

Progress of the Health and Population Sector, 2020/21

NATIONAL JOINT ANNUAL REVIEW REPORT – 2021 (2078 BS)



Government of Nepal
Ministry of Health and Population
Kathmandu
December 2021

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List of Acronyms

2019-nCoV	Novel Coronavirus
4ANC	Four ANC visits
AA	Anaesthesia Assistant
AFIC	Adolescent-friendly Information Centre
AFS	Adolescent-friendly Services
AIDS	Acquired Immunodeficiency Syndrome
AGO	Auditor General's Office
AMC	Annual Maintenance Cost
AMR	Antimicrobial Resistance
AMRMSC	Antimicrobial Resistance Multisectoral Steering Committee
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
APP	Annual Procurement Plan
ARI	Acute Respiratory Infection
ART	Antiretroviral Treatment
ASBA	Advanced Skilled Birth Attendant
ASRH	Adolescent Sexual and Reproductive Health
AWPB	Annual Work Plan and Budget
BA	Budget Analysis
BC	Birthing Centre
BCG	Bacillus Calmette-Guérin
BEONC	Basic Emergency Obstetric and Neonatal Care
BHS	Basic Health Services
BHSP	Basic Health Services Package
BS	Bikram Sambat
CAPP	Consolidated Annual Procurement Plan
CAPP-MC	Consolidated Annual Procurement Plan Monitoring Committee
CB-IMNCI	Community-based Integrated Management of Neonatal and Childhood Illnesses
CCMC	COVID-19 Crisis Management Centre
CDC	Centre for Disease Control
CEONC	Comprehensive Emergency Obstetric and Neonatal Care
CGAS	Computerised Governmental Accounting System
CHE	Current Health Expenditure
CICT	Contact Investigation and Contact Tracing
CLPIU	Central-level Project Implementation Unit
COVID-19	Coronavirus Disease 2019
CPR	Contraceptive Prevalence Rate
DALY	Disability-adjusted Life Year
DG	Director General
DHIS2	District Health Information Software 2
HO	Health Office
DLI	Disbursement Linked Indicator
DDA	Department of Drug Administration
DoHS	Department of Health Services
DOT	Directly Observed Treatment
DP	Direct Procurement
DPHO	District Public Health Office
DPR	Detailed Project Report

DPT-HepB-Hib	Diphtheria Pertussis Tetanus - Hepatitis B and Haemophilus Influenzae Type B
DRR	Disaster Risk Reduction
DRTB	Drug-resistant Tuberculosis
DSS	Disaster Surveillance System
DUDBC	Department of Urban Development and Building Construction
e-CAPP	electronic Consolidated Annual Procurement Plan
ECG	Electrocardiograph
ECMC	Epidemic Control and Monitoring Committee
EDCD	Epidemiology and Disease Control Division
EDP	External Development Partner
e-GP	electronic Government Procurement
EHR	Electronic Health Record
e-LMIS	electronic Logistics Management Information System
EMDT	Emergency Medical Deployment Team
EPI	Expanded Programme on Immunization
e-TSB	electronic Technical Specification Bank
EWARS	Early Warning Reporting System
F-CAPP	Federal Consolidated Annual Procurement Plan
FCGO	Financial Comptroller General Office
FCHV	Female Community Health Volunteer
FDA	Food and Drug Administration
FED	Free Essential Drugs
FMIP	Financial Management Improvement Plan
FMR	Financial Management Report
FP	Family Planning
FWD	Family Welfare Division
FY	Fiscal Year
GBD	Global Burden of Disease
GBV	Gender Based Violence
GDP	Gross Domestic Product
GESI	Gender Equality and Social Inclusion
GHRM	Grievance-handling and Redressal Mechanism
GHSC-PSM	Global Health Supply Chain Programme – Procurement Supply Management
GIS	Geographic Information System
GLASS	Global Antimicrobial Resistance Surveillance System
GM	Growth Monitoring
GoN	Government of Nepal
HEOC	Health Emergency Operation Centre
HFOMC	Health Facility Operation and Management Committee
HIIS	Health Infrastructure Information System
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HP	Health Post
HRH	Human Resources for Health
ICB	International Competitive Bidding
ICS	Incident Command System
ICT	Information and Communication Technology
ICU	Intensive Care Unit
IEC	Information, Education and Communication
IHIDP	Integrated Health Infrastructure Development Programme
IHIMS	Integrated Health Information Management System

IHMIS	Integrated Health Management Information System
IHME	Institute for Health Metrics and Evaluation
IHR	International Health Regulations
iHRIS	Integrated Human Resource Information System
IMS	Inventory Management System
IMU	Information Management Unit
INGO	International Non-governmental Organisation
IP	Implementation Plan
IPC	Infection Prevention and Control
IUCD	Intrauterine Contraceptive Device
JAR	Joint Annual Review
JCM	Joint Consultative Meeting
JICA	Japan International Corporation Agency
KfW	German Development Bank
KOICA	Korean International Cooperation Agency
LARC	Long-acting Reversible Contraception
LG	Local Government
LISA	Local Government Institutional Capacity Self-Assessment
LL	Learning Lab
LMBIS	Line Ministry Budgetary Information System
LMIS	Logistics Management Information System
LNOB	Leave No One Behind
M&E	Monitoring and Evaluation
MA	Market Analysis
mCPR	Modern Contraceptive Prevalence Rate
MD	Management Division
MISP	Minimum Initial Service Package
MMR	Maternal Mortality Ratio
MNH	Maternal and Newborn Health
MoF	Ministry of Finance
MoFAGA	Ministry of Federal Affairs and General Administration
MoHP	Ministry of Health and Population
MoPIT	Ministry of Physical Infrastructure and Transport
MoSD	Ministry of Social Development
MPDSR	Maternal Perinatal Death Surveillance and Response
MPP	Master Procurement Plan
MR	Measles and Rubella
MSS	Minimum Service Standards
MToT	Master Training of Trainers
MTR	Mid-term Review
NAP	National Action Plan
NBoD	Nepal Burden of Disease
NCASC	National Centre for AIDS and STD Control
NCB	National Competitive Bidding
NCD	Non-communicable Disease
NCDR	New Case Detection Rate
NDHS	Nepal Demographic and Health Survey
NFHS	Nepal Family Health Survey
NGO	Non-governmental Organisation
NHA	National Health Accounts
NHFS	Nepal Health Facility Survey

NHIDS	National Health Infrastructure Development Standards
NHP	National Health Policy
NPHC	Nepal Population and Housing Census
NHRC	Nepal Health Research Council
NHSPPSF	Nepal Health Sector Public Procurement Strategic Framework
NHSS	Nepal Health Sector Strategy (2015–2020)
NHSSP	Nepal Health Sector Support Programme
NHTC	National Health Training Centre
NJAR	National Joint Annual Review
NLSS	Nepal Living Standards Survey
NMC	Nepal Medical Council
NMICS	Nepal Multiple Indicator Cluster Survey
NPC	National Planning Commission
NPHC	Nepal Population and Housing Census
NPHL	National Public Health Laboratory
NPR	Nepalese Rupees
NRA	National Reconstruction Authority
OAG	Office of the Auditor General
OC	Outcome
OCAT	Organisational Capacity Assessment Tool
OCMC	One-stop Crisis Management Centre
OCP	Oral Contraceptive Pill
ODK	Open Data Kit
OOPE	Out-of-pocket Expenditure
OP	Output
OPD	Outpatient Department
OPMCM	Office of the Prime Minister and Council of Ministers
ORS	Oral Rehydration Solution
PCAS	Procurement Compliance Audit System
PCR	Polymerase Chain Reaction
PDI	Post-delivery Inspection
PE	Procuring Entity
PEFA	Public Expenditure and Financial Accountability
PEN	Package of Essential Non-Communicable Diseases
PF	Plasmodium Falciparum
PFM	Public Financial Management
PFMSF	Public Financial Management Strategic Framework
PHCC	Primary Health Care Centre
PHD	Provincial Health Directorate
PHLMC	Provincial Health Logistics Management Centre
PHS	Public Health Service
PHTC	Provincial Health Training Centre
PIP	Procurement Improvement Plan
PLMO	Provincial Logistics Management Office
PNC	Postnatal Care
PPA	Public Procurement Act
PPE	Personal Protective Equipment
PPM	Public-private Mix
PPMO	Public Procurement Monitoring Office
PPR	Public Procurement Regulations
PPSF	Public Procurement Strategic Framework

PWID	People Who Inject Drugs
QI	Quality Improvement
QoC	Quality of Care
RDQA	Routine Data Quality Assessment
RDT	Rapid Diagnostic Test
RF	Results Framework
RH	Reproductive Health
RNA	Ribonucleic Acid
RT-PCR	Reverse Transcription Polymerase Chain Reaction
SARI	Severe Acute Respiratory Infection
SAS	Safe Abortion Services
SBA	Skilled Birth Attendant
SBD	Standard Bidding Document
SCM	Supply Chain Management
SDG	Sustainable Development Goal
SDP	Service Delivery Point
SFD	Saudi Fund for Development
SMNH	Safe Motherhood and Newborn Health
SMS	Store Management System
SNG	Sub-national Government
SOP	Standard Operating Procedures
SRH	Sexual and Reproductive Health
SSU	Social Service Unit
STI	Sexually Transmitted Infection
STP	Standard Treatment Protocol
SuTRA	Sub-national Treasury Regulatory Application
SWAp	Sector-wide Approach
TABUCS	Transaction Accounting and Budget Control System
TB	Tuberculosis
TIMS	Training Information Management System
ToR	Terms of Reference
ToT	Training of Trainers
TSB	Technical Specification Bank
TWG	Technical Working Group
U5	Under Five Years Old
UHC	Universal Health Coverage
UN	United Nations
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
USD	United States Dollar
VSP	Visiting Service Provider
VTM	Viral Transport Medium
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WISN	Workload Indicators and Staffing Norms

Executive Summary

The implementation timeframe of the Nepal Health Sector Strategy (NHSS) has been extended until mid-July 2022 in mutual agreement between Ministry of Health and Population (MoHP)¹ and External Development Partners (EDPs). The NHSS was developed in 2015 along with its implementation plan to guide the design, management and implementation of health sector programme for the next five years. However, considering the surge of the Coronavirus Disease 2019 (COVID-19) pandemic and the shift in the sectoral priority towards the management of the response measures, a one-year extension of the NHSS was approved. The vision of the NHSS is “All Nepali citizens have productive and quality lives with highest level of physical, mental, social, and emotional health” and the mission is to “Ensure citizen’s fundamental right to stay healthy by utilising available resources optimally and through strategic cooperation between service providers, service users, and other stakeholders.” It builds on four strategic pillars with an overarching goal of universal health coverage. The strategy is shaped with nine outcomes and 26 outputs for the health sector. They are measured through 29 outcome-level indicators with 56 corresponding output-level indicators. This report summarises major progress in the health and population sector in the Fiscal Year (FY) 2020/21, key highlights of activities in FY 2021/22 against the NHSS outcomes, along with existing challenges, and the ways forward.

The NHSS was developed while Nepal was in a unitary system of governance. However, as the country has adopted federalism, structural and system wide changes have been made to the governance system, which have implications for the implementation of the NHSS. Following the recommendations of the Mid-term Review (MTR) of the NHSS, some of the indicators defined in the NHSS Results Framework (RF) were found to have less significance in the context of federalism and were considered to be removed for progress monitoring purposes.

In response to the COVID-19 pandemic, different policy and legal frameworks, strategic plans, standards, protocols and guidelines have been developed and are being implemented. Nepal has highly prioritised the preventions and vaccination campaign against COVID-19 and GoN is aiming to have vaccination for all target population by Baishakh 2079 (mid-May 2022). As of 24th November 2021, 25.47 million doses of COVID-19 vaccine were received/procured from various sources. In terms of vaccination coverage, 47% of the people above 18 years of age have got first dose COVID-19 vaccines and 40% of the same target group have received second dose of the vaccine. As a means of prevention and control of COVID-19, different measures such as lockdown and partial restrictive orders were also enforced along with entry-point management, quarantine management, case investigation and contact tracing, isolation and case management and continuity of essential services during the review period.

Broader factors affecting the implementation of the NHSS, in the present context, are:

- Coordination and alignment of health sector functions across three levels of governance: federal, provincial, and local
- Policy and legal framework as provisioned in major policy and legal documents such as in National Health Policy, Fifteenth Plan, Public Health Service Act, Safe Motherhood and

¹ Ministry of Health and Population (MoHP) refers to Federal MoHP if not otherwise mentioned.

Reproductive Health Rights Act, Health Insurance Act and Local Government Operation Act.

- Rationalisation of fund allocation to the health sector including intergovernmental fiscal transfer.
- Strengthening of the health facilities including the fulfilment of the sanctioned posts at the respective levels and health institutions.
- Impact of COVID-19 pandemic and associated measures on programme implementation and service provision.

Major Achievements

While the COVID-19 pandemic demanded focused priority throughout the year, MoHP continued to implement the routine health programmes and provision of health services in FY 2020/21. The majority of activities carried out in 2020/21 were continuation of the programmes initiated in the past while focus was on the COVID-19 response management and vaccination in coordination with sectoral ministries, provincial and local levels and EDPs. Strengthening of the existing hospitals, establishing new health facilities at municipal level were also prioritised over the last year.

The major achievements in FY 2020/21 and highlights of 2021/22 are summarised below:

- National Strategy on Human Resources for Health in Nepal 2020/21- 2029/30 has been developed and endorsed by the MoHP. This assesses the situation of the HRH in Nepal and sets roadmap for the management of the HRH for future.
- The Health Institution Operation Standards (HIOS) has been developed and endorsed in 2021 as per the provision of Public Health Service Regulations 2020 (PHSR). Moreover, first amendment in the HIOS has been done incorporating provisions of Ayurveda and Alternative Medicines. These standards set the requirements that different types of the public and private health institutions have to fulfil to establish, operate and upgrade.
- MoHP, in collaboration with the Central Bureau of Statistics is conducting the Maternal Mortality Study following the National Population and Housing Census (NPHC). This study is expected to provide the robust estimates of the maternal mortality ratio at national and sub-national level in Nepal and can be supportive to design necessary interventions to reduce such mortalities.
- As per the reforms proposed in the policy and programme for 2020/21, draft legislations for establishing Centre of Disease Control (CDC), Food and Drug Administration (FDA), and the Health Accreditation Authority have been prepared. Moreover, consultation with provinces were conducted to collect feedback on the draft documents.
- Health Emergency Operations Centres (HEOCs) are functional in each of the seven provinces, cluster coordination mechanisms activated, and different guidelines/SOPs developed which played a crucial role in the management of the COVID-19 response.
- Although the number of the reported cases of COVID-19 is generally decreasing over the latest months, there remains the risk of resurgence of COVID-19 cases. Therefore, response actions are still being undertaken for the prevention of the transmission and other mitigation efforts against COVID-19. Remarkable progress has been made in vaccine coverage after vaccination campaign officially started on 27 January 2021.

- MoHP conducted two rounds of national sero-prevalence survey to find out possible infection by COVID-19. Preliminary findings from the second survey, completed in August, 2021, showed that the sero-prevalence in general population was found to be 70 percent.
- Documentation of health sector preparedness, response and lessons learnt on COVID-19 in Nepal is ongoing to inform the decision-making process ahead.
- Continuity of essential health services including diseases specific priority programs such as HIV, TB and Malaria during the pandemic by developing tailored guidelines and protocols.
- A draft of the Population Policy has been prepared and is in the consultation process. Resource package and reference manual on population have been developed to support the provinces and local levels in developing population related plans and programme.
- The policy of 'one doctor, one health institution' has been initiated in selected federal level hospitals.
- A guideline has been drafted to facilitate the pre-departure health assessment targeting to those who are going for foreign employment to minimise their suffering in the foreign country.
- As per the Government of Nepal's (GoN) policy of 'one municipality-one hospital', establishment of hospital in 396 local levels (of 5-, 10- and 15-bed capacity) was initiated in 2020.
- Standard treatment protocols for Basic Health Services (BHS) and for Emergency Health Services have been developed and endorsed by the MoHP.
- The GoN has endorsed the Public Health Service Regulations 2020 (PHSR), the Safe Motherhood and Reproductive Health Rights Regulations 2020. The PHSR defines the package of basic health services along with other provisions for the operationalisation of the Public Health Services Act.
- Draft Minimum Service Standards for Ayurvedic health institutions has been prepared which will be applicable for different level of health facilities.
- The FMIP has been updated as the Nepal Health Sector Financial Management Strategic Framework, to guide financial management procedures. The framework was endorsed in 2020 and is being implemented.
- The Internal Control System Guidelines have been developed as per the Financial Procedures and Fiscal Accountability Act, 2076 (2019) and Financial Comptroller General Office (FCGO) directives. This guideline was recently endorsed by the MoHP in September 2021
- Technical Specification Bank is upgraded with additional features including a separate COVID-19 section with 117 coded technical specifications of COVID-19 medicines, supplies and equipment in 2020/21. During the same year, 24 new technical specifications of medical equipment and 3 specifications of pharmaceutical area are also added in the TSB
- Construction and refurbishment of healthcare waste treatment centre and hospital laundry building including other support services have been completed at 12 COVID-19 designated hospitals.
- Endorsement of learning resource package (LRP) for Integrated training on HCWM/ IPC, WASH and Environmental Health by NHTC in June 2021 in blended e-learning mode with Learning Management System (moodle platform).

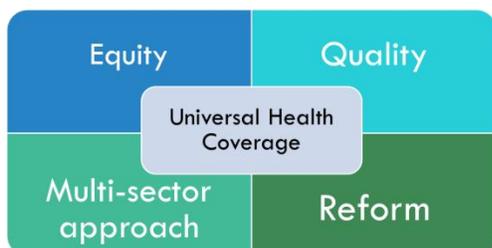
- Target of the disbursement linked indicators have been achieved making the progress in the sector and facilitating the release of the fund from the development partners.
- Various regulations, standards and guidelines have come into effect for the standardisation and quality assurance of medical education in Nepal as per the National Medical Education Act 2075.
- Despite the challenges posed by COVID-19, field work of the Health Facility Survey has been completed and data analysis and report writing works are ongoing.
- National Health Financing Strategy that guides the overall financing architect for the health sector has been drafted and shared with line ministries/stakeholders for their review and input.
- National Health Accounts capturing the health expenditure estimates of 2017/18 have been prepared.
- The Integrated Health Information Management System (IHMIS) roadmap (2020-2030) has been drafted and is in the process of finalisation.
- For effective management of COVID-19 related information linked to surveillance, specimen collection, testing, case management, logistics, and human capital, Information Management Unit (IMU) has been established and functional
- Nepal made commitments to develop climate-resilient and low-carbon health systems in response to growing evidence of the impact of climate change on people's health in UN Climate Change Conference in Glasgow (COP26) Health Programme in 2021.
- Five district hospitals have been upgraded to 25-bed hospitals, while all remaining district hospitals have been upgraded to 50-bed hospitals. Provincial hospitals are being upgraded to have 200 beds and hospitals under the federal government are being upgraded to have 500 beds' capacity.
- Establishment of a 300-bed communicable diseases control hospital at federal level, and similar 50-bed hospitals in each province, has been initiated.
- The Programme Implementation Guideline for FY 2020/21 (for the programme of provincial- and local-level activities) was prepared and made public through the MoHP website.
- The Health Facility Registry has been updated. It is a master registry which keeps record of all health institutions in the country, both public and non-governmental.
- The MoHP continues to expand the electronic reporting of service data from HFs. In FY 2019/20, 400 public HFs provided HMIS monthly reports electronically, which has increased to 1,871 HFs in FY 2020/21.
- Roll-out of e-LMIS is completed in all provinces by December 2020 and was expanded at 138 additional sites including 9 LLG, 9 SDPs and 5 hospitals in 2021.
- One of the national hospital, Bir Hospital, has started online appointment system for outpatient services by developing its own mobile application. The application 'Bir Hospital-Book Appointment' allows users to book appointments with the doctors of their choice.
- Health insurance scheme has been introduced in a total of 739 local levels of 75 districts. As of September 2021, 18.74% of total population in Nepal have been enrolled in the health insurance scheme.
- Health Insurance Scheme's database is connected with "Nagarik" (Citizens') App making the tracking of services utilisation against the benefit ceiling easily accessible to the enrolled families.

- Thirteen additional One-stop Crisis Management Centres (OCMCs) have been established which makes a total of 80 OCMC sites in 77 districts. The MoHP has plan to establish new OCMCs in 8 hospitals in FY 2021/22.
- Seven Social Service Units (SSUs) were established in referral and district-level hospitals; the total number of SSUs has gone up to 44. The MoHP has plan to establish new SSUs in 14 hospitals in FY 2021/22.
- Leave No One Behind (LNOB) Budget Marker Guideline for the health sector (2078), One-Stop Crisis Management Centre (OCMC) Operational Guideline (2077), Social Service Unit (SSU) Operational Guideline (2078), Geriatric Inclusive Health Service Guideline (2077), have been developed/revised and approved.
- Geriatric Health Service Strategy has been submitted for policy approval, and the draft Geriatric OPD Service Guidelines is close to completion.
- Six-month long "Psychosocial Counselling Training Curricula" package (2077) developed and approved by MoHP.
- Four additional geriatric wards established in different hospitals, making a total of 24 hospitals with geriatric wards. The MoHP has plan to establish new geriatric health services in 25 hospitals in FY 2021/22.

1. Introduction

1.1 Background

The Nepal Health Sector Strategy (NHSS) was developed in 2015 outlining the key priorities to guide the health sector over a five-year period. The NHSS aims to progressively expand coverage of health services, while at the same time assuring the quality of care being delivered, making services affordable, and covering the population in need particularly the vulnerable and poorest segment of the population.



The NHSS focuses on achieving Universal Health Coverage (UHC) and has four strategic areas: equitable access, high-quality health services, health systems reform, and a multisectoral approach. These four areas are delivered through nine outcomes and 28 outputs. In accordance with the NHSS, the Ministry of Health and Population (MoHP) had developed an Implementation

Plan (IP), which provides a broad list of interventions to be implemented in the five-year period.

Fiscal Year (FY) 2020/21² is the fifth implementation year of the NHSS and the National Joint Annual Review (NJAR) is planned mainly to review the progress of the sector in 2020/21 and identify major priority areas to be addressed in the planning process ahead³. A Joint Annual Review (JAR) has been held every year since 2004 in accordance with the spirit of Sector Wide Approach (SWAp) which was shaped in the Nepal Health Sector Strategy: An Agenda for Reform (2004). The JAR is a platform which is jointly organised by the MoHP and External Development Partners (EDPs) to review annual progress and harmonise support in the health sector. In such review meetings, the achievements of the last fiscal year are reviewed and strategic action points to prioritise for the subsequent year are identified. As the JAR meeting is a joint event to review the health sector progress in a holistic manner, support from EDPs and the contribution of the private and other non-governmental sector are also discussed in the review event. Further, this event also serves as a platform for the review of the population sector as this is an important thematic area for the MoHP. An “aide memoire”, is agreed at the end of the JAR summarising strategic action points to be prioritised in the year ahead. The JAR and National Annual Review, which used to take place as separate events in the past, have been organised as a single combined event since 2018.

Early in 2020, the MoHP started internal consultation to initiate the development of a sectoral strategy for the next phase. However, the increasing number of Coronavirus Disease 2019 (COVID-19) cases in the country and other associated challenges demanded that priorities be shifted exclusively to the management of COVID-19 response and ensuring delivery of routine health services. Accordingly, MoHP and EDPs mutually agreed to extend the implementation period of NHSS by one year until mid-July 2022 so that MoHP could prioritise COVID-19 response

² Mapping between Nepali Calendar Years and Gregorian Years for the last few years is provided in Annex1.

³ NJAR of the FY 2020/21 is planned to take place during 8th and 9th of December 2021 followed by Business Meeting on 10th of December.

management. Lately, MoHP has resumed the process of drafting the health sector strategy for the next phase. Steering Committee, Technical Working Group and Strategic Plan Drafting Team have been formed which have started working towards the drafting of the strategy.

This report focuses on overall progress in the health and population sector and is intended to contribute to informed discussion and review of the sector during the NJAR event. The report is organised as per the outcomes, outputs and interventions as defined in the NHSS focusing on FY 2020/21 along with highlights of FY 2021/22, existing challenges, and ways forward. Moreover, a separate chapter included major achievements and progress in COVID-19 response management. The report also presents progress made against NHSS indicators as defined in the Results Framework (RF).

While the country was progressing through the transition towards structural changes as per the federalism, the COVID-19 pandemic deeply affected the economy in diverse ways, including the overall management of the health sector and its functionality. Various policy and legal provisions as well as guidelines and protocols have come into implementation as demanded by the federalism and in response to COVID-19. Additionally, MoHP has initiated the process of organisational reform; some of the overarching reforms in process include:

- Establishment of a Centre for Disease Control (CDC), which can potentially be an apex body to oversee the management and control of communicable and Non-communicable Diseases (NCDs).
- Establishment of a National Food and Drugs Administration Authority for the integrated management of food- and drug-related affairs, which are currently regulated by two different entities (i.e., under the MoHP and the Ministry of Agriculture and Livestock Development).
- Establishment of a National Authority for the Accreditation of Health Institutions.
- Enrolment of the civil service employees in the health insurance scheme.
- Development of National Health Financing Strategy to guide the overall financing architect for the health sector.
- Strengthening of the health systems preparedness in light of the COVID-19 lessons.
- In accordance with constitutional provisions, four different types of grants (fiscal equalisation, conditional, special and matching) and revenue transfer mechanisms have been used to distribute financial resources across federal, provincial and local levels. Provinces have also channelled equalisation and conditional grants to local levels. Health sector budget has been channelled to subnational governments in the form of conditional grants and operational guidelines are provided to facilitate the implementation of the programmes.
- Provincial Annual Reviews of the health sector for FY 2020/21 have been completed in all seven provinces.

Nepal has embraced international commitments towards meeting the Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC) and is continuing to expedite activities. The Government of Nepal (GoN) has also endorsed the 15th five-year periodic plan (2076/77–2080/81) for the overall development of the nation, which also includes sectoral goals and strategies.

1.2 Status of Aide Memoire

The NJAR of FY 2019/20 was held during 10th – 13th of December 2020 in Kathmandu followed by business meeting between the MoHP and EDPs on 14th of December. Due to the surge of the COVID-19 cases, the review event was organized in a virtual platform. The meeting concluded with the development of an Aide Memoire, which identified certain strategic areas to be prioritised in the next year and was jointly signed by the Secretary of MoHP and the Chairperson of the EDP Forum. Table 1 shows progress made towards the action points of the Aide Memoire.

Table 1: Progress on the action points of 2020 Aide Memoire

Agreed Actions	Current Status
<ul style="list-style-type: none"> MoHP in collaboration with development partners to continue priority on prevention and case management including screening, tracing testing, quarantine, isolation, treatment and surveillance, while ensuring the continuation of routine services. 	<ul style="list-style-type: none"> MoHP continues working on prevention and management of COVID-19 with priority while ensuring routine service continuity.
<ul style="list-style-type: none"> MoHP encourages all the partners to contribute to the COVID-19 vaccine fund. MoHP to prepare an operational plan for the vaccination of COVID-19 including procurement, supply and cold chain management, capacity enhancement and periodically publish the implementation progress (Feb 2021). 	<ul style="list-style-type: none"> COVID-19 vaccination is ongoing as per the National Deployment Vaccination Plan 2021 for COVID-19. In terms of coverage, 47% of the people above 18 years of age have got first dose COVID-19 vaccines and 40% have received second dose of the vaccine as of Nov 24th, 2021.
<ul style="list-style-type: none"> Initiate the establishment and strengthening of the warehouse for vaccines, medicines and other logistics in federal and province level; considering the current need for COVID-19 vaccine readiness as well as for the longer-term warehouse capacity enhancement (April 2021). 	<ul style="list-style-type: none"> Two Warehouses (Teku and Pathalैया) constructed and came in use in 2020/21. Vaccine stores are constructed in seven provinces and one at national level (Pathalैया) in 2020/21 and installation of Cold Chain Equipment expected by Dec 2021. Construction of a modern vaccine store initiated at Teku.
<ul style="list-style-type: none"> Organize bi-annual review meetings between federal and provincial levels governments and partners to discuss major progresses, challenges and way forward on major reform agendas including planning and programme implementation. Similarly, facilitate such meetings between provincial and local governments. 	<ul style="list-style-type: none"> Review and coordination meetings organized regularly for COVID-19 response management Joint field consultation and observations have been conducted as a part of NJAR field visit. MoHP had a session in each provincial review in which major progress and reform areas were presented and discussed.
<ul style="list-style-type: none"> GoN/MoHP and development partners amend the current Joint Financing Arrangement (JFA) to match the period extended for the current NHSS (May 2021). 	<ul style="list-style-type: none"> Completed; JFA has been amended to make its provisions effective until June 2022.

