



Infant and Young Child Feeding in COVID-19 Context

Rapid Assessment Report

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National Nutrition Cluster
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1. Introduction

The COVID-19 pandemic brought many countries, including Nepal, to a standstill. The Government of Nepal announced a nationwide lockdown starting March 24, 2020, prohibiting domestic and international travel, closure of all land borders and cessation of all non-essential services to contain the spread of the pandemic. This lockdown posed unprecedented challenges and threats to the health care system, particularly affecting the effective delivery of essential nutrition and health services in resource-poor countries such as Nepal. Because of the lockdown, access to and utilization of basic nutrition and health services were constrained, resulting in health and nutrition implications on infant and young child feeding (IYCF) practices, especially for under-five children and women in the thousand days.

Health and nutrition services are essential and lifesaving services. As recommended by the WHO, Nepal has adopted the WHO guideline on IYCF with local adaptations following the pandemic. Hence, assessing the extent to which optimal feeding practices, and essential health and nutrition services have been affected by the pandemic has been deemed essential. Therefore an assessment that probed into IYCF related practices since the start of the COVID-19 pandemic in Nepal was conducted. The findings of this assessment is envisioned to to guide the nutrition cluster to plan IYCF interventions including social and behaviour change communication (SBCC) messaging and to work with the community and facility-based Health Workers (HWs) to ensure continuity of vital health and nutrition services across Nepal.

This study intends to recommend remedial measures to be taken by the government and other stakeholders to mitigate the effects of COVID-19 on health and nutrition services focusing on IYCF practices.

2. Objectives of the Assessment

The main objective of this assessment is to assess health and nutrition services with a focus on IYCF practices in the context of COVID-19 in 14 study districts.

The specific objectives are:

- To assess key breastfeeding and complementary feeding practices among children less than 2 years of age.
- To assess the current status of health and nutrition service access and utilization, as reported by mothers /caregivers of children less than 2 years of age
- To explore challenges faced by mothers/caregivers in adopting optimal breastfeeding and complementary feeding practices and accessing health and nutrition services for children less than 2 years of age.
- To assess the current status of health and nutrition services provided by the Female Community Health Volunteers (FCHVs) and HWs in health facilities.
- To assess challenges faced by service providers (FCHVs and HWs) in providing health and nutrition services.

3. Methodology

3.1 Assessment methodology

Under the leadership of the Nutrition section, Family Welfare Division (FWD) and National Nutrition Cluster Committee, an IYCF-E rapid assessment design was prepared by the Assessment Technical Working Group in close coordination with the IYCF Technical Working Group (TWG).

The rapid assessment has utilized a multi-staged, cross-sectional cluster-based and Simple Random Sampling method for determining the sample size of the study population.

3.2 Sampling size and sampling process

The assessment employed a multi-stage cluster sampling method (Table 1) with the first-stage sampling unit as districts based on Growth Monitoring and Promotion (GMP) status and COVID-19 caseloads (2 districts from each province)¹. The second-stage sampling unit as new wards (clusters) (20 clusters in hill districts/ 25 clusters in Terai districts). In addition, five more clusters were selected as reserve clusters in each of the 14 districts. In the final stage, 7 households with mothers of children less than 2 years old were selected from each cluster. The clusters and households with children less than 2 years old were selected using the Simple Random Sampling (SRS) method. The FCHVs and Health facilities were chosen from the same selected clusters.

In each selected cluster, a list of households having children less than 2 years old was prepared in consultation with local stakeholders including FCHVs. After preparing the list of eligible households, 7 households were selected randomly. If there was more than one eligible respondent (mother of a child less than 2 years of age) in the same household, one mother or caretaker was selected randomly for interview. Additionally, one FCHV was selected for interview from each cluster. Likewise, one health facility (HP or PHC) was selected from each cluster. If there was no HP and PHC in the selected cluster then the health facility from an adjoining ward was selected. The most senior ranking staff member (Health Facility In-charge/Nutrition Focal Person) from the selected Health Facility was chosen for the interview.

The interviews with mothers, FCHVs and Health Facility In-charge/Nutrition Focal Persons were taken through telephone.

