not here. You need to buy this medicine and it doesn’t cost you more".* (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

*They (health worker) said, “We do not have urine examination machine here, check it to outside lab and come tomorrow with that report”.* (Women of reproductive age group, Urban, Hill, Kaski, Gandaki Province)

Besides unavailability of medicines and equipment, the safe abortion service itself was found to be disrupted due to COVID19. The participants mentioned that during the lockdown the facilities were also closed and some participants also explained that the other services provided by the health facilities had been closed due to the presence of many COVID19 cases within the facilities.

*When I went to hospital it was closed due to lockdown.* (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

*I was there to check pressure few days before but they said they don’t check it in this pandemic time.* (Women of reproductive age group, Urban, Hill, Kaski, Gandaki Province)

*Health Post was closed for few days due to more COVID19 cases* (Women of reproductive age group, Urban, Terai, Morang, Province1)
The study found that the health care workers having negative attitudes in providing the services during the pandemic and the clients also had negative perception towards the attitude of health workers. They do not believe that health workers provide proper care due to the fear of transmission of COVID19. Such negative attitudes and perception towards the health workers was found in the urban areas only.

*I also heard that doctor do not care the delivery of women in this time due to fear of Corona.* (Women of reproductive age group, Urban, Hill, Lalitpur, Bagmati Province)

*Health worker do not touch the pregnant women or other patients. They do not want to admit them at hospital.* (Women of reproductive age group, Urban, Terai, Dhangadi, Sudurpaschim Province)

**b. Disruption of transportation:**

During the lockdown, the disruption in transportation services had also affected the abortion services in Nepal, more in the hills than in terai. Almost all the participants had mentioned that the blockade in transportation facilities had made difficult to seek the services. The women who resided far from the health facility particularly told that the lack of public transport had made difficult to go to health facility for services. For women who lived near to health facility also mentioned that the difficulty was caused due to lockdown and lack of vehicles for those who live far from the facility. One of the participants faced difficulty to reach to the referral services due to unavailability of vehicles. Some women who had their own vehicles even faced obstacle because of difficulty in getting the passes to drive the private vehicles.

*Unavailability of public vehicle is the problem. We have to walk for more than 3 hours to reach the nearest health center.* (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

*It is difficult to reach health center for those who have not their own vehicle and getting vehicle pass is somewhat difficult in case of complication to go referral center.* (Women of reproductive age group, Rural, Hill, Palpa, Lumbini Province)

*Transportation is major problem here, road is only for walking. It took me more time to go to the health facility and come back home.* (Women of reproductive age group, Urban, Hill, Kaski, Gandaki Province)
Unavailability of vehicle is the problem faced by other women who are far from Health Post. (Women of reproductive age group, Urban, Terai, Bara, Province 2)

Contradictorily, some participants in the terai area mentioned that transportation was never a problem for going to the health facility for services.

Vehicles are available anytime. (Women of reproductive age group, Urban, Terai, Dhangadi, Sudurpaschim Province)

I have my own scooter, so I did not face transportation related challenges. I think it is also easy for them who do not have their own vehicle. (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

Lack of information:

Though many women were not aware on the service availability during pandemic, they seek the services. Hence, lack of awareness has not affected the service utilization. However, some dilemma had been created in a participant from Dadeldhura that she hesitated to seek the services due to lack of information on provision of services during the pandemic and safety measures against COVID – 19 pandemic.

As I was not aware on the safety measure against COVID19, I felt discomfort while I was there at health post without mask. (Women of reproductive age group, Urban, Hill, Dadeldhura, Sudurpaschim Province)

I was in dilemma whether or not to go for this service due to lack of information regarding service availability and also due to fear of being infected with Corona. (Women of reproductive age group, Urban, Hill, Dadeldhura, Sudurpaschim Province)

c. Fear of transmission of COVID19

The participants had widespread fear in all the areas for being infected with COVID19 particularly, while visiting the health facilities. Only few participants were confident that if they had taken precautions/safety measures, there was no need to fear of corona transmission. While at the same time, some others were frightened to visit the health facilities as there were many COVID19
positive cases. One of the participants from Kaski avoided going to the facility even if it was needed due to the fear. Some also mentioned that the fear not only remained within them, the health personnel also feared of being infected while checking the patients.

*In this time, there are lots of COVID Positive patients, they maybe at hospital too. So I had fear when I had admitted in hospital.* (Women of reproductive age group, Urban, Hill, Surkhet, Karnali Province)

*I felt ill after taking abortion medicine, I felt stomachache. We used to go emergency services at night but in this pandemic it is fear to go anytime in hospital.* (Women of reproductive age group, Urban, Hill, Kaski. Gandaki Province)

*It was uncomfortable than before. We both have (me and health worker) fear that, we might transfer this COVID19 to each other.* (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

**Facilitators in receiving safe abortion services during the pandemic:**

The participants were asked about the enabling environment to access the safe abortion services during the pandemic. Though barriers were prevalent, most of the participants were satisfied that the services were provided during the pandemic as well as the safety measures like use of mask, gloves, and personal protective equipment were practiced by the health professionals.

*They provide service with full of safety such as mask, face shield, gloves and also maintain social distance.* (Women of reproductive age group, Urban, Hill, Surkhet, Karnali Province)

*All services are available with appropriate safety measure during this pandemic too.* (Women of reproductive age group, Rural, Hill, Palpa, Lumbini Province)

Moreover, the participants did not have to suffer from financial constrains to utilize the services. Some mentioned that the services were free of cost in the health posts, while others revealed that the health insurance had covered all their cost of treatment and the service cost was also very low.

*They provide service at free of cost from health posts. They again called me for using FP service whatever I like.* (Women of reproductive age group, Urban, Hill, Kaski, Gandaki Province)
We are getting all services free of cost through health insurance. (Women of reproductive age group, Rural, Mountain, Humla, Sudoorpa chimpan Province)

I didn’t have much money to spend on my treatment (abortion). Since, I heard there is abortion done free of cost in the health center. Only Rs 200 was spent and not much money was required. (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

The satisfaction from the services provided and the positive attitude of the health care personnel was also found as one of the enabling factors for receiving the services. Participants were satisfied with the amount of service provided, availability of trained health personnel, and overall positive attitude and counseling. One of the participants from Dhanusha shared that she felt secure with the counseling of the health worker. On top of that, participants also mentioned that the health workers provided their personal mobile number to contact if any emergency arises.

There were availability of trained health worker, medical equipment and family planning services at free of cost. (Women of reproductive age group, Urban, Hill, Lalitpur, Bagmati Province)

I feel more secure when she told me “if you have any problem after you took abortion medicine, you can call me at any time, I will help you or you can come here and I will solve your problem. (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

I was provided with the number to contact if I had any problem. Since I had no problem I didn’t contact them. (Women of reproductive age group, Urban, Terai, Nawalparasi, Gandaki Province)

**Effect of Government Strategy (Lockdown) on Safe Abortion Services:**

Majority of the participants had negative impression caused in the service utilization due to government strategies like lockdown and social distancing. Due to the national lockdown announced by the government, participants reported that they were unable to go to the health facility or to the referral center as the public vehicles were not available. Though some had their own vehicle for transportation, they faced challenges in driving the vehicle due to lockdown.

Getting vehicle pass was somehow difficult during emergency time. While I went for the emergency services, traffic police stopped me and told that I was acting and pretending sick. (Women of reproductive age group, Urban, Hill, Surkhet, Karnali Province)
Social distancing is another important and necessary strategy of government to control transmission of pandemic. However, some of the participants felt difficulty in sharing their problems with the health professionals due to social distance. Moreover, the participants also mentioned the social distancing had created problems for getting the services and it was not satisfied as the way they were receiving the services before the pandemic.

*Due to social distancing, it is difficult to share such secret things with health workers.* (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

*Both staff and service recipient felt 50% less comfortable in health center.* (Women of reproductive age group, Urban, Terai, Nawalparasi, Gandaki Province)

However, in the rural areas the participants had not felt any effect of the government strategies. Some also reported about the positive impact caused by the effort of government.

*No, it does not affect anyone. It does not affect here in Humla. I had not felt any effect of pandemic.* (Women of reproductive age group, Rural, Mountain, Humla, SudoorpachimProvince)

*Pandemic affected positively that everyone now wash their hands, use sanitizer, wear masks and do not stay ingroup and gossip.* (Women of reproductive age group, Rural, Hill, Palpa, Lumbini Province)

**Differences in the safe abortion services provided before and after pandemic:**

Participants had a diverse experience in the difference of abortion services provided prior and after the COVID19 pandemic. Some of the participants told that all the preventive measures for the pandemic like social distancing, wearing facemask, use of hand sanitizers, and avoidance of crowd were practiced in hospitals due to COVID19 and it was necessary. They mentioned though the preventive measures were followed, the service provision was not different.

*There was change in that area which should be done to prevent from this pandemic like wearing a mask, maintaining social distance and all.* (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)
Nowadays, we were not allowed to enter there without wearing a mask. (Women of reproductive age group, Urban, Terai, Dhangadi, Sudurpaschim Province)

The behavior of health worker is same as before. Only difference is that we have to wear mask now. (Women of reproductive age group, Urban, Hill, Lalitpur, Bagmati Province)

While, some participants had shown their negative perception toward the behavior of health workers as they thought that the behavior of health worker was changed now due to pandemic. They complained that the health workers did not provide the treatment properly as they used to do previously.

For me, they provided service in general way; however, they (health worker) did not want to talk more about our problem. (Women of reproductive age group, Urban, Terai, Nawalparasi, Gandaki Province)

When we reach the health post now we are not asked about our problems as before. (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

Health worker do not touch their patients due to corona. They check rashly in this pandemic. (Women of reproductive age group, Urban, Terai, Morang, Province 1)

They did not want to touch patients. And they do not allow to enter inside health post. (Women of reproductive age group, Urban, Hill, Kaski, Gandaki Province)

Strategies for effective safe abortion services during pandemic:

The participants provided various suggestions for the effective abortion services during the pandemic based on the barriers they faced in obtaining the services. Relevant training and mobilization of FCHVs or health workers in the field for the awareness and services would be one of the best strategies of the government as per some participants. The participants also preferred the same sex practitioner in the facility so that they could share their problems more easily. They also recommended creating general awareness about the provision of the services during the pandemic through mass media. In addition, many of the participants wished to have all the facilities like laboratory testing, ultrasonography within the health posts. Many of them suggested having the facility of ambulance or any means of transportation from the health facility so that they would
not have to face the problem of transportation during lockdown. Some of the women also suggested of providing the counseling services or the advices through telephone to the clients.

As women can share such problem with other women, government should strengthen the knowledge regarding it to the FCHVs and service should render to doorsteps through FCHVs. (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

All services must be available at same health facility. It will be better if there were female health worker to provide SRH services than male. (Women of reproductive age group, Urban, Hill, Kaski, Gandaki Province)

Awareness to the family level and through advertisement (media) and also from local authority using media such as Radio regarding SRH service available at community health center should be provided. (Women of reproductive age group, Urban, Terai, Nawalparasi, Gandaki Province)

It is better to have video x-ray machine at our health post. If this service is also provided here, then we don’t have to go far for this service. (Women of reproductive age group, Urban, Hill, Lalitpur, Bagmati Province)

It is better if ambulance services are available during this lockdown. It is better if our health post has its own vehicle. (Women of reproductive age group, Urban, Hill, Surkhet, Karnali Province)

Services (counselling, necessary advice) should be provided through telephone that the needy (pregnant) women would listen. (Women of reproductive age group, Urban, Terai, Morang, Province1)
Effect of COVID19 on Family Planning Services

The effect of COVID19 on the family planning services has been assessed by comparing the new users of any permanent and/or temporary family planning methods in the same months prior to and after the pandemic. The study found that the new users of permanent FP services were not affected by the pandemic and lockdown until Jestha (Figure 8). However, during Ashad and Shrawan, the new users of permanent method have been increased but while compared it to the same months prior to COVID19, it was very low. It might be caused by decrease in hospital delivery as many of the women whose desire to baby has been fulfilled desire to choose the permanent method after the hospital delivery.

Figure 8: New users of any permanent Family Planning methods before and after the COVID19 pandemic in Nepal
Figure 9 shows the difference in numbers of new users of temporary FP methods before and after COVID19 pandemic. It was found that there were no much differences in the new users of temporary methods before and after the pandemic until Jestha. In Ashad, the new users in the year prior to the pandemic was peak however, in the same month after the pandemic, the users were not increased. This might be caused by less number of marriages organized due to COVID 19 pandemic in the country.

![Figure 9: New users of any temporary Family Planning methods except condom prior to and after the COVID19 pandemic in Nepal](image_url)
Effect of COVID-19 on child health services

Effect of COVID 19 on respiratory diseases, diarrhea and number of deaths count in children
Figure no. 10 below, represents the number of ARI / pneumonia cases before and after COVID 19 Pandemic in Nepal. Study shows that there is marked decrease in ARI/ pneumonia cases after pandemic. Though the reported cases were somewhat increased in initial months of pandemic, there is dramatic decrease in number of ARI/ pneumonia cases from the month of Falgun to Baisakh followed by consistent number of cases till the month of Bhadra.

Figure 10: Number of ARI/Pneumonia cases before and after COVID-19 pandemic in Nepal

Figure 11 shows that number of diarrheal cases after COVID 19 pandemic in Nepal. Cases of diarrhea during the pandemic were low when compared with number of cases prior to pandemic. Till the month of Falgun, cases followed the same increasing pattern as prior to pandemic, and then cases decreased constantly.
Figure 11: Number of Diarrhea cases before and after COVID-19 pandemic in Nepal

Figure 12 shows the Number of child deaths (CB-IMNCI/IMAM) before and after COVID-19 pandemic in Nepal. Overall, it shows that there is increase in number of child deaths after pandemic except in the month of Bhadra. After pandemic in the month of Magh, the reported child death counts were 3 times more than in the same month prior to pandemic. Chitra was the month where the least number of child death reported.

Figure 12: Number of child deaths (CB-IMNCI/IMAM) before and after COVID-19 pandemic in Nepal.
Figure 13 shows the number of children admission due to acute malnutrition before and after COVID-19 pandemic in Nepal. Overall, the graph shows there is dramatic decrease in number of acute malnutrition after pandemic when compared prior to pandemic. Before the pandemic it shows that there was steady increase in number of cases of acute malnutrition. On the other side, after the pandemic, it shows gradual decrease in first 3 months (Magh to Baisakh) and again the cases increased gently further.