Agreed Actions	Current Status
<ul style="list-style-type: none"> Develop new health sector strategy taking into account National Health Policy, Fifteenth Periodic Plan, Sustainable Development Goals, COVID-19 response and other national and international commitments and endorse by June 2022. 	<p>Process initiated by forming Steering Committee, TWG and Strategic Plan Drafting Team. These Committee and Team have been functional. Steering Committee has instructed as follows:</p> <ul style="list-style-type: none"> Develop Nepal Health Sector Strategy Plan aligning with the timeframe of SDG (2030). Costing of the strategic plan to be done for five years period. Document to be developed following the Rapid Results Initiatives framework. National health policy, fifteenth plan, SDG and emerging health issues to guide the development of the strategic plan.
<ul style="list-style-type: none"> Develop national health financing strategy by consolidating the current efforts to ensure equitable access of quality health services including the basic health care package for all without any financial hardship (December 2021). 	<p>Draft version of the strategy has been developed and is being refined based on consultation:</p> <ul style="list-style-type: none"> Draft strategy was shared at the provincial level during pre-NJAR field visit. The draft is further refined incorporating the suggestions and comments received. Costing of the strategy is also in progress.
<ul style="list-style-type: none"> In line with the clause 9 of Joint Financing Agreement (JFA)/NHSS, the MoHP, in coordination with the Ministry of Finance and with cooperation from the pool fund partners, shall institute a formal mechanism to deal with the reimbursed expenses, declared other than eligible, during the implementation of NHSS 2015/16-2021/22 (30 November 2021). 	<ul style="list-style-type: none"> MoHP has started the internal discussion and will soon initiate the discussion with MoF and consult with EDPs accordingly MoHP is working on strengthening the internal control mechanism and guidelines have been developed for the same Meeting with concerned development partners will be done to resolve specific issues in relation to reimbursed amount.
<ul style="list-style-type: none"> Develop standards as envisioned in the PHS regulations to regulate the public and private health facilities for ensuring delivery of quality health services (December 2021). 	<ul style="list-style-type: none"> Completed; Health Institutions Operation Standards, 2077 have been developed and endorsed First amendment (in 2078) done incorporating Ayurveda and Alternative Medicines related provisions
<ul style="list-style-type: none"> Roll out MSS across all levels of health facilities to identify gaps and develop plan to improve quality of health services (Ongoing). 	<p>Implementation of MSS ongoing at all levels of health facilities conducted in 2077/78:</p> <ul style="list-style-type: none"> Rolled out in 111 hospitals of different levels Rolled out in more than 1800 health facilities of the local level Summary MSS score of the hospitals are included in the Section 3.2 of this report which shows improvement in aggregate MSS score.
<ul style="list-style-type: none"> Taking the opportunity of the National Population Census, which is planned for 2021, conduct the Maternal Mortality Study for the country specific latest estimates and causes of maternal death (including sub-national level) 	<p>In progress in alignment with Nepal Population and Housing Census:</p> <ul style="list-style-type: none"> Notification of death of women of reproductive age was done during the Census period - Kartik 25-Mangsir 09, 2078 (11- 25, Nov 2021)

Agreed Actions	Current Status
<p>disaggregation) to feed into the planning and programme design (in alignment with census schedule).</p>	<ul style="list-style-type: none"> • Verbal autopsy of the reported pregnancy related deaths has also started.
<ul style="list-style-type: none"> • Nationwide roll-out of DHIS2 and e-LMIS up to the health facilities (4,000) in phase-wise manner aiming their inter-operability with other information management systems; and ensure minimum 400 health facilities conduct routine data quality assessment (Dec 2021). 	<ul style="list-style-type: none"> • HMIS using DHIS2 and e-LMIS rolled out nationwide- all 753 local levels. • 2,164 health facilities directly reported HMIS data using DHIS2. • A total of 1,153 units are implementing e-LMIS • Consultation ongoing for the interoperability with other information management systems. • 495 health facilities have completed the RDQA as of November 2021.
<ul style="list-style-type: none"> • Redesign organizational structures across three levels including legal framework for the Centres for Disease Control and Prevention (CDC), Food and Drug Administration (FDA) and Health Accreditation Authority (HAA) to enhance access to quality health services through improved health systems (Dec 2021) 	<ul style="list-style-type: none"> • Draft legislations for CDC and HAA have been prepared and preliminary consultation done at provincial level. • Concept note of FDA prepared which is under discussion.
<ul style="list-style-type: none"> • Develop human resources for health (HRH) strategic roadmap with projection for next 20 years (July 2021). 	<ul style="list-style-type: none"> • National Strategy on Human Resources for Health 2020/21- 2029/30 developed, endorsed and disseminated. • Provincial level orientation is in progress.
<ul style="list-style-type: none"> • Implementation of Public Financial Management Strategic Framework including the tracking of public spending in health across three levels (Ongoing). 	<p>Ongoing</p> <ul style="list-style-type: none"> • FMIP for provinces (Province 2, Lumbini and Sudurpashchim) is in preparation process. • Implementation status of PFMSF monitored. • Line Ministry Budget Information Systems (LMBIS), Computerised Government Accounting System (CGAS), Transaction Accounting and Budget Control System (TABUCS) and Office of the Auditor General's (OAG) report are primarily used in this process.

2. NHSS Results Framework

2.1 Background

The NHSS RF defines major health sector indicators and targets in accordance with the NHSS goal and outcomes. The RF has 10 goal-level indicators, 29 outcome-level indicators and 56 output-level indicators. Progress against each indicator of the NHSS RF is available in the MoHP website (www.nhssrf.mohp.gov.np). This section of the report highlights progress in the 10 goal-level indicators and selected outcome-level and output-level indicators.

2.2 Overview of Progress

Over the previous two decades, there has been an improvement in overall health outcomes (Table 2.2.1). In 1996, the Maternal Death Ratio (MMR) (pregnancy-related mortality ratio) was 539 per 100,000 live births, but by 2016 it had dropped to 239 per 100,000 live births. The mortality rate for children under the age of five has decreased from 118 per 1,000 live births in 1996 to 28 per 1,000 live births in 2019². Similarly, neonatal mortality fell from 50 per 1,000 live births in 1996 to 16 per 1,000 live births in 2019.² In general, the nutritional status of children (stunting) has enhanced. The percentage of children under five years old (U5) who are stunted (% below -2 standard deviations) has dropped from 41% in 2011 to 31.5% in 2019.

Table 2.2.1: Progress in major health indicators

Indicator	Year				
	1996	2001	2006	2011	2020
MMR (per 100,000 live birth) (NHSS RF G1)	539		281		239***
Under-five child mortality rate (per 1,000 live births) (NHSS RF G2)	118	91	61	54	28**
Neonatal mortality rate (per 1,000 live births) (NHSS RF G3)	50	39	33	33	16**
Children stunted (%) (NHSS RF G5)	48	51	49	41	31.5**
Fully immunised children (%) (NHSS RF OC3.2)	43	66	83	87	78****
Institutional Delivery (ID) (%) (NHSS RF OC3.3)	8	9	18	35	77.5**
Demand satisfied for Family Planning (FP) (%) (NHSS RF OC 3.4)	47	59	66	64	69***

Data Sources:

** Nepal Multiple Indicator Cluster Survey (NMICS) 2019

*** Nepal Demographic Health Survey 2016

**** Health Management information System 2020/2021

MMR has been measured using pregnancy-related deaths except in NDHS 2016 (direct estimates)

1996 data are from Nepal Family Health Survey-1996

2001 to 2011 data source from NDHS Series of 2001, 2006 and 2011

The proportion of women giving birth in a Health Facility (HF) has increased dramatically, rising from 8% in 1996 to 78 percent in 2019.² The percentage of current married women who have

had their FP desire met has increased from 64% in 2011 to 69% in 2016.⁴ The percentage of children aged 12–23 months who had got all eight basic vaccines had risen from 47% in 1996 to 87 percent in 2011, but had fallen to 78% in 2016.¹ Despite the fact that many indices have improved, inequalities exist by geographic area and socioeconomic group.

Nepal's UHC service coverage index was assessed to be 52% in 2010 and has since improved to 59% in 2019². In 2019, 10.7% of people spent more than 10% of their household's total spending on health care, with 72 percent of people having access to necessary drugs. Table 2.2.2 shows progress against the ten NHSS goal-level indicators with achievements in 2021 against the targets.

Table 2.2.2: Progress against the NHSS RF goal-level Indicators

Code	Indicators	Baseline			Achievement		2020
		Data	Year	Source	2020	Source	Target
G1	Maternal mortality ratio (per 100,000 live births)	190	2013	WHO	239	NDHS, 2016	125
G2	Under-five mortality rate (per 1,000 live births)	38	2014	NMICS ²	28	NMICS, 2019	28
G3	Neonatal mortality rate (per 1,000 live births)	23	2014	NMICS	16	NMICS, 2019	17.5
G4	Total fertility rate (births per 1,000 women aged 15–19 years)	2.3	2014	NMICS	2.0	NMICS, 2019	2.1
G5	% of children under 5 years who are stunted	37.4	2014	NMICS	31.5	NMICS, 2019	31
G6	% of women aged 15–49 years with body mass index less than 18.5	18.2	2011	NMICS	17.3	NDHS, 2016	12
G7	Lives lost due to road traffic accidents per 100,000 population	34	2013	Nepal Police	9.5	Nepal Police, 2075/76	17
G8	Suicide rate per 100,000 population	16.5	2014	Nepal Police	23.4	Nepal Police, 2020/2021	14.5
G9	Disability-adjusted life years lost due to communicable, maternal and neonatal, Non-communicable Diseases (NCDs), and injuries	8,319,695	2013	NBoD, IHME ⁵	9,288,691	Nepal Burden of Disease, 2019	6,738,953
G10	Incidence of impoverishment due to out-of-pocket expenditure in health	NA	2011	NLSS ⁶	NA		Reduce by 20%

WHO: World Health Organization.

NBoD: Nepal Burden of Disease Study.

Progress status in the health sector specific results framework of the 15th Plan is included in Annex.

⁵ Institute for Health Metrics and Evaluation

⁶ Nepal Living Standards Survey, Central Bureau of Statistics

Table 2.2.3: Progress against selected NHSS RF outcome-level indicators

Code	Indicators	Baseline			Achievement		2020/21
		Data	Year	Source	2019/20	Source	Target
OC 1.4	% of HFs with no stockout of tracer drugs	70	2013/14	LMIS	1.5 ⁷	Survey Report ⁸	95
OC 2.1	% of HFs meeting minimum standards of quality of care at point of delivery	0.7	2015	Nepal Health Facility Survey (NHFS)	--	Information not available	90
OC 3.1	% of children fully immunised	70	2015/16	HMIS	77.8	HMIS 2020/21	>90
OC 3.3	% Institutional Delivery	55	2015/16	HMIS	64.8	HMIS 2020/21	70
OC 4.1	% of MoHP's [district] budget disbursed as block grant	NA	2015	Budget Analysis	39.6% of budget to SNG	Budget Analysis 2017/18	5% increment
OC 5.1	Budget absorption rate (% expenditure of budget)	75.1	2013/14	FMR	80.4	Budget Analysis 2018/19	95
OC 6.1	Government health expenditure as % of Gross Domestic Product (GDP)	1.4	2013/14	Budget Analysis	1.9	Budget Analysis 2018/19	2
OC 7.1	Prevalence of diarrhoeal diseases among children under five years (%)	12 (422)	2014 (2015/16)	NMICS (HMIS)	NA (336)	Population based data not available. (HMIS)	10
OC 8.1	Case fatality rate per 1,000 reported cases due to public health emergencies	7.0	2013	Disaster Surveillance System (DSS)	NA	DSS 2018/19	NA
OC 9.2	Children below one year whose births are registered (%)	32.8	2014	MICS	56	CRVS/ MoFAGA	41

As per the recommendations from the Mid-term Review (MTR) of the NHSS, the MoHP has removed the indicators listed below from the NHSS RF in alignment with the federal context.

Code	Indicator
OC4.1	% of MoHP's district budget disbursed as block grant
OC4.2	Proportion of District Development Fund (DDF) allocated for health
OP4.1.1	Number of districts (DHOs) and (DPHOs) submitting DDC approved annual plan to the DoHS on specified time by development region
OP4.1.3	% of flexible budget provided to districts (DPHOs/DHOs) in total district programme budget
OP5.4.1	% of districts with functional District Health Coordination Committee
OP6.1.3	% of districts receiving budget based on identified needs and output criteria
OP8.1.1	Number of districts with health emergency response plan
OP9.1.2	Number of districts with functional integrated disease surveillance system

⁷ Physical count of the availability of all tracer drugs/commodity in the store was done by data collectors on the day of visit to the health facilities. Out of 275 health facilities, only 1.5% (four health facilities) of health facilities (0.5% of health posts, 1.9% of PHCC and 7.1% of hospitals) had all 18 tracer drugs/commodity (except Oxytocin- assessed only in birthing centres) including two formularies of Paracetamol and 71.6% of health facilities had oxytocin available on the day of visit. None of the health facilities in Province 1, Province 2, Bagmati and Gandaki had all 18 drugs/commodity, and availability was highest in province 7 (5.9%) in comparison to province 5 (2%) and 6 (2.1%).

⁸ Preliminary findings of the survey on factors contributing to the stockout of essential medicines in government facilities in Nepal in 2019, which captured data from 275 HFs out of 21 districts of seven provinces.

Progress on Tracer Indicators by Programme

Table 2.2.5 presents progress on tracer indicators from different programmes across three years and by the seven provinces using HMIS data.

Table 2.2.5: Tracer indicators for different programmes, 2016–2020 and achievement by province

Programme Indicators	National level				FY 2077/78 (2020/21) by Province							National Target	
	2074/75 (2017/18)	2075/76 (2018/19)	2076/77 (2019/20)	2077/78 (2020/21)	Province1	Province 2	Bagmati	Gandaki	Lumbini	Karnali	Sudur Paschim	2020	2030
Reporting status by type of facilities (%)													
HMIS annual reporting status (against expected reports)	88.8	82.4	89.6	88.6	100	97.4	62.8	99.9	98.8	100	100	100	100
HMIS annual on-time reporting status (against expected reports)	24.0	22.9	43.6	65.7	72.1	76.8	36.2	82.2	78.2	75.4	90.7	100	100
Immunization status (%)													
BCG coverage	92	90.9	85.9	90.7	78.9	117.9	78.3	63.1	94.4	106.9	90.2		
DPT-HepB-Hib3 coverage	81.8	86.4	77.9	87.3	79.4	107.6	71.2	71.5	93.5	101.1	88.5		
MR2 coverage (12-23 months)	66.2	72.8	70.7	80.9	77.3	83.3	66.3	79.6	94.2	91.9	85.3		
Fully Immunized children*	70	67.9	64.5	77.8	86.7	89.2	56.6	67.2	83.1	88.6	78.5	90	95
Dropout rate DPT-Hep B-Hib 1 vs 3 coverage	7.4	4.3	8.9	0.95	-1.1	6.5	-2.1	-5.1	-0.66	2.7	0.24	0	0
Pregnant women who received TD2 and TD2+	62.2	64.3	59.4	60.1	48.9	81.1	41.8	40.9	68	72.8	70.3		
Nutrition status (%)													
Children aged 0-11 months registered for growth monitoring	83.9	84.4	76.9	84.2	73.5	90.4	71.4	78.5	89.6	118.1	91.7	100	100
Underweight children among new GM visits (0-11m)	3.6	2.9	2.5	2.5	1.1	4.4	1.8	0.7	2.6	3	2.2		
Children aged 12-23 months registered for growth monitoring	55.7	56.8	53.2	60.8	50	70.2	48	69.6	63.3	81.7	62.3	100	100
Underweight children among new GM visits (12-23m)	5.7	4.5	3.4	3.4	1.4	6.5	1.5	0.9	3.1	4.5	3.8		
Pregnant women who received 180 tablets of Iron	45	50.6	44	44.8	35.4	43.7	27.6	44.5	54.9	73.7	63.8		
Postpartum mothers who received vitamin A supplements	66	64.5	57.3	61.1	48.4	83.4	38	39.7	64.4	92.6	80.4		
CB-IMNCI status (%)													
Incidence of pneumonia among children U5 years (per 1000)	53.6	50.3	42.8	26.6	31.6	23.3	18.3	16.7	22	65.9	35.1		
% of children U5 years with Pneumonia treated with antibiotics	193.1	176.3	155.8	149.7	169.8	206.8	149.2	133.1	121.7	102.1	131.7		
Incidence of diarrhea per 1,000 under five years children	408.7	397.3	349.6	338.8	297.7	338.7	213.3	235.2	356.5	653.4	546.8		
% of children under 5 with diarrhea treated with ORS and zinc	95.2	95.5	94.8	96.2	92.1	97.1	94.4	102.4	96.8	96.3	97.2	100	100
Safe motherhood (%)													
Pregnant women who attended first ANC visit (any time)	102.8	109.9	106.9	100.9	102	119.8	90.4	74.5	97.8	124.7	97.5		

Programme Indicators	National level				FY 2077/78 (2020/21) by Province								National Target	
	2074/75 (2017/18)	2075/76 (2018/19)	2076/77 (2019/20)	2077/78 (2020/21)	Province1	Province 2	Bagmati	Gandaki	Lumbini	Karnali	Sudur Paschim	2020	2030	
Pregnant women who attended four ANC visits as per protocol*	49.7	55.9	52.6	55.4	52.5	43.7	56.7	48.1	60.7	76	66.8	70	90	
Institutional deliveries *	54.2	63.4	65.7	64.8	59.7	54.4	61.4	42.3	79.6	87.1	82.5	70	90	
Deliveries conducted by skilled birth attendant*	51.5	59.8	62.5	60.8	58	50.3	60.2	41.4	77	69.6	71.6	70	90	
Mothers who had three PNC check-ups as per protocol*	15.5	16.4	18.8	25	22.4	14.5	21.9	19.6	29.2	40	46.1	50	90	
Family planning (%)														
CPR-unadjusted	40.6	40.9	38	39	41	44	35	34	40	37	41	56	60	
Female Community Health Volunteers (FCHV)														
Number of FCHVs	48172	50200	49501	49693	8401	7426	8699	5795	9120	4254	5998			
% of mothers' group meeting held	98	95.2	90.7	88.7	87.5	92.7	85.6	81	85.5	93.9	98.6	100	100	
Malaria														
% of plasmodia falciparum (PF) among Malaria Positive case	6.9	5.4	9.0	13.6	0	27.3	70	16.7	29.4	6.1	5.5			
Tuberculosis														
Case notification rate (all forms of TB)/100,000 pop.	100.3	100.1	92.4	94.6	71.6	105.1	102.6	73.9	113.9	65.4	95.6			
Treatment success rate	88	83.1	88.8	91.2	89.7	92.9	92.1	91.1	90.2	93.3	88.2			
Leprosy														
New case detection rate (NCDR) per 100,000 population	11.0	10.9	6.0	7.1	7.0	11.9	1.5	4.2	10.9	3.7	7.0			
HIV/AIDS and STI														
Number of new positive cases	2013	2365	2712	2943	254	475	1210	222	473	30	279			
Curative services														
% of population utilizing outpatient (OPD) services	73.6	78	83	77	80	61	70	97	82	103	81			
Average length of stay at hospital	3.5	3.7	3.4	3.3	2.8	1.2	3.9	3.6	4.2	3	2.1			
Note: *NHSS RF and/or SDG indicators														

Immunisation: Full vaccination coverage is decreasing nationally, going from 70% in FY 2017/18 to 64.5 percent in FY 2019/20. In contrast to the previous fiscal year, it has improved by 13.3 percentage point in 2020/21. Bagmati Province had the lowest coverage (56.6%), while Province 2 had the greatest (89.2 %). BCG coverage is 90.7 percent nationwide, with 100 percent coverage for the target population in Province 2 and Karnali and the lowest coverage (63.1 percent) in Gandaki Province. At the national level, DPT-HepB-Hib3 coverage has increased to 87.3 percent, with the greatest rates in Province 2 at 100 percent and the lowest in Bagmati Province at 71.2 percent. At the end of the year, the dropout rate was 0.95 percent at national level. Although WHO-UNICEF estimates of National Immunization Coverage (WUENIC) are provided annually, HMIS data and NDHS 2016 findings are used because the WUENIC series does not provide full immunization coverage but just single antigen estimates.

Nutrition: The proportion of children aged 0-11 months who were enrolled for growth monitoring increased to 84.2 percent (FY 2020/21) from 76.9% in FY 2019/20, with the greatest rate of 100 percent in Karnali Province and the lowest rate of 71.4 percent in Bagmati Province. The prevalence of underweight children (12–23 months) among new growth monitoring visits has remained unchanged this fiscal year, however it remains high in Province 2 (6.5 percent). At the national level, the proportion of pregnant women receiving 180 iron tablets grew from 44% in FY 2019/20 to 44.8 percent in FY 2020/21, with the greatest rate of 73.7 percent in Karnali Province and the lowest rate of 27.6 percent in Bagmati Province.

Community-based Integrated Management of Neonatal and Childhood Illnesses (CB-IMNCI): Karnali Province reported the highest incidence of pneumonia (65.9 per 1000) among children under five, which is substantially higher than the incidence reported by Bagmati Province (16.7 per 1000), which had the lowest incidence among all provinces. The highest percentage of children under five with diarrhoea treated with oral rehydration solution and zinc was found to be in Gandaki Province at 100.0 per cent while the lowest rate was in Province 1 at 92.1 per cent.

Safe motherhood: At the national level, the percentage of pregnant women who had four ANC visits (4ANC) as per protocol increased from 52.6 in FY 2019/2020 to 55.4 percent to FY 2020/2021. Institutional delivery (ID), on the other hand, has dropped from 65.7 to 64.8 percent in the same period. Province 2 (43.7%) had the lowest 4ANC attendance, and Gandaki Province had the lowest ID (42.3 %).

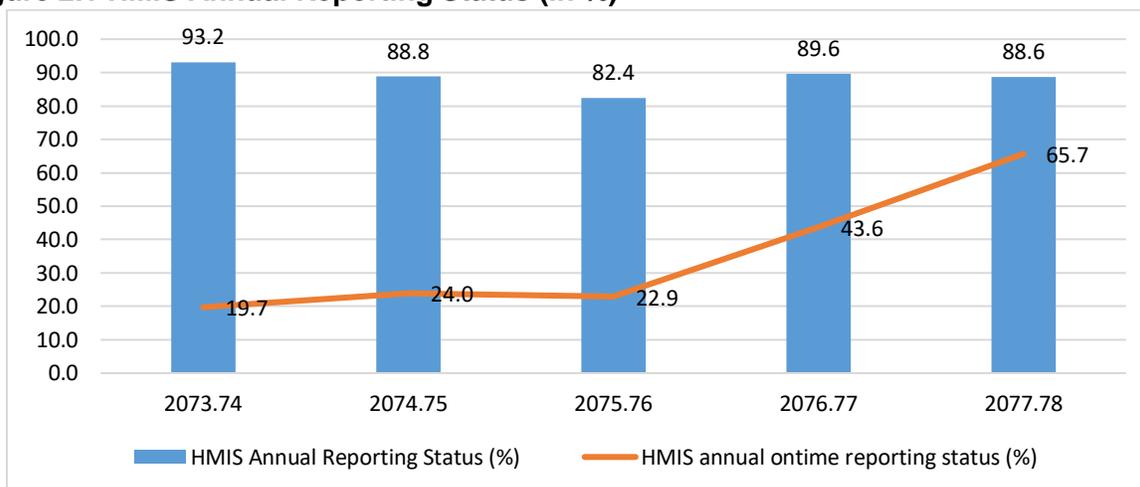
FP and FCHVs: The unadjusted CPR has increased from 38 per cent to 39 per cent at the national level over the past two years. It was highest in Province 2 at 44 per cent and lowest in Gandaki Province at 34 per cent. The number of FCHVs has increased in recent years and the proportion of FCHVs holding mothers' groups is 88.7 per cent which is lower as compared to FY 2019/20 (90.7%).

Malaria, TB, Leprosy, HIV/AIDs: At the national level, the percentage of PF among malaria-positive cases (13.6 percent) has grown; the highest prevalence was 70 percent in Bagmati Province. The national NCDR for leprosy per 100,000 people increased moderately (7.1 percent) and was greatest in Province 2. (11.9 %). Over the last two years, the number of new HIV-positive patients has surged, with Bagmati Province having the highest number (1,210).

HMIS reporting status

Reporting from the public sector predominates each month; non-public sector reporting to HMIS is still lower. By the 15th day of the next month, health facilities (HFs) must have entered monthly service statistics into the national HMIS database. Since the last five years, the HMIS yearly on-time reporting status has improved from 19.7% in FY 2073/74 to 65.7% in 2077/78.

Figure 2.1 HMIS Annual Reporting Status (in %)



2.3 Regular Programme Reviews

National Annual Reviews and JARs were held separately in the past. These similar events have been bundled into a National Joint Annual Review (NJAR) for the previous three years. The NJAR 2020/21 has the following main goals:

- Jointly review the annual progress of Nepal Health Sector Strategy.
- Review COVID-19 pandemic preparedness and response at all spheres of government.
- Build shared understanding among all stakeholders on achievement, problems, and challenges in the sector.
- Identify strategic priority areas based on existing problems and challenges that need to be addressed in the changing context including in the next sector strategy.
- Agree on the strategic actions to be included in the next year's Annual Work Plan and Budget (AWPB).

2.4 Equity Analysis of Key Health Indicators

Equity gap in essential health service utilisation: Using HMIS data, this section examines the average equity gap between 2016/17 and 2020/21 across three indicators (CPR, percentage of ID, and percentage of children with pneumonia treated with antibiotics).

CPR

The average CPR of the bottom 10 and top 10 districts has gradually decreased over the past four years, however in FY 2020/21 there is slight increase (25.9%). The absolute differences in CPR (equity gap) between the top 10 and bottom 10 districts were observed to be 26.0, 24.7 and

25.9 percentage points in FYs 2017/18, 2018/19 and 2019/20 respectively (Table 2.4.1). The figure of 4.9% in FY 2020/21 exceeded the target for improvement of the equity gap from Year Three, which was three per cent.

Table 2.4.1: Trends in equity in essential health service utilisation

	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21
Contraceptive Prevalence Rate (CPR)					
Average % of top 10 districts on CPR	62.0	54.7	52.6	50.9	54.1
Average % of bottom 10 districts on CPR	26.0	25.2	26.6	26.2	28.2
Percentage points difference between top and bottom average	36.0	29.5	26.0	24.7	25.9
Percent difference between top and bottom average	58.1	53.9	49.4	48.5	47.9
Annual change (%)	-	18.1	11.9	5.0	4.9
Institutional Delivery (ID)					
Average % of top 10 districts on ID	87.9	88.7	95.6	94.9	98.3
Average % of bottom 10 districts on ID	18.3	19.1	20.9	21.6	24
Percentage points difference between top and bottom average	69.6	69.6	74.7	73.3	74.3
Percent difference between top and bottom average	79.2	78.5	78.1	77.2	75.6
Annual change (%)	-	0.0	-7.3	1.9	-1.4
ARI treated with antibiotics (ARI)					
Average % of top 10 districts on ARI	68.8	48.4	38.2	30.7	19.9
Average % of bottom 10 districts on ARI	24.2	9.8	8.3	6.4	3.2
Percentage points difference between top and bottom average	44.6	38.6	29.9	24.3	16.7
Percent difference between top and bottom average	64.8	79.8	78.3	79.2	83.9
Annual change (%)	-	13.5	22.5	18.7	31.3

Morang, Saptari and Parsa Districts remained in the top 10 districts with the highest CPR throughout the five FYs, while Kavre, Lalitpur, Mustang and Palpa also remained in the top 10 districts for the baseline year (2016/17) and FY 2020/21 (Table 2.4.2). Arghakhanchi and Udayapur districts were consistently in the bottom ten districts throughout five fiscal years, while Terhathum and Gulmi were in the bottom ten districts in both the baseline year and FY 2020/21.

Table 2.4.2: CPR by district

Districts	2016/17	2017/18	2018/19	2019/20	2020/21	Districts	2016/17	2017/18	2018/19	2019/20	2020/21
MORANG	62.6	56	51.4	53.2	54.8	SANKHUWASABHA	26.8	28.3	30.1	32.6	39.1
SAPTARI	59.8	57.4	49.8	46.8	46.8	TERHATHUM	27.7	29.8	28	25.4	27.7
SIRAHA	62.9	48	46.1	43.9	43.8	UDAYAPUR	25.5	26.6	28.8	28.6	29.5
RAUTAHAT	58.3	42.8	40.2	39.5	29.6	PARBAT	24.5	30	30.8	32.3	32.5

PARSA	69.4	70.7	66.8	67	66.4	GULMI	26.4	39.3	28.7	28.6	30.1
LALITPUR	55.2	51	42.1	46	51.5	ARGHAKHANCHI	24.6	26.3	26.4	25	27.4
KAVREPALANCHOK	56.9	52.1	45.3	48.3	48.6	MUGU	26.2	23.5	24.1	29.7	34.8
MAKWANPUR	56.2	49.1	45.8	43.2	45.1	RUKUM WEST	23.2	26.9	28.7	32.2	31.1
MUSTANG	75.6	45.7	48.9	50.7	61.4	BAJHANG	27.9	33.4	31.6	33.1	35.9
PALPA	63.2	46.5	48.3	48.3	54.6	DARCHULA	27.7	37.2	37.6	40	42.1

Note: Green highlighted districts are in the top 10 and yellow highlighted districts are in the bottom 10.

Institutional Delivery (ID)

Overall, the average uptake of ID for the bottom 10 districts was found to have grown from FY 2016/17 to FY 2020/21. A similar pattern was shown for the top 10 districts from FY 2016/17 to FY 2020/21. The absolute differences in ID (equity gap) between the top and bottom 10 districts were found to be 69.6, 69.6, 74.7, 73.3, 74.3 percentage points in FYs 2016/17, 2017/18, 2018/19, 2019/20 and 2020/21 respectively (Table 2.4.2). The annual change in the percentage point difference was 0.0 per cent for FYs 2016/17–2017/18, -7.3 per cent for FYs 2017/18–2018/19, 1.9 per cent for FYs 2018/19–2019/20 and 1.4 percent for FYs 2020/21.

Rupandehi, Banke and Surkhet Districts remained in the top 10 districts throughout the five FYs and Chitwan was in the top 10 districts in both the baseline year (2016/17) and FY 2020/21. Bhaktapur, and Tanahu districts fell in the bottom 10 districts throughout the five FYs (Table 2.4.3).