Table 1. Sampling Process

Stages	Samples	Process	Sample size
First	2 districts from each province	Based on GMP status and COVID-19 case loads	$n=2*7=14$
Second	20 clusters in Hill districts/ 25 clusters in Terai districts	Randomly	$n=6*20+8*25=320$
Third	7 mothers with children less than 2 years of age 1 FCHV 1 Health facility	Randomly	Mother- $320*7=2240$ FCHV- $320*1=320$ Health facility- $320*1=320$

3.3 Assessment checklist

Separate checklists were developed for mothers of children less than 2 years of age; FCHVs and Health Facility In-charge/Nutrition Focal Persons. The mother's checklist focused on the health and nutrition practices and FCHV and health facility checklist focused on the health services seeking behaviours, services availability and barriers to service delivery in the COVID-19 context.

3.4 Orientation/training

- ¹ The performance of Growth monitoring indicator and COVID-19 caseload are taken as for district selection
- Create two strata of districts in each province (high performance > 3 and low performance ≤ 3) and COVID-19 caseload is equal or higher than 500.
- Include one district from LPD and one district from HPD
- Mix of terai, hill and mountain districts

A two-day orientation/training was initially conducted for the senior district-level staff from the assessment districts by National Nutrition Cluster members virtually. Then the district level staff provided a two-day orientation/training for the field level staff. The orientation/training was focused on the objectives, methodology, data collection process and the checklist for the assessment. The data was collected from January to February 2021.

3.5 Data management

The data was collected on Android mobile phones by the field staff of UNICEF and SUSAHARA using Open Data Kit (ODK) and offline data collection application and data cleaning and variable generation were done using Stata SE 14.

3.6 Sample covered

The assessment interviewed 2208 mothers (99% of 2,240 selected), 322 FCHV (2 more cases) and 314 health facilities (98% of 320 selected). The major reasons for not interviewing all the selected respondents and health facilities were: firstly, due to the non-existence of health facilities in the sampled wards and inability to contact sampled mothers with a child less than 2 years of age belonging to the selected household.

3.7 Ethical Consideration

The assessment was conducted with prior approval from National Nutrition cluster.

4. Findings

4.1 Characteristics of the Respondents

The IYCF-E Rapid Assessment interviewed 2,208 mothers, 322 FCHVs and 314 HWs. More than 50% of the respondent resided in rural areas. Among the total mothers, 12% never attended school whereas more than 70% had completed secondary education. The mean age of the mother's youngest child was reported to be 11.3 months (SD \pm 6.4 months), and more than 50% were boys. About 51% of the mothers were reported to be from socially marginalized ethnic groups.

Characteristics of the Respondents	HW	FCHV	Mother
	%	%	%/Mean (SD)
	N=314	N=322	N=2208
Residence			
Urban	38	39	40
Rural	56	56	55
Secondary or more	98	30	42
Never attended school/ grade 1 not complete	0	16	12
Primary	0	21	15
Secondary	15	57	52
Above Secondary	85	7	21
Age of child			11.3 [6.4]
Sex of child (Boy)			55
Caste/ethnicity			
Socially excluded (Dalit, Muslim, disadvantaged)	21	39	51
Brahmin/Chhetri	47	36	25
Others	33	25	24

4.2 Service Availability and Utilization in COVID-19 context

4.2.1 Nutrition services in Health Facilities

More than 80% of the HWs and FCHVs reported that breastfeeding and complementary feeding counselling services were given in the health facilities and the community. On the other hand, only 24% of the mothers reported that they had received such services in the last three months before the assessment. To some extent, essential health and nutrition services were available at health facilities, however, they varied depending upon service type. Only 42% of HWs from health facilities with outpatient therapeutic centres (OTCs) reported provision of treatment for children with severe acute malnutrition (SAM).