![Figure 13: Number of children admission due to acute malnutrition before and after COVID-19 pandemic in Nepal](image)

**Effect of COVID19 on Immunization Services**

Table 2 describes the effect on the routine immunization services during the months of Falgun to Bhadra prior to the pandemic and after the pandemic in Nepal. The study found that all the immunization services have been decreased due to the COVID 19 pandemic. The pandemic had hard hit the immunization services after the nationwide lockdown announced by the government of Nepal that all the immunization services were decreased by around 50% in the month of lockdown, i.e. Chaitra. In the following months too, the services were decreased remarkably.

Table 3: Immunization services obtained by children before and after COVID19 pandemic in Nepal
<table>
<thead>
<tr>
<th>Immunization</th>
<th>Children with BCG Immunization</th>
<th>Children with DTP/HepB/Hib1st dose Immunization</th>
<th>Children Immunization d3 dose completion of DTP/HepB Hib&amp;OP V after 1 year</th>
<th>Children with PCV1st Immunization</th>
<th>Children with Rotavirus 1st dose Immunization</th>
<th>Children with Measles/ Rubella 1st dose (911 Months) Immunization</th>
<th>Children with Measles/ Rubella 2nd dose (1223 Months) Immunization</th>
<th>Children with JE Immunization</th>
<th>Pregnant women immunized with TD1st</th>
<th>Pregnant women immunized with TD2nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magh 2075</td>
<td>48326</td>
<td>51008</td>
<td>2091</td>
<td>50724</td>
<td>368</td>
<td>229</td>
<td>42187</td>
<td>36653</td>
<td>38564</td>
<td>50946</td>
</tr>
<tr>
<td>Magh 2076</td>
<td>46700</td>
<td>48438</td>
<td>1509</td>
<td>48501</td>
<td>0</td>
<td>0</td>
<td>45477</td>
<td>36577</td>
<td>43262</td>
<td>44002</td>
</tr>
<tr>
<td>Falgun 2075</td>
<td>48226</td>
<td>48305</td>
<td>2076</td>
<td>47881</td>
<td>287</td>
<td>250</td>
<td>32276</td>
<td>35308</td>
<td>39974</td>
<td>47227</td>
</tr>
<tr>
<td>Falgun 2076</td>
<td>40729</td>
<td>43906</td>
<td>1219</td>
<td>43997</td>
<td>0</td>
<td>0</td>
<td>39942</td>
<td>26992</td>
<td>32131</td>
<td>36686</td>
</tr>
<tr>
<td>Chaitra 2075</td>
<td>45186</td>
<td>46418</td>
<td>2175</td>
<td>46233</td>
<td>180</td>
<td>158</td>
<td>43067</td>
<td>39337</td>
<td>40569</td>
<td>41191</td>
</tr>
<tr>
<td>Chaitra 2076</td>
<td>17219</td>
<td>21444</td>
<td>699</td>
<td>21222</td>
<td>0</td>
<td>0</td>
<td>19518</td>
<td>11650</td>
<td>11676</td>
<td>16520</td>
</tr>
<tr>
<td>Baishak 2076</td>
<td>42263</td>
<td>42849</td>
<td>2411</td>
<td>42632</td>
<td>141</td>
<td>124</td>
<td>37487</td>
<td>43440</td>
<td>41399</td>
<td>38090</td>
</tr>
<tr>
<td>Baishak 2077</td>
<td>34858</td>
<td>38940</td>
<td>918</td>
<td>38145</td>
<td>11</td>
<td>9</td>
<td>35967</td>
<td>44464</td>
<td>40792</td>
<td>32737</td>
</tr>
<tr>
<td>Jestha 2076</td>
<td>39685</td>
<td>41088</td>
<td>1777</td>
<td>40941</td>
<td>307</td>
<td>397</td>
<td>38371</td>
<td>48477</td>
<td>40407</td>
<td>35623</td>
</tr>
<tr>
<td>Jestha 2077</td>
<td>38151</td>
<td>47145</td>
<td>1577</td>
<td>46705</td>
<td>18</td>
<td>26</td>
<td>44875</td>
<td>58097</td>
<td>47445</td>
<td>40945</td>
</tr>
<tr>
<td>Asar 2076</td>
<td>44182</td>
<td>39313</td>
<td>1359</td>
<td>39141</td>
<td>218</td>
<td>126</td>
<td>36975</td>
<td>50086</td>
<td>37896</td>
<td>38668</td>
</tr>
<tr>
<td>Asar 2077</td>
<td>43018</td>
<td>43887</td>
<td>1306</td>
<td>44743</td>
<td>76</td>
<td>0</td>
<td>42754</td>
<td>58532</td>
<td>41995</td>
<td>40887</td>
</tr>
<tr>
<td>Shrawan 2076</td>
<td>48523</td>
<td>38651</td>
<td>1467</td>
<td>38446</td>
<td>247</td>
<td>95</td>
<td>36536</td>
<td>47628</td>
<td>31839</td>
<td>41045</td>
</tr>
<tr>
<td>Shrawan 2077</td>
<td>45781</td>
<td>32935</td>
<td>1073</td>
<td>33002</td>
<td>28311</td>
<td>2825</td>
<td>28433</td>
<td>43792</td>
<td>35587</td>
<td>41991</td>
</tr>
<tr>
<td>Bhadra 2076</td>
<td>56652</td>
<td>45829</td>
<td>1671</td>
<td>44732</td>
<td>177</td>
<td>129</td>
<td>42332</td>
<td>45559</td>
<td>39850</td>
<td>30141</td>
</tr>
<tr>
<td>Bhadra 2077</td>
<td>39031</td>
<td>37201</td>
<td>1003</td>
<td>36704</td>
<td>34031</td>
<td>2167</td>
<td>35453</td>
<td>36418</td>
<td>25481</td>
<td>36700</td>
</tr>
</tbody>
</table>

**Effect of COVID19 on Nutrition services**

The table 3 below represents the nutrition services before and after the COVID19 pandemic in the country. The study shows that the number of pregnant women receiving 180 iron tablets and albendazole tablets during the months after the COVID19 pandemic was low throughout the months while compared to the service recipients prior to the pandemic. Similarly, the number of mothers who received Vitamin A capsule during the months after COVID19 pandemic was slightly low except the months of Asar when the number was somewhat increased after the pandemic.

**Table 4: Nutrition services before and after COVID19 pandemic in Nepal**
Period | Pregnant Women Receiving Iron Tablets | Pregnant women receiving Albendazole tablet | Mother Receiving Vitamin A cap
--- | --- | --- | ---
Magh 2075 | 27423 | 39301 | 21680
Magh 2076 | 23916 | 37911 | 18982
Falgun 2075 | 23850 | 40294 | 19189
Falgun 2076 | 22532 | 37690 | 17376
Chaitra 2075 | 21755 | 39374 | 16862
Chaitra 2076 | 17173 | 27643 | 14222
Baishak 2076 | 24024 | 40279 | 18518
Baishak 2077 | 17234 | 42223 | 15450
Jestha 2076 | 24267 | 41451 | 17675
Jestha 2077 | 20965 | 44684 | 15534
Asar 2076 | 28495 | 40494 | 17492
Asar 2077 | 24506 | 45695 | 19573
Shrawan 2076 | 28346 | 42735 | 28013
Shrawan 2077 | 23815 | 41462 | 21995
Bhadra 2076 | 28398 | 37899 | 23835
Bhadra 2077 | 22109 | 32862 | 20193

Qualitative finding on the effect of COVID19 on the family planning, child health and nutrition services among under five children and their mothers:

Similar to other categories of SRH services, 21 mothers of under five children were interviewed to explore the effect of COVID 19 on family planning as well as immunization and nutrition services to the babies. The study found that majority of the women received immunization and nutrition services whereas very few had received family planning services. When asked about the distance of the health posts, majority of the participants claimed their health posts were nearby, while few stated it took one or more than an hour to reach there. However, they did not have any problems for walking to the health posts and some had own vehicles either. Most of the participants were aware on the provision of sexual and reproductive health services while very few participants had little knowledge but no idea on the provision of sexual and reproductive health services during the pandemic. Those who were aware on the provision gained the information from the nearby health posts in their area. The other sources of information were FCHVs, health care workers and family members. Very few of them also gained the information from social Medias and SUAHARA program.
We were provided information in the health center through the notice and banners. (Women of reproductive age group, Urban, Hill, Kaski, Gandaki province)

There is birthing center at village, the doctors have informed us about it and we have been also informed by female community health volunteers. (Women of reproductive age group, Rural, Terai, Rautahat, Province 2)

Once, when I was surfing the face book, I came to know that children’s vaccination and woman’s checkups are still being done. (Women of under five’s children, Urban, Terai, Biratnagar, Province 1)

Health workers used to inform me about this. They used to say “Despite the lockdown, the government has been providing services”. (Women of reproductive age group, Rural, Mountain, Jumla, Karnali Province)

Barriers for seeking family planning, child health and nutrition services during the pandemic:

The participants were asked about the difficulties they faced in seeking the family planning services along with nutrition and immunization services during the pandemic in order to identify the barriers for service utilization. The qualitative analysis found that the major barriers during the pandemic were accounted as delay in the immunization service, long waiting hours, and difficulty in accessing the transportation, unavailability of health workers as well as vaccines, family planning devices and medicines including the fear of exposure to corona virus at this time.

a. Delay in the immunization service:

Most of the participants claimed that, there was delay in the immunization services. They further stated that the immunization services were delayed for one or two months. Some of them added that the health posts and the services were totally closed during the initial stage of lockdown and the immunization was resumed only after the lockdown loosened up. The participants highlighted that they got worried and tensed when the immunization services was delayed. The delay in the
immunization was observed mostly in the terai region due to the closure of the health posts at the initial period of lockdown, as there was the widespread of COVID 19.

**In the initial phase of the lockdown the PHCC was also completely closed. When the vaccination services were provided to the children, unnecessary crowding would be created therefore, no services were given at first two months of lockdown.** (Women of under five years child, Urban, Terai, Morang, Province 1)

The vaccination was given a month later due to the pandemic. (Women of under five years child, Rural, Hill, Sindhuli, Bagmati Province)

This time there was a gap of one month for my baby’s vaccination due to complete lockdown because of COVID19. (Women of under five years child, Urban, Terai, Kailali, Sudurpaschim Province)

b. **Long waiting hours:**

Some of the participants faced the difficulty due to longer waiting hours after reaching the hospitals or health posts. Participants recognized the main reason for longer waiting time in the hospitals and health posts was due to maintaining social distances and more time was consumed by looking over the history of each patient. In general, few participants stated that more waiting time was due to lack of staff in the hospitals. Some of them even claimed that the time given by health care provider was less than before. They explained that the health care providers examined the patients in a brief way escaping the detail examination. It was found that more waiting hours was observed mostly in the terai region than the other regions due to the absence of doctors.

We reach at 10 o’clock to seek the treatment; the treatment was given at 12 o’clock. It takes time now due to social distancing. (Women of under five years child, Urban, Terai, Dhanusha, Province 2)

Health providers don’t give as much time as before to the patient. It’s not like before now. (Women of under five years child, Urban, Terai, Morang, Province 1)
The treatment is done by looking at the history of the individual. Also, the treatment is done by maintaining the distance. Therefore, we have to wait longer than before to receive the sexual and reproductive health services. (Women of under five years child, Rural, Hill, Sindhuli, Bagmati Province)

c. Difficulty in accessing the transportation services:
Most participants expressed that the lack of access to the transportation hindered to the participants from getting the immunization services to their babies on time and the required family planning devices. Notably, few participants argued that due to the less vehicles running at the time, they could not have better access to the outreach clinics and the health posts for administering Vitamin A and deworming tablets to the babies. The families lacking own vehicles had faced many challenges because of the restriction of public transportation during the lockdown. Some added after the loosening of the lockdown, even if the vehicles were available in very limited amount, they were crowded and risky. Overall, the difficulty in access to the transportation was seen comparatively similar in all the regions and both rural and urban areas. However, families owing the vehicles or getting support from neighbors by lending bike and cycle made some families not to face much difficulty.

There is no proper run of the transportation. Now we have to call an ambulance even when we are not in emergencies. Otherwise, we can also go by making the recommendation letter from the ward office. (Women of under five years child, Urban, Terai, Kailali, Sudurpaschim Province)

The immunization clinic did not run in this one month period because the transportation wasn’t in run; the transportation services were stopped the services could not be brought here in upper area and it was not feasible to walk as well. (Women of under five years child, Rural, Mountain, Mustang, Lumbini Province)

There were no vehicles in the lockdown and people from the distance did not get the service on time. That's it. Some who had their own vehicles would come. Those who couldn’t come in time complained about vehicles not being available. (Women of under five years child, Urban, Terai, Bara, Province 2)
In case of emergency or when we have to reach the health post, the neighbors’ help us by providing the motorbike and cycles. (Women of under five years child, Urban, Terai, Banke, Lumbini Province)

d. Unavailability of health professionals:
Participants recognized understaffing in the nearby hospital or the health posts. They, particularly residing in the urban areas and Terai region mentioned that there was the absence of qualified doctors and thus the services were provided by the nurses. Most participants perceived unavailability of health professionals in the health posts as the result of lockdown. Further, the participants stated that unavailability of health professionals led delay in the health services and inadequate treatment.

There is a shortage of staff in health facilities. There is not as many staff as before, only one or two. (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

Now, after the lockdown, the main doctor has not arrived here. The doctors who used to come before lockdown have not come here. Earlier, MBBS doctors were also residing here, but now they are not here after COVID 19 pandemic. (Women of reproductive age group, Urban, Terai, Morang, Province 1)

The number of the health workers are not the same as before. Now they are less. They may have been somewhere during the lockdown, so there might be less health providers now. (Women of reproductive age group, Rural, Mountain, Jumla, Karnali Province)

e. Neglected child health, nutrition and its progress monitoring

Due to lack of information regarding health and nutrition progress monitoring of child, most of the parents of under 5 children explained that they have not either visited or availed healthcare facilities for monitoring health and nutrition progress of the child.