Table 2.4.3: Institutional Delivery

Districts	2016/17	2017/18	2018/19	2019/20	2020/21	Districts	2016/17	2017/18	2018/19	2019/20	2020/21
JHAPA	75.5	78.7	81.3	70.1	69.8	KHOTANG	22	32.8	37.2	39.1	41.7
SUNSARI	78.7	25.3	83.6	73.4	61.7	DHANKUTA	17.7	25.9	21.7	21.3	25.2
PARSA	82.6	84.9	109.5	124.6	89	ILAM	19.1	21.3	16.7	21.8	16.7
CHITAWAN	97.7	29.9	113.6	118.5	100.4	DHANUSA	6.2	6.9	74.5	62.4	53.7
KASKI	110.5	112.3	116.3	110.4	85.5	SINDHUPALCHOK	23.9	19.1	27.2	27.4	32.1
PALPA	84.4	90.8	96.6	94.5	88.2	BHAKTAPUR	23.9	22.7	26.7	22.1	26.8
RUPANDEHI	105.6	127.9	117.4	130.6	118.8	MANANG	9.2	24.8	8.3	9.4	13.7
BANKE	121.2	135.2	160.4	156.1	139	MUSTANG	21.9	19.8	22.3	27	34.2
HUMLA	79.1	60.9	86.4	79.9	83.5	TANAHU	21.2	20.7	18.2	20	20.1
SURKHET	80.7	86.3	92.2	95.8	101	KAPILBASTU	18	37.7	50.8	50.4	59.5

Note: Green highlighted districts are top 10 and yellow highlighted districts are bottom 10 districts.

Pneumonia cases treated with antibiotics (ARI)

The averages of both the top 10 and the bottom 10 districts were found to be in decreasing trend across the five FYs. The absolute differences in ARI (equity gap) between the top and bottom 10 districts were found to be 44.6, 38.6, 29.9, 24.3 and 16.7 percentage points in FYs 2016/17, 2017/18, 2018/19, 2019/20 and 2020/21 respectively (Table 2.4.1). The annual change in the percentage-point difference was 13.5 per cent from FY 2016/17 to FY 2017/18, 22.5 per cent from FY 2017/18 to FY 2018/19, 18.7 per cent from FY 2018/19 to FY 2019/20 and 31.3 per cent from FY 2019/20 to FY 2020/21. (Table 2.4.1)

Mugu remained in the top 10 districts in both the baseline year (2016/17) and FY 2020/21 (Table 2.4.4). Kaski District fell in the bottom 10 districts throughout the five FYs and Kathmandu and Rupandehi also fell in the bottom 10 districts in both the baseline year and FY 2019/20 (Table 2.4.4)

Table 2.4.4: Pneumonia treated with antibiotics (ARI)

Districts	2016/17	2017/18	2018.19	2019.20	2020.21	Districts	2016.17	2017.18	2018.19	2019.20	2020.21
KHOTANG	76.3	21.4	20.6	21.6	13.6	PARSA	29.5	67.2	26.1	16.6	8.5
CHITAWAN	57.9	26.5	16.6	11.7	7.4	KATHMANDU	22.8	12.2	7.7	5.6	3.3
MUSTANG	108.5	46.1	10.6	11.1	6.4	LALITPUR	24	11.1	9.5	12.9	6
KAPILBASTU	73.1	33.1	21.7	18	6.6	KAVREPALANCHOK	29.8	12.2	8.3	7.2	6.2
DANG	58.9	28.6	16.4	14.3	4.1	RAMECHHAP	28.3	8.2	12.4	8.2	5.3
DOLPA	67.7	43.4	60.7	21.2	9.8	KASKI	17.9	8.6	7.2	4.6	2.5
MUGU	64	42.2	45.9	32.1	21.8	LAMJUNG	26.4	18.3	10.6	14.2	6.7
KALIKOT	57.6	19.9	22.9	16.2	9.8	SYANGJA	23.7	9.5	6.7	7	4.3
JAJARKOT	67.6	43.2	20.4	22.7	12.6	RUPANDEHI	57.6	18.8	11.4	9	3
RUKUM WEST	64.9	40.4	17.5	16.8	12.3	DAILEKH	28.8	31.1	21.1	13.9	7.1

Note: Green highlighted districts are top 10 and yellow highlighted districts are bottom 10 districts

3. NHSS Outcome-wise Progress Status

3.1 Outcome 1: Rebuild and Strengthen Health Systems: Infrastructure, HRH, Procurement, and Supply Chain Management

There are three components defined under outcome 1 of the NHSS for achieving efficient and effective service delivery: Health Infrastructure (HI), HRH, and procurement and Supply Chain Management (SCM). This section highlights progress made in these areas, and the progress in building back better after the destruction of the 2015 earthquake.

Outcome 1a Infrastructure

Background

The MoHP continues to expand the network of the HF across the country as per the national policy of establishing public facility (Basic Health Service Centre) in each ward level and a public hospital in each local level. The improvement and strengthening of the health facilities is further guided by the NHSS requirement to build earthquake-resilient infrastructure, adopt upgraded standards and improve practices in regular maintenance and inventory management. As per the federal structure, the MoHP has been working in coordination with provincial and local governments to promote good practices and to ensure a harmonised approach to health-related infrastructure.

The information from the Health Infrastructure Information System (HIIS) has been used to support a rational decision-making process for an efficient HI network at sub-national level while at the same time supporting the GoN's goal to Leave No One Behind (LNOB) by locating HFs in areas that cover ethnically and geographically marginalised communities. As per the policy of GoN, establishing and upgrading of HFs into 5 bedded, 10 bedded or 15 bedded primary hospitals are being implemented sending capital budget to municipalities along with the standard guidelines. In addition, MoHP is facilitating local governments in developing designs and proceed for implementation. UKaid funded Nepal Health Sector Support Programme (NHSSP) is contributing to this process by providing technical support to ensure the compliance as per the governments requirements. Basic Health Service Centres are also being established in the wards where that is not public health facility. Sub-national governments have been orientated and encouraged to implement maintenance and management plans for HI, to continue their effectiveness and extend their life span.

Major progress

Significant progress has been made in FY 2020/21 and further in FY 2021/22. Major achievements are summarised below under different thematic areas.

Infrastructure Policy Development

- **The National Health Infrastructure Development Standards (NHIDS) and Integrated Health Infrastructure Development Programme (IHIDP)** are being implemented which laid out categorisation, delineation, and investment plans for HI development, which are being implemented through all levels of government. The standard design for each type

of HF was developed as per the prevailing standards and was adopted for the planning and implementation of the upgrading of HFs. MoHP is preparing for updating Nepal Health Infrastructure Development Standards (NHIDS) 2074 (2017) and its associated standards and guidelines in line with new policies and requirements.

- **Repair and maintenance guidelines and action plan:** This is the policy document prepared by MoHP to address issues regarding HI repair and maintenance. It intends to enable governments to maintain the existing HI in terms of sustainability, safety and efficiency in smooth service delivery. It also set up the mechanism and methodology for both regular and emergency repair and maintenance, maintaining statistics on deterioration and efforts in repair and maintenance. This will enable government agencies to prepare budget plans and maintain monitoring reports.
- **Land acquisition and relocation policy:** MoHP has drafted a document policy provisions on land acquisition and relocation to provide guidelines to federal, provincial and local governments. The guidelines will help governments to provide high-quality and equitable health care services by acquiring appropriate land: sites must be accessible, in location with a large population (catchment area) and suitable for construction of multi-hazard-resilient HI, built as per the existing standards and codes. The draft is under review by the MoHP.

Progress in Post-Gorkha-Earthquake 2015 Reconstruction

- Most of the remaining reconstruction work which are being implemented by different government and other agencies are in near completion. As National Reconstruction Authority (NRA) has been closed this year, responsibility for completing all the remaining works were transferred to Department of Urban Development and Building Construction (DUDBC). The Central Level Project Implementation Unit (CLPIU) in DUDBC is running a total of 408 health building reconstruction projects. Among them, 263 projects are funded by the GoN, 9 projects are funded through the Saudi Fund for Development (SFD) from the Kingdom of Saudi Arabia and 137 projects are funded through Indian Grant Assistance from the Government of India. The progress status of these projects is given in Tables 3.1.1a, 3.1.1b and 3.1.1c.

Table 3.1.1a Progress status of HI reconstruction by NRA-CLPIU through GoN funds

HI types	Ongoing	Completed	DPR preparation	Total
Health Post	129	47	49	224
Academic Hospital	1	0	0	1
Primary Hospitals	11	5	8	24
Ayurved Ausadhalaya	7	1	4	12
Grand Total	148	53	61	261

Table 3.1.1b Progress status of HI reconstruction by NRA-CLPIU through SFD

HI types	Ongoing	Completed	DPR preparation	Total
HPs	6	0	0	6
Primary hospitals	3	0	0	3
Total	9	0	0	9

Table 3.1.1c Progress status of HI reconstruction by NRA-CLPIU through Indian Grant

HI types	Ongoing	Completed	DPR preparation	Total
Health Posts	40	7	65	112
Primary Hospital	1	0	7	8
Ayurved Ausadhalya	11		6	17
Grand Total	52	7	78	137

- The GoN also has in place a set of bilateral arrangements with EDPs for HF reconstruction. These projects are being implemented by the partners themselves. Among them Retrofitting and construction works in Dolakha, Ramechhap and Sindhupalchok district supported by UKaid; Nuwakot Hospital and 10 prefab structures supported by KOICA; Building blocks at Bir Hospital and Paropakar Maternity and Women's Hospital; and Barpak HP supported by JICA was completed and handed over in last fiscal year. Progress of remaining projects is set out in Table 3.1.2.

Table 3.1.2: Progress of ongoing projects under agreements with bilateral agencies

Agency	Works description	Progress
KfW	FC Recovery Phase - 1: Reconstruction of Jiri Hospital, Gorkha hospital and Ramechhap Hospitals	Construction work Completed
	FC Recovery Phase - 2: Reconstruction of Melbisauni Primary Hospital	Tender Process
	Reconstruction of Jhaukhel Health Post, Sankhu Primary Hospital, Kathmandu (B2) and Bhimeshwor Health Post	Design Phase
CHINA	Chautara and Manang hospitals	Reconstruction work is ongoing. Reconstruction work at Manang Hospital is in the planning stage.
USAID	Nepal Reconstruction Engineering Services (NRES):	
	Belghari PHCC, Sindhuli	Neal to completion
	Kapilakot PHCC, Sindhuli	Completed
	Mahendrajhyadi PHCC, Sindhuli	Completed
	Mahadevsthan HP, Sindhuli	Completed
	Sukaura HP, Makawanpur	Completed
Kankada HP, Makawanpur	Completed	

KOICA: Korean International Cooperation Agency, JICA: Japan International Cooperation Agency, KfW: German Development Bank.

Regular construction programme for HFs by DUDBC

The MoHP collaborates with the Department of Urban Development and Building Construction (DUDBC) as its delivery entity in the construction, extension and refurbishment of HFs. Since FY 2015/16, there has been a general improvement in the number of projects completed, while the number of 'sick' projects (projects that have been stalled or halted, for example, owing to technical or contractual problems) has decreased. As shown in Table 3.1.3a, MoHP authorised DUDBC to implement 316 projects in FY 2020/21. Of these projects, 169 have been completed, while others

are in progress. There are 298 live projects carried over from previous years, and 18 new projects commissioned in FY 2020/21. Progress status of these projects is given in Table 3.1.3b.

Table 3.1.3a: HI construction works budgeted and authorised to DUDBC as of July 2021

Progress Status	No. of Projects
Carried over from previous years	298
COVID-19 Vaccine Store	8
Provincial Public Health Laboratory	5
Regional Medical Store	3
National Ayurveda Pancha and Yoga Service Centre	1
Mangalabare Health Post Building Construction	1
Total	316

Table 3.1.3b: Progress status of ongoing HI construction works as of July 2021

Progress Status	No. of Projects
Work completed	169
Work near to completion	63
Under construction	61
Tendering/evaluation phase	14
Design and cost estimation	9
Total	316

Construction of Primary Hospital at Local Levels

- In FY 2077/78 (2019/20), MoHP selected, budgeted and authorised different municipalities to upgrade 396 HFs into 5 bed, 10 bed or 15 bed Basic Hospitals.
- Similarly, MoHP also listed 259 HFs to assess the construction site and prepare DPR which will be budgeted in FY 2078/79 (2020/21). These includes the upgrading of HFs and PHCCs in line with the categorisation of HFs developed under the NHIDS.
- For the facilitation and regularisation of the HF constructions, MoHP issued Local Level Primary Hospital Construction Guideline 2077 and the Monitoring Framework on Health Infrastructure DPR Preparation and Construction 2077, Standard design drawings and Guidelines for design and construction of health building infrastructure and Guideline for Site Selection for Health Facilities Construction 2073.
- MoHP is in the process of issuing monitoring tools and formats as per the monitoring framework issued. For this web-based system integrated with Health Infrastructure Information System (HIIS) platform is being prepared to track the progress reporting from the local levels.
- As of Oct 2021, 205 municipalities have published the tender notice among which 152 have signed the contract for the construction and mobilised to the site.
- To ensure the adherence of the design of primary hospital with the prevailing national standards and guidelines, the MoHP has been reviewing of adjusted designs of primary hospitals submitted by different municipalities with the support of the technical team in MoHP. Till date, 246 adjusted designs have been received of which 71 have been approved after the review and rest are in the process of updating and resubmitting the

revised adjusted drawings as per the feedbacks provided through the review. Across the country the breakdown is as follows:

Table 3.1.4: Approval status for the establishment of Primary Hospitals from MoHP after review of the adjusted designs proposals

Name of Province	No. of primary hospital
Bagmati Province	21
Gandaki Province	6
Karnali Province	2
Lumbini Province	8
Province 1	21
Province 2	10
Sudurpashchim Province	13

Health Infrastructure Information System (HIIS)

- HIIS has been a useful tool for evidence-based planning and is being upgraded into an online portal for HI information and to allow data to be updated.
- HIIS was also used for analysis and mapping of potential government-owned HFs for COVID-19 response across Nepal.

Capacity Enhancement

Over the period from July 2020 to October 2021, the MoHP conducted various capacity enhancement events on HI, involving a total of 146 participants despite of the situation of COVID19 restrictions. See Table 3.1.5 below for details.

Table 3.1.5: HI capacity enhancement events, July 2019 – November 2020

Capacity Enhancement Event	No of Participants
Orientation Programme on WRH, Pokhara Main Retrofitting Project	18
Orientation training to the FPIU and the contractor's engineers and supervisors on Retrofitting Works of PAHS/WRH Hospital	10
Project brief to hospital management committee and concerned hospital staffs, PAHS/WRH retrofitting Pokhara	20
Workers Training on Retrofitting Techniques and Health & Safety	23
Workers Training on Health & Safety	30
Orientation on Retrofitting of PASH/WRH Old Maternity block (Activity Sequencing and Functional Retrofitting)	11
Orientation to construction workers at Pokhara Hospital on Health and Safety at the construction site, Gender Equity and Social Inclusion (GESI) and Gender-based Violence (GBV)	40
Onsite retrofitting training and demonstration to workforce, supervisor and site engineers of retrofitting works to WRH	34
Total	146

Retrofitting of Bhaktapur Hospital and Western Regional Hospital Pokhara

The retrofitting of the Western Regional Hospital (WRH) in Pokhara and the Bhaktapur Hospital is a flagship activity in the MoHP HI programme. Besides the strengthening and rehabilitating HI

at two significant hospitals, this activity is expected to provide a replicable experience that can be applied to other HFs across the country for strengthening and rehabilitating HI. It implements a fourfold integrated approach, involving:

- Seismic retrofitting (structural and non-structural elements, as well as rehabilitation of relevant functional service areas)
- Construction of a temporary multi-purpose decanting facility
- Decanting transfer of hospital services and patients
- A 'green' retrofitting package to maximise environmental benefits and improve sustainability (including implementation of a zero-waste site policy, potential adaptive re-use of the decanting facility, improved water management and energy efficiency).

These retrofitting works are ongoing as a patient-centred construction in close cooperation with the DUDBC and is supported by UKaid. Progress status is set out in Table 3.1.6.

Table 3.1.6: Retrofitting Bhaktapur Hospital and WRH Pokhara

Activity	Progress
Western Regional Hospital, Pokhara	
Decanting block	Completed and handed over
Decanting services tender	ongoing
Main retrofitting works	Construction work ongoing
'Green' retrofitting package	Preparation of bid documents
Bhaktapur Hospital, Bhaktapur	
Decanting block	Completed and handed over
Decanting services tender	Bid evaluation
Main retrofitting works	Construction work ongoing
'Green' retrofitting package	Preparation of bid documents

Gender Equality and Social Inclusion (GESI) in Health Infrastructure

- GESI aspects are included in the hospital retrofitting tender documents and have also formed regular sessions in health infrastructure training and orientation events.
- Contractors and on-site workforce have been briefed on GESI requirements. Moreover, GESI and LNOB considerations and health and safety issues have been integrated into various health infrastructure activities, including tender documents and capacity-building events.
- Likewise, code of conduct on prevention of GBV in all public and private workplaces have been prepared to ensure gender sensitivity at construction sites.
- Orientation was provided to DUDBC management, the contractors and site engineers in Bhaktapur and Pokhara.

COVID-19 Response

In response to the COVID-19 pandemic, MoHP has been putting its efforts into HI to provide timely treatment services to infected patients and prevent the spread of the disease. Major constructions related activities undertaken by the MoHP include:

- The decanting blocks constructed in Bhaktapur Hospital and Western Regional Hospital, Pokhara under the UKaid retrofitting support were repurposed to COVID-19 treatment facilities after the declaration of the COVID-19 pandemic. The decanting space continues to be used as COVID-19 treatment units through the 2nd wave of COVID-19.
- Further, 50-bed infectious disease hospitals in six provinces were also planned and budgeted in FY 2077/78; in Bagmati Province, an infectious disease department in Bharatpur Hospital has been planned and budgeted. Type designs for these structures have been prepared and funds have been provisioned to the respective governments, which are proceeding with the implementation of these projects.
- Type designs for a 300-bed infectious disease hospital have also been prepared; this is in the planning process.
- In line with supporting the control of COVID-19, MoHP has planned and budgeted the construction of Health Help Desk facilities to screen people arriving and departing from different border entry and exit points by land in Nepal. Detailed designs, including bills of quantities and cost estimates, were prepared and sent to respective local authorities for construction.
- A COVID-19 scanning, examination and emergency facility has also been planned at Tribhuvan International Airport. Bid evaluation process is ongoing for this work.
- COVID-19 Vaccine stores are planned to be built in all provinces. Budget authorization for construction of 8 no. of stores was sent to DUDBC for implementation which are all completed and handed over.
- Two Warehouses for storing of medicines and other medical supplies (Teku and Pathalैया) constructed and which have also in functional since last FY
- Vaccine stores are constructed in seven provinces this year and installation of Cold Chain Equipment is expected by Dec 2021
- Construction of a modern vaccine store has been initiated at Teku, Kathmandu.
- Construction and refurbishment of healthcare waste treatment centre and hospital laundry building including other support services have been completed at 13 COVID-19 designated hospitals except hospital laundry building of Seti Hospital. Those 13 hospitals are Mechi Hospital, Gajendra Narayan Singh Sagarmatha Hospital, Janakpur Hospital, Bharatpur Hospital, Lumbini Hospital, Rapti Academy of Health Science, Bheri Hospital, Seti Hospital, Mahakali Hospital, Bir Hospital, Shukraraj Tropical Disease Control Hospital, Teku, APF Hospital and Patan Academy of Health Sciences.
- Procurement of major equipment like autoclaves and washing machines with accessories for HCWM and hospital laundry at 13 hospitals has been completed with support of GIZ. Installation of washing machines has been completed at 12 hospitals and installation of autoclaves is ongoing.
- Diagnostic assessment of HCWM including engineering design and cost estimation, HCWM Implementation Plan of 12 provincial hospitals, has been completed in Province 1. Final report has been disseminated at province level as well. The MoSD has also mobilized NPR 3.5 million for construction and NPR 1.2 million for equipment at each individual hospital in the FY 2077/78.
- Initiated piloting of climate resilience and environmental sustainability of healthcare facilities in three ecological regions. The selected sites are Karnali Academy of Health Sciences, Jumla; Dhaulagiri Hospital, Baglung and Gaur Hospital, Rautahad.

Challenges

- Provisions of land as per the standard for construction of the hospitals and health facilities has been a major challenge to ensure services availability as per the policy provision
- The planned strengthening of the federal and provincial level has also been affected due to the limited physical infrastructure and space for expansion.
- Funds for HI development have been sent by the MoHP to provincial and local governments for operational and capital expenditure. However, weak absorptive capacity is a challenge, especially in the context of COVID-19. With newly formed institutional arrangements and a scarcity of skilled staff, respective governments have to plan and implement these projects.
- Detailed information on the type and condition of HI for selected districts is available; however, there are significant gaps in coverage elsewhere, which hampers planning and implementation. Comprehensive updated data on HI is available only for 36 districts in Nepal.
- Lockdown measures affected the timely completion of construction work and there is pressure to accomplish ongoing construction within the stipulated timeframe.
- Due to relatively weak institutional memory, coordination and support functions gets affected where there are frequent changings in the leadership such as transfer of Medical Superintendent, hospital director and focal persons.

Way Forward

- Continue to work closely with DUDBC and provincial and local governments to improve planning and construction works for HI. Continue the orientation and support for the adoption of NHIDS, IHIDP, Disaster Risk Reduction (DRR) and other relevant infrastructure-related policies and standards at the sub-national level, involving close engagement and information sessions with provincial and local governments.
- Continue capacity enhancement related activities for improving technical skills at the federal and sub-national level, targeting managerial and technical staff.
- Carry out infrastructure risk analysis, with the development and incorporation of a multi-hazard resilience perspective.
- Further strengthening evidence-based decision making through improved HIIS data and analysis and wider geographical coverage.
- Strengthen stewardship capacity of hospital management and leadership in construction and refurbishment work of health infrastructure.
- Continuously monitor the implementation progress and take timely actions to speed up planning and construction works and hence enhance budgetary absorption as per the plan.
- Establishment and strengthening of hospitals at local level, establishment of hospitals for communicable disease in each province and strengthening one federal hospital in each province to function as the referral hub for advanced care
- Strengthening of the provincial public health laboratories in each province and strengthening of storage capacity for medicines and medical supplies at national level
- Design necessary infrastructure for the establishment of additional OCMCs (8 hospitals), SSUs (14 hospitals) and Geriatric Wards (25 hospitals) as planned for 2021/22.

Outcome 1.b Human Resources for Health

Background

A key component of high-quality health services, as recognized in the NHSS, is strengthening the production, deployment and retention of skilled human resources in the health sector. This outcome of the NHSS depends on the following outputs: improved availability of human resources at all levels, with a focus on rural retention and enrolment, and improved medical and public health education and competency. As a result of the restructuring of health governance, staff adjustment is progressing. As per the federal restructuring, staff adjustment process has been completed and the health workers are adjusted in the designated health facilities and institutional across federal, provinces and local levels.

Major Progress

- The national strategy on HRH 2077/78- 2086/87 has been finalized and endorsed in 2078. It was developed in accordance with the federal structure and foresees the human resources for health over the period of next 10 years. The document was developed with inputs from and consultation with key stakeholders.
- Considering the prolonged challenges faced in fulfilling the need for HRH, the MoHP has developed and endorsed procedures to hire staff on a contract basis. It was particularly important in the backdrop of COVID-19 pandemic.
- As per the National Medical Education Act 2075 many regulations, standards and guidelines have come into effect for the standardization and quality assurance of medical education in Nepal
- The National Academy of Medical Sciences (NAMS) and the Kathmandu University (KU) were accredited for Bachelor level midwifery programmes in 2019 and 2020 respectively.
- There are total of 23 midwives graduated from The National Academy of Medical Sciences (NAMS) and the Kathmandu University (KU) and registered with Nepal Nursing Council. Many of the graduates have started working on contract basis since the sanctioned posts for midwives are yet to be created. There is a plan to start Bachelor in Midwifery program at BPKIHS from 2021.
- Provision of health inspectors from federal level and hiring of the technical experts for the CICT was planned which however was not fully executed as the number of COVID-19 cases has gradually declined
- For managing an integrated HRH database, iHRIS software has been implemented through two professional councils (Nepal Pharmacy Council and Nepal Ayurvedic Medical Council) with the plan to extend to other remaining professional councils.
- Workload Indicators and Staffing Norms (WISN) piloting has been completed in selected HPs and PHCCs of nine districts from Bagmati, Gandaki and Sudurpashchim Provinces. Policy brief and final report on workload requirements for primary health care centres and health posts was prepared through the implementation of health facility-based workload indicators.
- Customization of iHRIS platform for the database management of Nepal Ayurveda Medical Council (NAMC) and Nepal Pharmacy Council continues to make it easy to use as per the demand.

- Completed the development of CPD online modules on Infection prevention and control, and Aerosol therapy: Oxygen and nebulization; Communication to build the capacity of nursing professionals in close collaboration with Nursing and Social Security Division and Nepal Nursing Council.
- Finalized the CPD guideline for nursing professionals in close collaboration with Nepal Nursing Council (NNC) and Nursing and Social Security Division, Department of Health Services
- Development of procedural guidelines for midwives for hospitals.
- Web-based Geriatric Training package for Primary Health Care Professionals developed and training conducted.
- Altogether 74 different trainings were conducted on essential health services by the NHTC during the year 2020/21 and 3,379 participants took part in those trainings and some of the major trainings include:
 - Adolescent sexual and reproductive health (ASRH) training conducted (352 participants)
 - Comprehensive family planning (COFP) and counselling training conducted (349 participants)
 - Training on insertion of implant (370 participants) and intra-uterine contraceptive device (IUCD) (255 participants)
 - Training on medical abortion (MA) carried out (255 participants)
 - Training on skilled birth attendant (SBA) conducted (698 participants)
- Other major service and management related training and capacity development measures include:
 - Reproductive, Maternal, Newborn, Child and Adolescent Health interim guideline orientation and ODK mobile App orientation to more than 15,000 participants (virtual platform)
 - SBA Clinical Mentor refresher to 182 clinical mentors (virtual platform)
 - Training on biomedical and hemodialysis (40 persons)
 - Training on Clinical Training Skills conducted for (16 participants)
 - Capacity development training on Infection prevention and control (e-based)
 - Trained nurses on nursing leadership development (30 participants, based on virtual medium)
 - Training on leadership and capacity development (67 participants)
- Some of the important trainings conducted on COVID-19 Response management include:
 - COVID-19 counselling training ((58 participants)
 - COVID-19 preparedness and essential critical care management training (33 participants)
 - COVID-19 preparedness and response training (21 participants)
 - COVID-19 prevention, control and management (68 participants)

Table 3.1b.1: Distribution of human resources for health across Federal, Province and Local Level

Level	Federal	Province	Local Level	Total	As % of total
4/5/6	299	776	18,509	19,584	61.99
5/6/7	1,114	1,471	6,540	9,125	28.88
8	363	377	254	994	3.15
7/8	226	319	11	556	1.76
9/10	470	544	33	1,047	3.31
11	175	106	-	281	0.89
12	3	-	-	3	0.01
<i>Bishishta</i>	2	-	-	2	0.01
Total	2,652	3,593	25,347	31,592	100.0
Total (in %)	8.4	11.4	80.2	100	

Source: National Strategy on HRH in Nepal (2077/78- 2086/87), MoHP.

As presented in the table 3.1b.1, above 80.2% of staff are placed at the local level. This is mainly because of the large number of HFs (particularly HPs and PHCCs) operational at the local level as well staffing at municipal offices. The remaining staff are stationed at federal (8.4%) and provincial (11.4%) levels almost equally.

Challenges

- Although the staff adjustment process has been completed, there are still vacant sanctioned posts that are to be fulfilled to ensure the delivery of high-quality services.
- Ensuring the fulfilment of the staffing of health facilities as per minimum service standards also remains to be a challenge.
- Many of the hospitals are in need to revisit their human resources structures to tailor the increasing demand of services and for advancement the technical competency. Wide gaps in HR has been felt and their fulfillment is affected due to robust projection of the needs and its alignment with the production. The COVID-19 pandemic has further widened the HR gaps and affected the quality of services at health facilities.
- Although the new cadre of midwives have been produced, the sanctioned posts are yet to be created. As a result, the skills of the midwives within the government system have not been fully utilized due to their deployment at other hospitals with no maternity services.
- As per the Medical Education Regulation 2077, an institution cannot run two level of academic programmes which has unintended effect on the commencement of additional midwifery programs like PCL midwifery and bridging course.
- Though Local Governments (LG) can recruit staff on a contractual basis, there are challenges in ensuring health sector staff as demanded as per the organizational structure as per the requirements of the local levels.
- Mismatch of the health staff at the local level; general tendency being over posting in urban setting and under posting in rural setting.
- Mismatch between the production and actual needs of HRH also remains a challenge.
- Due to the limited sanctioned posts, there are challenge to fulfil HRH in some specialities, such as hospital managers and biomedical engineers.

- Due to unclarity and budget allocation, management of hazard allowances to the health workers has been challenging

Way Forward

- Implementation of the national strategy on HRH; further analysis of the projections against the availability of HRH to facilitate the implementation
- Capacity of health workers in providing quality service needs to be developed continuous professional development needs to be institutionalized in the systems
- Carry out assessment of the health workers requirements as per the minimum service standards and inform the O&M Survey and HR recruitment process
- Strengthen the HRH unit in the MoHP to carry forward HRH-related activities.
- Reform and strengthen regulatory capacity of the existing professional councils in light of the federal context.
- Training of health workers in critical areas like mental health, trauma and services for senior citizen
- Enhance the partnership with the academic institutions for the production of human resources (number and types of profession) as per the need and for quality assurance of the medical education
- Lesson learnt in service provision during COVID-19 pandemic needs to be institutionalized and sustained.
- Restructuring and reorganisation of the health institutions in light of lessons from COVID-19 as proposed in the policy and programmes of the government
- Clarity and specific guidance needed on hazard allowances and accordingly facilitate the implementation
- Continue to mobilise human resources developed through government scholarship strategically to address priorities.