Health and nutrition service availability in the last 3 months (late Sept-late Dec 2020)	HW	FCHV	Mother
	%	%	%
	N=314	N=322	N=2208
Breastfeeding counselling	81	82	24
Complementary feeding counselling	78	80	
Information about intake of MNP	57	50	
Growth monitoring promotion (referral or support at outreach clinics)	75	57	67
Nutrition screening (MUAC screening)	57	31	8
MNP distribution	40	31	
Maternal nutrition counselling	62	49	
Sick child feeding counselling	50	38	
COVID 19 infection prevention counselling	62	57	
IFA supplementation for women	75	46	
IFA supplementation for adolescent girls	22	13	
Supplementary feeding	53	44	
Treatment of severe acute malnutrition	42		

4.2.2 Nutrition services in PHC-ORC

About 85% of the HWs reported that PHC-ORCs (Primary Health Care-Out Reach Clinics) were functional through their health facilities. Moreover, more than 65% of the HWs reported that PHC-ORCs were providing IYCF counselling and growth monitoring and promotion services.

Health and nutrition services from PHC-ORC, in the last 3 months (late Sept-late Dec 2020)	HW
	%
	N=314
PHC-ORC not functional	15
Breastfeeding counselling	66
Complementary feeding counselling	66
Growth monitoring and promotion (referral or support at outreach clinics)	69
Nutrition screening (MUAC screening)	48
MNP distribution	28
IFA supplementation for women	58
IFA supplementation for adolescent girls	19

4.2.3 Nutrition Service through FCHVs

More than 90% of the FCHVs preferred to visit households as a way of providing health and nutrition services. Phone counselling (58%) was the least preferred way of providing health and nutrition services.

Way of providing health and nutrition services in the last 3 months (late Sept-late Dec 2020)	FCHV % N=322
Household visit	92
Phone counselling	57
Health Mothers Group meeting (HMG)	82

The majority of the FCHVs reported that they convened HMG meetings in the last three months of the assessment. Among those who were not able to conduct the HMG meeting, 78% expressed that the reason was that mothers were in fear of COVID-19 infection.

HMG meeting in last three months	FCHV % N=322
Health mothers group meeting	82
FCHVs' fear of COVID-19 infection	54
Mothers' fear of COVID-19 infection	78

4.2.4 Practised preventive measures while delivering nutrition and health services

More than 90% of the health workers and more than 80% FCHVs had taken COVID-19 infection prevention measures while providing health and nutrition services. Compared to health workers and FCHVs, a lower percentage of mothers were taking preventive measures against COVID-19.

COVID precautions while providing services, in the last 3 months	HW	FCHV	Mother
	%	%	%
	N=314	N=322	N=2208
Handwashing	95	89	78
Maintaining Social/Physical Distancing (at least 2 m)	90	80	48
Hand sanitizing	94	83	51
Masks	98	97	96

4.2.5 Service utilization

About 41% of the HWs and 33% of the FCHVs opined that utilization of health and nutrition-related services in the last three months was lesser than before the COVID-19 pandemic.

Health and nutrition service utilization during the last three months and before COVID 19 pandemic	HW	FCHV
	%	%
	N=314	N=322
Less than before	41	33

4.2.6 Nutrition Commodities

Among nutrition commodities, the MNP was in short supply subsequently creating a stockout with no MNP for distribution in most of the health facilities. In MNP districts, 37% of Health Workers and 40% of FCHVs reported that MNP was stocked out during the assessment period. Whereas in districts providing Integrated Management of Acute Malnutrition (IMAM), about 26% of HWs belonging to HFs with OTCs reported that RUTF was stocked out during the assessment period.

Stocked out commodities (currently)	HW % N=314	FCHV % N=322
Baal Vita (N=294) ¹	37	40
IFA	11	44
RUTF (N=152) ²	26	
MUAC tape	15	
Nutrition reporting/Recording formats	11	10

4.2.7 Interim Guidelines

Interim guidance on Maternal Infant and Young Child Nutrition (MIYCN), IMAM, vitamin A supplementation (VAS) and BCC were shared with health workers by MoHP. However, only 57% of the health workers responded that MIYCN interim guideline was available.