My baby weighed about 8 kg before this lockdown. At the first two and three times when providing vaccination to the baby at that time the sister used to weigh their weight and height. I have never measured my baby in this pandemic. I can also feel how big my baby is becoming. I didn’t feel the need to measure, unless she is ill. (Mother of under 5 child, urban Terai, Morang, Province 1)
The weight of my baby was weighed only once. Like about two months ago. It was about 7 kg. Height was not measured. The weight of the baby was measured in my brother’s medical. I didn’t go to hospital to measure height and weight exclusively. My baby took both vitamin A supplement and deworming tablets, weight and arm circumference was also measured but height was not measured. (Mother of under 5 child, rural, hill, Province no.1)

About Vit A supplement and deworming tablet, as of now, in this pandemic my baby has not taken now, my baby had already taken it, before pandemic. Height, weight nothing has been checked since lockdown. I don’t think its necessary too. (Mother of under 5 child, rural mountain, Province no: 1)

f. Unavailability of vaccine, family planning devices and medicine:

Few women, particularly seeking the immunization services to their babies realized the unavailability and untimely provision of vaccines in the health posts. Correspondingly, women who seek for the family planning services were deprived of family planning devices in their areas. The unavailability of vaccine and untimely provision of vaccine were especially seen in the rural areas than urban areas.

My friend and I went to the nearest health facility to get her pills. As there were no pills, my friend went to Janakpur and brought them. (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

At the health center, we can’t find anything easily there. Sometimes there are no iron tablets in the health center. Iron tablet is necessary; it should have to be there. Iron tablets are usually finished in the health posts. Talking about the calcium tablets, they are also not found in the health post; we need to go outside to buy it. Women don’t get the medicine they need; they don’t get the iron tablets when they need. (Women of reproductive age group, Urban, Terai, Morang, Province 1)

I meant that the vaccination campaign had already started before COVID 19 pandemic. However, at the time of pandemic, it was difficult to get the vaccine so the vaccination campaign was paused
and children were vaccinated after a month. (Women of reproductive age group, Rural, Hill, Sindhuli, Bagmati Province)

There was no shortage of vaccines at the moment; however, the arrival of vaccines was quite late due to lockdown. (Women of reproductive age group, Rural, Mountain, Jumla, Karnali province)

g. Fear about transmission of COVID 19

Most of the women seeking immunization for their babies developed a sense of fear in going to the health posts at this pandemic. The fear was due to the widespread COVID 19 especially in the health posts contacting other patients along with the health care providers. The women requiring the family planning services had no fear while those requiring immunization services for the baby had fear of contacting the virus to their babies. Few of the women even stated that when some babies used to sneeze or cough around them, they used to be afraid if their baby caught the corona virus. Since the COVID 19 cases were widened in the Terai region due to entrance of people across the border, many participants had excessive fear.

During vaccination, there was the gathering of a lot of women to vaccinate their babies. There were also people coming from far places taking one or more hours to reach here. Also, since the babies brought there were coughing and sick, I was mentally afraid if my baby also becomes sick and might catch the corona virus. (Women of under-five year’s child, Rural, Hill, Sindhuli, Bagmati Province)

Now, we have a mental fear. Even during the vaccination, we had to be afraid if there is the corona then that would also transmit my baby. So we were afraid thinking any problem might take place due to COVID 19. (Women of under-five year’s child, Urban, Terai, Kailali, Sudur Paschim Province)

There will obviously be fear at this time of pandemic to take the children and go to the health post. (Women of under-five year’s child, Urban, Hill, Surkhet, Karnali Province)

Some people didn't even come to get vaccination services to baby because of the fear of Corona. (Women of under-five year’s child, Urban, Terai, Bara, Province 2)
Facilitators:

When asked about the facilitating factors to access the family planning, immunization and nutrition services during the pandemic, most of the participants stated they had better and enabling environment in the pandemic due to their family and the society. Participants further claimed their family and society created the favorable environment in getting the services amidst the pandemic. Despite of several barriers, the participants were able to access the service even at this pandemic due to the convenient environment created by the government. The participants added nutritional incentives were provided to few of them. Along with that, one of the respondents from Kaski stated that she was accompanied in the pandemic by providing the vehicle to reach the hospital by the FCHV. Consequently, they stated FCHVs had provided their contacts to call them in case the health post was closed. The community people owing the tailor machines made masks and distributed in their community.

The community also played a major role to keep the people safe and alert at this crucial time. Few participants even opinionated that the health post used to remain open until late night. Thus, some women also identified the health care providers and the government's initiation as the facilitators.

Now the government has created a comfortable environment to provide services with social distancing. No such restrictions have been imposed and the service is being provided even at this pandemic. Even though the service is delayed, a comfortable environment has been maintained for the provision of service. (Women of under five years child, Urban, Terai, Kailali, Sudurpaschim Province)

We have been getting comfortable environment, from society as well. There has been availability of transportation services and health workers also provide these services. Though they do not allow the formation of crowds, we are getting services. (Women of under five years child, Rural, Mountain, Humla, Karnali Province)

Those people who had their tailor shops, used to make masks and distribute. And people with medical shops also distributed masks saying that during such time some people have masks and some don’t. And during the lockdown, while the police were there, they distributed food and water to needy people. (Urban, Terai, Banke, Lumbini Province)
In some areas FCHVs played an important role to inform mothers regarding ongoing services on time so that they administer vitamin A and deworming tablets to babies on time along with anthropometric measurement.

_Deworming tablets and vitamin A capsules were given to the child. This time, the vitamin A capsule and deworming tablets were given at the middle when the lockdown was loosened. Before that, no services were given as there were more corona patients in this place so PHCC was shut down._ (Mother of under 5 child, urban, terai, Morang, Province1)

As they told not to give deworming tablets for a baby less than a year but Vitamin A was given to the baby. There is a school nearby and I went there and administered vitamin A to the baby. (Mother of under 5 children, urban, terai, Kailali Sudurpaschim Province)

Yes my baby have been taken anthropometric measurement. It was taken at the time of distributing VIT and deworming tablet. In that time, we measure our baby’s arm circumference, height and weight. (Mother of under 5 child, rural mountain, Rasuwa, Bagmati Province)

_FCHV has taken my baby’s weight and arm circumferences and height with tape too just before 1 month._ (Mother of under 5 child, Rural, Terai, Amargadhi, Sudhurpachim Province)

**Effect of government strategies (Lockdown):**

Most of the participants felt the government strategies were not affecting in accessing the sexual and reproductive health services to them, however, few participants stated that the governmental strategies made to control the transmission of COVID 19 was affecting in the access these services. The participants stated that the strategies made by the government like lockdown, social distancing and avoiding the crowd were hindering the access to sexual and reproductive services in the society. No source of income, disruption of the transportation facility, lack of availability of devices and vaccines were some of the reported effects of the government strategies. The effect of the government strategies was mostly observed in the participants residing in the rural areas than in the urban areas.

_It has affected the sexual and reproductive health services. How hard it is for the people earn on a daily basis. When there is delivery to be performed in the family, then they lack the money having no source of income for them. After giving birth to the baby, the mother should be fed with_
nutritious food but due to the pandemic, people cannot earn and can’t afford to buy such foods. Because of this pandemic, there is no source of income and it is really hard. (Women of reproductive age group, Urban, Terai, Morang, Province 1)

This lockdown makes difficult to those who are poor. I think there should be alternative ways to Lockdown to minimize this COVID 19. It is more difficult to poor people for taking this SRHR services in this time. (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

We have been deprived of getting these services and from the resources that we want to buy. We have to stay at home and cannot buy things as we are not allowed to go outside....it has definitely affected the immunization clinic, which has not run in this month because the transportation wasn’t in run. (Women of reproductive age group, Rural, Mountain, Mustang, Gandaki Province)

Due to lockdown, there is unavailability of vaccine for children. Trimonthly injectable is also not available due to which there might be chances of unwanted pregnancy. (Women of reproductive age group, Rural, Terai, Rautahat, Province 2)

Postpartum mothers are in need of nutritious food but those are not available as the markets are closed due to lockdown. And there is a need of clothes for babies as well but from where to bring those things. That is the effect. Due to lockdown, lots of problems have been caused here. (Women of reproductive age group, Rural, Terai, Rautahat, Province 2)

**Differences in the service provided:**

Few participants felt difference in the service given before and after the pandemic while some of the participant didn't notice any differences in the services given after the pandemic. Regardless of accessing the sexual and reproductive health services even at the pandemic, the participants highlighted two major differences. The first one was adopting the safety measures (like wearing mask, use of soap or sanitizer in the health post along with maintaining two-meter distance with the doctor/nurse and other patients) and the next was that even if the services were provided, there was no such convenient environment to share the problems as before the pandemic.

Furthermore, participants also reported differences such as no detailed checkup and treatment like before, a sense of fear and insecurity to go to the health posts, lack of time and change in attitude of the health workers now. Some also claimed that such differences did not hinder them from
getting the services at the pandemic, however, such differences made it quite difficult to get the services than before. Few participants though acknowledged that their family member and neighbors played positive role in accessing the services, they still forced them to better treat at their homes and visit health post only in case of emergency. Residents in rural areas reported fewer differences for accessing the services amidst the pandemic compared with those in urban areas.

Moreover, some mothers showed concern regarding child’s health and nutrition as they were not able to buy foods from outside (shops) due to risk of COVID transmission.

*As long as it is available here, I try to feed my baby like wheats are produced here. It is difficult to go outside and buy the food for the baby now. Now it is difficult even when I want to feed my baby fruits at this pandemic.* (Mother of under 5 child, Hill, Rural, Sindhuli, Bagmati Province)

*It used to be very crowded before, but now it is not so crowded. People are coming to the hospital carrying sanitizers on their hands. They also maintain social distance of 2 meters. Earlier, it did not take much time in the health institution but now it takes time to get treatment.* (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

*In the past, two people could go for treatment at a time, but now only one person has to go. Now the patients have to wear a mask to get the service and hands to be washed with soap. The doctor/nurse also treat only by wearing a mask and gloves. Now, even when the patient is talking about his problems with the doctor, he keeps talking at a distance more than before. When vaccinating children, the service providers wear masks.* (Women of reproductive age group, Urban, Terai, Morang, Province 1)

*We can’t talk openly like before. Now we can’t talk openly with the staff of the health post during this pandemic. Even after the child has been vaccinated, there is no environment for the child to sit at the health post and rest for a while. Even if we stay also, we become afraid and tense regarding something that might happen to my baby.* (Women of reproductive age group, Rural, Hill, Sindhuli, Bagmati Province)

*The service was easily available in the past but now it is not like that. Health providers used to check closely, but now it is not so. He keeps medicine on the table and says to take it by own.* (Women of reproductive age group, Urban, Terai, Nawalpur, Gandaki Province)
The behavior is not the same as before. Now we can't enter the rooms of the hospital easily. And whatever should be given with hand now is kept on the table and we take them. People carry their own sanitizers and they wear masks. Before, there was close examination but now the checkup is done by keeping the distance. (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)

My family member wants me to get treated in the home first and then only visit the health post in case of critical condition. (Women of reproductive age group, Urban, Hill, Lalitpur, Bagmati Province)

Strategies for effective family planning, immunization and nutrition services during the pandemic:

When asked about the strategies for effective sexual and reproductive health services during the pandemic, majority of the participants from both rural and urban areas gave number of suggestions that could be used in the context of one's locality. The suggestions included on the institutional level, family, neighborhood to the government level. The prime suggestion was focused on the governmental level. The participants reported several strategies that have to be adopted by the government such as the provision of vaccines, availability of family planning devices in all the areas, awareness raising and fostering timely service in all the areas. At the institutional level, participants suggested to recruit more staffs in the health posts, providing timely services and required awareness to the participants and their family members.

Moreover, some participants highlighted the role of family members and neighborhoods to provide better services at this crucial time through awareness raising on SRH services, assigning more FCHVs at the place for timely provision of treatment and medicines. On top of that, few participants also claimed that the services given at the time of pandemic were satisfactory and they wanted the same services in the near future too. Residents in the rural areas wanted the access of vacuum deliveries and X-ray facilities while residents in the urban areas demanded recruitment of more staff in the health facilities at this time. Consequently, participants of both rural and urban areas highlighted the vital role of government making access to SRH services at this pandemic.

Two to four more staffs have to be added in the health institution so that the treatment is done on time. If more staff are added, it will be easier for the service providers and easier for us. There
were a lot of nurses before, so now it is better to add two or four more. (Women of reproductive age group, Urban, Terai, Dhanusha, Province 2)

To admit a pregnant woman or any other woman at any hospitals, to test their corona in advance is better. If there is an emergency, we can’t wait for two days for a corona virus report. In such a case, it would be better to wear a mask and use sanitizers for treatment. And the health institution has to keep on informing about the services being provided. (Women of reproductive age group, Urban, Terai, Morang, Province 1)

The immunization must be routinely and timely provided to children....the children might get affected if they are not immunized on time. They must provide information about malnutrition too....and now they must not measure weight only. They must check for malnutrition and fluctuations in weight...they must inform us. How would we know by writing in paper only...that’s it....They must give information related to nutrition too. (Women of reproductive age group, Rural, Hill, Eastern Rukum, Lumbini Province)

The management must be done through the maintenance of social distance in this time of corona pandemic.... And during this time, everyone must take services with safe by using sanitizers, and if not that washing hands with soap and water, maintaining hygiene and cleanliness.... In that way services must be taken. They can assign FCHVs....or add other volunteers to provide these services from home to home. (Women of reproductive age group, Rural, Mountain, Mustang, Gandaki Province)

The government must manage the availability of medicines, health workers, transportation and everything; if the management of such services is done in society, then I think there won’t be any kinds of problems. (Women of reproductive age group, Rural, Mountain, Humla, Karnali Province)

It is better to recruit trained and skilled health worker or give training and education to local health worker. If GoN can built their capacity, it will be more effective for us. (Women of reproductive age group, Rural, Hill, Bhojpur, Province 1)
Effect of COVID-19 on Adolescent Sexual and Reproductive Health (ASRH) Services

ASRH services were found to be very affected by the pandemic as shown in the figure 10. During all months (from Magh to Bhadra) of COVID-19 pandemic, the ASRH services were continuously decreased while compared to the months before COVID-19 pandemic in the country. The huge differences of ASRH services recipients were observed in the months of Jestha before and after the pandemic.