Outcome 1.c Procurement and Supply Chain Management

Background

To achieve the outcomes of NHSS, MoHP aims to improve the procurement and logistics systems of health sector with capacity enhancement in supply chain management and implementation of innovative approaches. Procurement and Supply Chain Management (SCM) are interdependent activities that contribute to ensuring delivery of high-quality health services to people. The principles of economy, efficiency, fairness, competition, and transparency are paramount in both procurement procedures and logistics management, leading to Value for Money (VfM). In this regard, MoHP realised the importance of strengthening the procurement and supply chain cycle and developed, endorsed, and implemented the Procurement Improvement Plan (PIP, 2017–2021). As transformation of the PIP into a strategic document, MoHP is in the process of endorsing the Public Procurement Strategic Framework (PPSF, 2022–2026) as a guiding document for all tiers of governments in health sector. This framework will provide strategic policy guidelines for all spheres of health governance in Nepal.

Procurement management in the health sector consists of updating and enhancing pre-bid information system, including market analysis, scaling up the Technical Specification Bank (TSB) and Logistics Management Information System (LMIS). Proper monitoring of the progress of PIP, Annual Procurement Plan (APP), Master Procurement Plan (MPP), Consolidated Annual Procurement Plan (CAPP) and their effective implementation is required to ensure the timely delivery and distribution of medical goods and equipment. Since FY 2014/15, MoHP has been monitoring and evaluating the compilation and consolidation of APPs through its departments. Since FY 2018/19 MoHP started to monitor the APPs of all the Procuring Entities (PEs) under it, and it has been done through the e-CAPP system developed in TABUCS. Strengthening of post-bid evaluation, contract management, supply chain management, quality assurance and capacity buildings are also the important components for better procurement management.

Supply Chain Management (SCM) in the health sector consists of preparing, operating, and monitoring logistics needs from the procurement to utilisation of medical goods and equipment. It involves all the functions of procurement management including management of transportation, warehouse development to ensure proper storage, and timely distribution of medical goods and equipment. Under this comprehensive system, the DoHS/MoHP is implementing the following reform packages on Procurement and SCM:

- Enhancing strategy and planning with effective Monitoring and Evaluation (M&E) functions.
- Improving forecasting and quantification techniques.
- Proper procurement planning and solicitation.
- Enhanced contract management and quality assurance.
- Standardisation of warehousing and inventory management.
- Enhancing management information system practices through e-LMIS, GHRM.
- Promoting capacity development programmes in all levels of government.

Major Progress in FY 2020/21

Despite the disruption of COVID-19 pandemic, the MoHP has made impressive progress in improving the performance of procurement management in F/Y 2020/21. The following are the major progress made:

- Transformation of the Procurement Improvement Plan into Public Procurement Strategic Framework:* MoHP had prepared and endorsed the PIP 2017–21 in November 2017. After devolution of procurement functions to SNGs, the 2019 National Joint Annual Review agreed to transform the PIP into the Nepal's Health Sector Public Procurement Strategic Framework (NHSPPSF) as an umbrella strategic policy document on procurement and SCM. The PIP was reviewed to cover all spheres of health governance and developed into the NHSPPSF for overall health sector reform. In 2020/21, this took the form of PPSF and prepared in Nepali language too including the interventions on standardising Emergency Procurement. The PPSF was presented in the Policy Coordination Committee and PFM Committee of MoHP. It is under discussion and in revision to address the lesson learnt from the challenges of COVID-19 pandemic and to align with the new sector strategy in preparation. It is planned that this framework should have strategic guidelines to improve the procurement and supply chain at all spheres of health governance in Nepal.
- Functioning of CAPP Monitoring Committee:* As a team approach to monitor the execution of CAPP a CAPP Monitoring Committee (CAPP-MC) has been formed under the chairmanship of the Director General (DG) of the DoHS since 2017/18. The committee is monitoring the progress of procurement, issues and challenges on procurement execution. Despite formal meeting of the committee could not held due to COVID-19, the members of the committee meet at the DG office periodically and discuss about the procurement progress and execution. It could expedite various procurements in time even in the pandemic and to cope the emergency need of goods and supplies for managing the COVID-19 destructions.
- Federal Procurement Planning and Consolidation Electronically:* Until FY 2017/18, DoHS and its divisions used to prepare the departmental CAPP within the specified timeframe. In FY 2018/19 federal CAPP was initiated and executed by MoHP for the first time. Later, in 2019/20, MoHP designed and piloted the online CAPP (e-CAPP) under TABUCS and orientation training was held for officials of MoHP and all federal Procuring Entities (PEs) under MoHP. Thus, the e-CAPP module in TABUCS has been operational for procurement planning and monitoring. The e-CAPP of 2020/21 also prepared in time.
- Upgrading of TSB:* The Technical Specification Bank (TSB) was restructured and systematised on the DoHS website in FY 2017/18 and is open to use for all stakeholders. Over 300 system users were registered in FY 2017/18. By the end of FY 2020/21 the number of registered users reached to 1200. Similarly, more than 31,000 times technical specifications were downloaded till the end of the FY 2020/21. In FY 2020/21, TSB was upgraded with additional features including a separate COVID-19 section with 117 coded technical specifications of COVID-19 medicines, supplies and equipment. At the same time 24 new technical specifications of medical equipment and 3 specifications of pharmaceutical area are also added in the TSB.
- Market Analysis of Essential Medicines in Nepal:* A Market Analysis (MA) of essential medicines in Nepal was done to assess the production cycle and availability of essential medicines manufactured by the domestic pharmaceutical industry and the price variation among the different levels of governments. It showed the increasing trend of pharmaceutical companies in Nepal and contributing the requirement of essential medicines in domestic market. Pharmaceutical companies are providing good

opportunities for employment to pharmacists, and they are participating in the government supplies. However, large number of pharmaceuticals are still supplied from India and some other countries. However, provinces, local levels and hospitals experience short supply and overstock of medicines, while there are substantial differences in prices within and between provinces, local levels and hospitals. A Rapid Appraisal of Drug Procurement and Supply Chain Management systems in Nepal has also been recently completed.

- *Standardisation of Procurement Process:* Electronic Government Procurement (e-GP) system was introduced by DoHS in FY 2014/15. It was further enhanced with online bidding system (e-GP II) in FY 2017/18, which is now became the regular practice. The online bidding system has contributed for the procurement carried out electronically to the highest recorded level of 99 percent of CAPP value in 2020/21. Similarly, Standard Bidding Documents (SBDs) for health sector procurement including the framework agreement developed and sent to the Public Procurement Monitoring Office (PPMO) for endorsement.
- *Use of Standard Operating Procedure:* In FY 2017/18, two sets of SOPs: 1) Procurement of Medical Goods and 2) Operation of Electronic Government Procurement (e-GP) in Health Sector were prepared, endorsed, and distributed to all levels of health institutions. They have been found appropriately implemented across the three levels of governments. The use of SOPs has been supported by providing procurement clinics at the DoHS and MoHP. In addition to cope the emergency procurement for responding and managing the COVID-19 pandemic MoHP developed an SOP for Emergency Procurement and disseminated.
- *Learning from Emergency Procurement:* There is provision of procurement in special circumstance (Emergency Procurement) in the PPA and PPR of Nepal. However, the emergency procurement was less practiced in health sector. It was difficult to determine what items are needed when and where (Isolation centre, Quarantine, Point of Entry, Hospitals, Municipalities) for combating the crisis due to COVID-19 pandemic. In such situation MoHP/DoHS learnt to quantify the need in the pandemic, develop their technical specifications and find the strategic source. The short cut method of solicitation of bids using e-GP was established and awarded the contract in time. A customised bidding document developed and used, which was acceptable to the funding partners like the World Bank and the Asian Development Bank. Following table lists emergency procurement by Management Division/DoHS for the COVID-19 response in the FY 2020/21.

Table 3.1c.1: Emergency procurement for COVID-19 response in FY 2020/21 funding by development partners

Amount in million

Description of Goods/Contract	Funding	Contract Amount
Procurement of VTM	WB	26.31
Procurement of RT-PCR and RNA Extraction Kit	WB	125.43
Procurement of Oxygen Cylinder for COVID-19 Control and Prevention	ADB	26.79
Procurement of ICU Ventilator, Patient Monitor and BiPAP	ADB	3.25

Procurement of ICU Medicine for COVID-19	ADB	3.35
Procurement of ICU Consumables for COVID-19 Controls and Prevention	ADB	21.56
Procurement of General Bed with Accessories for COVID-19 Controls and Prevention	ADB	35.01
Procurement of RT-PCR, RNA Extraction and VTM For COVID-19	ADB	91.53
Procurement of Oxygen Concentrator for COVID-19	WB	9.38
Procurement of PPE Items and other goods for COVID-19	WB	110.04
Procurement of RT-PCR Kits for SARS COV-2 UK Variant (B.1.1.7)	ADB	4.24
Automated RNA Extraction Kit	ADB	5.38
Procurement of RT-PCR, RNA Extraction Kit and VTM	WB	71.47
Procurement of RNA Extraction Kit (Automated)	WB	55.65
Procurement of ICU Ventilator	WB	122.72
Procurement of VTM	ADB	13.47
Procurement of VTM	ADB	21.47
Procurement of RNA Extraction Kit	ADB	5.56
Procurement of Antigen Kit (UNICEF)*	WB	2.17
Oxygen Concentrator and Oxygen Plant (UNOPS)*	WB	4.52

Note: Amounts are in NPR unless otherwise mentioned; * Amount in USD.

- COVID-19 Vaccine Initiative:** Since the beginning of the emergency approval of COVID-19 vaccine in the several developed countries, MoHP also took initiative to procure and obtain COVID-19 vaccine in Nepal. The methodology and procedures for procuring vaccine for COVID-19 explored from the beginning. Initially the technical notes on vaccine selection, procurement, and deployment plan prepared. As it was difficult to procure the COVID-19 vaccine from the regular procurement procedure, a special provision of regulation was endorsed by the cabinet and special contract have been done with the vaccine manufacturers.
- Formation of Technical Committee:** A technical committee of Biomedical Engineers was formed in coordination with the Director General of DoHS, including a Steering Committee led by the DG and a Technical Working Committee led by the Biomedical Engineer, Armed Police Force Hospital. This is a pool of technical resources for management and maintenance of medical equipment throughout Nepal, especially the equipment donated by various organisations during the pandemic. The committee will provide trainings and TOTs to the technicians throughout Nepal for preventive maintenance of the medical equipment. Similarly, a mapping of Oxygen Plants operating in all hospitals of Nepal as well as the pipeline status of new plants prepared during the crisis of oxygen for the COVID-19 patients and calculated the demand of oxygen during the pandemic.
- Capacity Enhancement:** No formal trainings are conducted as means of capacity enhancement in FY 2020/21 due to COVID-19 pandemic. However, distance support through online media and procurement clinics through phone were massively used in this FY for the capacity enhancement and support. Despite, the e-LMIS has been rolled out

throughout the country with capacity building programs on using of e-LMIS, logistics and inventory management.

- *ICT Usage in Grievance Handling:* The Grievance-handling and Redressal Mechanism (GHRM) is an important element in procurement and SCM; though it is not given very much importance in our context. A web based GHRM system was developed, endorsed and executed in FY 2018/19. This system is installed on the website of Management Division of DoHS.
- *Monitoring Management through Committee Approach:* MoHP formed the Public Financial Management (PFM) Committee under the chairmanship of the Policy, Planning and Monitoring Division (PPMD) Chief and endorsed its ToR to monitor overall financial management matters, including procurement and SCM. Similarly, CAPP-MC is also monitoring the progress and execution of CAPP. The PFM Committee has been monitoring the function of the CAPP-MC as well.
- *Forecasting and Quantification at SNGs:* LMIS data is used for forecasting and quantification of drugs and commodities for the coming year. This forecasting technique commonly used historical consumption data, morbidity, demographic data and programme considerations to predict yearly procurement needs. PEs prepared their forecasts based on data from the HMIS, LMIS, demographic health surveys, census data and other health-related policy documents. LMIS software provides national, provincial, district and local-level requirements as the basis for health commodity procurement planning and delivery schedules as commonly practised. The provincial forecasting and quantification activity has now been devolved to ease the provinces to procure health commodities in coming year.
- To cope with the demand for storage of vaccines, especially the COVID-19 Vaccine, refrigerators have been established in provinces and districts. Similarly, 4 ultra-cold chain freezers with a capacity of 100 litres each have been established at central vaccine store, Teku to accommodate COVID-19 vaccines, which require ultra-cold chain to keep the vaccine safe. Training on handling of the ultra-cold chain freezers has been provided.
- *Pipeline Reporting and Monitoring:* Drug status pipeline reports are produced from live e-LMIS at the national and provincial level. The status thus reported is verified and shared with stakeholders and partners for regular intervention so as to ensure uninterrupted stock status at all levels.
- *Rollout of the e-LMIS System:* In FY 2020/21, the e-LMIS has been rolled out to 1023 health stores including 753 local levels, provincial, federal and district stores. About 77% of the stores are reporting online as real time data. Apart from those, other 4,143 stores report through LMIS quarterly. Thus, in total 5166 stores are reporting the supply chain data regularly throughout Nepal.
- *Ensure Master Data Management and Interoperability:* The e-LMIS has been developed such that a shared dashboard that includes key indicators, like: HFs' reporting percentage and growth patterns, expiring/expired commodity situations country-wide, and stock availability status. They are regularly reviewed by concerned authorities for appropriate decisions based on the data. Analysis reports were regularly circulated to the districts and relevant stakeholders to resolve any identified issues.

- *Enhancing Warehouse and Inventory Management:* Two General Warehouses (One at Teku and one at Pathalैया) constructed and came in use in FY 2020/21. Vaccine stores are constructed in seven provinces and in the process of being equipped with Cold Chain Equipment. Similarly, process for the construction of a modern vaccine store at Teku has been initiated. Warehouse Management Guideline has been developed and distributed to all levels. The Provincial stores are enhancing with racks, material handling and safety equipment as well as the HR of warehouses have been enhanced with the support of EDPs like USAID, UNICEF, FHI and WHO.
- *Use of Available Resource and Support in Emergency:* The Humanitarian Staging Area at the Tribhuvan International Airport utilised and has been functional by DoHS for COVID-19 response. The materials donated by various organisations were stored at the HSA and distributed to the needed places with recording on e-LMIS. Transportation system was streamlined with the support of WFP.

Highlights of FY 2021/22

- *COVID-19 Vaccine Procurement:* As an initiation from the beginning of the emergency approval of COVID-19 vaccine in the vaccine manufacturing countries, MoHP could procure and administer to more than 40% of the target population of age 18 years and above.
- *Upgrading of Vaccine Stores:* In view of storage and distribution of COVID-19 vaccine, MoHP upgraded the central store and provincial stores. The central store at Pathalैया has been operational with cold chain facility. In addition, with the support of EDPs, MoHP could step towards the availability of ultra-cold chain facility.
- *Standard Procedures for Quality Assurance:* Considering the devolution of procurements in SNGs and relatively weak quality assurance capacity at the PEs in SNGs, SOPs for Pre-shipment Inspection (PSI), Post-delivery Inspection (PDI) with Sampling Guidelines and Quality Assurance procedures has been prepared and in the process of endorsement.
- *Increment of TSB Usage:* As there is added separate area for COVID-19 items and addition of updated technical specifications in the Medical Equipment and Pharmaceutical area, the use of TSB is taking pace. At the end of September 2021, the number of TSB users reached to 1,498. The number of downloads of various specifications till 30 September 2021 is 34,757 and number of searches of specifications reached 27,253. To date there are 1,138 technical specifications of Medical Equipment, 124 specifications of Pharmaceuticals and 117 COVID-19 specific specifications of medicines, supplies and equipment.
- *Capacity Development to Provinces:* Capacity development of provincial officials through procurement clinics has been continued. Continuous support was provided for e-GP execution, bidding document preparation, technical specification, evaluation, and handling suppliers' queries. Orientation on CAPP preparation organized at provinces and CAPP preparation process has been rolled out to three provinces from this fiscal year. Province 2, Lumbini Province, and Sudurpashchim Province started to prepare their APPs and CAPPs this year following the standard process, methods, formats, and guidelines. Three trainings on e-GP system, each of three days, organized at the three provinces.

Challenges

- Inadequate system linkages between AWPB, TSB, LMIS and CAPP in preparing procurement proceedings and pre-bid information and planning systems, e. g. APP/MPP approvals, market study, finalisation of specifications, cost estimation, SBD preparation and approval directly affects their timeliness.
- There is no regular practice of conducting market analysis as the pre-bid information on procurement. Cost estimate, sourcing analysis and procurement risk management system is limited. Availability of medicines in local/foreign markets, and price analysis are almost not practiced when approving cost estimates. Cost estimation practices are therefore not very realistic or effective resulting the high deviation between the cost estimate and contract value specially in procurement of medicines.
- The existing LMIS/e-LMIS is not comprehensive enough to inform the quantification and forecasting of drugs to cover all SNGs and federal requirements. The stock status of only few basic health medicines is monitored quarterly basis and the status of available equipment is not yet monitored through the system.
- There are gaps in terms of designing SBDs specifically for the procurement of health sector goods like medicines, vaccines, and contraceptives. The absence of health-specific SBD in the e-GP system is also hindering the procurement of medicine in all spheres of government. There is no SBD for Framework Agreement too, so that the medicines could be purchased at all levels by bulk Framework Agreement.
- Evaluation of procurement systems is delayed by the lack of post-bid information systems, such as the Procurement Compliance Audit System (PCAS), Contract Management System, Quality Assurance Plans and Risk Mitigation Plans (RMPs).
- Federal government has devolved the procurement functions of essential drugs which might have caused a significant challenge in terms of quality and price variations among the different subnational Pes. Likewise, warehousing facilities in all the provinces are traditional and do not have adequate human resources as well as inadequate designed spaces for the adoption of good warehousing practices.
- Skilled workforces for the operation of e-GP, e-CAPP, TSB, e-LMIS are yet to be developed and deployed in all spheres of government. Similarly, institutional memory has been weakened by rapid transfers of staff involved in procurement and supply chain systems.
- Weak contract management practices have caused issues relating to delay in delivery, variations, and extension of time. Contract management capacity and its monitoring are also very weak: CAPP-MC and pipeline meetings has been reporting through manual preparation of Excel spreadsheets from individual active contract files.
- Capacity building at SNG level is critical in the case of procurement of medical goods. Similarly, capacity building at SNG level is another issue to be resolved.
- Monitoring of the e-CAPP by the MoHP is not yet robust. DoHS has formed the CAPP-MC to monitor the procurement cycle of DoHS only, but similar system must be practices by the PFM Committee at MoHP. CAPP monitoring functions are not yet established at the provinces. MoHP and its PEs annually have relatively high audit observations, mainly

originating from non-compliance and mis-procurement, which also lead to stockouts and over-stocking of commodities.

- Operation and maintenance of equipment on regular basis is a challenge in terms of availability of skill HR and adequate funding.

Way Forward

- *Separate Provisions for Medical Goods Procurement:* Specific provisions for the procurement of medical goods are required in the PPA/PPR. This will lead to health-friendly procurement practices in the health sector. Amendments of the PPA/PPR shall focus on framework agreements, commodity contracts and G-2-G (Government to Government) arrangements for health sector use. Further, the PPMO needs to develop and endorse separate SBD for procurement of health sector goods and SOP for emergency procurement. MoHP also need to develop various guidelines for quantification, forecasting, and the disposal of expired drugs at both federal and SNG level.
- *Enhance Committee Approach of Monitoring:* Focus on PFM and CAPP-MC to strengthen its monitoring functions to reduce audit observations in procurement and SCM at all levels. ICT-based monitoring functions should also be initiated at SNG level.
- *System Development and Standardisation:* Pre-bid information and planning systems should be strengthened, including market analysis, cost analysis, sourcing analysis and risk analysis in procurement and SCM. In the post-bid stage, enhance the use of e-GP, e-LMIS, e-CAPP; and incorporate specific SBD for health sector into the e-GP system. The Procurement Clinic function should be institutionalised to give troubleshooting and technical support for SNG level procurement. The LL approach currently being implemented shall be strengthened as a focal hub for SNG level technical support.
- *Quality Assurance:* Ensure delivery of the Quality Assurance Plan, including pre-supply inspection and post-delivery inspection of drugs at all levels of health governance.
- *Strategic planning:* Strengthen strategic planning skills, data-driven planning and decision making at various procurement and SCM. Capacity building for quantification and supply planning, forecast accuracy, stock status analysis to be scaled up to the Provincial and LLGs.
- *Endorsement and implementation of PPSF:* PPSF shall provide a policy guideline for improvement of procurement and SCM system in health sector of all levels. The provinces must prepare, endorse, and implement coherent Provincial Procurement Improvement Plan (PPIP) with respect to their need.
- *Capacity Building:* Capacity building of institutions and personnel is required at both federal and SNG level. A programme of competency-based in-service training, supportive supervision and mentorship is needed to improve SCM performance at SNG level. Professional and institutional capacity building at all levels of health governance with systematic provisions to retain institutional memory is necessary.
- *Institutionalisation of Epidemic Response:* Epidemic crises are almost common in Nepal each year. The MoHP therefore needs to formulate permanent institutional arrangements for epidemic response and the provinces are also to be strengthened for such crisis.

3.2 Outcome 2: Improved Quality of Care at Point-of-delivery

Background

Improving quality of care at the point-of-delivery is a priority for NHSS. Quality health services is also one of the strategic directions towards the overarching framework of the universal health coverage. The outcome of improved quality of care at the point of delivery is to be delivered under three outputs as listed below:

- High-quality health services delivered as per standards and protocols
- Quality assurance system strengthened
- Improved infection prevention and health care waste management.

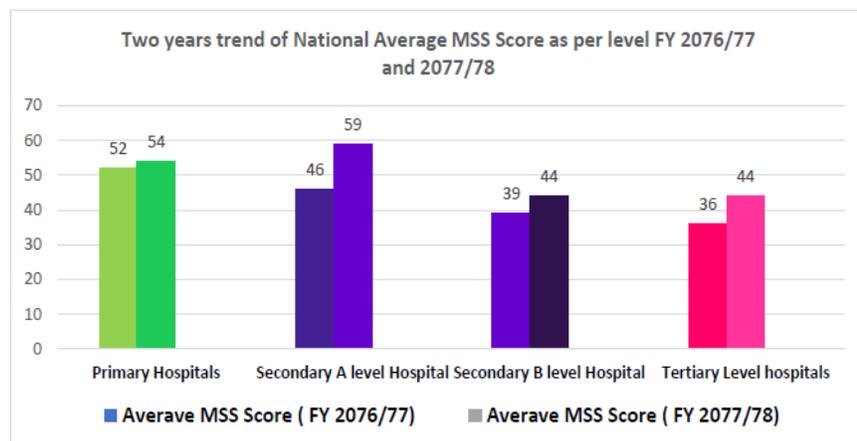
Both the NHSS and the National Health Policy (NHP), 2019 prioritise quality of care and have proposed to have regulations to accredit health institutions and quality assurance mechanisms for allopathic and Ayurvedic medicines, supplies, lab services and medical equipment. Progress has been towards the implementation of the MSSs for HPs and primary-, secondary-, and tertiary-level hospitals. Moreover, as per the reforms proposed in the policy and programme of 2020/21, MoHP has initiated the process of drafting the legislations for establishing Centre of Disease Control (CDC), Food and Drug Administration (FDA), and the Health Accreditation Authority have been prepared.

Major Progress in FY 2020/21

- Endorsement of the Public Health Service Regulations, 2077 (2020) as an operational legal framework of Public Health Service Act, 2075 (2018). The Public Health Service Regulation defines the BHSP and outlines the institutional arrangements for licensing and the emergency health care package. Similarly, Safe Motherhood and Reproductive Health Rights Regulations have also been endorsed in 2020.
- Health Institutions Operation Standards 2077 had been developed and endorsed as per the provision of the Public Health Services Regulations. These standards set the criteria for various types of the health institutions to establish, operate and upgrading.
- Legislations for establishing Centre of Disease Control (CDC), Food and Drug Administration (FDA), and the Health Accreditation Authority have been prepared. Moreover, consultation with provinces were conducted to collect feedback on the draft documents.
- Standard treatment protocol (STP) for BHS has been developed and endorsed by the government. Standard Treatment Protocol of Emergency Health Services have been developed and endorsed by MoHP. Curative Service Division has planned an orientation on these treatment protocols for all provinces.
- National Standards for Water, Sanitation and Hygiene (WASH) for health care Facility, 2078 (2021) has been developed and endorsed by the ministry as per the public health act 2075 and Public Health Service Regulations 2077. These standards set criteria for different types of the health care facilities to improve the current situation of WASH and reduce WASH related infection by improving quality care.
- Safe management of the hazardous waste generated and stored as residual waste in 3000 safety boxes in different peripheral vaccination centres of Kathmandu Valley, where there

is no medical waste treatment facility, was done as pilot for the COVID-19 vaccination campaign.

- The NHTC endorsed a learning resource package for integrated training on HCWM/IPC, WASH and Environmental Health in June 2021, in a blended e-learning mode with a Learning Management System (Moodle platform). A Master Training of Trainers (MToT) has been planned in coordination with Provincial Health Training Centres (PHTC).
- Integrated Healthcare Waste Management in coordination with local government has been conceptualized and executed at two sub-metropolitan cities, Nepalgunj and Dhangadhi. Construction of centre treatment facility (CTF) for HCWM has been completed at Nepalgunj SMC and installation of equipment is in progress.
- Self-assessment of Department of Drug Administration using WHO Global Benchmarking Tool to improve the drug regulatory system.
- The Technical document for National Action Plan (NAP) for Antimicrobial Resistance (AMR) has been finalised and approved by the National Technical Working Committee. Draft Costing Plan has also completed and review by ministries of amended final version following recommendations awaited
- Data validation, analysis and generation of consumption estimates based on data collected on antimicrobial consumption for reporting to the global surveillance systems of WHO.
- Quality assessment of selected antibiotics and medical abortion drugs from national market.
- Standards have been developed for the use and management of radiation; STP have been prepared on eye diseases, ENT diseases and oral diseases. Similarly, STP on psychiatry, nephrology, gastro-enterology has been developed.
- A draft of procedures for accreditation of health training has also been prepared.
- MSS for HPs were developed in Nepali. Implementation of MSS through the country and monitoring of the progress. Virtual approach was used for orientation to local levels considering the COVID-19 context.
- Preparation of draft Minimum Service Standards for Ayurvedic health institutions
- Various divisions/ centres of the MoHP and DoHS continue developing and revising national strategies and plans for improving quality of care provided at service delivery points. Some of them include: the Nursing and Midwifery Strategy and Plan of Actions (2020–30); SBA/Skilled Health Personnel Strategy (2020– 25) and Training Strategy (2020– 25); and National Health Care Quality Improvement Strategy.
- More than 20,000 brands of medicines registered with DDA



- Preparation of protocols on blood transfusion, IV-line access and Ostomy care
- Developed training modules for nursing staff working in specialized hospitals on:
 - Traction care
 - Shock and management of anaphylaxis
 - Poisoning and its management
 - Enteral and parenteral nursing
 - Documentation, recording and reporting
- Some of the infection prevention and quality improvement related training conducted include:
 - Trained nurses on nursing leadership development (30 participants, based on virtual medium)
 - Capacity development training on Infection prevention and control (e-based)
 - Training on leadership and capacity development (67 participants)
 - Training of ambulance drivers on Infection prevention and control (e-based)
 - Training on Clinical Training Skills (CTS) training (16 participants)
- Development and dissemination of National Essential List of Medicines (Sixth Edition)
- Routine and specific monitoring of medicine retailers conducted (751); Considering the quality issues, complain was lodged for legal action for 45 retailers
- Supervision visits was conducted in 68 pharmaceutical industries and feedback was provided for improvement.
- There are 36 GMP certified pharmaceutical companies operating in the country.
- There are 121 registered domestic medicine manufacturers and registered international medicine manufacturers are 527 (including 21 new) in number.
- There are a total of 22,458 registered medicine retailers in the country.
- As a part of the quality assurance of the medicines, following the monitoring and quality inspection, medicines were recalled from 37 retailers.
- While testing the quality of sample medicines (163) from the market, 15 were found to be of low quality and necessary actions were taken to ensure the quality of the medicines available in the market.
- A Code on use of emergency medicine and vaccines developed on this basis- vaccines for COVID-19 registered.
- Training materials and manual revised/developed on: Burn Care and Management, Road Traffic Accident and Safety, Occupational Health and Safety, Menstrual Hygiene Management, Basic Physiotherapy, Minimum Initial Service Package (MISP), Spinal Cord Injury, AMR Prevention and Psychosocial Counselling.
- After installation of Training Information Management System (TIMS), its onsite training completed in all seven provinces to facilitate its use in managing training related data.
- The National Strategy Plan (TB) for 2021–2026 has been developed and is to be endorsed. In light of the COVID-19 pandemic, implementation guidelines were developed for various programmes and services to ensure the provision of services with preventive measures.
- Programme specific Interim Guidelines were developed considering the COVID-19 pandemic to facilitate the smooth delivery of health services minimizing the risk of COVID-19 transmission.

Highlights of FY 2021/22

- Standard Treatment Protocol for the BHCS has been developed and endorsed. This defines clinical procedure and case management protocol for the services listed in BHCS.
- Operational guidelines for the delivery of BHCS at the local level has been drafted which is in the process of finalization incorporating inputs received during consultations meetings.
- Patient Safety Strategic action plan is in development process as per WHO framework which will be expected to provide comprehensive guidance for patient safety under strategic directions
- Quality Standard and Regulation Division of the MoHP compiled quality improvement tools developed by different divisions and centres. A report with tools, progress, gaps, and way forward has been developed as part of monitoring of the implementation status.
- Development of treatment guideline for victims of Acid Attack
- Malaria laboratory manual 2021 has been prepared under the leadership of EDCCD which has also been endorsed (2021).
- Online platform for the recording and reporting of the MSS assessment data has been prepared for the hospitals which has also been piloted.
- Introduction of Vitamin K programme within MNH services from current FY is planned from provincial level.