Availability of COVID-19 related guidelines and materials	HW % N=314
MIYCN Interim guideline	57
IMAM Interim guidelines (only for IMAM districts, N=254)	59
VAS guideline	62
BCC Guideline	47

4.3 Mother's knowledge and practice on IYCF

4.3.1 Breastfeeding

About 71% of the children under 2 years were breastfed within 1 hour of birth. Among children up to 6 months of age, only 35% were exclusively breastfed. The fear of COVID-19 infection during breastfeeding did not seem to be the major cause of not being breastfed.

Breastfeeding and introduction of complementary foods	Mother % N=2208
Ever breastfed	100
Feeding of colostrum	94
Early initiation of breastfeeding: within 1 hour	71
Exclusive breastfeeding (among children 0-5.9m)	35
Continued breastfeeding up to 1 year (among children 12-14.9m)	98
Continued breastfeeding up to 2 years (among children 20-23.9m)	96
Reasons for baby not being breastfed	N=51
Mother never breastfed	10
Dead mother	0
Mother/baby sick	16
Mothers having breastfeeding problems	43
Prefers to use infant formulae	6
Fear of COVID 19 infection	2
Problems breastfeeding	N=2157
None	83
Lack of breastmilk	12
Lack of time to breastfeed	3
Fear of COVID19 transmission	4
The child did not suck well	3

Breastfeeding and introduction of complementary foods	Mother % N=2208
Problem with breast (pain)	5
Others	1

4.3.2 Complementary Feeding

The individual dietary diversity score (2.8) was found to be well below the minimum standard (4). Similarly, only 38% of the children had the minimum dietary diversity in their diet on the previous day. Only 31% of the children met the requirements of a minimum acceptable diet. The consumption of eggs (32%) and vitamin 'A' rich fruits and vegetables (22%) was low at 22%.

Dietary Diversity of children	Mothers % N=2208
Minimum dietary diversity (4+ of 7FG) (6-23.9m) - N	N=1672
Individual dietary diversity score (7FG)	2.8 [2]
Minimum dietary diversity (4+ of 7FG) (6-23.9m)	38
Minimum acceptable diet (6-23.9m)	31
Consumption of specific food groups	N = 1672
Flesh foods	21
Eggs	32
Vitamin 'A' rich fruits and vegetables	22
Other fruits and vegetables	35

4.3.3 Micro-nutrient Powder

Only 45% of the mothers were feeding micronutrient powder (MNP) to their children. Irregular supply of MNP and the non-palatable taste of the MNP were major reasons for not feeding MNP to their children.

Baal Vita (MNP)	Mothers % N=1145
Currently feeding Baal Vita to child	45
Reasons for not feeding Baal Vita to children	N=627
Short of supply	62
Not good taste	15

4.3.4 Sick Child Feeding

About 12% of the mothers responded that their children had a cough during the last 2 weeks before the assessment. The most usual outlets for seeking health services are government and private health facilities. There is no change in feeding practices before, during and after for the sick child during the COVID-19 pandemic.

Sick Child Care	Mothers % N=2208
Any sickness (fever, cough, chest, or breathing)	
Fever in last 2 weeks	10
Coughing in last 2 weeks	12

Sick Child Care	Mothers % N=2208
Diarrhoea in last 2 weeks	5
Places/person for treatment when a child is sick	
Govt. Health Facility (eg, ward health unit, HP and PHC)	58
Private medical/clinics	54
Government hospitals	26
Treatment for Diarrhea	N=104
Zinc	30
ORS	25
ORS and Zinc	14
Offered breastmilk	
More	34
Offered to eat, excluding breastmilk	0
More	11

4.3.5 IEC/BCC Exposure

More than 35% of the respondent did not receive any IYCF related messages in the COVID-19 context.

Exposure to specific health and nutrition messages during COVID-19	Mother % N=2208
Ever heard or seen any messages related to infant and young child feeding, including breastfeeding	
No	36
Yes, breastfeeding	46
Yes, complementary feeding	38
Yes, Child feeding	40
Don't Know	2

4.4 Barriers for Service Provision and Utilization

4.4.1 Barriers for Health Workers and FCHVs

The fear of COVID-19 infection among service providers and clients was the major barrier to the delivery and utilization of services during the COVID-19 pandemic.