![Graph showing ASRH counselled population](image)

Figure 14: Number of adolescents receiving ASRH counseling serving before and after COVID-19 pandemic in Nepal

In-depth interview was conducted with the adolescent’s girls and boys to identify the effect of COVID-19 on ASRH services. Total 18 adolescents, 16 females and 2 males represented from rural/urban areas as well as all the three ecological zones – mountain, hill and terai were interviewed. The interview unveiled that, more than half of the participants were aware on the SRHR services while some were clueless on it. Some adolescents did not pay attention to the services, as they did not require them. The source of information on the services mostly were the health posts, neighborhoods, friends and family members (mother, sister) as well as TV, radio, FCHVs and nurses. A very few adolescents reported taking SRHR services as for irregular menstruation and bleeding during the periods, FP devices (condom) along with sex education while others participated in the SRH training/programs and counseling during the pandemic. When
questioned about the distance of health facilities, most claimed them to be on walking distance while others stated it would take one hour or so to reach there.

**Barriers on receiving ASRH services on pandemic by adolescents:**

**a. Disruption of transportation in pandemic:**

Majority of the participants stated the difficulty of transportation in their areas during this pandemic. The most reported problems were, lack of vehicles during the lockdown i.e. difficulties in getting the vehicle when going to the referral hospital and to get the ambulance on time during the pandemic. One of the adolescent girls from Kaski stated that due to the absence of vehicles, many people could not go to hospitals to receive services; however, some mentioned people managed their own vehicles or asked support from neighborhoods to go to the hospitals. Few participants complained for ambulance services that it did not provide timely services, which was more difficult during the time of delivery and other complications. Some said it was risky traveling at the local vehicles during the pandemic as it remained packed most of the time. Surprisingly, the participants residing in the urban areas had encountered more difficulty due to lack of transportation than the participants in the rural areas as they had health centers at walking distance. Overall, the difficulty in transportation was faced more in the hilly region compared to other regions.

*In this pandemic, the ambulances do not run easily on the roads. Therefore, women are sent to the health post on stretchers during delivery.* (Adolescent girl, Rural, Hill, Sindhuli, Bagmati province)

*When there is no treatment possible here, patients are sent to district headquarter in Nepalgunj for treatment. It is difficult to get vehicles at this pandemic.* (Adolescent boy, Rural, Hill, Eastern Rukum, Lumbini Province)

*Before lockdown and corona, vehicles were in run and whenever one wanted travel, one could do; ambulance also used to arrive in time after a phone call, but now due to corona there’s shortage in ambulance as well, and it’s difficult to reach in time, it’s late.* (Adolescent girl, Urban, Terai, Dhangadhi, Sudurpaschim Province)
In lockdown, the buses are not available. That also affects in taking sexual and reproductive services. (Adolescent girl, Rural, Mustang, Gandaki Province)

b. Unavailability of health worker/medicine/facilities:

Very few of the adolescents interviewed claimed there were only nurses not any doctors at the health posts during the pandemic. According to them it might have been caused by lockdown or fear from the corona virus. Some adolescents said that there was the availability of medicines but not sufficient, and the available ones were only for normal condition but not for complications. Few participants also highlighted the need of video X-ray facility in the health posts and also reflected the unavailability of family planning devices and required vaccines for pregnant women timely in their areas. One of the participants from Morang even claimed that only 45% resources are available at health centers during the pandemic. As compared by the area, the adolescents residing in the rural areas were deprived of the facilities and medicine along with the absenteeism of doctors in the health post than in the urban areas. In terms of region, Himalayan region had less access to services and health workers in their localities during the pandemic as compared to other regions.

The FP devices are also not available in sufficient quantity. There are lack of resources. (Adolescent girl, Rural, Himalayan, Mustang, Gandaki Province)

The hospital is lacking the staffs at this time. Sometimes, there were only sisters and no doctors in the hospital. (Adolescent girl, Rural, Himalayan, Humla, Karnali Province)

During this pandemic, it is difficult to get the vaccines required for the pregnant woman on time. (Adolescent girl, Urban, Terai, Dhanusha, Province 2)

There is no video X-ray facility in the health post. (Adolescent girl, Rural, Hill, Sindhuli, Bagmati Province)

c. Fear and mental tension:

Study reveals that, adolescents have fear to reach the health facilities at the time of pandemic mainly due to widespread COVID 19 cases in their areas and fear of transmission of COVID 19 from health care professionals, as they are frontline health workers. Some of them showed concern
regarding how women and other groups come to take services at this pandemic in the health posts. Having said that one of the adolescents from Sindhuli stated that there was no better environment to talk with friends even if they met at the health posts. Nevertheless, one of the participants from Humla claimed that there is still the practice of Chhaupadi system in her area due to which there was the additional fear and mental tensions on them. Moreover, the adolescents residing in the urban areas at terai region had more fear to reach the health posts due to increasing cases of COVID-19 compared to other areas and ecological zones.

*Now the weather is changing. We have a fear of someone coughing; people have started to be afraid. It seems to be the problem now.* (Adolescent girl, Rural, Terai, Nawalpur, Gandaki Province)

*When women come for her reproductive health checkup then many people with other diseases are also there in the same line so it is a fearful situation. We cannot say one is not caught by corona virus if he/she is wearing a mask or applying the sanitizer. Even if pregnant women give birth to a baby in the health post; there is another fear that the baby might contract with corona.* (Adolescent girl, Urban, Terai, Morang Province 1)

*At this time, when we are kept in shed during menstruation then, there is not only the fear to stay in shed but there is the mental fear and torture in addition at this pandemic.* (Adolescent girl, Rural, Himalayan, Humla, Karnali Province)

*As compared to before, people have been kind of scared to go hospital nowadays; before they used to visit hospital freely without any fear but now there’s kind of fear….people feel like why to visit hospital.* (Adolescent girl, Rural, Hilly, Bhojpur, Province 1)

*Mental problems…there’s a mental stress due to corona. People are going to depression nowadays…people have to get locked inside home only….and people cannot even share their problems…if there are any health problems then there is a mental tension of the fact that people will think it is corona …..So that’s why mental situation are not being able to be better.* (Adolescent girl, Urban, Terai, Morang, Province 1)
d. Financial constraints:

Some of the participants stated that their family members and also neighbors had faced financial problems in the midst of this pandemic to access the sexual and reproductive health services. Due to lockdown during the pandemic, many had lost their jobs having economic problems that affected receiving specialized SRH services such as at pregnancy and abortions. However, some other adolescents responded that they did not face any financial constraints as no one in their family were in need of these services. Similarly, respondents from rural areas and from terai and hilly regions faced economic transition compared to urban areas and mountain regions of the country during the pandemic.

*Due to corona even economic situation has become weak; it becomes difficult to access services at that time.* (Adolescent girl, Rural, Hilly, Sindhuli, Bagmati province)

*Financial scarcity is one of the problems. No factories have been opened and people are not earning money due to lockdown.* (Adolescent girl, Rural, Terai, Bara, Province 3)

*Out of 100, I think 25% of people might have financial problems now.* (Adolescent girl, Urban, Hilly, Lalitpur, Bagmati Province)

*Right now, to talk about money, there’s mostly financial crisis now; if one has to go hospital then the fee charge is high. There’s not much of it in government hospital most of the times. Usually, people go to private hospital because there are more facilities there and now there’s financial crisis mostly.* (Adolescent girl, Urban, Terai, Sudurpaschim Province)

e. Lack of peer support:

Due to lockdown some adolescents were not able to meet their colleagues to share their problems and few other adolescents had no proper internet access to contact with their friends through social media hindering their friend's support. Adolescents from rural area did not get any such environment to share and get support from their friends like before.

*Now, we can't get out and involve with our friends like we used to do before. Looking at the current situation, there is no environment to share anything with friends.* (Adolescent girl, Rural, Hilly, Rasuwa, Bagmati Province)
Social distancing is maintained; so it is difficult to go out and meet friends and share problems like before. (Adolescent girl, Urban, Terai, Dhanusha, Province 2)

We have no internet access here so we cannot share our problems and ask for friend's support even through the social media at this time. (Adolescent boy, Rural, Hilly, Eastern Rukum, Lumbini Province)

f. Lack of support from family and neighbors:

It was found that despite the support from family and neighbors in most of the adolescents' family, some of them still had lack of support from their family especially from father while acquiring SRH services. Few of the adolescents shared lack of support from the neighbors reporting the negative perception and their dominating nature on them. One of the adolescent girls from Humla even stated that despite the pandemic her family members still forced her to follow Chhaupadi system during the time of her menstruation. Adolescents residing in the rural areas at the Himalayan Region had faced lack of support from the family and neighbors at this pandemic rather than the adolescents residing at other areas and ecological regions.

When I was in my menstruation period, I felt difficulty but no one in my family said to take the medicine at this pandemic. (Adolescent girl, Rural, Mountain, Humla, Karnali province)

Society does not understand and see us in bad perspective due to which people who have been wanting to take these services, it's hard for them to go and take it. (Adolescent girl, Urban, Terai, Morang, Province 1)

If adolescent girl is pregnant, society may discriminate her so that in this COVID time they may face many problems. (Adolescent girl, Rural, Mountain, Darchula, Sudurpaschim Province)

g. Hesitation to share sexual and reproductive problems:

Respondents brought up the issue of hesitation in their areas as a reason of not going for the treatment of sexual and reproductive health problems. Adolescents who were aware and understood about sexual and reproductive health problems were more likely to open up and share their problems than other adolescents. Respondents residing in the rural areas and hilly region were shyer and had hesitation to share about their sexual and reproductive health problems.
We can't easily open up and say our problems to the sir but the sisters. Sometimes, when I have stomachache then I cannot easily confess my problem to the sir in the health post. (Adolescent girl, Rural, Hilly, Rasuwa, Bagmati Province)

It would be easier to share such things with friends. Now it is difficult to share such matters to the family. (Adolescent boy, Rural, Hilly, Eastern Rukum, Lumbini Province)

Adolescents are shy and that is the bigger problem. They are shy to tell about it even with their mother, so it’s obvious that they are shier to talk about it with doctors in health institutions. (Adolescent girl, Urban, Terai, Morang, Province 1)

People also hesitate in going for checkup themselves. (Adolescent boy, Urban, Hilly, Kaski, Gandaki Province)

Facilitators in receiving ASRH services during the pandemic:

Despite several barriers that hindered the access to ASRH services, some interviewees pointed out the facilitators that helped and created a favorable environment in accessing ARSH services during this pandemic. Most of the participants reported family members, society/neighbors, health care providers and FCHVs acted as the facilitators in getting the sexual and reproductive health services at this time. They added that the counseling services were also provided in the pandemic. Correspondingly, few participants also stated that without the support from the people involved in Maiti Nepal and various organizations it would be difficult to receive such services. One of the participants from Jumla also added that despite the pandemic, health posts were opened anytime providing needed services. It was reported that more facilitators were found for the adolescents residing in the urban areas of the terai, hilly and mountain region.

The nurses provide family planning services to women whenever they require. (Adolescent girl, Urban, Terai, Dhanusha, Province 2)

We can call the FCHVs at our home too and also they have provided us their numbers in case of any problem at this time. So whenever needed we can give them a call. (Adolescent girl, Rural, Himalayan, Humla, Karnali province)
Society is supportive. In this current situation, society don’t face that much of difficulties because in the community where I stay, if somebody has any problems then all the people, neighbors come together and support; they manage when some problems arise. (Adolescent girl, Urban, Terai, Dhangadhi, Sudurpaschim province)

*From health institution, they give counseling services through phone and online.* (Adolescent girl, Urban, Hilly, Surkhet, Karnali province)

**Effect of Government Strategies on ASRH services**

Majority of the participants reported several effects due to the government strategies like lockdown, social distancing and forbidding gathering to control the corona virus transmission. Due to lockdown, the transportation was heavily affected having no/less access to medicines, health facilities were closed earlier as well as the needed information was not provided to all. The treatment of the patients was also affected a lot as the doctors stayed 2 meters away and performed checkups without touching patients. Few participants were of the view that there was lack of doctors in the health posts due to government strategies against corona virus. Those adolescents who had taken the sexual and reproductive health services in the pandemic argued that the government strategies had made the health posts less crowded and more peaceful. They found positive effects in receiving SRH services at this pandemic. One of the respondents from Kaski said that the government strategies had been directly controlling the corona virus transmission but indirectly influencing on getting the essential SRH services. Moreover, in rural areas, as adolescents were habituated in walking and reaching the health posts before the pandemic, they didn’t encounter any difficulties by lockdown and social distancing. Thus, the effects were experienced more by the adolescents residing in the urban areas of all the three regions compared to rural areas.

*For getting these services…. at other times every information were given by gathering people around but currently due to lockdown, there cannot be gatherings that’s why there are difficulties.* (Adolescent girl, Urban, Hilly, Surkhet, Karnali Province)

*Now people who are taking medicine from far places are not able to take medicine. It is difficult for them. Lockdown is for us but it is difficult when the medicine from far places does not arrive*
on time. Also, it is very difficult to get ambulance service. (Adolescent girl, Rural, Hilly, Laitpur, Bagmati province)

These strategies have affected the SRH services ma’am. We cannot easily go outside from our houses. If we go, we cannot meet and talk with our friends like before. Due to the lockdown, we cannot open the club for the adolescents. Not only that, Aamasamuha (mother group) and FCHVs have also not been in the meetings like before. (Adolescent girl, Rural, Himalayan, Humla, Karnali province)

Differences in ASRH provided prior to and after pandemic

As the major differences in health-seeking behaviors for reported ASRH problems that emerged after the pandemic were wearing mask, following social distancing and applying the sanitizer while going to the health posts. As reported by some of the participants, the flow of the patients was less than before in the health posts while the patients had to come alone for checkups without their family members like before. Few participants also expressed the doubts of corona virus transmission running in their head while visiting the health posts now. The participants also informed that mostly the emergency treatments were prioritized and the normal ones were postponed. It was also reported that there was delay in service, less time given by the health care workers to the patients and changes in the attitude of the health care workers at this pandemic. Furthermore, they added there was no crowd like before; however, they had to wait longer to receive the service since social distancing needed to be maintained. Few of the participants found positive differences like use of sanitizer while providing any medicine and maintenance of cleanliness with additional care than before in the health posts at this time. The differences were mostly seen in the terai region as it remained closed for some time due to the pandemic and most of the patients were unable to receive the services. Also, differences were observed more in both urban areas as there was lack of staffs in the health posts and doctors were also not in the close contacts like before. There were untimely treatments too.