Challenges

- Progress monitoring and tracking of the quality using different quality-improvement interventions such as MSS at HP/PHCC level and on-site clinical coaching, because of COVID-19.
- Practice of analysing routine data to measure quality of care is yet to be institutionalised.
- Introduction of a common umbrella Act to manage health academies has been discussed in different forums; however, an appropriate modality for management of health academics is yet to be decided
- Routine service uptake has been affected by the interruption in the functionality of Comprehensive Emergency Obstetric and Neonatal Care (CEONC) and BC services due to various factors.
- Up to date information on functionality of Maternal Perinatal Death Surveillance and Response the EmONC facilities with effective referral mechanism
- Certain programmes did not receive due priority during the COVID-19 pandemic, posing risks for the future: e.g. lack of dedicated focal person for TB at local and provincial levels.
- Roles of federal, provincial and local levels in the procurement of essential medicines and commodities are not yet very clear, which sometimes create stockouts and overstocks.
- The quality assurance framework at health institutions for health service delivery is still weak and need to be strengthened.
- Less focus on data-driven quality assurance mechanisms to improve service delivery.
- Monitoring of the BHS services delivery status across the local levels to ensure smooth delivery of services as per the package.
- Systematic coordination mechanism with provinces and local levels for training management and quality control.
- Limited institutional capacity of PHTCs to reach the respective institutions and local levels.

- Limited technical competency of the DDA to monitor and analyse medicines and their quality inspection in the present context of increasing volume of the pharmaceutical products being consumed in the country.
- Limited institutional capacity of the DDA including human resources to meeting the regulatory need in the present context.
- Quality Assurance of pharmaceutical products and capacity of analytical laboratories
- Weak regulatory framework for the regulation of health technology products, nutraceuticals, and cosmetics along with online pharmacy, advertisement and market management.

Way Forward

- Orientation and capacity development of the health workers on STP and endorsement and implementation of operational guidelines for the implementation of BHSP.
- Finalise national Quality of Care Strategy and Implementation Guidelines, ensuring that planning is based on performance of HFs and needs.
- Recording and reporting of the MSS assessment data as per the online platform and its use in decision making process for the continuous quality improvement.
- Expansion of the online platform for the recording and reporting of MSS assessment data of Basic Health Service Centre including prevailing health posts on regular basis.
- Strengthen legal framework for the regulation of drugs and laboratory services across each level of government.
- Strengthen legal and policy framework for the regulation of pharmaceutical sector by endorsing related law and policy.
- Strengthen institutional capacity of the DDA in accordance with the federal structure.
- Strengthen the regulations as well as facilitation for the smooth operation of private hospitals as per the licensing framework and develop e-licensing submission for private health institutions.
- Prepare STP for cardiology, respiratory diseases, Infectious diseases, pediatrics, gynecology and obstetrics and hematology.
- Prepare a standard on clinical audit.
- Continue to have policy dialogue, discussion, planning, budgeting and programming to enhance implementation of strategy and plan at subnational level to maintain and improve the quality of essential health care services.
- Replication of integrated HCWM model in all sub-metropolitan and metropolitan cities through peer learning.
- Training Needs Assessment for systematising and institutionalising needs-based trainings.
- Strengthen legal framework for the regulation of drugs and laboratory services across each level of government.
- Strengthen the regulations as well as facilitation for the smooth operation of health institutions as per the health institution operation standards.
- Coordinate with universities and the Council for Technical Education and Vocational Training to incorporate national programme requirements in the pre-service curriculum.
- Standardise and strengthen training sites to ensure adequacy of training aids, such as audio-visual equipment, laptops, desktops, anatomical models, furniture/fixers and

simulation-based education equipment, establishing model clinical training sites in each province.

- Build capacity of clinical trainers to place core groups of “pool trainers” and improve their inventory management.
- Enhance coordination, collaboration and partnership between programme divisions, other federal entities, PGs, EDPs and United Nations (UN) Agencies to achieve high-quality health training management and implementation.
- Implement MSS at HP/PHCC level and develop a reporting and monitoring mechanism to link with annual planning.
- Scale-up and strengthening of Maternal Perinatal Death Surveillance and Review (MPDSR) system.
- Focus on functionality and quality of existing CEONC sites instead of quantitative expansion of new sites.

3.3 Outcome 3: Equitable Distribution and Utilisation of Health Services

Background

Reducing inequalities in health outcomes through the expansion of health services is a prime theme of NHSS to guide the MoHP for sustaining and improving progress by focusing on the under-served, the poor and urban communities. Equity is one of the four strategic approaches to achieve UHC, as mentioned in NHSS. The major implications of financial, sociocultural, geographical and institutional barriers reduce access to services. Equitable access to health services requires the development of activities that give priority to populations and areas who lack or have limited access to health services, including those suffering from COVID-19 infection. There are two outputs under this outcome:

- Improved access to health services, especially for unreached populations
- Strengthened health service networks, including the referral system.

The COVID-19 pandemic and response measures such as the nationwide lockdown affected the continuous delivery and utilisation of routine health services. The situation, however, has gradually been improving after the development of new guidelines within the context of the COVID-19 pandemic, which facilitated provision of services with preventive measures.

Major Progress

- Standard treatment protocols for BHCS and for Emergency Health Services have been developed and endorsed by MoHP.
- Despite the COVID-19 pandemic and lockdown, all essential services were resumed across the country by developing interim guidelines.
- CEONC services are being provided from CEONC sites located in 75 districts, two remaining districts are Nawal Parasi (east) and Rukum East.
- A country specific framework for Universal Health Coverage has been developed following consultation with key stakeholders from all levels of governments. It defines what universal health coverage means for Nepal, key priority areas, how to work with key responsibilities. It will be implemented after its endorsement.
- First National Geriatric Health Conference lead by MoHP involving federal and provincial officials, national and international experts from Professional Bodies, Civil Societies, Academia, WHO, students, service providers, non-government organization and care homes.
- Hub hospitals for telemedicine services have been identified at provincial level to expand the service coverage in peripheries
- Initiation of “home based visit” through community health nurse in two places (Bhaktapur and Bardibas)
- Inclusion of additional information in “*Vipanna Nagarik Karyakram*” software (like education, referral, death) to better inform the decision-making process.
- Arrangement of 2nd line ARVs to ensure continuity of HIV services during COVID-19 pandemic
- The number of service delivery sites has increased, ensuring access to essential health care services, especially for remote and rural communities. Many of the local levels have

initiated community-based interventions mobilising health workers and FCHVs particularly targeting safe motherhood services. Some of the initiatives towards improving access to services are included in annexes in the form of case studies.

- Health workers were oriented in providing health services as per COVID- protocol and guidelines
- Health insurance scheme has been introduced in a total of 739 local levels of 75 districts have introduced health insurance schemes.
- A total 4.2 million people (which is 18.48% of total population have been enrolled in the health insurance scheme.

Table: Population coverage in health insurance scheme

Provinces	Total Population	No of enrollees	Coverage (%)
	in '000		
Province 1	4535.9	1398.0	30.82%
Province 2	5404.1	178.4	3.30%
Bagmati	5529.5	865.9	15.65%
Gandaki	2403.8	534.4	22.23%
Lumbini	4499.3	680.5	15.12%
Karnali	1570.4	262.3	16.70%
Sudur-Paschim	2552.5	365.6	14.32%
Total	26495.5	4285.1	18.48%

Source: Health Insurance Board, Teku, Kathmandu

- Health Insurance's database connected with "Nagarik" (Citizens) App making the tracking of the services utilization against the cap easily accessible to the enrolled families
- Financial status of health insurance scheme: Budget allocation from

the MoF is NPR 7.5 billion and a total sum of NPR 3.55 billion has been collected in the form of contribution totalling NPR 11.05. On the other side, expenditure as of September 2021 is NPR 7.36 billion. Due to the enrolment of relatively high-risk population, claim amount is expected to surpass the revenue.

- A case study on "Access to essential health services and care of people living with severe disabilities during lockdown and COVID-19 emergency" completed in 2077/78. EDCD and MoHP has addressed the immediate and long-term requirements through different interventions based the findings and recommendations from the study.
- MoHP organized GBV Multisectoral Coordination Committee meeting. This committee is the federal level coordination committee for the strengthening of GBV/OCMC. The meeting was convened by PMD Director. Participants were National Women Commission Secretary, Deputy Attorney General, Director from Women, Children and Senior Citizen, Directorate of Nepal Police, representative from Ministry of Women, Children and Senior Citizen, Director of the Maternity Hospital, Directors/officials of PMD and Nursing and Social Security Division and GESI Advisors from NHSSP. The meetings were highly fruitful to strengthen the much-needed federal level coordination to address the GBV concerns. The meeting will be held in every two months. It was agreed that multisectoral coordination meetings will be held every two months as per the recommendation of the OCMC Strategic Review (2020).
- MoHP presented good practices, lessons learned and key issues on GBV and OCMCs to Deputy Mayors, District Attorney, District Police, OCMC Focal Persons and Province No 1 partners in six selected districts, alongside PMD and NSSD officials and has plan to continue in other provinces.
- Progress was made to institutionalise OCMC and SSU staff in hospital O&M listings, and forensic medical officer positions in 13 federal and provincial hospitals.

- OCMCs were established in 80 hospitals located in 77 districts.
- Monitoring, and coaching was provided to OCMCs in 29 hospitals. Regular follow up support provided to newly established and selected OCMCs on service delivery, roles of different agencies, coordination, referral system, case management, and recording/reporting through tele-communication, and virtual meeting with Medical Superintendent, doctors, and OCMC Focal Persons.
- SSUs are functional in 44 hospitals and MoHP has planned for an additional 14 SSUs in FY 2078/79.
- 24 hospitals have been providing geriatric health services and in 2077/78, MoHP has plan to scale up this service in additional 25 hospitals in 2078/79. Similarly, MoHP has plan to establish geriatric OPD services from 50 and above bedded government hospitals across the country.
- Participated in various virtual cluster meetings including protection cluster, GBV sub-cluster, GBV network, mental health sub-cluster and psychosocial support thematic working group. Updates were provided about the support provided to OCMCs and GBV and disability services; provisions in revised OCMC Operational Guideline, findings of case study on access to OCMC multisectoral services during COVID-19 lockdown.
- Survey carried out in 2019 estimated that every year there are 68,000 new TB cases, and some 36,500 were missed, and 17000 deaths. Services are being provided through 5478 DOTS centre.
- TB diagnosis through 765 Microscopic Centre, 2 Culture/DST and 89 GeneXpert sites, 3 additional TB reference laboratories are in the establishment process.
- DRTB services provided through 22 DRTB treatment centres, 81 Sub Treatment Centre-81 and Drug Resistant hostels-6.
- Preventive Therapy against TB to children under 5 years and PLHIV is ongoing.
- Interim Guidance on continuation of essential TB services: Going beyond traditional approach of DOTs was produced.
- Number of people covered under Compensation for Treatment to underprivileged citizens for defined catastrophic nature of diseases is given below by condition/illnesses:
 - Heart diseases: 18,729
 - Cancer: 55,176
 - Kidney diseases: 15,904
 - Parkinson's: 203
 - Alzheimer's: 78
 - Head Injuries: 8,437
 - Spinal Injuries: 3,562
 - Sickle Cell Anemia: 2,269
- Developed guidelines on Adolescent and disabled friendly services.
- Colposcopy and PEEP service for cancer cervix expanded in 8 hospitals/ service centres
- Piloting of short acting method of family planning (Sayanapress) has been conducted.
- Continuation of the MPDSR.
- A draft of the FP Sustainability Road Map (2021-2030) has been developed and is in finalization process, in light of FP 2030 agenda as the Family Planning Costed Implementation Plan (FP CIP) 2015-2020 has come to an end.
- Initiation of TB free Palika through micro-planning planned in 22 local level for FY 2078/79

- IEC material like Menstrual Health Product Video endorsed and disseminated by NHEICC.
- MHM training developed and endorsed by NHTC.

Challenges

- Geographical barriers need to be addressed to improve access to HFs, especially to ensure smooth functioning of CEONC sites in remote and difficult areas.
- Limited population coverage under the health insurance programme and yet to expand in two districts.
- Trained staff, including Advanced Skilled Birth Attendants (ASBAs) and AAs, continue to be placed in HFs that do not have CEONC services and/or surgery, resulting in discontinuing services at remote/difficult areas. Access to essential health services has been affected by the COVID-19 crisis, especially for hard-to-reach and vulnerable groups.
- Limited availability of geriatric services and disability-friendly health services and capacity of service providers to adapt services accordingly.
- Strong policy provisions, disability related health strategies and technical guidelines have been introduced. However, implementation is below expectation and hindering access to essential health services and rehabilitation.
- Incorporating the disability information into the HMIS, including birth defects. Referral to higher level facilities for reconstructive surgery is not common.
- Both the continuation and utilisation of SRH services, including FP and maternal health, were found relatively remain low in the COVID-19 context which is expected due to fears around virus transmission – for both providers and clients – and restricted mobility.
- Numbers of maternal and infant deaths reportedly increased during the COVID-19 crisis, compared to the previous year.
- In the absence of HF-level information in the e-LMIS, the real-time stock situation of FP/RH commodities remains to be challenging.
- Defaulter tracing and providing patient-friendly services including side effect management for DR TB
- Stagnant TB case notification and the continuation of TB services in the context of COVID.

Way Forward

- Expand the expansion of CEOC services in remaining two districts, namely Nawal Parasi (east) and Rukum East, in this fiscal year.
- Facilitation of the BHS implementation as per the provision of Public Health Regulation, standard treatment protocol and BHS guidelines.
- Ensure equitable availability and provision of BHS, especially in rural and remote areas, through the continued expansion of services at strategic locations. Continuous monitoring of the services utilizations in disaggregated manner
- Control the uncoordinated expansion of services sites (including CEONC) in easy-access areas of the country as this has resulted in difficulty in maintaining services in remote areas.
- Expand health insurance also in Kathmandu and prioritise the enrolment of the poor in the health insurance scheme.
- Implementation of telemedicine through identified hub-hospitals

- Carry out orientation on palliative care to ensure availability of such services in strategic sites
- Scale up programmes for reaching hard-to-reach communities, such as AFS, VSPs, Roving Auxiliary Nurse Midwives (RANMs), PNC home visits.
- Implementation of National Guideline on Disability-inclusive Health Services. Revise the current HMIS as per the internationally comparable data standards to include disability data.
- Prioritise budgetary allocations for expansion of SSUs, OCMCs, geriatric, disability services, the Leprosy Control Program and mental-health-related programs.
- Ensuring adequate supplies of essential drugs at hospitals and local health facilities prioritizing the needs of the special population groups such as people with severe and complete disability.
- Harmonise the services and benefits available in the BHSP, health insurance and other free health care programmes (SSUs, Deprived Citizens Fund, Aama Programme, Emergency Free Care, Geriatric Health Care, etc.).
- Cabinet approval of the GESI Strategy and development of an Implementation Plan to roll out the GESI strategy at Federal, Province and local levels.
- Approve the Geriatric Health Service Strategy submitted to the Steering Committee.
- Implementation of GESI Strategy, establishment of GESI institutional mechanism and support to province and local levels for the roll out of the GESI strategy. Support local government in health planning focusing on reaching to un-reached and marginalized/vulnerable groups.
- Disaggregated analysis of the health insurance data particularly on population coverage, utilization of the services and absorption against benefit cap, reimbursement to health facilities and disease patterns to further inform the decision-making process
- Meaningful engagement of community and private sectors towards the prevention of TB transmission and treatment.
- Implementation of TB free Palika initiative through micro-planning as planned for 22 local levels in FY 2078/79.

3.4 Outcome 4: Strengthened Decentralised Planning and Budgeting

Background

The NHSS highlighted the need to focus on a decentralised approach to health sector planning and budgeting with an aim to make the health system more accountable to the public and more responsive to their needs. As per the constitutional provision, federal level is responsible to define national priorities, establish the necessary regulatory framework, monitor progress and provide necessary technical and financial resources. Outcome 4 of NHSS has one single output: “strategic planning and institutional capacity strengthened at all levels”.

In practising the federalisation, decentralised planning and budgeting are crucial. As per the constitutional provision, all the three levels of governments have a mandate to operationalise their policies and strategies and to develop an AWPB. The local levels started developing their own AWPBs in FY 2017/18 and FY 2020/21 is the fourth year in this process. Similarly, the province governments also practised the AWPB for fourth consecutive year.

With the promulgation of the Constitution of Nepal, 2015, federalism has provided a major impetus to decentralised planning and budgeting. Each of three levels of governments has a mandate to operationalise their policies and strategies and to develop an AWPB. The local levels started developing their own AWPBs in FY 2017/18 and hence 2020/21 is the fourth FY after the federal restructuring. The MoHP organisational structure and health service delivery system was revised for the federal, provincial and local levels and staff adjustments have been completed. At the province level, the MoSD, PHDs, Provincial Logistics Management Offices (PLMOs) and PHTCs have been established and functional. In some of the provinces, a separate ministry has been established to exclusively oversee and manage the health sector functions at the respective provinces.

Sources of revenue for local levels included revenue transfer and grants from federal and provincial levels as well as tax and non-tax revenue from LGs (just like federal and provincial governments). Similarly, sources of revenue for provinces include revenue transfer and grants from the federal level as well as tax and non-tax revenue from the respective PGs. Funding for the health sector at the provincial and local level have primarily been financed through the conditional grants from the federal level. Additionally respective governments have been allocating additional budgets to address their specific needs. As per the Constitution, federal government presents its AWPB by 15 Jestha (approx. end of May); similarly, provinces present their AWPB by the end of Jestha (Approx. mid-June); and finally, local levels present their AWPB by 10 Ashad (approx. 25 June). For the FY 2021/22, Replacement Bill was presented in the federal Parliament in September 2021 which slightly decreased the overall national budget announced earlier while the MoHP budget was increased by 10.2 billion. Besides the increase in the budget for the COVID-19 response management and decrease in health infrastructure, there were no other major changes in the programmatic budget previously announced in May 2021.

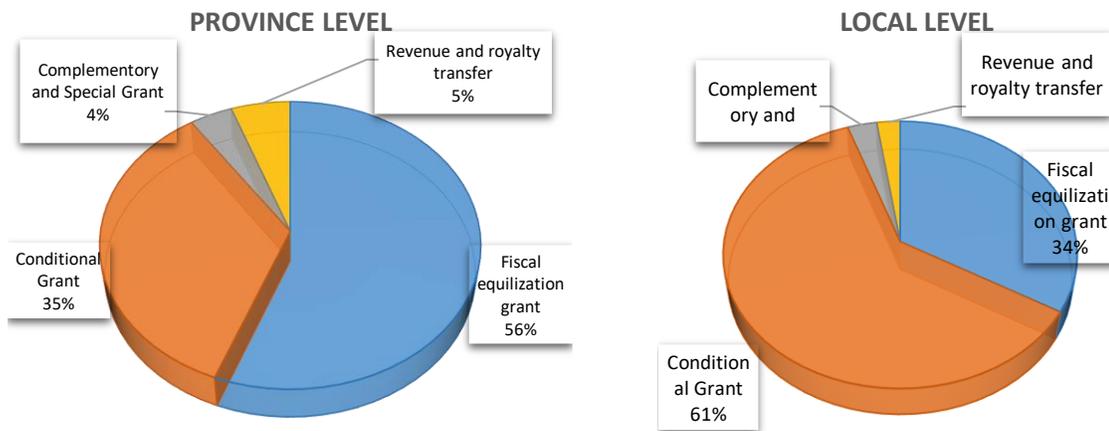
Major Progress in FY 2020/21

- FY 2020/21 is the third FY after the provision of revenue distribution came into effect, which marked greater resources being available for local levels in a flexible manner. AWPBs were presented by each level of government on time. Hence, some of the local

levels faced challenges to timely announce the annual planning and budgeting timeline because of pandemic and natural disaster.

- In course of making systematic budget formulation, implementation, accounting and reporting of the local levels, all the local levels have joined the Sub-national Treasury Regulatory System (SUTRA)⁹ by mid-March 2020¹⁰.
- Different initiatives have been adopted by the local levels to address the context specific issues particularly focusing on the community outreach. An example of the joint commitments of the local levels to improve the public health situation is attached in an annex.
- Among the different components of the fiscal transfer from federal to sub-national level, conditional grants constitute the bulk of the resources, particularly at the local level: 61 per cent of the fiscal transfer is for programmes conditioned by the federal level. The two other major components of the fiscal transfer are revenue transfer and equalisation grants, which are unconditional by nature, and jointly comprise 61 per cent of provincial and 36 percent of local-level revenue. This implies that local levels have less flexibility, relatively, in terms of programme planning and implementation. Composition of the intergovernmental fiscal transfer for provincial and local levels is presented in Figure 3.4.1 below.

Figure 3.4.1: Composition of Intergovernmental Fiscal Transfer for Provincial and Local Levels, FY 2020/21



Source: Red Book of FY 2021/22 and Economic Survey of 2020/21, Ministry of Finance (MoF), 2021.

⁹ SuTRA is a planning, budgeting and accounting software developed under the leadership of Public Expenditure and Financial Accountability (PEFA) Secretariat, based on a decision by the MoF. It is a web-based system developed for facilitating and implementing a structured financial management procedure for SNG. SUTRA has two broader separate applications for provinces and local levels. The local-level application is available for all LGs and the provincial application is available for PGs. This system will provide financial information at the sub-national level to the National Natural Resource and Fiscal Commission, MoF and Financial Comptroller General Office for their purposes. Website: <https://sutra.fcgo.gov.np/>

¹⁰ Ministry of Finance (2021), Economic Survey of 2020/21.

- Revenue transfers and equalisation grants are unconditional by nature and are to be used for administrative and developmental activities, including different sectoral areas such as health and education. Conditional grants are earmarked to specific programmes and activities and are to be spent as per the conditions provided. Conditions are mainly provided in terms of operational procedures, as defined in the respective guidelines and instructions provided by the concerned line ministry and sectoral agency. The share of the conditional grant that local levels have been receiving is dominated by the social sector, particularly the education and health sectors.
- The volume of the various types of grants allocated by the federal government in 2021/22 is depicted in Table 3.4.1. For FY 2021/22, an average of NPR 376.0 million was provisioned per local level in the form of equalisation (NPR 125.5 million) and conditional grants (NPR 230.4 million).
- The values of conditional grants provisioned from federal to provincial and local levels for health were NPR 6,337.8 million and NPR 25,697.6 million, respectively: this comes to NPR 905.4 million per province and NPR 34.1 million per local level, on average.
- Similarly, the volume of per province grants from the federal level for FY 2021/22 were NPR 14,815 million. A summary of equalisation and conditional grants for provinces and local levels is presented in Table 3.4.1.

Table 3.4.1: Summary of the grants to provinces and local levels as provisioned by federal government, FY 2021/22

(Amount in million NPR)

Description	Financial equalisation	Conditional	Special Grant	Complementary Grant	Total grant	
					Total	Average (per level)
Province	57,955	35,873	4,150	5,725	103,703	14,815
Local Level	94,558	173,499	8,310	6,648	283,015	376
Metropolitan	3,250	6,321	202	320	10,093	1,682
Sub-metropolitan	3,619	5,718	212	219	9,768	888
Municipality	41,101	76,997	3,262	2,601	123,961	449
Rural municipality	46,588	84,463	4,633	3,509	139,193	303
Total	1,525,126	2,093,716	124,601	123,729	3,867,172	-

Source: Compiled from MoF (Red Book) including fiscal transfer for province and local levels.

- As in previous years, MoHP developed implementation guidelines for provinces and local levels to facilitate the implementation of health programmes as provisioned through the conditional grants. Such implementation guidelines provide operational procedures for the execution of programme activities planned with conditional grants.
- The provision of grants and own-source revenue of the provinces and local levels has provided an opportunity for integrated planning at the sub-national level. A seven-step planning process defined for local levels bridges the top-down fiscal transfer and planning framework provided by federal and provincial levels with the bottom-up planning process adopted by local levels, starting from the local community.
- The establishment of HFs continued at the local level to ensure that Basic Health Service Centres (BHSCs) are set up at ward level in accordance with the National Health Policy.

BHSCs were planned to be established in wards without HFs; budgetary provisions were made to the respective local levels in FY 2019/20.

- A comparative scenario of federal grants (equalisation and conditional grants) to selected local levels for FY 2020/21 and FY 2021/22 is presented in Table 3.4.2; this shows that the flow of grants is not uniform across local levels. Alital Rural Municipality is exceptional among the sites selected in receiving reduced grant in FY 2020/21 compared to FY 2021/22. Among the selected sites, the highest percentage increase (14%) in the federal grant was observed for Gaur Municipality; this figure is dominated by the substantial increase in the conditional grant component. This indicates that the basis for resource allocation is being adjusted to their needs and revenue-generating capacity, which are the two major components that define the equalisation and conditional grants to local levels.

Table 3.4.2: General pattern of the federal grant to selected local levels

Amount in Lakh NPR

S.N	Municipality	Equalisation Grant			Conditional Grant			Total		
		2020/21	2021/22	Change in %	2020/21	2021/22	Change in %	2020/21	2021/22	Change in %
1	Itahari Sub Metropolitan, Sunsari	3092	3365	8.8	4118	4307	4.6	7210	7672	6.4
2	Sabha Pokhari Rural Municipality, Sankhuwasava	907	954	5.2	1142	1209	5.9	2049	2163	5.6
3	Gaur Municipality, Rautahat	1212	1383	14.1	1759	2008	14.2	2971	3391	14.1
4	Janakpur Dham Metropolitan, Dhanusha	3384	3602	6.4	5285	5270	(0.3)	8669	8872	2.3
5	Hetauda Sub Metropolitan, Makawanpur	3275	3449	5.3	6614	6742	1.9	9889	10191	3.1
6	Shivapuri Rural Municipality, Nuwakot	890	919	3.3	2,002	2,195	9.6	2892	3114	7.7
7	Pokhara Submetropolitan, Kaski	5773	6291	9.0	2692	2874	6.8	8465	9165	8.3
8	Modi Rural Municipality, Parbat	931	992	6.6	2692	2874	6.8	3623	3866	6.7
9	Butwal Sub-Metropolitan City, Rupandehi	3008	3333	10.8	3988	4083	2.4	6996	7416	6.0
10	Tribeni Rural Municipality, Rolpa	952	1008	5.9	1905	2158	13.3	2857	3166	10.8
11	Birendra Nagar Municipality, Surkhet	2365	2520	6.6	4517	4787	6.0	6882	7307	6.2
12	Kharpunath Rural Municipality, Humla	661	699	5.7	1785	1754	(1.7)	2446	2453	0.3
13	Aalital Rural Municipality, Dadeldhura	835	880	5.4	2170	2003	(7.7)	3005	2883	(4.1)
14	Dhangadi Sub-metro, Dhangadi	2902	3148	8.5	5026	5398	7.4	7928	8546	7.8

- The COVID-19 pandemic, along with the nationwide lockdown imposed as a response measure, affected programme implementation towards the last quarter of the FY. Based on the information from local levels connected to the Sub-national Treasury Regulatory Application (SuTRA), 31 per cent of their annual budget had been spent in the first eight months of the FY, which indicates high pressure for budget absorption towards the end of the FY¹¹.
- As per the national policy of establishing a hospital in every local level, MoHP has identified 264 local levels in which to initiate the construction of a municipal hospital with five, 10 or

¹¹ Ministry of Finance (2020), Economic Survey of 2019/20.

15 beds. Accordingly, budget of 7 million, 8.5 million and 10 million NPR was released from the MoF to the respective local levels to begin construction works as per the standards defined by the MoHP.

- In light of the COVID-19 pandemic, temporary five-bed hospitals were provisioned in each of the local levels, with the particular aim of allowing local management of COVID-19 patients and budget was provided to each of the local levels

Highlights of FY 2020/21

- Public Health Service Regulations were endorsed by the Cabinet of Ministers in September 2020. These regulations include the long-awaited BHSP, giving clarity on the core mandates of local levels in relation to the provision of health services.
- Despite a reduction in the overall national budget in FY 2020/21, the health sector was prioritised in the budgetary allocation, given the COVID-19 context. Health sector conditional grants for local levels were also higher than in previous years, in general.
- Based on the field observation/consultation visits, it was also found that local levels prioritised the health sector including the management of COVID-19 response activities as reflected in the budget allocated from internal resources on top of the budget provisioned from the federal level.
- Implementation of the SuTRA has been expanded all across the local levels facilitating the planning and budgeting process at the local level.
- Planning and budgeting for FY 2021/22 was carried out amidst the COVID-19 pandemic and during lockdown measures, which affected the usual planning process, particularly wider stakeholder consultation. As per the Intergovernmental Fiscal Transfer Act, local levels should present the annual budget (estimates of revenue and expenditure) for the next FY by 10 Ashad (25 June).

Figure 3.4.2: Delays in the Presentation of the Annual Budget by Local Levels

प्रदेश	जम्मा स्थानीय तह	बजेट पेश भएका स्थानीय तह	बजेट पेश नभएका स्थानीय तह	बजेट पेश भएका स्थानीय तह%	बजेट पेश नभएका स्थानीय तह%	विस्तृतमा
प्रदेश नं. १	१३७	१३५	२	९८.५%	९.५%	
प्रदेश नं. २	१३६	११०	२६	८०.९%	९९.९%	
बागमती प्रदेश	११९	११६	३	९७.५%	२.५%	
गण्डकी प्रदेश	८५	८५	०	१००%	०%	
लुम्बिनी प्रदेश	१०९	१०९	०	१००%	०%	
कोशी प्रदेश	७९	७९	०	१००%	०%	
सुदूरपश्चिम प्रदेश	८८	८८	०	१००%	०%	
जम्मा	७५३	७२२	३१	९५.८८%	४.१२%	

Source: MOFAGA website, www.mofaga.gov.np; accessed on 08th November 2021.