Current barriers for providing health and nutrition services	HW % N=314	FCHV % N=322
Service provider in fear of COVID19 infection	32	25
Client in fear of COVID19 infection	35	38
Short of PPE	27	18
Short supply of health and nutrition commodities	29	11

4.4.2 Barriers for Mothers

About 40% of FCHVs responded that one of the major barriers for mothers not breastfeeding adequately to their babies under six months old is mothers are not producing enough breastmilk. In addition, 20% of the FCHVs responded that the mothers fear of COVID-19 transmission while breastfeeding was another barrier. However, only few mothers responded lack of breastmilk (12%) and

fear of COVID-19 transmission (4%) as a breastfeeding problem, respectively (Section 4.3.1). Almost 45% of the FCHVs responded that mothers of 6-23 months of children don't have enough money to buy nutritious food.

Current barriers to IYCF practices (FCHV perspective)	FCHV % N=322
Current barriers to breastfeeding among 0-6-month old babies	
Fear of COVID-19 infection through breastfeeding	20
Mother is under stress	22
Not enough breast milk	39
Poor maternal diet	34
Other	28
Current barriers to feeding older children (6-23 months)	
Not enough food available (e.g. given, grown at home)	26
Not enough money to buy foods	44
No market access	20
Not enough time (mother busy)	31
Mothers' or caregivers lack knowledge about what to feed their children	27
Lack of skills to prepare appropriate complementary foods	33

4.5 BMS Violation

BMS violation was not observed, however, there is a need to monitor regularly through out the pandemic, and afterwards.

4.6 Nutrition-Sensitive

4.6.1 Food Security

Less than 20% of the respondents (mothers) reported that they were worried that food produced and bought by the household will run out in the next week.

Food Security	FCHV % N=322	Mother % N=2208
Worry that food produced by the household will run out in the next week	17	19
Worry that food bought by the household won't last for next week and that the household won't be able to buy more	13	18

4.6.2 Homestead Gardening and Chicken

More than 80% of the mothers had homestead gardening while only 56% of them owned chickens.

Homestead gardening and chicken	FCHV % N=322	Mother % N=2208
Household grow vegetables at home (ex: in a garden, on the roof or climbing vegetables)	93	81
Own chickens in household	59	56

4.6.3 Child Cash Grant

Among the mothers who received child cash grant, more than 35% spent the grant on foods for young children. Health workers were aware of their roles during the handover of child cash grants.

Child Cash Grant	%
Purchases with Child Cash Grant	Mothers (N=144)
Food for household	37
Food especially for young child(ren)	35
Clothes	26
Savings	25
Medicine	25
Commercial snack foods (biscuits, chips, sweets for children)	16
School supplies/pay fees	15
Health care	12
Agricultural (garden, poultry, etc.) supplies	10
Children's infant formula	8
WASH-related supplies	4
Role of Health Workers in discussing child cash grants	HW (N=98)
Coordination with local government for registration of children in the child cash grant programme	56
Counselling and providing advice on the use of the CCG for nutritious food for children	88

4.6.4 WASH

Hand washing practice as one of the COVID-19 infection prevention measures among FCHVs and mothers was low. The practice of FCHVs on household water treatment methods was high while on the other hand, these practices were low among mothers.

WASH practices	FCHV % N=322	Mother % N=2208
Handwashing		
Before eating	98	91
After defecation	96	95
Before cooking/preparing food	87	69
After handling garbage	85	73
Before feeding children	73	80
After cleaning a young child's bottom	69	78
After handling livestock/animals	64	45
After visiting a public place	50	32
After touching surfaces outside of the home	39	25
After blowing your nose, coughing or sneezing	34	19
Drinking water treatment methods		
Used any appropriate method to treat drinking water	85	42

5. Limitation of the Assessment

- Since the selection process of districts were purposive, it might not reflect the actual situation of provinces and consequently the whole country.
- Positive responses from health facility In-charge and FCHVs on service deliveries might lead to bias towards better performance in absence of direct observation.