There are lots of differences, before and now. Before, there was not problem in traveling back and forth; doctors also used to do checkups and touch as well; now they cannot even touch and cannot travel; one has to stay inside their home only. (Adolescent girl, Urban, Terai, Kohalpur, Lumbini Province)
When people need these services the health institutions are closed. Doctors and other people, all are getting infected with corona virus. So, there remains fear, Like, people are not getting services properly now as compared to before. (Adolescent girl, Urban, Terai, Morang, Province 1)

When one goes to hospital, the behavior at hospital is different before and after. More people cannot stay at hospital, 1-2 people are allowed to stay; and people cannot even visit at hospitals to see other patients. (Adolescent girl, Urban, Hilly, Lalitpur, Bagmati Province)

Now...one should maintain social distance and go for check-ups; and also needs to maintain social distance with the others who are there for checkup. One should wash hands, wear masks, and at those places where medicines and vehicles don’t go. (Adolescent boy, Urban, Hilly, Kaski, Gandaki Province)

**Strategies for effective ASRH during pandemic:**

In order to remove barriers for receiving SRH services during the pandemic, the participants had suggested some of the strategies to be followed. Majority of the adolescents said that there must be awareness raising and knowledge sharing on the provision of SRH services in the pandemic by FCHVs and health care providers. The government has to be responsible for making availability of essential services, equipment, medicine, ambulance services, X-ray facilities and other devices needed at this time. Likely, the participants also mentioned that meeting with the FCHVs and mothers’ group should still be continuing at this time. Those who had received SRH services during the pandemic had added that there should be more favorable environment at the health facilities including sufficient time and necessary consultation should be given by the health care providers to the patients. Adolescents residing from the rural areas also mentioned that the women or the adolescents living in their areas should not hesitate in sharing their problems with anyone.

Additionally, it was also mentioned that while taking the sexual and reproductive health services at this time, safety should be maintained like wearing the mask, maintaining social distancing and use of soap water or sanitizer. Few participants also stated that more health providers and FCHVs have to be appointed at this time. However, participants residing in the rural areas had less knowledge on how to make the services better and efficient at the time of pandemic. Similarly, the participants in the Himalayan and hilly region were also less enriched regarding the suggestions
that could make sexual and reproductive health services better at this pandemic. *One must adopt safety and those who have come to take services must also take safety measures; ... and health workers must keep sanitizer because if they use sanitizer then that will be good for both of them; Work must be done in accordance to the safety of all.* (Adolescent girl, Urban, Terai, Dhangadhi, Sudurpaschim province)

*The number of health workers must be increased at health post and if that cannot be done then there must be publicity of information and female community health volunteer must be regulated to do more fielding for providing these services ....and for adolescent, they must be counseled about such services and provide information time and again by maintaining social distancing.* (Adolescent girl, Urban, Terai, Kohalpur, Lumbini Province)

*People must maintain social distancing, wear masks and wash their hands with soap and water and stay far while taking services.* (Adolescent girl, Urban, Terai, Kohalpur, Lumbini Province)

**Table 5. Summary of demand side barriers and challenges on reproductive, maternal, neonatal and child health service utilization during lockdown due to COVID-19 in Nepal**
<table>
<thead>
<tr>
<th>Target population and themes</th>
<th>Rural areas service barriers and challenges</th>
<th>Urban areas service barriers and challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adolescents</strong>&lt;br&gt;Access of health services utilization</td>
<td>No significant effect of lockdown on adolescents’ health service utilization because either study participants had access of health centers at walking distance or they used to reach the health centers by foot even before the pandemic. Participants residing in the rural areas had less fear than the participant residing in the urban areas to visit the health centers. Families of rural area faced more economic transition/problems for health service utilization. <em>Due to corona even economic situation has become weak and it becomes difficult to access services at that</em></td>
<td>As the adolescents were used to visit health centers through the vehicle, the halt in the transportation adversely affected visit to health centers for service utilization. Participants residing in the urban areas had more fear than the participant residing in the urban areas to visit the health centers. Families of urban area faced less economic transition/problem as compared to the rural area.</td>
</tr>
<tr>
<td><strong>Fear of COVID-19</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economic crisis for health care</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer support</td>
<td>Adolescents in the rural areas faced lack of peer support as they could not meet the friends during the lockdown and they had no internet access in the areas. <strong>Now, we can’t get out and involve with our friends like we used to do before. Looking at the current situation, there is no environment to share anything with friends.</strong> (Adolescent girl, Rural, Sindhuli district, Bagmati province)</td>
<td>Adolescents in the urban areas didn’t faced lack of peer support even if they could not meet the friends during the lockdown as they had access of internet facility in their location.</td>
</tr>
<tr>
<td>Family and social support</td>
<td>Adolescents residing in the rural areas had faced lack of support from the family and neighbors.</td>
<td>Lack of support from the family was less observed in the adolescents residing in the urban areas.</td>
</tr>
<tr>
<td>Reluctance to share sexual and reproductive health problem</td>
<td>Adolescents residing in the rural areas were shyer and had hesitation to share about their sexual and reproductive health problems.</td>
<td>Adolescents residing in the urban areas were less reluctant to share about their</td>
</tr>
<tr>
<td><strong>Availability of facilitating/supporting groups</strong></td>
<td>Less facilitators were found for the adolescents residing in the rural areas as compared to the urban areas. Participants residing in the rural areas had less knowledge on how to make the services better and efficient at the time of pandemic. Chhaupadi system was observed at the time of menstruation even during the pandemic.</td>
<td>More facilitators/support groups (society, nurses) were found for the adolescents residing in the urban areas. Participants residing in the urban areas had less knowledge on how to make the services better and efficient at the time of pandemic. Chhaupadi system was not observed at the time of menstruation even during the pandemic.</td>
</tr>
<tr>
<td><strong>Knowledge on health service management at the time of pandemic</strong></td>
<td>We can’t easily open up and say our problems to the sir but can with the sisters. Sometimes, when I have stomachache then I cannot easily confess my problem to the sir in the health post. (Adolescent girl, Rural, Mountain, Rasuwa, Bagmati Province)</td>
<td>sexual and reproductive health problems.</td>
</tr>
<tr>
<td><strong>Practice of Chaupadhi system</strong></td>
<td>At this time, when we are kept in shed at the time of</td>
<td></td>
</tr>
</tbody>
</table>
menstruation then, there is not only the fear to stay in shed but there is the mental fear and torture in addition at this pandemic. (Adolescent girl, Rural, Mountain, Humla, Karnali Province)

<table>
<thead>
<tr>
<th>Mother of under five years children</th>
<th>Availability of vaccine/immunization service</th>
<th>Effect of strategies on COVID-19 prevention and control</th>
<th>Access of service utilization during pandemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>No timely availability of vaccine (in scheduled time) due to lockdown in the rural areas. There was no shortage of vaccines at the moment; however, the arrival of vaccines was quite late due to lockdown. (Rural, Mountain, Jumla, Karnali province)</td>
<td>Minimal disturbance on timely provision of vaccine in the urban areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The effect of the government strategies on COVID-19 prevention and control was mostly observed in the participants residing in the rural areas.</td>
<td>The effect of the government strategies on COVID-19 was less observed in the participants residing in the urban areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents in rural areas reported minimal disturbance for accessing the services amidst the pandemic.</td>
<td>Residents in urban areas reported more disturbances for accessing the services amidst the pandemic.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The service was easily available in the past but now it is not like that. Health providers used to check closely, but now it is not so. He keeps medicine on the table and says to take it by own. (Urban, Terai, Nawalpur, Gandaki Province)

<table>
<thead>
<tr>
<th>Health checkup and treatment</th>
<th>It was difficult for the participant to do health checkup and treatment when referred to the other hospital outside the area.</th>
<th>It was difficult for the participant to do the timely health checkup and treatment when they did not own their own vehicle.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of foods and fruits</td>
<td>Regular supply of the nutritious foods and fruits was disturbed due to the transportation problem so children could not have the access to nutrition. &quot;Actually, vegetables are produced according to seasons here in mustang but they are not sufficient in amount so we have to import it from downwards only...have to bring those from Beni, Pokhara only ...so since vehicles don't run nowadays, the process of bringing them has stopped everywhere.....there’s a difficulty in bringing and not available for buying&quot;.</td>
<td>Nutritious foods are accessed nearby in urban areas regularly</td>
</tr>
<tr>
<td>Public health measures for COVID-19</td>
<td>Safety measures and social distancing were maintained in some of the health posts in rural areas.</td>
<td>More safety measures and social distancing was maintained in urban areas.</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>&quot;The crowd wasn't that big. Due to the COVID-19, the social distancing was maintained even though it was crowded&quot;.</td>
<td>-Under five mother, Mustang district, Gandaki province</td>
<td>-Under five mother, Mustang district, Gandaki province</td>
</tr>
<tr>
<td>Knowledge on malnutrition</td>
<td>Lack of knowledge regarding malnutrition.</td>
<td>More knowledge regarding malnutrition.</td>
</tr>
<tr>
<td>ANC mother</td>
<td>Negative perception towards the health care workers.</td>
<td>The advices and the perception towards the health workers were positive as compared to the rural areas.</td>
</tr>
<tr>
<td>Attitudes towards health workers</td>
<td></td>
<td>They (health workers) have been giving the checkups from the health post itself. There is no specific difference. (Urban, Hill, Kaski, Gandaki province)</td>
</tr>
<tr>
<td>Sharing of health problems</td>
<td>Residents were shy and hesitated to share their problems with the health care providers.</td>
<td>Residents shared their problems with the health care providers.</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Fear of COVID-19          | There is not much fear to the residents since there are few COVID-19 cases were reported in rural areas. | Residents had the fear to go to the hospital since there were many COVID-19 cases reported from the urban areas. 
Now, one cannot walk freely as before, one must visit hospital with fear and there also, doctors don’t do checkups properly. In that crowd, one has to go alone, one has to manage like that, there’s a fear as compared to before. – ANC mother, Bara, Province 2 |
| Financial problems        | ANC mother faced more financial constraints in their area.                         | ANC mother didn’t face much financial constraints as compared to rural areas. |
| Access to health centers  | Participants felt difficulty as they had to travel outside to utilize the services.  | Participants felt easier to utilize the services due to proximity of the health post. |
| Availability of medicine, nutrition food and fruits | Nutritious foods were difficult to access as the markets remained closed due to lockdown and had to go far to buy the nutritious food. 
*For us, we could eat something, but the markets are not open. When we need something* | Nutritious foods and medicines were easily accessible when required despite of the lockdown. |
nutritious food, we cannot get them. The medicines are also not available these days. On the other hand, doctors say, I have deficiency of blood. (Rural, Terai, Rautahat, Province 2)

<table>
<thead>
<tr>
<th>Women of reproductive age (Family planning and Abortion service)</th>
<th>Due to the gap in the initial stage of the lockdown, medicine was not brought on time. When I went to buy the Gulaafchakki for me, they (health worker) said that there was no supply of the medicine and tablets at the health post at that time of pandemic. So I came back home (sad face). (Rural, Hill, Bhojpur, Province 1)</th>
<th>No difficulty in the access of medicine as they were available despite the lockdown in urban areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of medicine</td>
<td>Negative attitude and perception towards health workers was not much felt in the participants.</td>
<td>Negative attitude and perception towards the health workers was felt among the participants in urban areas. <em>Health worker do not touch the pregnant women or other patients. They do not want to</em></td>
</tr>
</tbody>
</table>
| Referral health service utilization | Participant felt difficulty in reaching the referral health centers.  
*Unavailability of public vehicle is the problem. We have to walk for more than 3 hours to reach the nearest health center.* (Rural, Hill, Bhojpur, Province 1) | The referral centers were located in nearby places (not far) from the patient household and easy to access referral health services even at the time of pandemic. |
| Effects of strategies on COVID-19 prevention and control | The strategies set by government such as lockdown, social distancing, forbidding gatherings etc to overcome corona pandemic had less effect on the sexual and reproductive health related services.  
*The strategies set by government such as lockdown, social distancing, forbidding gatherings etc do not affect anyone here in Humla.*  
-Reproductive age woman, Humla, Karnali Province | The strategies set by government such as lockdown, social distancing, forbidding gatherings etc to overcome corona pandemic had more effect on the sexual and reproductive health related services. |
<table>
<thead>
<tr>
<th><strong>Fear of COVID-19</strong></th>
<th>The less fear of COVID-19 had caused less impact on women of reproductive age group in rural areas.</th>
<th>The more fear of COVID-19 had caused more impacts on women of reproductive age group.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PNC mother group</strong></td>
<td><strong>Availability of trained health workers</strong></td>
<td>Less trained health care workers at the time of pandemic in rural areas for PNC.</td>
</tr>
<tr>
<td><strong>Satisfaction with health service provided</strong></td>
<td>The participants were somehow satisfied by the service provided by the doctors as compared to the urban area.</td>
<td>Not satisfied by the service provided by doctor after the pandemic.</td>
</tr>
<tr>
<td><em>Doctors do not checkup the patient in scheduled time and they see from distance only. I have heard that doctors make proper checkup at private health institutions. The services are not like before.</em> (Urban, Terai, Morang, Province 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Availability of transportation facility</strong></td>
<td>Lack of ambulance service for the postnatal mother at the time of pandemic. <em>When there are complications and needs to take them to better hospital or places, there is a transportation problem.</em> They</td>
<td>Ambulance service was easily available as compared to the rural areas.</td>
</tr>
</tbody>
</table>
cannot walk for long routes without transportation and lack of availability of ambulance service is a big challenge. (Rural, Mountain, Mustang, Gandaki Province)

<table>
<thead>
<tr>
<th>Awareness of PNC services</th>
<th>Participants were less aware regarding the availability of postnatal services even in the pandemic. <em>Other people might also not know about when to vaccinate their children, just like us. It’s because of me not having the knowledge about it. It must be because of the corona. We didn’t get the information on time.</em> (Rural, Mountain, Mustang, Gandaki Province)</th>
<th>Participants were more aware regarding the availability of postnatal services even in the pandemic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference of health facility</td>
<td>Go to the nearby public health facility for the treatment.</td>
<td>Preferred to go to the private health facility as they think there is less chance of COVID-19 transmission. <em>Everyone in the society had said there are corona patients; do not go there (government facility), rather</em></td>
</tr>
</tbody>
</table>
go to a private hospital for the delivery and other service. (Urban, Terai, Nawalparasi, Lumbini Province)
Service Providers Perspective on the Effect of COVID-19 on the Provision of RMNCAH and Nutrition Services:

With the aim of exploring the effect of COVID-19 pandemic via the lenses of policy makers or higher-level authority and service providers in providing the SRMNCAH services, FGD and KII were conducted. Total four KIIs with the representatives from MoHP and family welfare division (FWD), and two FGDs having the health coordinators of the selected districts were conducted representing the ecological zone and rural and urban areas of all the seven provinces of the country. The FGD were conducted through zoom and each consisted of nine participants and lasted for about 90 minutes.