- However, the Ministry of Federal Affairs and General Administration (MoFAGA) database indicates that many of the local levels were not able to present their budget on time. Figure

3.4.2 presents the budget approval status of local levels as of 08 Nov 2021. This information should, however, be taken only as an indication of the situation: some local levels which had presented their budget on time were categorised as not having presented their budget because related information was not reported on time.

- With a broader objective of enhancing the capacity of the local levels in delivering the mandated functions, MoFAGA has developed guidelines on Local Government Institutional Capacity Self Assessment (LISA). This guideline consists of 100 indicators for the capacity assessment of the local levels under 10 thematic areas. There are some indicators reflecting the health sector capacity while many other indicators are cross-cutting and hence should be contributed by multiple sectors.
- In light of the federal context, UKaid/NHSSP support has been extended until the end of 2022 along with expansion of scope at also subnational level (three provinces (Province 2, Lumbini and Sudurpashchim) and 38 local levels selected on priority basis) aiming to strengthen health systems at the subnational level.

Challenges

- Along with the endorsement of the Public Health Service Regulations, the BHSP has been approved (2020). The challenge is to ensure the regular availability of the quality services all across the local levels.
- Although SuTRA has been used as a platform for the planning, budgeting and accounting of expenditure, it is yet to have its effective linkage with the MoHP and provincial government to effectively link the planning and budgeting across three levels of government.
- Challenges also remain in monitoring programme implementation status at local level to enhance quality of service delivery and improve budget absorption.
- Some local levels have initiated organisational and management surveys to reform their organisational structure while additional staffs are also hired on contract basis. In such context, the federal government may need to set standards and benchmarks to harmonise staffing patterns and address the differential needs across local levels.
- Although the staff adjustment has been completed, there are still higher or lower level of posting of staff in comparison to the sanctioned post affecting the service delivery
- Establishment of the BHS Centres in all wards is yet to be completed. Moreover, rationale allocation of the budget for staff remains to be a challenge due to the non-availability of robust HR database by local level.
- Ensuring continuous availability of the drugs and supplies remains a challenge as supply from province level and local procurement is yet to well align.
- Another challenge is ensuring horizontal and vertical harmonisation in the planning and implementation of health sector programmes across three levels of government. The COVID-19 pandemic added further challenges to the planning process in FY 2020/21 as well as enduring challenges for implementation.

Way Forward

- Supporting Palikas in owning the implementation of BHS through partnership and skill enhancement.

- Establish HFs in each ward and ensure their functionality to ensure the availability of high-quality BHS across the country. Similarly, gradual expansion of hospitals at local level on priority basis is needed.
- Improve the role of technical experts at province/district and Federal level to provide technical backstopping to local level in evidence-based planning and budgeting of health sector in the beginning of the annual planning process.
- Ensure the timely implementation of planned activities and utilisation of allocated budget, particularly given the current context of COVID-19 and limitations in organisational capacity at the local level.
- Accelerate the process for establishing HFs at local levels and prioritise their smooth functionality to deliver the BHSP. Use of the MSS-based assessment can serve as the benchmark to strengthen existing HFs across local levels, which could contribute towards enhancing the quality of health services
- Keeping the participatory planning process at the local level intact which was affected due to COVID-19.
- Revitalization of quarterly and annual review workshops to measure the systems performance and programme implementation status at local and province level.
- Monitoring of the services utilization on BHS and other tools such as MSS and RDQA to improve the quality of the services and data
- Coordinate with the respective agencies to make the SuTRA an effective tool to link sectoral ministries with provinces and local levels in relation to planning, budgeting and expenditure tracking from the federal level.
- Tracking of the expenditure made on health sector including of the resources allocated from the respective level to inform the planning and budgeting
- Continue to develop case studies, document success stories and promote a cross and peer learning approach to strengthening delivery of health services at the local level.
- Enhance the capacity in target setting, program priority setting, activities costing, planning and monitoring.
- Establish a routine communication channel with local levels such as via emails with the health section and responsible officers at the local level to ensure effective communication and facilitation of programme implementation.
- Develop a framework for the enhancement of organisational capacity in crucial areas of the health systems to effectively manage and operationalise health sector functions at the respective levels aligning with LISA framework.

3.5 Outcome 5: Improved Sector Management and Governance

Background

Health sector structural reform along with broader state restructuring has been one of the important aspects of the NHSS. Furthermore, NHSS recognises aid effectiveness as an important facet of health governance through embracing the principles and priorities of the Development Cooperation Policy, 2014, for further strengthening Sector-wide Approach (SWAp) arrangements. There are five outputs under this outcome, as listed below:

- The MoHP structure is responsive to health sector needs
- Improved governance and accountability
- Improved development cooperation and aid effectiveness
- Strengthened multisectoral coordination mechanisms
- Improved PFM.

Major Progress

As per the federal system, restructuring of the health sector has been almost completed with functional organizational entities in federal, provincial, and local level. However, some structural changes, such as establishment of a separate ministry for the health sector at the provincial level, are ongoing as a part of governance and managerial changes. In accordance with the provisions of the Public Health Service (PHS) Act, 2018 Public Health Services Regulations 2020 have been endorsed and is in implementation process. This defines the Basic Health Services and set the operational aspects for its smooth implementation. In the present context, stewardship and timely technical and managerial guidance to SNGs remains vital to the MoHP as regards the strengthening of health system functions throughout the country.

Budget for the FY 2021/22 was presented in the Federal Parliament in September 2021 replacing some finance related ordinances and accordingly overall size of the national budget has been slightly reduced from the previously announced (NPR 1647 billion) amount to NPR 1632 billion. However, health sector has got additional priority in the lately announced budget with NPR 10.2 billion additional budget provisioned to the health sector as compared to the previous announcement in May 2021. Programme implementation guidelines for the implementation of the health sector conditional grants at provincial and local level have been developed and disseminated through the MoHP website.

Since the last quarter of FY 2019/20, the country has been facing the unprecedented challenge of COVID-19: since then, greater priority has been given in the response management of COVID-19. Over time, continuation of the routine health services have been equally prioritised by adopting different approaches such as provision of dedicated wards and hospitals for COVID-19, development of programme guidelines tailored to the COVID-19 context and training to the health workers. In this context, the country has developed its capacity in real-time Polymerase Chain Reaction (PCR) testing from zero to 25,000 tests per day. About 60 guidelines related to COVID-19 have also been developed and are being implemented. Some of them were revised as per the evolving context of the COVID-19. The country has passed through the second wave of the COVID-19 transmission and preparedness and effective management of the cases is still a priority for the MoHP as there remains the risk of surge in cases in future.

Policies, Acts, Guidelines and Structure

- To address the health sector in the changing context, the process of establishing Centre for Disease Control (CDC), Food and Drug Administration (FDA), and the Health Accreditation Authority has already begun. As per the reforms proposed in the policy and programme for 2020/21, draft legislations for establishing Centre of Disease Control (CDC), Food and Drug Administration (FDA), and the Health Accreditation Authority have been prepared. Moreover, consultation with provinces were conducted to collect feedback on the draft documents.
- The PHS Regulations, 2020 and the Safe Motherhood and Reproductive Health Rights Regulations have been enacted and are in implementation. The PHS Regulations define BHS along with other regulatory provisions for management of health services across different levels.
- Health Institution Operation Standards, 2077 has been developed and endorsed which provides the standards for the establishment, operation and upgrading for different types of the health institutions in the health sector. First amendment has also been done incorporating the standards for the Ayurveda and Alternatives Medicines.
- National Human Resources for Health has been developed and endorsed in 2021.
- National health financing strategy has been drafted following the Framework of Rapid Results Initiatives. The final draft is in the consultation process and costing has also been initiated.
- Considering the surge of COVID-19 cases, implementation timeframe of the NHSS has been extended until June 2022 and accordingly JFA was amended in mutual understanding of MoHP and EDPs.
- Development of the health sector strategy for the next phase (National Health Sector Strategic Plan) has been initiated by forming Steering Committee, Technical Working Group and Strategic Plan Drafting Team.
- MoHP is conducting a maternal mortality study aligning with the Nepal Population and Housing Census (NPHC). This study is expected to provide the robust estimates of the maternal mortality ratio in Nepal and can be instrumental to design necessary interventions to avoid preventable mortalities.
- A draft of the Population Policy has been prepared. Resource package and reference manual on population have been developed and are in the process of finalization.
- A guideline has been drafted to facilitate the pre-departure health assessment targeting to those who are going for foreign employment to minimize their suffering in the foreign country.
- Various protocols and guidelines have been introduced to regulate the quality of medical education including the National Medical Education Regulation 2077 (2020).
- The policy of 'one doctor, one health institution' has been initiated in selected federal level hospitals
- A number of policy documents including formation orders '*Gathan Adesh*' have come into effect, particularly in relation to COVID-19 response management.
- Five district hospitals (Manang, Mustang, Humla, Dolpa and Rukum East) have been upgraded to 25-bed hospitals; all remaining district hospitals have been upgraded to 50-bed hospitals. Provincial hospitals are being upgraded to 200 beds and hospitals under the federal government are being upgraded to 500 beds. The upgradation and

establishment of new hospitals are expected to add more than 5,000 and 7,000 beds, respectively; in total, more than 12,000 beds will be added to the system.

- Establishment of a 300-bed communicable diseases control hospital at federal level, and similar 50-bed hospitals in each province has been initiated.
 - Considering COVID-19 challenges and needs, the budget and programme to establish a temporary five-bed hospital was sent to 649 local levels (where there was no hospital).
 - As per the GoN's policy of 'one municipality-one hospital', budget has been sent to 396 local levels to establish five-, 10- and 15-bed basic health care hospitals. Foundation stones for more than 300 of these hospitals were laid on a single day (November 30, 2020).
 - Five district hospitals (Manang, Mustang, Humla, Dolpa and Rukum East) have been upgraded to 25-bed hospitals; all remaining district hospitals have been upgraded to 50-bed hospitals. Provincial hospitals are being upgraded to 200 beds and hospitals under the federal government are being upgraded to 500 beds. The upgradation and establishment of new hospitals are expected to add more than 5,000 and 7,000 beds, respectively; in total, more than 12,000 beds will be added to the system.
 - Establishment of a 300-bedded communicable diseases control hospital at federal level, and similar 50-bed hospitals in each province have been initiated.
 - The work for establishing 10 trauma centres continues: NPR 5 million has been dispatched to each hospital. Free emergency services are being provided from 14 public sector hospitals and a procedure has been developed and endorsed in this regard.
 - An integrated ambulance service system has been initiated and is in operation.
 - The following guidelines have been prepared and endorsed:
 - Various guidelines and protocols on service provision during the COVID-10 pandemic
 - Programme implementation guidelines for conditional grants at provincial and local levels, 2078
 - Local Level Primary Hospital Construction Guideline, 2077
 - Monitoring Framework on Health Infrastructure DPR Preparation and Construction, 2077
 - A procedural document to link the treatment cost of chronic diseases with health insurance, 2078
 - Safe Abortion Services Program Implementation guidelines, 2078
 - Guidelines for operation of extended hospital service programmes
 - National Ambulance Guidelines, 2078
 - Guidelines for strengthening evidence generation on COVID-19
 - A procedural document on clinical trial of medicines and vaccines, 2077
 - Malaria Laboratory Manual, 2077 (2021) and National Malaria Laboratory Plan (2020-2025)
 - Standard Operating Procedure for Telemedicine and Online Health Service, 2077
 - PNC Home Visit Microplanning Guidelines, 2077
- Other guidelines and SOPs prepared and in finalization process include:
- Implementation guideline for introduction and management of C-Section monitoring at Public and Private facilities using Robson Classification in Nepal
 - Clinical coaching/mentoring program implementation guideline for BC/BEONC and CEONC service providers
 - MPDSR Guideline

- Family Planning sustainability Roadmap 2030
- Public Private Partnership for Family Planning guideline
- SBA in-service training strategy 2020-25
- National Health Training Strategy
- Provincial level “Policy Dialogue” conducted in five provinces (Province 1, Province 2, Bagmati, Gandaki, Sudurpashchim) to sensitize on various policy issues
- Inclusion of additional information in “Vipanna Karyakram” software (like education, Referral, Death)
- Prepared software on Female Community Health Volunteers to have national database to inform the decision-making process
- Preparation of procedural guidelines and standards for Geriatric nursing /care homes.
- The revised GESI Strategy has been resubmitted to the Cabinet for approval.
- The LNOB Budget Marker Guideline for the Health Sector has been developed and approved in 2078.
- The Strategy on Prevention of Sex-selective Abortion has been developed and approved in 2077.
- Six-month long "Psychosocial Counselling Training Curricula" package developed under the leadership of NHTC and approved by MoHP in 2077.
- The OCMC and Geriatric health care operation Guidelines were revised and approved as per the federal context in 2077 and SSU guideline in 2078.
- National Mental Health Strategy and Action Plan developed under the leadership of EDCCD and approved by MoHP in 2077.
- The Geriatric Health Service Strategy has been drafted and submitted to Steering Committee for approval process.
- The digitalisation of OCMC, SSU, and geriatric service recording and reporting (RR) tools in DHIS2 platform was completed and the tools were successfully piloted at Lumbini Provincial Hospital.
- The regular meetings of Multisectoral Medico-Legal Service Implementation Committee have been conducted under the chair of the Quality Control and Regulations Division Chief, MoHP as per the Medico-Legal Service Guidelines, 2075 (2019). Medico-legal trainings have been conducted in Lumbini, Bagmati, Gandaki and Province no 1 and 2. 98 medical officers were trained to improve skills critical to reporting and examination of GBV cases especially for rape survivors.
- Public communications and messages to raise awareness about the availability of help to survivors through TV and radio interviews and radio ‘jingles’ prepared. OCMCs aired GBV related messages through local FMs in different local and Nepali languages.
- A study on Medical Tourism has been carried out to explore the approaches to promote medical tourism
- A software on “mero aspatal” has been developed to facilitate the online appointment with doctors
- Conducted a feasibility study on establishment of a federal dental and oral hospital

Disbursement-linked Indicator (DLI) Achievements

- 99.2% of the contracts (by value) managed by the Management Division of Department of Health Services (DOHS) were done through online e-procurement.

- MoHP published on its website an annual report on procurement-related grievances received in financial year 2020/21 and status of resolution.
- 100% of health commodities and 91% of medical equipment procured by Management Division of DOHS in 2020/21 was as per standard specifications.
- E-LMIS was assessed to be used for logistics and supply management of drugs and commodities at all central, provincial and sub-provincial medical stores.
- There was a 58.9% reduction in the understock of tracer health commodities in sub-provincial (district) medical stores of Lumbini and Karnali provinces in 2020/21 over the baseline year of 2018/19, as tracked by e-LMIS.
- The average effective vaccine management (EVM) score of 82% was achieved in 2020/21 over a baseline of 64% in 2014, with seven EVM categories scoring over 80%.
- LMBIS was used for planning and budget submission by MOHP and all its departments, divisions, centres and spending units in 2020/21.
- 97.96% of MoHP expenditure of 2020-21 was captured through TABUCS.
- 91.6% of MOHP's cost centres responded to primary audit queries for 2019/20 within mandated 35 days.
- 68.71% of public health facilities reported on HMIS/DHIS 2 in a timely manner in 2020/21.
- MoHP provided orientation to all Provinces and/or Local Governments on the new Social Accountability Framework in 2020/2021.

Public Financial Management

- The Internal Control System Guidelines have been developed as the New Financial Procedures and Fiscal Accountability Act, 2076 (2019) and Financial Comptroller General Office (FCGO) directives. This guideline was recently (September 2021) endorsed by the MoHP.
- The Financial Management Improvement Plan (FMIP) has been updated as the Nepal Health Sector Public Financial Management Strategic Framework (PFMSF), to guide financial management procedures. This document was endorsed by the GoN (Hon. Minister level) in July 2020. The implementation status of PFMSF was monitored in April-May 2021.
- The internal audit and final audit of FY 2076/77 (2019/20) has been completed under MoHP entities by the FCGO/DTCO and OAG respectively. The audit annual report was presented by the Auditor General of Nepal to the President on 20, August 2021 including MoHP audit too.
- Procurement Strategic Framework: The PIP has been updated as the Nepal Health Sector Public Procurement Strategic Framework (NHSPPSF), which is yet to be approved.
- Financial Monitoring Reports were produced and were submitted to EDPs on time. The draft of the third and final FMR for FY 2020/21 has been prepared and was submitted to EDPs in September 2021.
- Audited financial statements: The audited financial statements of FY 2019/20 have been submitted to the OAG; the audit report was certified by the OAG in September 2021 which was also shared with the EDPs.
- MoHP has improved internal control through internal and final audit clearance, as evidenced in the Audit Status Report of September 2021, disseminated to EDPs.

- Various capacity enhancement events and orientations were conducted at federal and subnational level to facilitate efficient procurement at subnational level. Among them, orientation on Annual Procurement Plan was conducted in Lumbini, Sudurpashchim and Province 2. Similarly, training on e-GPS with technical support of PPMO in Lumbini, Sudurpashchim and Province 2 with the support of UKaid/NHSSP.
- Ministry of Finance has issued Standards for the Efficiency and Effectiveness in Public Expenditure, 2078 which makes different provisions such as on utility and allowances, consultancy services, use of digital technology and human resource management. The standards also make the provision that implementation status should also be covered during the audit process by the concerned entity.

Other activities

- A comprehensive study on maternal mortality in Nepal is ongoing aligning with the Nepal Population and Housing Census.
- For measuring and improving data quality, the online RDQA tool has been developed and is in the process of implementation at various levels to monitor the quality of data produced by HFs.
- Field work of the Health Facility Survey has been completed and data analysis and report writing works are ongoing. From the EDPs, UKaid/NHSSP, UNFPA and USAID are supporting the MoHP in accomplishing this important study. Such comprehensive health facility survey is the first one after federal restructuring.
- The support of the World Bank is ongoing for improving efficiency in public resource management systems and COVID-19 emergency response and health systems preparedness.
- Health Insurance's database connected with "Nagarik" (Citizens) App making the tracking of the services utilization against the cap easily accessible to the enrolled families
- The Health Facility Registry was updated with latest information of public and private sector health facilities. The registry features an interface that allows various information systems to connect to it and keep their individual lists of HFs up to date and synchronised with that of MoHP. The list of facilities in the registry can be viewed at <http://nhfr.moHP.gov.np>.
- The MSS are being implemented throughout the country: an orientation about MSS implementation has been provided to all provinces and subsequently to local levels, and monitoring of implementation of MSS in federal and provincial level hospitals is progressing.
- Bir Hospital has started the online appointment for outpatient services via its own mobile application. The application 'Bir Hospital- Book Appointment' allows users to book appointments with the doctors of their choice. The fee for the registration can be paid via different digital payment gateways. The Civil Service Hospital has also implemented online patient registration and payment system for outpatient services (detail procedure is included in annex). Similarly, different private sector hospitals have also eased people's access to services by creating online platform for the appointment.
- Learnings of the COVID-19 are being documented with the support and consultation with different stakeholders and development partners.
- SRHR TWC formed/revitalized in all 7 provinces. Meetings are being held quarterly under the leadership of Director, Provincial Health Directorate.

- The External Joint Monitoring Review Mission of the National Tuberculosis Programme has submitted its mission report. Moreover, the National TB Prevalence Survey has been completed.
- Guidelines for TB Treatment and Referral Management and the Guidelines of DRTB Community-based DOT Programme have been drafted and endorsed.
- The number of OCMCs in the country has increased to 80, distributed across 77 districts.
- Population Management Division (PMD) had organised a program of awareness raising on GESI and LNOB to health policy makers and influencers including Minister, Secretary, DGs, Division/Centres Directors. The interactive sessions covered GESI concepts, achievements, challenges, gaps and way forward. PMD organized a similar program of interactive sessions to more than 35 Ministry officials.
- The Ministry of Forests and Environment has prepared National Adaptation Plan on addressing climate change issues with the engagement of MoHP on thematic area of public health, drinking water and sanitation.
- Orientation programs have been completed in all seven provinces on the social accountability directives for health sector. The presentations were on social accountability concept/directives, and the model health sector social auditing guidelines for local level.
- Two Joint Consultative Meetings (JCMs) were held in the 2021. Similarly, the NJAR of FY 2019/20 was held in December 2020 in virtual platform considering the COVID-19 pandemic and restrictive measures.

Challenges

- Weak institutional capacity of local level in managing complex functions of the health systems particularly in ensuing context specific policy and plan and steering health programmes in coordination with different level of government and stakeholders.
- Adherence of public health service act and regulations, national SOP, Guidelines at the point of service delivery.
- Ensuring the delivery of BHS as per the recently endorsed package of services across all local levels with limited LG capacity for managing devolved health functions.
- Institutionalization of preparedness measures and strategies for response management drawing lessons from COVID-19 pandemic and management of health sector emergencies. Ensuring due priority on public health measures along with strengthening of the curative health services targeting emerging and re-emerging health issues.
- Vulnerability of the pharmaceutical sector has been evident in the context of the pandemic, underscoring the need for self-reliance and resiliency.
- Continue coordination and collaboration between ministries and different tiers of government (federal, provincial and local levels) to address the health sector issues requiring multi-sectoral efforts. Following the provincial reviews, some of the provinces have made commitments to prioritise specific agenda within the provincial context (examples in Annex).
- LMBIS and CGAS has been made mandatory in Costing Units of the government, though TABUCS is still being used for recording audit queries and for the management of revenues and hospital accounting.
- Maintain gains made in GESI in the health sector at federal, provincial, and local levels.

- There isn't a "one-door" service for GBV survivors as enshrined by the OCMC guidelines and the long-term rehabilitation of the GBV survivors has been a major challenge.
- Low level of awareness on GBV, mental health, and psychosocial issues at community level.

Way Forward

- Develop the health sector strategy for the next phase in accordance with the constitutional mandates, national health policy, 15th Plan, SDGs and emerging challenges in the sector and endorse by June 2022.
- Finalise and endorse the national health financing strategy and accordingly proceed for the implementation enabling the programme harmonisation and enhancing sector efficiency.
- Minimize the external reliance on pharmaceutical sector by creating right incentives for the production of quality medicines and medical supplies in-country.
- Promote multi-sectoral coordination and cooperation at province and local level in better address the social determinants of health.
- Continue to provide technical and managerial support to focal ministries and respective health directorates/centres/units at province, district and local level for uninterrupted health service delivery.
- Support LGs to ensure the effective implementation of BHS as per the PHS Regulations as per their mandates and recently developed STP.
- Coordinate with Natural Resources and Fiscal Commission, MoF, and respective ministries to ensure financial accountability and reporting of health expenditure on regular basis.
- Enhance institutional capacity for implementation of LMBIS, CGAS, eGP system, and preparing the FMR as per the reporting requirements of the MoHP. Also, plan smooth transitioning from the TABUCS to CGAS and other digital platforms to facilitate the financial management and reporting.
- Implementation of electronic medical record (EMR) in federal and provincial hospitals.
- Proper implementation of the Public Financial Management Strategic Framework (PFMSF) for the overall improvement of financial management.
- Continuous monitoring and supportive supervision for the effective implementation of the Internal Control System Guidelines.
- Enhance capacity on procurement at national and subnational level such as on e-GPS in coordination with PPMO.
- Technical backup to implement social audit, MSS and other governance tools at sub-national level.
- Organize sensitisation forums, policy dialogues and peer learning events on strengthening local health governance.
- Promote the use of disaggregated data (from GESI and social inclusion perspective) and evidence during planning, programming and monitoring at each level.
- Endorsement and implementation of GESI strategy and mainstreaming of GESI aspects in all policies, strategies and action plans to be formulated and revised.
- Implement of Gender-responsive Budget Guideline and LNOB Budget Marker Guideline at federal, provincial and local levels.

- Promote for the establishment of institutional mechanism at provincial level for the mainstreaming of GESI agenda in policy and programmes.
- Develop protocol geriatric health services.
- Develop training package for the implementation of GRB and LNOB budget marker guidelines at all levels (federal, provincial and local level).

3.6 Outcome 6: Improved Sustainability of Healthcare Financing

Background

Nepal's commitment towards UHC is well reflected in the National Health Policy (NHP) 2014, which ensures the provision of free BHS as a fundamental right of every citizen. The policy envisions providing access to quality health services (beyond BHS) in an affordable manner by ensuring financial protection in health. The policy aims to do this by gradually increasing the state's investment in the health sector, increasing per capita expenditure and reducing out of pocket expenditure (OOPE) through social health protection arrangements, including targeted subsidies.

For the improved sustainability in healthcare financing, the NHSS focuses on increasing investments in the health sector and social health protection mechanisms as reflected in the two outputs as listed below:

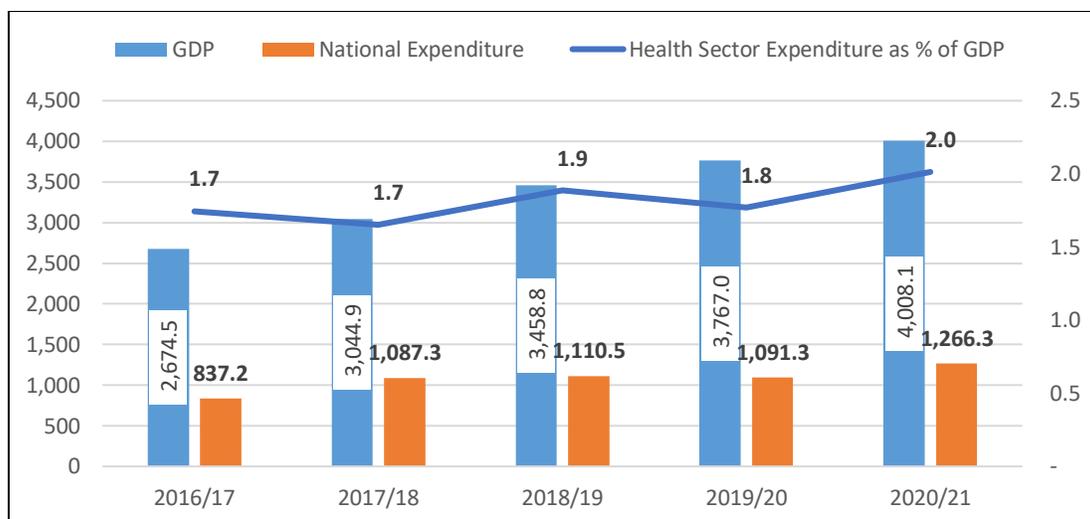
- Strengthened health financing system
- Strengthened social health protection mechanisms

Major interventions proposed under this outcome particularly for 2017/18 include developing and introducing a resource allocation formula, enhancing the MoHP's capacity on performance-based resource allocation, enhancing capacity for the institutionalisation of the National Health Accounts and the harmonisation of existing social health protection schemes, and the implementation of health insurance.

Major Progress

- Government health expenditure as a percentage of the Gross Domestic Product (GDP) for FY 2020/21 is 2%. There is a 0.3 percentage increase compared to the NHSS baseline year (1.7% for FY 2016/17). The figure below provides an indication of the trend of government health spending as a percentage of the GDP. Over the years, government spending on health as a share of GDP is increasing, albeit marginally. In the figure below, the government spending on health includes the budget allocated to the MoHP, other line ministries and health budget from provincial and local government.

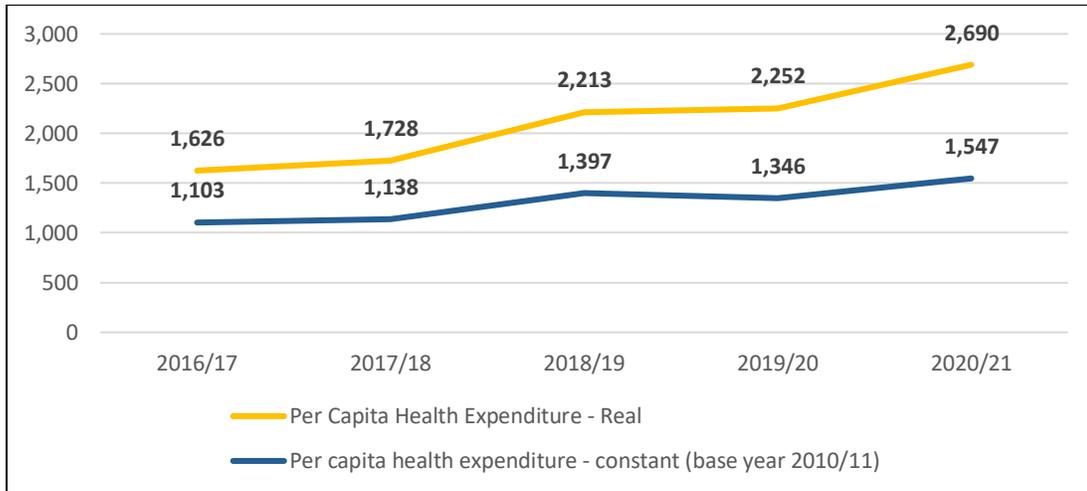
Figure 3.6.1: Trend on government health sector spending as a percentage of GDP (NPR billion)



Source: Red Book & National Accounts of Nepal, 2020/21.

- The Chatham House report of 2014 recommended that countries should strive to spend 5% of their GDP for progressing towards Universal Health Coverage (UHC). There is a wide range of evidence and comparisons across countries that support the target of at least 5% or more of the GDP. The 2010 World Health Report stated that public spending of about 6% of the GDP on health will limit out-of-pocket payments to an amount that makes the incidence of financial catastrophe negligible. Government spending on health of more than 5% of the GDP is required to achieve a conservative target of 90% coverage of maternal and child health services. The same Chatham House report recommends low-income countries to spend USD 86 per capita to promote universal access to primary care services.
- The figure below shows trends in per capita government spending on health. Between FY 2016/17 & FY 2020/21, the per capita government spending has gradually increased from NPR 1,626 (USD 15.3) to NPR 2,690 (USD 22.8) in real terms. However, during the same period, government spending on health increased very little from NPR 1,103 (USD 10.4) to NPR 1,547 (USD 13.1), in constant terms (base year fixed to FY 2010/11). This shows that Nepal is spending far behind the recommended amount to achieve universal access to primary care services.