6. Conclusions and Recommendations

6.1 IYCF Counselling

- Telephone counselling was the least preferred method among FCHVs (57%) as a way of providing health and nutrition services. The local government and other stakeholders should promote and prioritize tele-counselling by FCHVs, particularly in the context of the current pandemic.
- According to 39% of the FCHVs, the major barrier for mothers not breastfeeding adequately was inadequate production of breastmilk. On the other hand, 43% of the mothers responded that the reason for not breastfeeding was having breastfeeding problems. All SBCC messages and interpersonal counselling should focus on the psychosocial aspects of breastfeeding and lactation management highlighting the age-specific volume of breastmilk and frequency of feeding required.
- A large proportion of mothers (54%) seek health services for their sick child from private health facilities. Therefore, the private sector should be oriented on providing IYCF counselling including Breast Milk Substitute (BMS) Act violations.

6.2 BMS Act Violation

- None of the health workers observed the distribution of infant formula or any other BMS Act violation since the COVID-19 pandemic began. Mechanisms to ensure breast milk substitutes are not distributed during the pandemic should be continued.

6.3 SBCC

- The survey found that 48% of the mothers maintained physical distancing and 51% used sanitizers as preventive measures against COVID-19 infection. SBCC messages and interpersonal counselling should focus on these preventive measures in order to increase these practices in the community. Risk communication and community engagement (RCCE) regarding COVID-19 infection prevention measures should be continued.
- Only 36% of the mothers had ever heard any messages related to IYCF. Different approaches to messaging on IYCF should be used through various platforms including social media. Also, interpersonal communication on IYCF (both virtual and physical) should be promoted.
- According to the survey, 42% of the mothers used an appropriate method to treat drinking water. Messages regarding the use of appropriate water treatment methods (boiling, filtration, chlorination) should be reinforced to the mothers/caretakers along with their families through different platforms.
- The fear of COVID-19 infection transmission was a barrier for breastfeeding according to 20% of the FCHVs. RCCE messages on COVID-19 and its impact on nutrition should be developed for FCHVs and health workers for dissemination in the community.
- Optimal child feeding practices (Dietary diversity 38%, Minimum Acceptable Diet 31%, Fed more during illness 26%, Consumption of Flesh foods 21%, Eggs 32% and Vit A rich fruits and vegetables 22%) appear poor among respondents. SBCC and interpersonal messaging should be focused on disseminating messages regarding optimal IYCF practices.

6.4 Support to Health Workers and FCHVs

- Fear of COVID-19 infection comes across as a barrier to service utilization (HW- 32% and FCHVs - 24%). The government and concerned stakeholders need to provide personal protective equipment, correct information regarding COVID-19 and help create an enabling environment in the workplace.
- A significant proportion of health workers didn't receive COVID-19 related guidelines, 57% of health workers received MIYCN interim guideline, 59% received IMAM interim guideline, 62% received VAS interim guideline and 47% received BCC guideline. In order to ensure that all health workers receive COVID-19 related guidelines, they should be made available through various means including electronic copies, hard copies and virtual orientations.

6.5 Management of Acute Malnutrition

- Only 42% of the Outpatient Therapeutic Centers (OTC) were providing treatment to children with severe acute malnutrition. Government and partners should explore a mechanism to ensure that all OTCs are functional. This can be achieved by developing an OTC functionality checklist to identify gaps. This checklist can be used by the health team of municipalities on a periodical basis to address issues on time.

6.6 Supply

- According to the survey, 26% health workers reported a stock out of RUTF during the assessment period. Similarly, 37% health workers and 40% FCHVs reported a stock out of MNP in their health facilities. Health facilities should maintain the authorized stock level (ASL) of RUTF, MNP and other commodities and should demand whenever their stock reaches the emergency order point (EOP). Regular monitoring and replenishing of nutrition commodities by municipalities should be encouraged to prevent stockout of key commodities.

6.7 Other

- Such rapid assessments provide valuable information especially during an emergency and should be conducted regularly. Further probing in the form of follow up questions may be required to gather additional information necessary for planning interventions in certain areas.