Barriers:

The participants mentioned number of obstacles to provide SRH services during the COVID-19 pandemic particularly by the nationwide lockdown. Though the services were provided at all the provinces, the participants said that there was widespread fear among the service providers and clients whether they could transmit the corona virus to each other. Because of this, though services were available, the number of service seekers decreased in most areas. One of the representatives from MoHP shared that there is a reduction in the sexual and reproductive health services up to 40-50% during the time. Some other participants shared that lack of proper infrastructure of the health facilities to provide services during the pandemic also hindered the service provision. They stated that mostly the pregnant women denied visiting hospitals due to fear of the virus transmission even at the emergencies. One of the participants from Sudurpashchhim province shared that a pregnant woman did not go to hospital even at heavy bleeding fearing the transmission. Later, she was rescued, as her condition was critical. However, in some areas the flow of patients seeking ANC and delivery services had been increased due to the reason that the people prefer to visit the health posts nearby and avoid to go hospitals and/or clinics in the cities due to fear of COVID-19 transmission. As per some health care workers, unless urgent, the clients did not visit the hospitals as the hospitals had become the source of virus transmission.
People have the psychological barrier now that is why there is the less flow of patients in the hospital. (FGD participant, Hatuwagadi Rural Municipality, Bhojpur, Province 1)

We cannot make the hospital COVID friendly and manage separate facility for covid and other diseases because of which people have fear in coming to the hospital and taking the services. (FGD participant, Apihimal Rural Municipality, Darchula, Sudurpaschim province)

In our municipality, the women coming for the ANC and delivery services are in the rising trend as compared to before. (FGD participant, Ribdikot Rural Municipality, Palpa, Lumbini Province)

There is the reduction in the SRH services in these eight months. There is reduction in those services in about 40-50%. (KII, Senior Public Health Administrator, Policy Planning and Monitoring Division, MOHP, Nepal)

During the discussion, the participants highlighted lack of sufficient family planning devices, vaccines along with ICU and ventilators, lack of awareness on COVID 19 among the public and inadequate training/orientations to the health care workers including the unavailability of personal protective equipment hindering the services. The participants from managerial levels also admitted that the lockdown, widespread fear and less mobility of people including the compulsion of PCR test during the hospital visit halted the services through the health posts. Similarly, the participants both at the service providing and management levels were in the same view that in most of the institutions, health care providers were tested corona positive and were unable to provide services on time, which caused less flow of service seekers from there.

There was the unavailability in the modern family planning device and decrease in the supply of implant service and IUCD. In addition, there was less supply of Depo Provera. (FGD participant, Dudhkoshi Rural Municipality, Solukhumbu, Province 1)

Patients found it difficult to come to the health post and receive the services. Even the transportation remained closed. There was the lockdown. Even the health providers were not able to go at the health post for the simple checkups. That is why, the patient could not easily reach at the health post and there was also inadequacy of the health care providers seen in the health post. (KII, Chief of Child Health and Immunization Service Section, Family Welfare Division, DOHS)
With the advent of COVID 19, suddenly all the health facilities were halt and people had fear however later we managed to tackle with the pandemic. But at first, at the initial month we found difficulty had no idea what to do. The people had fear and there was less mobility of transportation at first months. (KII, Senior Public Health Administrator, Health Coordination Division, MOHP, Nepal)

The participants from Sudur Paschim province notified that they were about to run the mobile camp but could not do so due to COVID-19 pandemic. Representative from the MoHP also agreed that the mobile camps for family planning services were obstructed due to ban in the mobility at the initial times that affected the SRH services mainly to the adolescents.

We cannot run satellite camp and family planning camp in this municipality despite having the trained health providers due to COVID 19. (FGD participant, Dhangadi Municipality, Kailali, Sudur Paschim Province)

Other effects were that we could not run mobile camp in relation to the family planning services. There is the barrier due to no mobility in the program in regards with the adolescent sexual and reproductive health. (KII, Senior Public Health Administrator, Policy Planning and Monitoring Division, MOHP, Nepal)

The awareness activities related to SRH services in the communities and schools were found to be closed, which resulted in the wider gaps to fulfill the needs of SRH services esp. for adolescents. The school based adolescent services have been hindered and the adolescents are unable to share their SRH problems with friends due to schools' closure and they cannot share them with their parents either. Due to excessive fear of COVID-19 during the initial time, the participants said that some health posts placed 'no entry' boards and even fences around to ban the movement of people that completely stopped the service provisions after the pandemic. Nevertheless, it did not go for a long, as the health care workers were convinced to provide health care services taking precautions.

SRHR promotional activities in schools/communities are halted and the adolescents now are not able to share their SRH problems with friends due to schools are closed. (FGD participant, Pokhara Lekhnath Municipality, Kaski, Gandaki province)
Schools are not in run so the adolescents are deprived of the sexual and reproductive health services. (FGD participant, Dhangadi Municipality, Kailali, Sudurpaschim Province)

The health posts had put ‘no entry’ boards and even they placed fences around the health posts to stop people/clients visiting for services at the earlier times. But they were removed later and the services were started. (FGD participant, Pokhara Lekhnath Municipality, Kaski, Gandaki province)

One of the participants from Gandaki province said that the regular services including SRH services were hugely affected as priority has been given to COVID 19 only. He also mentioned that there is lack of collaborations and proper monitoring at the implementation level affecting the services. The participants from the management levels also agreed that all the health facilities focused on COVID-19 pandemic because of which other services including SRHR were deemed and not running as in same pace as in previous years. They also mentioned that there is lack of coordination with other stakeholders working on SRH.

While focusing only corona virus, the other regular services including SRH services are disturbed. And there is no proper collaborations and monitoring for handling services during the pandemic either. (FGD participant, Kawasoti Municipality, Nawalaparasi, Gandaki province)

Though there is no halt in any SRH program or services, we come to realize that the services as well as training are less compared to the previous year as everyone’s focus is on COVID-19 during this pandemic. (KII, Senior Public Health Administrator, MOHP, Nepal)

I think we are lacking the coordination with the agencies and external development partners still. There is difficulty in the equitable distribution of the services and vaccines. For this the government has to think further to collaborate and coordinate with the EDPs. (KII, Senior Public Health Administrator, Health Coordination Division, MOHP, Nepal)

Due to wide spread effect of COVID – 19 pandemic especially at Terai regions, some participants asserted that the health posts were closed for about a month and two, which disturbed the immunization services hugely at all provinces at the initial month/s. The participants also mentioned that they received informal circular to stop child vaccination form the authority at the
initial time of pandemic. Likely, the participants from managerial levels also admitted that the pandemic badly affected the immunization services during the initial months; however, they claimed that the sexual and reproductive health services were resumed immediately afterward.

*The services are provided from the central level and the circular is received in order to stop the child vaccination after the COVID pandemic.* (FGD participant, Phical Rural Municipality, Sindhuli, Bagmati province)

*At the initial phase of lockdown, the immunization services got affected. The campaign; the measles campaign also got delayed. After one month when we made the guidelines and agreed to run the vaccination services even in the COVID19 then the Supreme Court also advocated not to stop the essential health care services. After that, with the coordination with Ministry of health and population. Local level government and federal government along with other Paalikas we resume the immunization and other regular services again.* (KII, Chief of Child Health and Immunization Service Section, Family Welfare Division)

While discussing guidelines on SRHR service provision during the pandemic, only few participants ensured that it was made available in the internet and they read it. But they couldn’t follow the guidelines properly due to lack of training/orientations on it as well as having less number of health care workers at their places. Participants from almost all provinces claimed that there is no provision of basic training/orientations to health care providers in regard to sexual and reproductive health services.

*No nursing staff has received the training. The training is very essential as the health care providers might get infected themselves.* (FGD participant, Dudhkoshi Rural Municipality, Solukhumbu, Province 1)

*There is less coverage of program and training when compared to the previous year. COVID 19 has been affecting in all the health services since the concentration is now on COVID 19. Other services are running in a less manner nowadays.* (KII, Senior Public Health Administrator, MOHP, Nepal)
Similarly, the most highlighted issues during the pandemic time for smooth service provision were no separate institution for quality assurance like in case of PPE and other equipment and the guidelines not being followed properly at the time of emergency.

*We have no institution for the quality assurance. Like who will do of the PPE; whether DDA or not there is the confusion. We need a separate institution where along with the PPE there is the quality assurance for the equipment too. We have also advocated regarding it.* (KII, Senior Public Health Administrator, Policy Planning and Monitoring Division, MOHP, Nepal)

*There is no rigorous exercise as per the guidelines being done in case of emergency. In short, the guidelines are not followed during the emergency cases.* (KII, Senior Public Health Administrator, Policy Planning and Monitoring Division, MOHP, Nepal)

**Difference in the SRH services before and after the pandemic**

When asked for the difference in the sexual and reproductive health services in their areas/provinces, it was found most of the participants observed the difference during the initial phase of the lockdown i.e. around Chaitra 2077. Later, minimum differences were identified. Most of the participants said that there were less PNC services during the pandemic as compared to before and there was the rise in home delivery esp. in the months of Chaitra, Baishakh and Jestha due to the lockdown. However, family planning services as well as the vaccination were continued as previously though there was delay at the first one/two months.

*Patients come in the fewer ratios in the health post than before due to the fear of the COVID 19. The patients have fear to come in contact with the health post at this moment.* (FGD participant, Hatuwagadi Rural Municipality, Bhojpur, Province 1)

*Pregnant women were not able to visit the health post that’s why they had undergone home delivery hence there was the rise in home delivery cases at the initial months after the COVID-19; in Chaitra, BaisakhJestha months.* (FGD participant, Apihimal Rural Municiplaity, Darchula, Sudurpaschim Province)

During the discussion, majority of the participants agreed on the less flow of patients and many disturbances in the services during the very first month of lockdown. Correspondingly, some
claimed that there were no crowds in the hospitals and the use of sanitizer, mask and social distancing measures were found common in most of the provinces. Furthermore, few participants disclosed that pregnant women used to visit bigger hospitals/consultants for checkups in the towns before the pandemic but now they visit at the peripheral health posts for checkups. In some places the participants shared that the PNC services were provided through the telephone services as well.

*Patients have the fear to go outside hospitals and prefer to get treated here in the nearby health post as much as it is possible.* (FGD participant, Apihimal Rural Municipality, Darchula, Sudoorpashim Province)

*The patient flow was less in the health post particularly from the month of chaitra.* (FGD participant, Lekhbesi Municipality, Surkhet, Karnali Province)

*At the initial months after the COVID, there was disturbance since the immunization service was completely stopped for one month.* (FGD participant, Kawasoti Municipality, Nawalaparasi, Gandaki province)

*Nowadays the health care providers provide the services by wearing the PPE and using the sanitizer.* (FGD participant, Thasang Rural Municipality, Mustang, Gandaki Province)

*The Tele PNC services are provided to the patient if in case there is no facility in the health post or if the patient cannot reach to the health post.* (FGD participant, Sisne Rural Municipality, East Rukum, Lumbini Province)

The other notable differences were reported as changes in the behavior of health care workers after the pandemic, unwanted fear among the patients, use of mask, sanitizer/soap and social distancing in the hospitals. During the pandemic, the fear of visiting the health posts was seen more in the Terai region, the rise in the home delivery was in the Sudurpaschim province while the unavailability of vaccines was mostly seen in the Himalayan region.

*We have most of the time listened and observed that the patients are dissatisfied with the health workers in the health post during this pandemic.* (FGD participant, Pokhara Lekhnath Municipality, Kaski, Gandaki Province)
As guidance by the province (Dang), we provided PNC services through phone calls to the clients. The rural municipality provided NRs. 500 to all the health in-charges for this service. (FGD participant, Sisne Rural Municipality, East Rukum, Lumbini Province)

Facilitators:

Despite several challenges amidst the pandemic, participants shared some of the supporting environment that enabled the patients to take the services even at this crucial time. Some of the participants stated that the services were running better as the health providers were mobilized well especially for home visits after Ashad. The participants reported the major facilitating factors as the telephone services, distribution of pads from the health facility, availability of PPE kits, and logistic support from the NGO and INGOs for SRHR services. One of the participants from the Phikkal municipality even stated that despite the closure of the schools, they provided the adolescents with certain awareness and/or ASRH services from the health posts. Some participant also mentioned that the birthing centers were smoothly functional at the pandemic as well and the clients were allocated free ambulance services, which motivated them to visit birthing centers for delivery.

All birthing centers at the rural municipality are functional and free ambulance services are running to take clients at the birthing center for delivery. (FGD participant, Pokhara Lekhnath Municipality, Kaski, Gandaki Province)

Participants from some provinces even clarified that the health providers and the health workers are providing the ANC, PNC services even during the public holidays. At the discussion, it was disclosed that additional incentive (10%) to the health providers, provision of SRH services free of cost in the governmental hospitals and coordination at various levels has motivated to provide SRHR services even at this pandemic. The health facilities both at Hilly and Terai regions found having supportive environment for SRHR services compared to the services in the mountain regions.

The 3rd PNC visit was less in our area but after the health workers are mobilized for the home visit then 3rd PNC visit also seems to be completed and meets the target. There is the management of c-
section in the central hospital for the COVID positive patient after isolating them. (FGD participant, Amargadhi Municipality, Dadeldhura, Sudurpaschim province)

Nepalgunj is in the red zone since the starting of COVID 19 yet the services are running and we are providing the services in a regular manner even in public holidays by using the PPE. (FGD participant, Nepalgunj Sub-Metropolitan City, Banke, Lumbini province)

NGOs, INGOs are working and providing the logistic support; PPE for the health care providers to motivate them to work during the pandemic. Along with that we get the support from local level, donor agencies and health post. (FGD participant, Hatuwagadhi Rural Municipality, Bhojpur, Province 1)

There has been the arrangement of Tele ANC/PNC service from Kartik 15 to till now. The recharge is done in the concerned mobile numbers to make the calls. (FGD participant, Sisne Rural Municipality, East Rukum, Lumbini Province)

Most importantly, during the discussion, it was found that all the participants were convinced and motivated to provide all the SRH services following the protective guidelines during the COVID-19 pandemic.