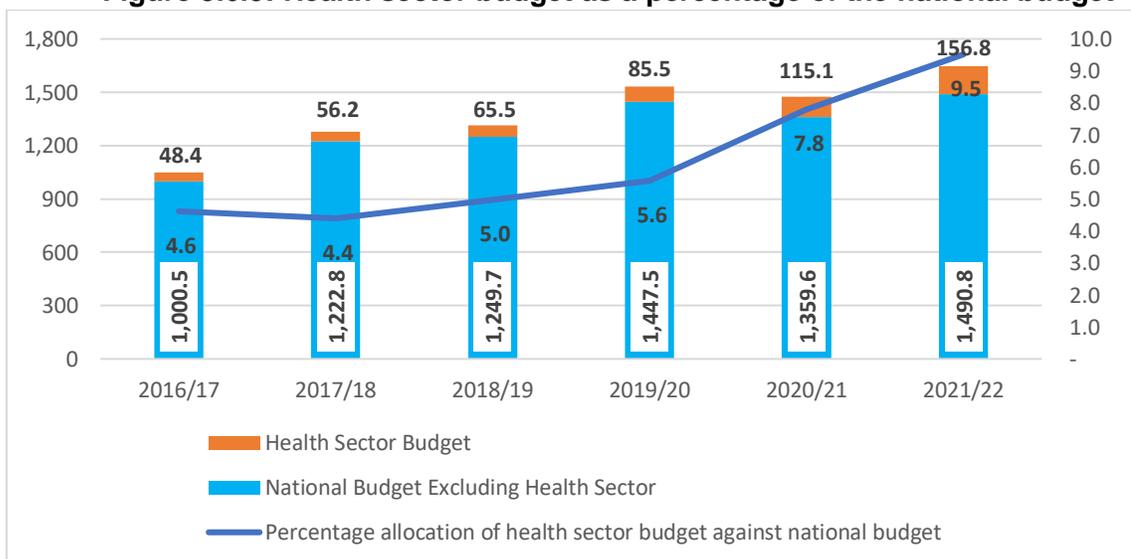
Figure 3.6.2: Per capita government health spending



Source: Red Book & National Accounts of Nepal, 2020/21.

The figure below shows trends in the health sector budget as a percentage of the national budget. The percentage of the health budget against the total government budget is in increasing trend. Compared to FY 2020/21, there is 1.4% increase in the health sector budget in FY2021/22. The NHSS sets the target of allocating almost 9% of the national budget in the health sector. This implies that this year's health sector allocation has already achieved the NHSS target. In FY 2021/22, NPR. 30.7 billion budget has been allocated to LG and NPR 6.3 billion to the PGs in the form of conditional grant for health, NPR 101 billion remains with MoHP and rest is allocated to other line ministries. Evidence suggest that PGs and LGs have made additional allocation in health from different revenue resources. Thus, the actual health budget as a percentage of national budget is anticipated to rise.

Figure 3.6.3: Health sector budget as a percentage of the national budget



Source: Red Book (various years), Ministry of Finance, Nepal.

- MoHP is conducting and institutionalising the National Health Accounts to routinely monitor health expenditure. As of October 2021, health expenditure estimates have been obtained up to the fiscal year 2017/18, and the draft estimates for the fiscal years 2018/19 and 2019/20. The sub-national level health expenditures have also been estimated for the last three years. The province-level health expenditures tracking was done for all the seven provinces where the major provincial health financing indicator values including provincial OOPE were obtained.
- The share of OOPE in CHE, as estimated in the latest National Health Account (NHA), is 57.7% for FY 2017/18. This implies that OOPE remains to be a dominant component in health care financing despite implementation of various programme aiming to reduce it. It demands further strengthening of the social health protection mechanisms in the country to accelerate the pace towards SDG.
- As per the way forwards in the previous NJAR, significant progress has been made towards preparing a Health Financing Strategy which is expected to streamline financing sources and their management in the health sector, covering all levels of government. The Following an inclusive and consultative process, MoHP has developed a draft of National Health Financing Strategy 2079 - 2089 (2021 – 2031) guided by the health-related constitutional and legal system, national and international commitment of the government. Different development partners are supporting the MoHP in the development process of the strategy.
- Implementation of the Health Insurance Scheme has been extended to 76 of 77 districts, Kathmandu being the only remaining district to have geographical coverage of the scheme.
- Government of Nepal has set up the health insurance fund in July 2021 as prescribed / stipulated in the Health Insurance Act 2017. The contributions of the insured from the past 5 years have been deposited into this account strengthening the level of autonomy of Health Insurance Board in fund management.
- The MoHP has approved the organization and management (O&M) survey report of the Health Insurance Board. The aim of this document is to identify the current organizational status of the board, to identify scopes and workload, to identify problems in the organization and human resource of the Board and to recommend a reform of the organizational structure. The report has been sent to MoF for feedback. The recommended reforms are critical to strengthen the capacity of the HIB and fulfil its mandate to operate the national health insurance.

Challenges

- Despite increased level of budgetary allocation to the health sector, enhancing budget absorption capacity remains to be a challenge
- Delay in the reimbursement of the fund for the treatment of the COVID-19 cases as well as for the services provided under health insurance scheme; these aspects were also reported during pre-NJAR field visit.
- Despite the gradual expansion of implementation coverage of health insurance scheme, out of pocket expenditure is still a dominant share of health care expenditure.
- Delays in the approval of the O&M survey of HIB has put limitations in the implementation of health insurance scheme.

- A fragmented approach to the management of various social health protection schemes, such as the free health care programme, free delivery, health insurance, and so on within the MoHP and beyond remains a challenge as also identified in the draft NHFS
- Progress in the identification and inclusion of the poor in the health insurance become increasingly important to progressively expand the coverage of the health insurance.
- Capturing health spending at all level of governments including resources for health beyond the conditional grant.
- Institutionalisation of the National Health Accounts to routinely monitor health expenditure including spending by private sector, PGs and LGs.

Way forward

- Finalise and endorsement of the national health financing strategy and proceed for its implementation.
- Upcoming Nepal health sector strategy to harmonise national target, indicators and financing mechanism at all spheres of government.
- Carry out disaggregated analysis of the health sector also capturing the expenditure on COVID-19 response management to inform planning.
- Consult with the Natural Resources and Fiscal Commission and the MoF to increase government investment in the health sector and reducing the proportion of conditional grant from federal government to give more flexibility in management of health sector interventions.
- Assess the challenges in budget absorption and take action accordingly. Support PGs and LGs for increased spending in health sector.
- Establish a mechanism to track and consolidate budget allocation and spending for health at each level of government.
- In the context of 5 years of implementation of national health insurance, more analysis is required on enrolment pattern, service utilisation, referral management, contribution collection and expenditure management aiming long term sustainability approach.
- Strengthen the Health Insurance Board and enrol the poor in health insurance through government subsidy as stipulated in the Health Insurance Act (2017) and its Regulations. Also, expediate the process for the enrolment of the civil service employees as announced in the annual budget of FY 2021/22.
- Build capacity of service providers, HIB staff and other stakeholders for improved coverage and performance of health insurance.
- Strengthen core insurance functions within HIB such as enrolment and claims processing. Develop and implementation guidelines for medical audit.
- Further build the capacity on data analysis within HIB, develop key performance indicators and a monitoring and evaluation system.
- Institutionalise National Health Accounts enabling the tracking of provincial expenditure in health sector along with its disaggregation.

3.7 Outcome 7: Improved Healthy Lifestyles and Environment

Background

Healthy environment and healthy lifestyles are considered to prolong active life and subsequently contribute to improvement of overall health status. In this backdrop, the NHSS proposes innovative approaches to behavioural change for specific behaviours like smoking, alcohol consumption, health-seeking behaviour and obesity. The single output for this outcome is the promotion of healthy behaviours and practices.

Major Progress

- In consultation with the stakeholders, MoHP has developed a Multisectoral Work Plan on Prevention and Control of Non-communicable Diseases (2021-2025) which is in approval process.
- Climate change: As part UN Climate Change Conference in Glasgow (COP26) Health Programme, Nepal made commitments to develop climate-resilient and low-carbon health systems in response to growing evidence of the impact of climate change on people's health.
- Training manual on climate change and vector-borne disease has been developed.
- Ayurveda and Alternative Medicine Guidelines with Preventive Measures and Management Protocol for COVID-19 were developed and implemented.
- Use of sign language in the IEC materials have been started to address those who have difficulty in hearing.
- Use of Brail script in IEC materials has been initiated for the people who have problem with vision.
- Various messages on prevention of COVID-19 were broadcast, telecast and promoted on social media, including communications for differently abled people and air travellers.
- Use of call centres to provide factual data were operational for COVID-19 and the health workers working in the call centres were periodically updated through orientation.
- Media monitoring was held with focus on prioritised message for COVID-19.
- Establishment of Citizen Wellbeing Service Centre (*Nagarik Arogya Sewa Kendra*) in few municipalities.
- School Yoga and Ayurveda programme, open gym, and yoga centre initiative, 'My Health, My Responsibility' national campaign.
- Policy dialogues on four major sources of air pollution in Kathmandu Valley (transport, waste, household energy, industry) and health impacts of air pollution under Urban Health Initiative.
- A country report on clean household energy and health of Nepal was developed with WHO support as part of implementing Household Energy Assessment Rapid Tool (HEART) to support the transition to clean household energy.
- Nepal prepared National Adaptation Plan (NAP) on addressing climate change issues in the country with health, drinking water and sanitation as one of the key thematic areas.
- As part of GEF project "Building resilience of health systems in Asian LDCs to climate change", MoHP is organizing advocacy programme on climate change and health in all seven provinces and training on climate change and health impacts through provincial training centres.

- Improving occupational health and safety status of waste workers during COVID-19 pandemic: pilot in Nepalgunj implemented by MDM-France (with support from GIZ) with 370 public and private waste workers and Balmiki cleaners having received health education, good practices promotion, protective measures toward COVID-19 and good use and disposal of PPE items, including inclusive and gender-based approach and prevention of Gender Based Violence (GBV).
- Chemical safety: Compliance monitoring of standard on lead in paint in Nepal and three related reports (compliance monitoring lead paint standard, study of lead in spray paints and brief on lead paint and compliance status) have been published and disseminated in International Lead Poisoning Prevention Week (ILPPW), 2021, which was organized in Nepal since its inception in 2013 with support from WHO.
- Department of Ayurveda and Alternative medicine has developed Implementation Plan and Pocket book for Citizen wellbeing program. It will be handy tools for provincial and local governments for advocacy in improving healthy lifestyle and investment in health.
- Preparation of guidance for traditional service providers (*Paramparaagat upachaarak ko soochikaran Mapdand*).
- School Health Nurses (SHNs) have been deputed in various schools by some provinces to support in school health activities.
- A document on SRHR communication strategy has been developed and is yet to endorse.
- A first conference was held (October 2021) on the health issues of senior citizen.
- Establishment of Ayurveda hospital/naturopathy hospital in each province planned for current FY.
- The number of functional OCMCs in the country has been increased from 54 at the end of FY 2076/77 to 80, located in 77 districts.
- Different sets of IEC materials including infographics were produced and distributed to concerned entities and disseminated through various digital platforms.
- With the support of German Financial Cooperation, MoHP has introduced a bio-degradable sanitary pad targeting adolescent girls, particularly in rural areas. This intervention is designed to make the availability of bio-degradable sanitary pads in an affordable and accessible to adolescent girls, particularly in rural areas.
- An in-depth review of the scale-up, functionality and utilisation of OCMCs, including barriers to access, has been conducted: findings will help develop a road map for strengthening OCMCs. A case study was conducted on 'Access to OCMC Multisectoral Services during COVID-19 Lockdown'.
- Dissemination of IEC materials on prevention of COVID-19 including awareness on Tobacco use and COVID-19.
- Posters and radio messages were developed and broadcasted as regular activities, focusing on RH, safe motherhood, FP, immunisation, etc. in relation to COVID-19.

Challenges

- Access to health services was limited due to partial restrictions to lockdown measures.
- Monitoring of air quality, food quality and hygiene and water quality is still weak.
- Coping strategy of the health sector needs to be considered as the impact of climate change is increasing.

- Addressing the preventive measures for COVID-19 and sustaining behaviour for mask, sanitation and social distancing remains a challenge particularly in highly populated districts
- Behaviour change management, HR management and sustainable financing mechanism for such kind of projects like integrated HCWM, Healthy waste workers.
- Making individuals more cautious on their health and promoting healthy behaviour at community level remains a challenge.
- Challenges remains to effective monitor consumption pattern of the junk food and other unhygienic foods to minimise the health risk.
- Functionalising multi-sectoral coordination mechanism across three levels to address multi-sectoral issues
- Sensitising individuals, families, and communities to make them more responsive on personal health and hygiene.

Way Forward

- Endorsement of SRHR Communication Strategy and its implementation.
- A strategy on anti-microbial resistance is being developed to address the increasing microbial resistance.
- Prioritisation for strengthening integrated surveillance of communicable diseases and NCDs.
- Expansion of Citizen Wellbeing Service Centre (*Nagarik Arogya Sewa Kendra*) in few municipalities
- Endorsement and implementation of multi-sectoral action plan on preventions and control of NCDs.
- Multi-sectoral involvement in behaviour changes and communication in environmental health management.
- Inclusion and analysis of indicators concerning the old age population in HMIS for monitoring service utilisation and disease pattern.
- Monitoring the enforcement of Anti-Tobacco Act to minimise its health risk.
- In coordination with local levels, promote healthy behaviours and make individual more responsible on their personal health.
- Conduct research and promote traditional medicines for cost-effective management of health problems and to maintain good health.
- Implement surveillance of road traffic accidents in coordination with concerned stakeholders and take necessary actions to minimise the risk.
- Strengthen and scale up OCMCs and SSUs in additional sites. Further, implement online recording and reporting system for OCMCs, SSUs and geriatric services.
- Conduct ToT on GBV Clinical Protocol and roll it out in OCMC-based hospitals.
- Conduct GBV medico-legal training in all provinces, covering all 77 districts.

3.8 Outcome 8: Strengthened Management of Public Health Emergencies

Background

MoHP through the NHSS provides a road map for improved preparedness and strengthened response to public health emergencies during humanitarian and public health crises. Major activities for this purpose include revising protocols and guidelines for improved management of health sector emergencies at each of three levels of government and recommends the enhancement of institutional and human capacity for effective and timely response.

The outputs of this outcome are:

- Public health emergencies and disaster preparedness improved
- Strengthened response to public health emergencies.

COVID-19 pandemic has dominated the response measures in this outcome area of the NHSS. However, other cases risk and challenges are still prevalent and MoHP is responding and continues to work towards strengthening response to public health emergencies. The first case of COVID-19 in Nepal was reported on 23 January 2020. Until the end of February, there were no reports of further infection. However, in the second week of March, the number of infections started to rise. COVID-19 engaged the whole country in the last fiscal year. As a measure to combat the pandemic various stringent measures including lockdown and restriction of movement was practiced for about 4 months (April – July 2020). Partial lockdown continued till November in some districts and provinces, which affected socio economic activities of the citizen.

Although infection of the COVID-19 had started to decline from Dec 2021, it again started to rise from April 2021 as a second wave. Subsequently, the government decided to impose lockdown starting 29th April 2021 (16 Baisakh 2078 BS). It lasted for about three months and partial restrictive measures are still ongoing in some places as of September 2021. On the other side, schools and other public places are also gradually opening up in physical setting which were closed for long duration of time.

MoHP and its various organisational units has been working on managing the response to COVID-19 alongside other sectoral ministries and central-level entities. The role of local levels and provinces has been instrumental in response management, while public and private health institutions and associated health workers and other front-line workers have been working untiringly towards the prevention, treatment, management, and control of COVID-19.

Besides the pandemic, Nepal is also prone to natural calamities, including recurrence of floods and landslides. The aftereffects of devastating earthquake of 2015 are persisting. Though construction works (including those of health facilities) have well progressed, some are still underway putting pressure on already stretched health programmes particularly in the current context of COVID-19 pandemic.

Major progress

- To address the COVID-19 Pandemic, a vaccination campaign was started as early as 27 January 2021. Initially, it was challenging to expand to coverage of the vaccine to large

segment of population due to unavailability of COVID-19 vaccine in the market. However, GoN given high priority to progress expand the coverage of vaccines as one of the most crucial measures to combat the ongoing pandemic. Along with the increase in the coverage of the vaccine, number of COVID-19 cases has also been gradually decreasing in the recent months. (Further details provide chapter 4)

- MoHP, in coordination with other line ministries, provincial and local governments, development partners and private sector, continues to strengthen the health systems functions while response against the pandemic.
- Purchase and instalment of Oxygen Plant in hospitals have been done. Provinces have also taken initiatives to strengthen the provincial level hospitals and made provision of the COVID-19 dedicated hospital to better manage the COVID-19 cases.
- Licensing process for the COVID- 19 vaccines as well as medicines and related supplies was done in an accelerated manner to ease the fight against COVID-19.
- Strengthening of public hospitals and exemption of custom duty for the equipment concerning the COVID-19 management to encourage in-country capacity for the
- Health Emergency Operation Centres (HEOCs) were operational during the year in all seven provinces.
- Daily monitoring, reporting and dissemination of COVID-19 status is done by federal HEOC (www.heoc.gov.np)
- A sero-prevalence survey was undertaken to understand the status of COVID-19 among Nepali population.
- Free provision of COVID-19 testing for those with symptoms and treatment from the designated public and private facilities
- Rapid response measures implemented to tackle the spread of cholera cases in Kapilvastu district in Lumbini province. Vaccination against the cholera is ongoing.

Challenges

- Challenges posed by COVID-19 pandemic are still persisting especially to ensure smooth delivery of essential health services. Although social stigma and fear of COVID-19 has generally decreased, there are challenges to ensure the compliance to public health measures.
- Surge of cholera cases in Kapilvastu district despite various public health interventions.
- High level of rainfall, landslides and flooding has caused deaths and disruption of services in many areas during the time when focused priority was on COVID-19.
- Challenges still remain to align and harmonise roles and responsibilities of different authorities for the management of public health emergencies.
- Insufficiency of funding or delayed release of fund adversely affected the institutional capacity to timely implement the response measures against pandemic.
- No provisions of human resources to operate the advanced equipment such as ventilators and other equipment in intensive care units including for high dependency units.
- Inadequate supply of essential medicines and prepositioning of supplies at strategic locations to timely address the endemic and pandemic situation.
- Delay in the reimbursement of the fund for the treatment provided to COVID-19 cases which was also reported during field visit.

Way Forward

- The GoN has announced to vaccinate two-third of the target population by the end of Push 2078 (mid-January 2022) and to the entire target population by the end of Baishakh 2079 (mid-May 2022). Resources have been allocated for this purpose. However, availability of vaccine remains a prime challenge.
- Give high priority community interventions, public health measures, vaccination and treatment for the control of cholera outbreak in Kapilvastu.
- Follow the guidance of IHR to facilitate international travels while minimizing the risk of COVID-19.
- Institutionalise the preparedness part to timely tackle any possible public health emergencies in future drawing the lessons from COVID-19
- Clarify the roles of the federal, province and local in combating the and strengthen mechanism to coordinate with relevant line ministries and other stakeholders at all levels of government.
- Develop a comprehensive integrated multi-year national capacity building plan for the management of emergencies and disasters.

3.9 Outcome 9: Improved Availability and Use of Evidence in Decision-making Processes at All Levels

Background

The NHSS focuses on better access to and use of information with ICT. It also emphasises improved and interoperable routine information systems and prioritises surveys and research. Similarly, it strives for upgraded and integrated health sector reviews at various levels that feed into the planning process. Towards achieving UHC and LNOB, the NHSS and SDGs place an emphasis on monitoring and reducing the equity gap in the health outcomes of different population sub-groups. The outputs linked to the stated outcome 9 are as follows:

- Integrated information management approach practised.
- Survey, research and studies conducted in priority areas.
- Improved health sector reviews with functional linkage to planning process.

Major Progress

Integrated Health Information Management

- The IHMIS roadmap (2020-2030) was drafted which is being reviewed at the Ministry of Health and Population, Department of Health Service to finalise and proceed for the endorsement.
- For effective management of COVID-19 related information linked to surveillance, specimen collection, testing, case management, logistics, and human capital, the MoHP has established the Information Management Unit (IMU).
- To assist COVID-19 designated hospitals in reporting the status of COVID-19 cases to the MoHP, a daily reporting system has been devised. This method has aided hospitals in receiving payment for COVID-19 case management costs.
- In the DHIS2 platform, the recording and reporting tools of the One Stop Crisis Management Centre (OCMC) and the Social Service Unit (SSU) are being digitalised. These tools will be used across the country from next fiscal year.
- The Health Facility Registry has been updated. It is a master registry which keeps record of all health institutions in the country, both public and non-governmental. Provincial level workshops were conducted for updating the health facilities. A total of 9,204 units have been registered in the system consisting of 6,700 public health facilities and remaining 2,504 belong to private and other non-governmental organizations.
- The MoHP continues to expand the electronic reporting of service data from HFs. In FY 2019/20, 400 public HFs provided HMIS monthly reports electronically, this has increased to 2,164 (1,876 public and 288 non-public) HFs in FY 2020/21. All 753 LGs electronically reported HF-based service statistics to the national database (HMIS) either by themselves or from the parental unit. This was a breakthrough moment in the continual flow of data from LGs to the national HMIS system. The HMIS e-learning modules for the orientation of health workers, statisticians, computer operators and programme managers have been updated and are available on the DoHS website (www.dohs.gov.np).
- The web-based Routine Data Quality Assessment (RDQA) tool and the accompanying e-learning package have been modified in response to user feedback and are now available

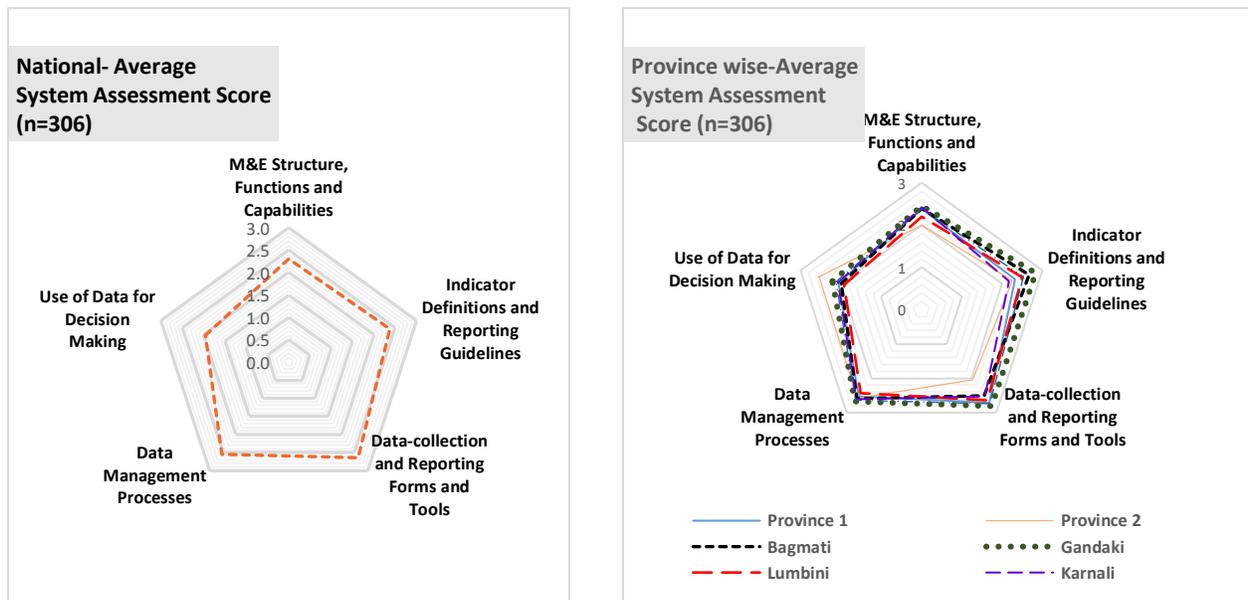
on the MoHP website (www.rdqa.mohp.gov.np). In this fiscal year, 306 health facilities have completed the RDQA using web-based tool as of October 2021.

- Major health indicators, such as the NHSS Results Framework and health-related SDG indicators, are monitored via web-based digital dashboards maintained on the MoHP website.

Routine Data Quality Assessment

Health facilities have been using the web-based RDQA tool and e-learning modules, which are available on the MoHP website (www.rdqa.mohp.gov.np). Between July 2020 and Oct 2021, 306 health facilities used the system to assess data quality using web based RDQA portal. The actual number of HFs conducting RDQA is much higher, as the system does not cover the assessments done using offline tool. "Data management process" and "Data collection and Reporting forms and Tools" were two of the five functional areas reviewed for system assessment domain that reached the data quality criteria of 2.5 or above. As the score falls short of the benchmark, the improvement plan is sought through the use of data for decision making, M&E structure functions and capabilities, and Indicators Definition and Reporting Guidelines. (Figure 3.9.1)

Figure 3.9.1: System Assessment Score-National and Provincial level



Provincial disaggregation shows that none of the provinces met the benchmark on M&E structure functions and capabilities. The lack of HMIS-trained human resources, unclear roles and duties in recording and reporting, and no designated employees accountable for checking aggregate statistics prior to submission to the next level were noted as roadblocks that directly affect the data's correctness and dependability. Benchmark on data collection and reporting forms and tools was not met in Province 2 only. In all provinces, criterion in the use of data for decision making was below the satisfactory level (Figure 3.9.1).

e-LMIS update

Table 3.9.1: E-LMIS roll-out status in 2018 to 2020

Year	E-LMIS implemented Sites	
2018	e-LMIS implemented at 57 sites	<ul style="list-style-type: none"> E-LMIS implemented at 6 Central Stores, 12 PHLMCs in Lumbini and Karnali Provinces, 22 Health Offices, 4 LLGs, and 23 Service Delivery Points (SDPs)
2019	<ul style="list-style-type: none"> E-LMIS reporting modules implemented at 77 Health Offices. E-LMIS implemented at one central level and 14 LLGs office and 1 central store (total 15 sites). 	<ul style="list-style-type: none"> LMIS quarterly reporting module moved to HOs instead of central level. New features added on e-LMIS to improve easy and flexible usage of the system for users, along with Ma Le Pa form Room roll-out approach tested in LLGs of Banke and Bardiya for cost-effectiveness, timeliness and ease of management E-LMIS implemented at Central Store - 1 Local Level Government Office - 14
2020	173 e-LMIS sites configured to support COVID-19 commodity inventory management, and 916 sites implemented eLMIS.	<ul style="list-style-type: none"> To support in smooth supply chain of COVID-19 essential medicines, eLMIS implemented at PHLMCs, HOs, COVID-19 hospitals, laboratories and Medical Colleges. <ul style="list-style-type: none"> PHLMC - 5 Local Level Government Office - 726 Hospital - 106 Central Store - 2 Laboratory - 8 Medical College - 14 Health Office - 55 GoN moved e-LMIS implementation responsibility to IHMIS Strong engagement with PGs, HOs and LLGs All LLGs of Province 2, Gandaki, Sudurpashchim, Bagmati and Lumbini Provinces All LGs (753 in all provinces) rolled out.
2021	E-LMIS implemented at 165 sites.	<ul style="list-style-type: none"> Local Level Government Office-9 SDPs- 151 and Hospitals-5.
	<ul style="list-style-type: none"> A total of 1,153 sites implemented e-LMIS as of 30th Nov 2021 Annual LMIS reporting status is 96% in FY 2020/21 Annual LMIS timely reporting status is 86% in FY 2020/21 	

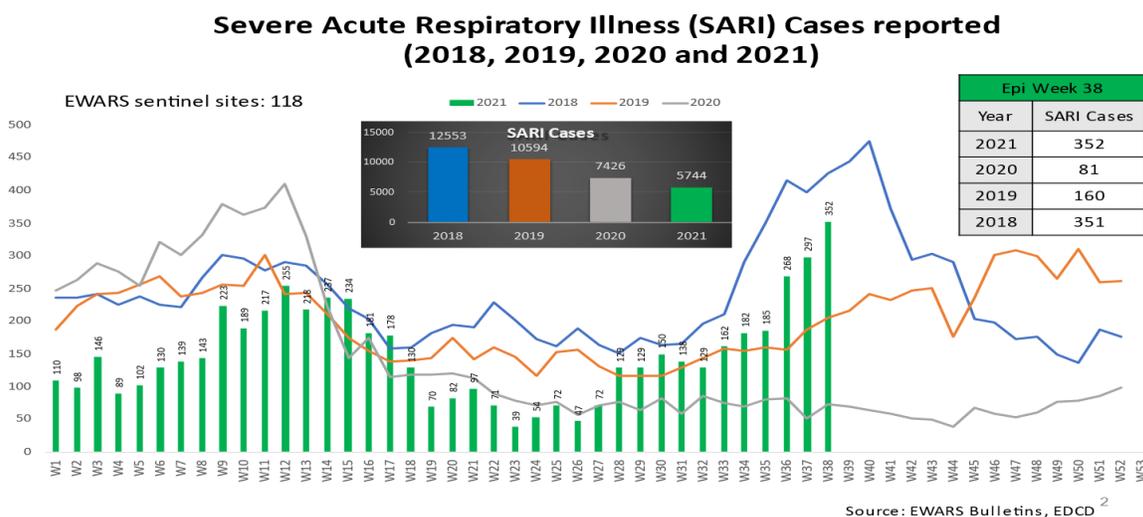
The e-LMIS was implemented in two central stores, three PMSs, 33 hospitals and one national laboratory in less than one month. IHMIS is coordinating e-LMIS roll-out activities. In 2020, e-LMIS has been rolled out in 373 LGs from 42 districts. The e-LMIS has also been expanded in 55 Health Offices, 60 hospitals, 12 medical colleges and seven provincial public health laboratories. Continuous follow-up and coordination with PHLMCs resulted in a e-LMIS reporting rate of 96 per cent, the highest reporting rate ever, by the end of FY 2076/77. LMIS reports from more than

4,000 SDPs are recorded on quarterly basis. All COVID-19 commodities are recorded in e-LMIS. All central data for COVID-19 lab commodities from NPHL and regional labs are in e-LMIS. Roll-out of e-LMIS is completed in all provinces by December 2020. In 2021, e-LMIS rolled out at 165 sites including 9 LLG, 151 SDPs and 5 hospitals.