The health personnel have been motivated to provide services even in the pandemic following the health protocols against COVID 19, as there is no other ways. The government should ensure their security by providing quality protective equipment. (FGD participant, Kawasoti Municipality, Nawalparasi district, Gandaki province)

The participants from policy levels claimed that they had provided training/orientation on SRHR services in crisis even at the pandemic though almost all participants at service providing levels said they did not receive them. As per them, the SRHR guidelines during the pandemic supported to maintain quality while providing services in the fields. They added that the logistic supplies during the pandemic were made through chartering the vehicles while the test-labs were also added during the time. Hygiene promotional activities as well as a new vaccine called 'Rota vaccine was also introduced amidst the pandemic.
Training are being given previously also, we had given training in different places at the time of disaster. If you look through the package we can see MISP. There has been training for the SRH in crisis. (KII, Senior Public Health Administrator, Policy Planning and Monitoring Division, MOHP, Nepal)

The training and the orientation program were still being given even at the pandemic via zoom meeting time to time. (KII, Senior Public Health Administrator, Health Coordination Division, MOHP, Nepal)

Apart from the guidelines also the ministry has worked a lot. At first there were no labs to do the test but now there are more than 70 labs. (KII, Senior Public Health Administrator, Policy Planning and Monitoring Division, MOHP, Nepal)

*The guideline is practical. We made the guideline in regards to child health and immunization services that helped the program in most of times in order to run the services. Also, the guideline helped to maintain the quality.* (KII, Chief of Child Health and Immunization Service Section, Family Welfare Division)

We were getting continuous support from the Family Welfare Division and the guidelines also supported us. (KII, Senior Health Administrator, Health Coordination Division, MOHP, Nepal)

Even at this time to make the people aware the meetings and the orientation was held. The ambulance vehicles were called and there was the supply of the vaccine and drugs to the provinces. PPE has been delivered from here but still some people cannot utilize the PPE. (KII, Senior Health Administrator, Health Coordination Division, MOHP, Nepal)

*In the period of lockdown, we also run the new activity like hygiene promotion. We introduced the Rota vaccine at the month of Ashad. We introduced the Rota vaccine and was successful in promoting it all over the country even during the pandemic.* (KII, Chief of Child Health and Immunization Service Section, Family Welfare Division)
Strategies:

The participants suggested number of suggestions in order to increase the access to sexual and reproductive health services despite the pandemic. Majority of the participants advised basic training or orientations to create awareness on the provision of sexual and reproductive health services to the public at this time. Similarly, there should be the identification of the health care workers who have received SRHR training/orientations at the health facilities, and provide on-site training/orientations for those who have not received them. Further, the participants mentioned that instead of making coordination with health coordinators only, coordination should be made with the health in-charges with necessary training/orientations can make SRHR services more effective.

The training has to be provided via. Zoom meeting for orientation regarding the guidelines. So that we can work in accordance with the guidelines being implemented. (FGD participant, Tatopani Rural Municipality, Jumla, Karnali province)

There are many who have received training on SRH services. Those who have been into adjustment (samayojan) should be trained. We can work on it by onsite coaching. (FGD participant, Kawasoti Municipality, Nawalparasi, Gandaki province)

Coordination should be made with the health in-charges also, not only the health coordinators. They should be trained/oriented on SRHR services so that the services will be more effective as they can provide good services. (FGD participant, Dudhkoshi Rural Municipality, Solukhumbu, Province 1)

Some participants suggested collaborative efforts by the representatives from local bodies, health care providers, and other relevant sectors could be more effective to provide regular services including the SRHR ones during this time.

There should be involvement of all sectors including elected representatives and health care workers to create the environment of self-awareness and to follow health advices against the COVID 19 pandemic for effective services. (FGD participant, Pokhara Lekhnath Municipality, Kaski district, Gandaki Province)
Some participants felt the need of focal person to look after these services in the district. The requirement of focal person for the smooth delivery of the SRH service is also felt by the key personnel from DoHS. The participants also suggested for the provision of Tele PNC/ANC services during this pandemic along with the community mobilization. Few participants advocated for the fulfillment and addition of the health care providers in their health posts while most of the participants expressed that the government has to support in increasing the health care workers along with family planning devices and vaccines. Additionally, few participants even demanded incentives for the frontline workers along with the implementation of awareness program on sexual and reproductive health. The participants from all the provinces strongly expressed their views on the continuation of sexual and reproductive health services amidst the pandemic.

*We require separate focal person in our municipality to look at the sexual and reproductive health services.* (FGD participant, Hatuwagadhi Rural Municipality, Bhojpur, Province 1)

*There should be the provision of PPE, hazard allowance and motivation to the health care providers. After the incorporation in the health post, newly recruited health providers have to be provided with the training in their concerned field.* (FGD participant, Kawasoti Municipality, Nawalparasi, Gandaki Province)

*The government and ministry of social development has to raise its concern regarding the sexual and reproductive health along with the on-site monitoring and has to follow the guidelines and protocol.* (FGD participant, Kawasoti Municipality, Nawalparasi, Gandaki Province)

*In small communities, awareness regarding the sexual and reproductive health has to be done. The government rules and regulations has to be followed.* (FGD participant, Thasang Rural Municipality, Mustang, Gandaki province)

*The high-risk workers/frontline workers have to be motivated and provided with the incentives from the central government.* (FGD participant, Phikkal Rural Municipality, Sindhuli, Bagmati province)

Table 6. Summary of supply side barriers and challenges on reproductive, maternal, neonatal and child health service utilization during lockdown due to COVID-19 in Nepal
<table>
<thead>
<tr>
<th>Themes</th>
<th>Health facilities of rural areas</th>
<th>Health facilities of urban areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unavailability of family planning device</td>
<td>Unavailability of the family planning device was mostly observed in health facilities of rural areas.</td>
<td>The unavailability of family planning devices was less observed in the health facilities of urban areas.</td>
</tr>
<tr>
<td></td>
<td><em>There was the unavailability of the modern family planning devices and decreased in the supply of implant service and IUCD. In addition, there was less supply of Depo Provera.</em> (FGD, Dudhkoshi Rural Municipality, Solukhumbu, Province 1)</td>
<td></td>
</tr>
<tr>
<td>SRHR training</td>
<td>SRHR training was not provided to the health care providers/staffs during lockdown/COVID-19 pandemic. <em>No nursing staff has received the training. The training is very essential as the health care providers might get infected themselves.</em> (FGD, Dudhkoshi Rural Municipality, Solukhumbu, Province 1)</td>
<td>SRHR training was given to the staffs in some provinces during lockdown/COVID-19 pandemic</td>
</tr>
<tr>
<td>Home delivery</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More cases of home delivery were seen in the rural areas. Pregnant women were not able to come to the health post that is why they had to perform the home delivery hence there was the rise in the home delivery at the initial months after the COVID-19; in Chaitra, Baisakh, Jestha months. (FGD, Apihimal Rural Municipality, Darchula, Sudurpaschim Province)

<table>
<thead>
<tr>
<th>Preference of hospital</th>
<th>More cases of home delivery were seen in the rural areas. Pregnant women were not able to come to the health post that is why they had to perform the home delivery hence there was the rise in the home delivery at the initial months after the COVID-19; in Chaitra, Baisakh, Jestha months. (FGD, Apihimal Rural Municipality, Darchula, Sudurpaschim Province)</th>
<th>Home delivery was not seen much in the urban areas. The patients are treated better in the hospital outside of their areas. However, they have the fear to go and be treated there. Patients have the fear to go outside hospitals and prefer to get treated here in the nearby health post as much as it is possible. (FGD, Apihimal Rural Municipality, Darchula, Sudurpaschim province)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tele ANC/PNC service</td>
<td>Provision of tele PNC services was mostly observed in the rural areas.</td>
<td>Provision of tele ANC/ PNC services was quite less observed in the urban areas.</td>
</tr>
</tbody>
</table>
The Tele PNC services are provided to the patient if in case there is no facility in the health post or if the patient cannot reach to the health post. (FGD, Sisne Rural Municipality, East Rukum, Lumbini Province)

| Coordination | Necessity of coordination between the concerned stakeholders was felt. Coordination should be made with the health in-charges also, not only the health coordinators. They should be trained/oriented on SRHR services so that the services will be more effective as they can provide good services. (FGD, Dudhkoshi Rural Municipality, Solukhumbu, Province 1) | The coordination between the concerned stakeholders was quite satisfactory. |
| Requirement of focal person | Separate focal person is required to look at the sexual and reproductive health services. | Some focal persons were available to look at the sexual and reproductive health services. |
**Conclusion**

All the sexual and reproductive health services including child and nutrition services were found to be affected by the COVID-19 pandemic. Along with the pandemic, the strategies adopted by the government in order to control and prevent COVID-19 transmission had influenced the SRHR services particularly by the national level lockdown restricting the transportation. Widespread fear about COVID-19 transmission among the service seekers was found to be one of the common factors influencing any SRH services. Similarly, the changed and negative attitude of health care professionals towards the client because of the pandemic had also influenced the service utilization. Many of the participants had shown their dissatisfaction in service provided during the pandemic.

The number of women having first and four antenatal visits both have been decreased after pandemic compared to the same months prior to COVID-19. The fall in the number of women for ANC visit was more pronounced at the month of nation-wide lockdown and the effect was minimal during the initial months of COVID-19. Qualitative findings showed that the pregnant women had not completed the visits due to irregular services because of the pandemic. None of the participants had received the Tele-ANC services during the pandemic according to the new guideline developed by MoHP. However, they are aware that the ANC services were provided by the facilities during this period as well. The negative behavior of health workers, unavailability of health workers, video x-ray and health workers, dissatisfaction of service given during the
pandemic were found to be the major health system barriers in seeking the ANC services. Similarly, travel restriction and fear of COVID-19 had also influenced the health seeking behavior of women. The government strategy had affected the iron and folic acid supply, vaccination and even the antenatal checkup services.

The home deliveries conducted by the health workers were found to be decreased more during the pandemic compared to the same months before COVID-19. Though the hospital deliveries were not much affected by the pandemic during the initial six months of COVID-19, it has been decreased drastically in Shrawan and Bhadra which was same for the PNC services within 24 hrs of delivery. The study found that the maternal deaths during antepartum and intrapartum periodin the eight months after pandemic had increased by 50% compared to the same months prior and the postpartum death have been increased by 9%. While exploring the factors influencing the delivery and postnatal services the common barriers were found to be lack sufficient medicines, closure of hospitals/health posts, blood scarcity, halted delivery and immunization services and negative attitude of the health workers, disruption on transportation, fear of disease transmission and financial problems.

The number of women receiving safe abortion services started to decrease from the month since the national lockdown though the service was not affected in the initial two months of COVID-19. The qualitative study showed that the majority of the participants were not aware about the availability of abortion services during the pandemic. The major barriers for utilization of safe abortion services were found to be unavailability of medicines and services due to the COVID-19 and the negative attitude of health workers, disruption in transportation and fear of virus transmission.

The new users of both permanent and temporary family planning methods were decreased more in the month of Ashad after COVID-19 compared to the same months prior to the pandemic while in other months the difference in the number of new users have not changed significantly. However, the pandemic had hard hit the immunization services after the nationwide lockdown announced by the government of Nepal that all the immunization services were decreased by around 50% in the month of lockdown, i.e. Chaitra. In the following months too, the services were decreased remarkably. The In-depth interview carried out with the mother of under 5 children found that delay in the
immunization service, time limitation, difficulty in accessing the transportation, unavailability of health workers as well as vaccines and family planning devices including the fear of getting contracted with corona virus as the common barriers in seeking family planning, immunization and nutrition services.

The ASRH services were found to be highly impacted by the pandemic from the initial months. During all months (from Magh to Bhadra) of COVID-19 pandemic, the ASRH services were continuously decreased while compared to the months before COVID-19 pandemic in the country. Similar to other services the disruption of transportation, fear of virus transmission, unavailability of services, health workers and medicines and financial constraints are the common barriers for seeking ASRH services to adolescents. Besides, lack of peer support, lack of support from family and hesitation to share the SRH problems were found to be additional factors that affected adolescents to seek the services.

The service provided before and after COVID-19 was found to differ profoundly. Majority of the health workers and the facilities was found to follow the safety measures to prevent COVID-19 while providing SRH services. However, the changed negative attitude of the health workers had generated dissatisfaction among the service users. Similarly, the disruption in SRH services during the pandemic had also affected the service utilization.

The major obstructions for the service providers were identified as the wide spread fear of COVID-19 transmission among the clients and health care providers; closure of health posts/hospitals as well as schools, lack and/or scarcity of family planning devices/vaccines, ICU and ventilators including many others. During the pandemic, lack of proper knowledge/training on SRHR services in crisis, unavailability of personal protective equipment and geographical difficulties also remained major concerns. The participants from management/policy levels estimated that the SRHR services had been declined by 40-50 percent. They accepted limited preparation for the pandemic and observed gap between written guideline and practices. Telephone services, home visits of clients, free ambulance services to birthing centers were introduced during the pandemic. Training/orientations on SRHR services, well coordination at local levels, appointment of SRHR focal point/additional healthcare staffs, Tele ANC/PNC services including the community mobilization were the suggestions to provide SRHR services more effectively.
Recommendations

For the Government

- The government should be well prepared in terms of manpower, infrastructure and logistic to provide the basic essential services including essential sexual and reproductive health services for any epidemic, pandemic or disaster.
- Though new guideline on providing SRHR services during COVID-19 pandemic was developed, the service providers were not well aware on the guidelines. Hence, the service providers should be trained and onsite monitoring and evaluation should be done from the federal, provincial and local levels.
- Government should address SRH along with adolescent health as a national priority during the pandemic as well.
- Focal person to look after SRH services during/after the pandemic should be allocated in all the provinces.
- Awareness regarding the provision of SRH services during the pandemic and the preventive measures to be undertaken should be provided via mass media and in various languages as per need.
- Adequate budget allocation and allowances for the frontline health care workers should be ensured.
- The government should take measures to the provision of regular supply of vaccines, medicines, supplements during the pandemic as well.
- The infrastructures should be constructed and modified in such a way that they can be used during the pandemic too following the preventive measures.
- Efforts should be made between the provincial and local government for the formulation of plans, policies and strategies and to deliver the SRH services in collaboration during the pandemic.
- The government should develop system for the transportation of the clients seeking SRH services in the lockdown as well.
For the Service Providers:

- Awareness raising has to be done with the reproductive age group of women, mother of under five children concerning ANC and PNC mother in regard to the provision of sexual and reproductive health.
- Proper counseling and information sharing should be done so that the clients don’t have negative perception about the preventive behavior of health workers during the pandemic.
- Tele-SRH services should be provided wherever possible and adequate health workers should be assigned for the provision of services and continued follow up.
- The sexual and reproductive health services should be provided free of cost in all the areas so that no women hesitate to receive any type of sexual and reproductive services even in the pandemic along with the SMS measures.
- The services continued in the health posts has to be provided by following SMS measures; social distancing, use of mask and use of sanitizer/soap at this pandemic in order to reduce the fear among the patients.
- Regular ambulance or any transportation services should be provided to the service seekers esp. when normal transportation has been blocked.
References

1. UN. The Impact of COVID-19 on children 15 APR 2 0 2 0. 2020.


Annexes

Annex 1:

Guidelines for in-depth interviews with reproductive age women, pregnant mother, postnatal mother and mother with children less than 5 years and adolescent to access the effect of COVID 19 pandemic and lockdown on utilization of essential SRHR services

Province:

Municipality/Village Council:

Nearest Public Health facility:

Area: Rural/Urbann

Date:

Age:

Education:

Occupation:

Participants (adolescents, reproductive age group, pregnant mother, postnatal mother and mother with children less than 5 years)

<table>
<thead>
<tr>
<th>S.N</th>
<th>In-depth interview questionnaire (demand side)</th>
<th>Remarks/ probes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Are you aware that all the essential sexual and reproductive health services (SRHR) services are provided during COVID-19 Pandemic as well?</td>
<td>SRHR services like Antenatal, Intrapartum, Postnatal, Family Planning, Abortion, Immunization, Adolescent SRH services</td>
</tr>
<tr>
<td></td>
<td>Question</td>
<td>Answer</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>Have you obtained any type of sexual and reproductive health services during this COVID 19 pandemic?</td>
<td>SRHR services like Antenatal, Intranatal, Postnatal, Family Planning, Abortion, Immunization, Adolescent SRH services</td>
</tr>
<tr>
<td></td>
<td>If yes, what SRHR services and from where?</td>
<td>SRHR services like Antenatal, Intranatal, Postnatal, Family Planning, Abortion, Immunization, Adolescent SRH services</td>
</tr>
<tr>
<td>3</td>
<td>How far is the health facility to obtain SRHR services?</td>
<td>Reproductive Age Group : Family Planning, abortion</td>
</tr>
<tr>
<td></td>
<td>(Probe for the difficulties related to transportation to access the services)</td>
<td>Pregnant mother: Antenatal services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postnatal mother: Postnatal services, Immunization</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mother with children less than 5 years: Immunization, Family Planning Services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adolescents: ASHRH Services</td>
</tr>
<tr>
<td>4</td>
<td>How does COVID19 pandemic affect the sexual and reproductive health services obtained by you?</td>
<td>(For Reproductive Age Group : Family Planning, abortion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pregnant mother: Antenatal services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Postnatal mother: Postnatal services, Immunization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Mother with children less than 5 years: Immunization, Family Planning Services</td>
<td>Adolescents: ASHRH Services) Ask for differences, positive aspects and negative aspects.</td>
</tr>
<tr>
<td>5</td>
<td>In your opinion, how does COVID 19 pandemic affect other SRHR services?</td>
<td>Ask for other SRHR besides the one obtained by the participant.</td>
</tr>
<tr>
<td>6</td>
<td>What are the difficulties faced because of COVID 19 pandemic in accessing the SRHR services</td>
<td>transportation, financial, awareness, fear, psychosocial (also from health facility from the health workers)</td>
</tr>
<tr>
<td>7</td>
<td>For Antenatal Mother only: Have you had your antenatal checkup during the period of COVID 19 Pandemic? If yes, Where did you go for checkup? What were the difficulties you faced for obtaining the services during this pandemic? How did you manage the difficulties faced? Or how will you manage in case if any difficulties arise?</td>
<td>Probe for difficulties like appropriate information, social barriers, fear, accessibility, availability, privacy, crowd, waiting time</td>
</tr>
<tr>
<td></td>
<td>For Antenatal Mother only:</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------</td>
<td>---</td>
</tr>
<tr>
<td>8.</td>
<td>Were the Antenatal services provided by the facility same before and after COVID 19?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If not, probe for differences observed?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>For Antenatal Mother only:</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Have you received Tele-ANC services during this pandemic?</td>
</tr>
<tr>
<td></td>
<td>If yes, how was the telephone service? Were the information provided clear, enough? Are you satisfied by the services?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>For Antenatal Mother only:</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.</td>
<td>During the pandemic have you received folic acid, iron, Albendazole and TT vaccine?</td>
</tr>
<tr>
<td></td>
<td>If yes, is it on time and adequate?</td>
</tr>
<tr>
<td></td>
<td>If not, why?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>For Intranatal and Postanatal Mothers only:</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Where did you deliver the baby?</td>
</tr>
<tr>
<td></td>
<td>What are the difficulties you faced for obtaining the delivery services due to COVID 19 pandemic?</td>
</tr>
<tr>
<td></td>
<td>How did you manage the difficulties faced? Or how will you manage in case if any difficulties arise?</td>
</tr>
<tr>
<td></td>
<td>Probe for difficulties like appropriate information, social barriers, fear, accessibility, availability, privacy, crowd, waiting time etc</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>For Intranatal and Postanatal Mothers only:</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.</td>
<td>Have you received iron, folic acid supplement and vitamin A during this pandemic?</td>
</tr>
</tbody>
</table>
If yes is it on time and adequate?
If not, why?

<table>
<thead>
<tr>
<th>13</th>
<th><strong>For Postnatal Mothers only:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After delivery, were you followed up through phone on Day 1, 3, 7 and 28 or any health professional visited home when necessary?</td>
</tr>
<tr>
<td></td>
<td>If yes, how was the telephone service? Were the information provided clear, enough? Are you satisfied by the services?</td>
</tr>
<tr>
<td></td>
<td>If not, have you gone to the health facility for postnatal services?</td>
</tr>
<tr>
<td></td>
<td>If yes, what are the difficulties you faced in obtaining the Postnatal services?</td>
</tr>
<tr>
<td></td>
<td>How did you manage the difficulties faced? Or how will you manage in case if any difficulties arise?</td>
</tr>
<tr>
<td></td>
<td>Were the Postnatal services provided by the facility same before and after COVID 19 (If second baby)?</td>
</tr>
<tr>
<td></td>
<td>If not, probe for differences observed?</td>
</tr>
</tbody>
</table>

Probe for difficulties like appropriate information, social barriers, fear, accessibility, availability, privacy, crowd, waiting time etc

<table>
<thead>
<tr>
<th>14</th>
<th><strong>For Postnatal and mothers with below 5 years old children only:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>During this COVID 19 Pandemic have you immunized your child?</td>
</tr>
<tr>
<td></td>
<td>If yes, is the immunization on time? If not, why?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>15</td>
<td><strong>For mothers with below 5 years old children only:</strong></td>
</tr>
<tr>
<td></td>
<td>Have your child received vitamin A, albendazole during this pandemic?</td>
</tr>
<tr>
<td></td>
<td>If not, why?</td>
</tr>
<tr>
<td></td>
<td>Have your child have anthropometric measurement for the nutritional status in during the COVID 19 pandemic?</td>
</tr>
<tr>
<td></td>
<td>If no, why?</td>
</tr>
<tr>
<td></td>
<td>If yes, is your child diagnosed with malnutrition?</td>
</tr>
<tr>
<td></td>
<td>If yes, is your child managed for this? Probe for the barriers in the management?</td>
</tr>
<tr>
<td>16</td>
<td><strong>For mothers with below 5 years old children only and reproductive age group women only:</strong></td>
</tr>
<tr>
<td></td>
<td>Have you sought for any contraceptive services during this pandemic?</td>
</tr>
<tr>
<td></td>
<td>If yes, were the health services available (health professionals, commodities, counseling)?</td>
</tr>
<tr>
<td></td>
<td>How is the attitude of the health care professionals?</td>
</tr>
<tr>
<td><strong>What are the barriers/difficulties you faced in receiving contraceptive services due to COVID 19?</strong></td>
<td>Probe for difficulties like appropriate information, social barriers, fear, accessibility, availability, crowd, waiting time etc</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>How did you manage the difficulties faced? Or how will you manage in case if any difficulties arise?</td>
<td>probe for the difficulties like information, social, cultural barriers, fear, accessibility, availability, privacy,</td>
</tr>
<tr>
<td>Do you find any differences in service delivery because of COVID -19? (If yes, probe for the differences)</td>
<td></td>
</tr>
</tbody>
</table>

**17 For mothers with below 5 years old children only and reproductive age group women only:**

Have you undergone any abortion during the period of the COVID 19 Pandemic?
If yes, where do you perform the procedure? At how many months you have done the abortion?
Is the health worker well trained?
How was the attitude of health care professional?
Does the health care professional provided post abortion counseling? Was the information adequate?
Did you face any difficulties in obtaining the services due to the pandemic?
How did you manage the difficulties faced? Or how will you manage in case if any difficulties arise?
<table>
<thead>
<tr>
<th><strong>18</strong></th>
<th><strong>For Adolescents only:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you received Adolescent Sexual and Reproductive health services during the period of pandemic?</td>
<td></td>
</tr>
<tr>
<td>If not, why?</td>
<td></td>
</tr>
<tr>
<td>If yes, what service you sought for?</td>
<td></td>
</tr>
<tr>
<td>Were the health services available (health professionals, commodities, counseling)?</td>
<td></td>
</tr>
<tr>
<td>Do you feel any stigmatization on obtaining the services?</td>
<td></td>
</tr>
<tr>
<td>What are the barriers/difficulties you faced in receiving contraceptive services due to COVID 19?</td>
<td></td>
</tr>
<tr>
<td>How did you manage the difficulties faced? Or how will you manage in case if any difficulties arise?</td>
<td></td>
</tr>
<tr>
<td>Do you find any differences in service delivery because of COVID -19? (If yes, probe for the differences)</td>
<td></td>
</tr>
<tr>
<td>Probe for the difficulties like information, social, cultural barriers, fear, accessibility, availability, privacy, confidentiality, waiting time, crowd etc.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>19</strong></th>
<th>Do you find facilitating environment in obtaining SRHR (Ask for the respective SRHR services according to the type of participant) services during the COVID 19 Pandemic?</th>
</tr>
</thead>
<tbody>
<tr>
<td>From their own, family, health facility, health worker, society and government perspective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Question</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>20</td>
<td>What do you think that would make the SRHR services effective, accessible and easy during such pandemic like COVID 19?</td>
</tr>
</tbody>
</table>
| 21 | Do you think the government strategy to combat COVID 19 like lockdown, avoidance of gathering etc has impacted SRHR services?  
If yes, what would be your suggestions for the smooth delivery of the services during COVID 19? | From their own, family, health facility, health worker, society and government perspective |
| 22 | What else you would like to say/suggest?                                | From their own, family, health facility, health worker, society and government perspective |

Annex: 2

Guidelines for the Key-Informant Interview with higher authority and managers and Focus Group Discussion for health workers for accessing the effect of COVID19 pandemic and lockdown on provision of essential SRHR services

Province:

Municipality/Village Council:

Area: Rural/Urban

Date:

Age:
**Education:**

**Experience in providing SRHR services (in Years):**

**Participants: Management level workers, Health Workers**

<table>
<thead>
<tr>
<th>S.N.</th>
<th>KII interview questionnaire</th>
<th>Remarks/ probe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Describe your role in the health facility?</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What are the SRHR programs provided by/available in your facility?</td>
<td>SRHR services like Antenatal, Intranatal, Postnatal, Family Planning, Abortion, Immunization, Adolescent SRH services</td>
</tr>
<tr>
<td>3</td>
<td>Are there any changes in the SRHR services provided by the facility before and after COVID-19?</td>
<td>Probe for each SRHR services provided by their health facility (Antenatal, Intranatal, Postnatal, Family Planning, Abortion, Immunization, Adolescent SRH services)</td>
</tr>
<tr>
<td></td>
<td>Are certain SRHR services increases?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are certain SRHR services decrease?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Or it’s the same?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Also, ask for the changes in the services provided due to lockdown?</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Does the services provided after COVID 19 adequate for the women?</td>
<td>Probe which component of SRHR need to be more focused.</td>
</tr>
<tr>
<td></td>
<td>If yes, how?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If no, probe what kind of program is required to address adequate and effective SRHR services and how it can be achieved?</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Have you received any training on SRHR? If yes, what types of training? If no, is there need of any sort of training related to SRHR?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>6</td>
<td>Are you aware about the RMNCH service guideline in COVID 19 pandemic? If yes, probe for the source of information? Are you oriented about the new guideline? If yes, Is your health facility following the guideline in providing the SRHR services? What are the difficulties you have faced in providing the services according to the guidelines? If no, What are the measures you have adopted to smooth delivery of health services during the COVID 19 pandemic? From where did you get relevant information on it?</td>
<td>Which category of SRHR need to be improved (Antenatal, Intranatal, Postnatal, Family Planning, Abortion, Immunization, Adolescent SRH services) (In order to provide service according to guidelines is manpower and logistic adequate)</td>
</tr>
<tr>
<td>7</td>
<td>What do you feel about the guideline? Do you agree that the guideline is appropriate, practical and effective in pandemic situation? If no, which component you don’t agree with and why? If yes, how do you think it will meet the services?</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>What are the problems you faced for providing the essential SRHR services during the COVID 19 pandemic?</td>
<td>Probe for the difficulties due to local, provincial, federal government measures, management, infrastructure like covid friendly arrangement, supplies like</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>9</td>
<td>What measures have facilitated for providing the essential SRHR services during the COVID 19 pandemic?</td>
<td>Probe for local, provincial, federal government measures, management, infrastructure like covid friendly arrangement, supplies like PPE, transportation, manpower, financial, patient flow etc</td>
</tr>
</tbody>
</table>
| 10 | In your opinion what should the government do for the uninterrupted SRHR services during the COVID 19 pandemic? | local, provincial, federal government
Also ask for other organizations like INGOs and NGOs |
| 12 | What else you want to suggest? |   |