Surveillance systems

Early Warning and Reporting System: EWARS is a hospital-based sentinel surveillance system where the sentinel sites (hospitals) send weekly reports (including zero reports). The main objective of EWARS is to strengthen the flow of information on outbreak prone infectious and vector borne disease from sentinel sites throughout the country and to facilitate prompt outbreak response to be carried out by rapid response team at federal, provincial and local level government. For the initial phase in 1997, eight sentinel sites were selected and expanded to 24 sites in 1998, 26 sites in 2003, 40 sites in 2008, 82 sites in 2016 and 118 in 2020. The MoHP uses the trend analysis of SARI cases reported from sentinel sites to track Severe Acute Respiratory Infection (SARI) cases over time and arrange laboratory tests for COVID-19 patients. Sentinel sites includes all the central hospitals, provincial hospitals, medical colleges including few private hospitals. SARI cases were recorded in a total of 12,553 cases in 2018, 10,594 cases in 2019, 7,843 cases in 2020, and 5,744 cases in the first nine months of 2021. (See Fig. 3.9.2). The data supplied by the "operational sentinel stations" needs to be investigated further.

Figure 3.9.2: SARI Cases Reported, by Epidemiological Week (2018–2021)



Electronic reporting: The MoHP continues to expand the electronic reporting of service data from HFs. In FY 2020/21, 1,400 public HFs submitted HMIS monthly reports electronically. As HPs and PHCCs are now being managed by LGs, the MoHP is focusing on enhancing their capacities on health information management, including the use of the DHIS2 platform. All 753 LGs reported HF-based service statistics electronically to the national database (HMIS). This has been a milestone for the continuous flow of data from LGs to the national HMIS system. The HMIS e-learning modules for the orientation of health workers, statisticians, computer operators and

programme managers have been updated and are available on the DoHS website (www.dohs.gov.np).

Maternal and Perinatal Death Surveillance and Response: Despite the hindrances faced due to COVID-19 pandemic, the facility-based maternal and perinatal death surveillance and response (MPDSR) system was expanded from 77 hospitals in FY 2018/19, to an additional 13 hospitals in FY 2020/21. Maternal Death Surveillance and Response (MDSR) was also continued during the pandemic coordinating at the national and provincial level. Official guidance from FWD to all Provincial and Local bodies, for notification and reporting of all maternal deaths, was sent. MDSR tools were modified to capture deaths from all sites (MPDSR implementing as well as non-implementing sites). Local municipalities and partners were mobilised for notification as well as reporting of maternal deaths at community and hospitals.

The community based MDSR system was expanded from 11 districts to 15 districts in FY 2020/21 and is ongoing in 6 additional districts (Rautahat, Kavrepalanchowk, Ramechhap, Nuwakot, Myagdi and Dailekh) which is expected to be completed in 2021/22. Further, 11 new districts have started community MDSR training. By the end of FY 2021/22, it is expected that 32 districts will be implementing community based MPDSR. Likewise, the MPDSR guideline and recording tools have been revised and the web-based reporting system is being updated.

The Family Welfare Division developed “Open Data Kit” (ODK) application for rapid notification of maternal and neonatal deaths occurring at the health facilities during the COVID-19 pandemic. The ODK application was further modified after the first lockdown, to include notification of community deaths as well, but so far only a few districts have started notifying community deaths through this application.

During the first lockdown, the leading cause of maternal deaths was found to be Postpartum Haemorrhage and a “PPH orientation” package was developed and the health care providers from major hospitals were oriented. However, during the second lockdown, the leading cause of death was indirect maternal causes, the majority of which was contributed by deaths due to COVID-19. The evidence was used justifying the importance of COVID-19 vaccination for pregnant women. Policy dialogue for strengthening MPDSR was conducted in Provinces 1, Bagmati, Gandaki, Sudurpashchim Provinces. In addition, implementing sites were supported through virtual orientations for quality review and responses of the maternal deaths.

Survey, research and studies

- Department of Health Service, Family Welfare division had conducted the study on **“Socioeconomic determinants of inequalities in use of sexual and reproductive health services among currently married women in Nepal”**. The study investigated three main markers of utilisation of reproductive health services: use of modern contraception, intention to use contraception and institutional delivery. Prevalence of modern contraception showed no remarkable change over the past decade. The growing inclination of people towards natural methods, increase in use of Medical Abortion and Emergency Contraception, and increasing trend of spousal separation through foreign labour migration were some of the factors hypothesised by key informants to explain the

plateauing of the Contraceptive Prevalence Rate (CPR). The analysis of NMICS found that there is a disproportionate concentration of use of modern methods among the poor. The important predictors of use of modern contraception were wealth status, province, age of women, education, number of children born, level of media exposure and the age of husband.

- This study shows that the utilisation of institutional delivery has increased over time. Although the richest-to-poorest gap has decreased over time, it is still high among the richest. Qualitative findings showed that major obstacles to accessing institutional delivery for the poor include cultural and socioeconomic norms of specific communities; inaccessible health institutions/BCs, especially in hilly and remote areas, and lack of trained SBAs in service delivery sites. The effectiveness of the programme is measured by evaluating the improvement in certain indicators, such as reduction in total fertility rate, reduction in the incidence of unsafe abortion etc., which are satisfactory. However, additional programmes need to be implemented, focussing on awareness, outreach activities, making all five FP commodities available in all health institutions, strengthening the supply side and mobilising the private sector to meet the targets of reproductive health programmes. The details of the report can be accessed from weblink <https://fwd.gov.np/cms/socioeconomic-determinants-of-inequalities-in-use-of-sexual-and-reproductive-health-services/>
- Department of Health Service, Management Division Integrated Health Management Information System (IHMIS) conducted the study “**Assess impact of COVID-19 pandemic in selected health services with estimation of ‘excess maternal deaths’**” In inference, this mixed-method study showed that there were interruptions to public health care service availability and utilisation in Nepal immediately after the introduction of lockdown. This is not surprising as literature suggests that previous pandemics or outbreaks have resulted in service utilisation decline in resource-constrained settings like Nepal. The health care system has shown signs of resilience, as some of the indicators have returned to pre-COVID-19 levels. However, preliminary estimates of maternal deaths suggest that the pandemic may have taken away some of the progress made in the last three decades. Further analysis to estimate the net effect of missed childhood vaccinations, unplanned pregnancies and lost primary care visits may show a clearer picture. The magnitude of impact varied by province and type of health facility. Further research is needed to fully understand the reasons and the extent of disruptions to public health care delivery and the population groups they have affected the most. The details report can be accessed from <https://dohs.gov.np/assess-impact-of-covid-19-pandemic-in-selected-health-services-with-estimation-of-excess-maternal-deaths/>
- The first **NHFS** was performed in 2015; the second was planned for early 2020 but was delayed because of the COVID-19 pandemic. The data collection of the NHFS is completed and the discussions are being held with divisions and centres under DoHS for tabulation of finding and report write up.
- The sixth series of the **NDHS** is planned for FY 2020/21. MoHP in collaboration with survey implementation partner has conducted several consultations with relevant stakeholders

and the questionnaire development process is in final stage. The listing of health facilities is being done and the data collection for the survey is planned for this year.

Maternal Mortality Study aligning with the Population Census, 2078: For the first time in its history, MoHP is conducting a maternal mortality study aligning with the Nepal Population and Housing Census (NPHC). The ongoing 12th series of the NPHC has taken place from Kartik 25 to Mangsir 09, 2078 (11 to 25 November 2021). The field work of the Population and Housing Census has been completed and collection of the additional data for maternal mortality study is ongoing as of end of November 2021¹².

- The maternal mortality study aims to identify programmatically useful information to inform investment and interventions directed towards improvement of maternal health in Nepal.
- The Master Training of Trainers (MToT) in federal level and Training of Trainers in all seven provinces is completed. Moreover, after the completion of district level trainings for health workers from each palika, field work for this study is ongoing as of November 2021. Different development partners including GIZ, UKaid/NHSSP, UNFPA, UNICEF and USAID have been supporting the MoHP in this important study. The specific objectives of this study include:
 - To increase the evidence base available on maternal mortality in Nepal to generate estimates of current levels of maternal mortality at national and sub-national levels, for the first time in Nepal.
 - To gain a better understanding of why women are dying during pregnancy, childbirth and the postpartum period, and the social and clinical determinants.
 - To provide information to policy makers and programme managers at the national and sub-national levels to identify and plan targeted interventions that are successful in reducing maternal mortality and morbidity.
- **Enhanced surveillance on Sero-Prevalence of SARS-COV-2 in general population:** The national sero-prevalence survey of Nepal for COVID-19 was conducted in October 2020 with an objective to estimate the Sero-prevalence of SARSCoV-2 in the general population of Nepal by measuring total antibodies which peak around three weeks after infection.
- The weighted estimate of national sero-prevalence for COVID-19 in Nepal was 14.4% (95% CI 11.8-17.0). Relatively higher sero-prevalence of 15.8% (95% CI 13.0-19.1) was observed in males compared to 12.2% (95%CI 9.0-16.4) females. Among frontline healthcare workers/security personnel, sero-prevalence was 10.8% (95%CI 5.8-19.1). The risk analysis identified that the terai region (OR = 4.31) was found to have four times greater risk of exposure to infection than the mountain region and the hill region (OR = 2.91) was found to have three times greater risk than the mountain region.
- Piloting of climate sensitive diseases surveillance system has been started in four sentinel sites (BPKHIS, Bharatpur hospital, PAHS and KAHS)

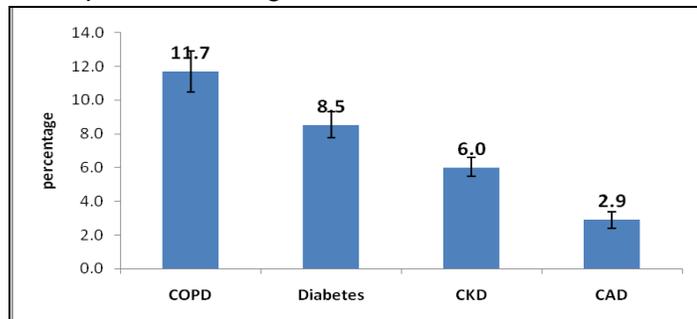
¹² After the completion of the household listing for the census, household survey is ongoing from 11 November to 15 December 2021 (Kartik 25- Mangsir 29, 2078).

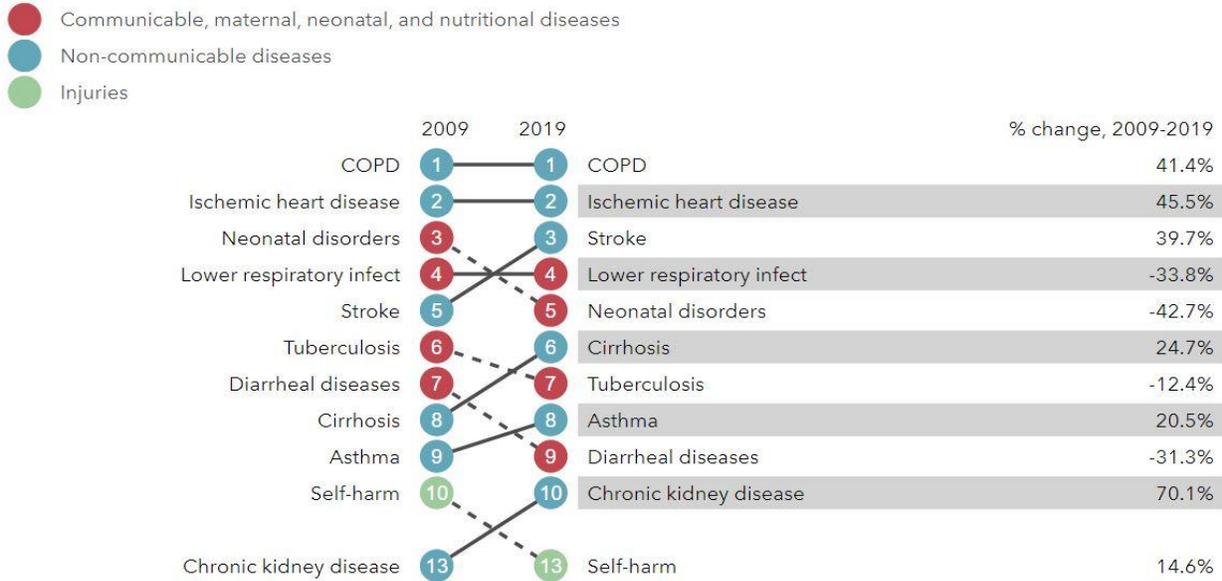
- Number of health research proposals registered (879), approved (706) and report submitted (185) to NHRC:
 - Number of trainings conducted on different themes of research: 7
 - Number of participants trained over the period of one year: 3500
 - Number of dissemination workshop conducted (province and national): 15
 - Organized virtual national summit of health and population scientists with participation of more than 2000 people

Completion of following research projects by NHRC along with major findings

- **NCD Risk factors STEPS survey 2019** (major findings include: Most of the behavioral and biological risk factors such as tobacco use, alcohol consumption, raised blood pressure and blood sugar are more prevalent among male; Obesity is more prevalent among female; Physical inactivity is increasing in both sexes; Salt intake level is higher i.e 9.2 gm/day than WHO recommendation ($\leq 5\text{gm/day}$))
- National Mental Health Survey 2020 (Major findings: 10% of the adults had any mental disorder in their lifetime whereas 4.3% currently had any mental disorder, the prevalence of Suicidality (including current suicidal thoughts, lifetime suicidal attempt and future likelihood of suicidal thoughts) was found to be 7.2%, and the average expenditure on treatment of mental disorders in the past 12 months was found to be NRS 16,053)
- Policy Briefs produced on various themes (on burden of disease, vector-borne disease, mental health, non-communicable diseases, maternal deaths, Universal Health Coverage, neonatal and child health and COVID-19)
- Population based cancer registry
- Population based screening of Sickle cell anemia among Tharu Population of Barbardiya Municipality
- **Population based prevalence of selected NCDs** (Diabetes, Coronary Artery Disease, Chronic Obstructive Pulmonary Disease and Chronic Kidney Disease) in people aged 20 years and above shows situation as depicted in the figure below.

Burden of diseases in Nepal:
Top 10 causes of total number of deaths in 2019 and percent change 2009–2019, all ages combined is presented in the figure below.

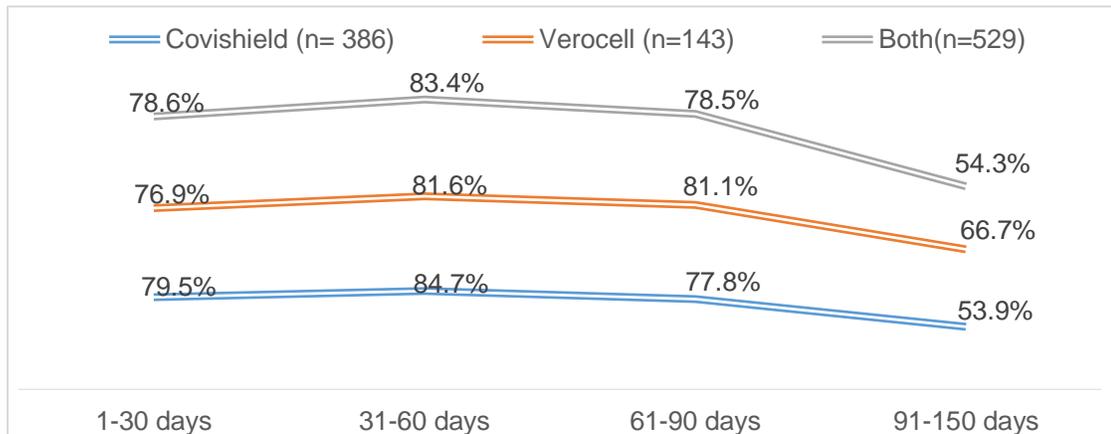




NHRC carried out a retrospective cohort study on Occurrence and Severity of COVID-19 among Vaccinated and Unvaccinated Individuals in Nepal and key findings include:

- COVID-19 disease occurrence was found in both vaccinated and unvaccinated individuals, however, the severity of the disease was higher in unvaccinated individuals.
- Antibody status of COVID-19 among different population demonstrated that larger population had developed antibody against COVID-19 either through natural infection or by vaccination.
- Most widely used both the vaccines (Covishield and Verocell) were able to develop immune response of COVID-19.
- Antibody has been developed in population irrespective of signs and symptoms of COVID-19 and its diagnosis.

A study on Reactive Antibody Response among Double Dose Vaccinated Population during Four Months' Time Interval depicts the following results:



Challenges

- Setting a reliable target for the health programmes due to non-availability of robust population database.
- Ensuring timely and regular updates of health facilities in health facility registry.
- Ensuring timely reporting of COVID-19 data in Information Management Unit (IMU).
- Internet connectivity issues in rural health facilities affecting online reporting of HMIS and implementation of web based RDQA.
- Incorporation of Ayurveda health facilities in HMIS for integrated reporting.
- Interoperability of information systems within hospital setting due to use of various digital platform for management internal information.
- Unavailability of HMIS tools in some of the local levels.
- Lack of central data repository systems for enabling easy access to health sector related database.

Way Forward

- Monitor the reporting from health facilities towards ensuring compliance of timely and complete reporting on monthly basis.
- Update Health Facility Registry from all levels on a continuous basis to establish it as a master registry.
- Expand Electronic Health Recording in public and private hospitals and ensure interoperability.
- Review HMIS indicators and upgrade the HMIS recording and reporting tools.
- Integrate Aayurveda Information Management System with the national database.
- Develop and operationalise the central standard data repository.
- Prioritise the institutionalisation and regularisation of the production of national health accounts with provincial disaggregation.
- Standardise, develop, strengthen, and institutionalise e-health initiatives at all levels.

4. National Response on COVID-19 Pandemic: Health Sector Perspective

Background

In December 2019, a cluster of patients with pneumonia of unknown aetiology was linked to a seafood wholesale market in Wuhan, China¹³. After three weeks of the reported cases in China, Nepal also reported its first case of coronavirus infection on 23 January 2020¹⁴. After a pause of two months, infection cases were increasing in Nepal. The Emergency Committee on the Novel Coronavirus (2019-nCoV) under the International Health Regulations (IHR, 2005) was reconvened on 30 January 2020. WHO declared the outbreak to be a Public Health Emergency of International Concern¹⁵. After WHO declared COVID-19 as a pandemic on 11 March 2020, many countries started various preventive and control measures, including Nepal. There have been two main case waves: the first from 23 January 2020-14 March 2021 and the second wave from 15 March 2021 onwards. As of 21 November 2021, 257,502,901 cumulative cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 5,165,737 deaths globally.

As a preventive measure, a countrywide lockdown came into effect on 24 March 2020 with shutdown of schools, closing of border movements, suspension of all international flights, imposing quarantines on those returning to Nepal from abroad and lockdowns for the general population. The nationwide lockdown ended on 21 July 2020. However, provincial, district and local governments continued to impose lockdowns at respective level following a surge in infections and rising deaths from COVID-19.

The GoN has established a COVID-19 Crisis Management Centre (CCMC) under the supervision of the Deputy Prime Minister to respond to the rising number of illnesses, and the Incident Command System has been activated and mobilised at the MoHP. Multiparter engagement, Risk Communication and Engagement, Surveillance, rapid response team and case investigation, strengthening of points of entry, international travel and transport, expansion of laboratories for COVID-19 testing, vaccine and logistics supply, development and update of the COVID-19 protocols/ guidelines were the key strategies adopted to curb the COVID-19 cases.

As of November 2021, public places including schools and colleges are opening up in physical setting and general restriction on movements have been released. However, in the global context, there are countries where the cases of COVID-19 are increasing and risk of resurgence of COVID-19 cases is still there. Accordingly, MoHP continues to disseminate messages for public awareness and promote the use of public health measures while focusing on other preparedness measures.

¹³ Brief Report: A Novel Coronavirus from Patients with Pneumonia in China, 2019. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7092803/>

¹⁴ Ministry of Health and Population Nepal. SitRep#1_28-01-2020 - Google Drive. https://drive.google.com/drive/folders/1SQz5zoNNwYGi_wBeHxnU6sYs261fg1Tx

¹⁵ World Health Organization. Novel Coronavirus (2019-nCoV) Situation Report – 11 https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200131-sitrep-11-ncov.pdf?sfvrsn=de7c0f7_4

Major Progress and achievements

- Incident Command System was established to facilitate the timely decision making and monitoring of response measures against COVID-19.
- The MoHP activated the Health Cluster and sub-sector clusters which held regular meetings at respective levels in specific issues such as prevention measures, continuity of routine services and vaccination campaign.
- Airlifting of the Nepalese students stranded in China during initial stage of the COVID-19 pandemic in February 2020. GoN also facilitated for the gradual arrival of Nepalis from abroad and their comfortable stay in respective countries through diplomatic channels during the period of travel restriction.
- Establishment of the laboratory facilities and gradual expansion of laboratory capacity for the timely testing of COVID-19 in strategic locations of the country. A total of 102 RT-PCR laboratories have been established covering all provinces.
- Setting up of the quarantine and isolation centres particularly at boarding points and nearby municipalities in coordination with provincial and local levels along with inter-sectoral coordination. At the peak, there were nearly half a million people managed in quarantine and isolation centres throughout the country.
- Continuous monitoring of the COVID-19 cases in disaggregated manner and management of the red zones (those with relatively high number of cases) with priority through the mobilisation of Rapid Response Teams.
- Health sector response plan and rapid action plans developed and implemented as per the evolving context of the COVID-19. Along with policy and legal frameworks, more than 50 guidelines, protocols, standards, standard operating procedure were developed to facilitate the implementation of response measures and service continuity during COVID-19 pandemic.
- Establishment of the COVID-19 Relief Funds at each level of government in which government entities, private sector institutions, national and international NGOs and individuals provided funds to support the government efforts against COVID-19.
- Selected hospitals of strategic locations were designated as COVID-19 dedicated hospitals and later hospitals were classified into three levels for effective management of COVID-19 cases. Some of the hospitals such as Shukraraj Tropical and Infectious Disease Control Hospital, Koshi Hospital, Narayani Hospital, Bharatpur Hospital, Bheri Hospital, Lumbini Hospital, Seti Hospital, Shree Birendra Hospital, Nepal Armed Police Force Hospital among others played instrumental role during the initial phase of the pandemic and later large number of public and private health facilities also continued to provide services to COVID-19 infected people along with the provision of routine health services.
- Strengthening of the hospital capacity for the management of the curative care, including the establishment of High Dependency Units and Oxygen plants for the timely treatment of the COVID-19 infected people.
- Partnership with private sector hospitals and institutions for expanding testing and treatment facility. Case based payment systems was established to ease access to testing and treatment of COVID-19 cases from public and private health facilities.

- Repurposing of the resources was authorised to meet specific requirements at public hospitals considering the diverse interventions needed at respective level.
- MoHP directly disbursed funds to seventy-two different institutions for the execution of prevention and control related activities of COVID-19 mainly for infrastructure development, human resources support, procurement of medicines and instruments, capacity development and to run prevention and control programmes.
- MoHP carried out development and operation of IMU application at the IHIMS section of MD. IMU database was also used to reimburse the fund for the contact tracing and isolation management.
- Establishment of the quarantine centres to accommodate large number of individuals is in progress in the strategic locations alongside the boarder with India in coordination with respective provinces and local levels, and Nepal Army.
- Nepal Mask Week Campaigns launched in August 2021 to promote public health measures against COVID-19.
- Mapping of hospitals with Pressure Swing Adsorption (PSA) plants and liquid oxygen storage tank along with their capacity was done.
- Assessment of 35 hospitals in Kathmandu and 21 hospitals at Province 1 and Province 2 were carried out for critical care inventory.
- COVID vaccination started from high priority population groups, particularly Health Workers and frontliners and its successive expansion based on National Deployment and Vaccination Plan for COVID-19 (2021). Remarkable progress has been made in vaccine coverage after vaccination campaign officially started on 27 January 2021.
- MoHP developed a COVID-19 web-based Information Platform such registration for vaccination and issuance of the digital certificate to those vaccinated.
- MoHP also developed “Hamro Swasthya” mobile app for self-assessment of symptoms for COVID-19.
- EPI-DASHBOARD has been created with detailed trend of cases and deaths from the district and municipal level and other supporting information.
- Initiation of laboratory-based influenza surveillance system strengthening has been started with an inception meeting with clinical-EPI personnel at select sentinel centres across the country.
- Health Desks were established at 13 Points of Entry (POEs) of land border and one at the international airport at Kathmandu. These health desks are used for screening, triaging, testing and isolating persons under investigation.
- About 200 CICT facilitators were hired and placed with the federal and provincial units, designated hospitals and laboratories to support countrywide testing, tracing and isolation.
- Production of "Clinical Management of COVID-19 in healthcare setting", "Handbook for people in home isolation", "Pocketbook for Infection Prevention and Control Measures for COVID-19 in the Healthcare Setting" along with other several operational documents.
- Establishment of a National Pathogen Genetic Sequencing Consortium for supporting in-country genetic sequencing facility and operationalisation of the consortium. It has sequenced 60+ SARS-CoV-2 genomes in 2021.

- Collaboration with Institute of Genomics and Integrative Biology (IGIB), New Delhi and Public Health England (PHE), UK has been done for SARS-CoV-2 genomic surveillance in detecting SARS-CoV-2 variants.
- Standardisation for the RT-PCR assay for RSV and detecting the RSV done.
- Health Emergency Operation Centre (HEOC) at federal level and each of provincial HEOCs were strengthened and made functional.
- ICT equipment has been installed at the designated telemedicine centres in seven provinces and at central level to enable knowledge sharing and orientation through virtual platform.
- Two rounds of national sero-prevalence survey were carried out to find out possible infection by COVID-19 with WHO support. Second round of sero-surveillance was completed in August 2021. Preliminary findings from the second round of the survey showed that the sero-prevalence in the general population was 70%. These finding provided the basis for the designing and prioritising the interventions.
- A report on Responding to COVID-19 produced highlighting the health sector preparedness, response and lessons learnt (2021) was prepared with WHO support and disseminated. After this exercise, Nepal passed through the second wave of COVID-19, surpassing the peak of first wave. During that period, many policy decisions and changes in the existing protocols and guidelines were also made tailoring to the changing context. To capture all these developments, MoHP is conducting a detailed documentation focusing on preparedness, response and lessons learnt with UKaid/NHSSP support.

Major Trainings conducted

- A 3-day training on COVID-19 Preparedness and Responses and Essential Critical Care was held for 170 Doctors, Nurses, and paramedics.
- A 2-day training on Essential Critical Care Management Training (only ECCT) for 31 Doctors and Nurses.
- A 5-day training on Pediatric Essential Critical Care Training carried out.
- Need-based training on Emergency Medical Deployment carried out to doctors, nurses and paramedics carried out
- Other several virtual trainings and orientations were carried out at federal and provincial level on COVID-19 related knowledge and skill development.

Communication and Documentation

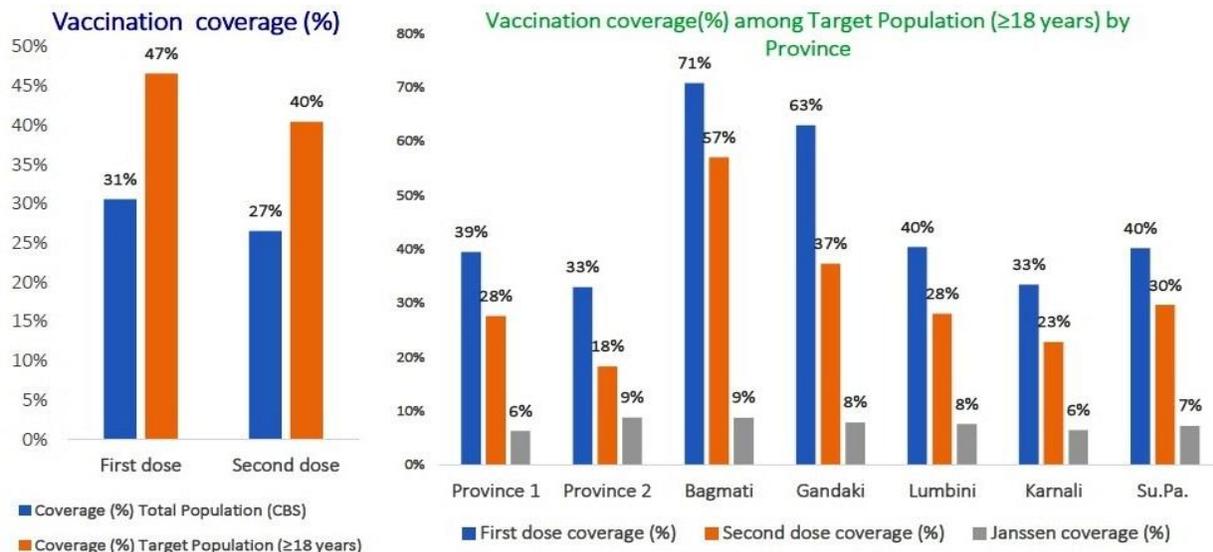
- A toll-free national call centre has been established under EDCD and operational since March. The purpose of this was for helpline functions and to strengthen surveillance for early detection of COVID-19 cases and contacts, enhance risk communication, and follow-up of home isolated cases.
- Tailored messages were routinely disseminated to raise awareness and sensitisation through various platforms like social media, national news portals including through the ring tone of the telephones from early phase of the pandemic.
- Briefing to parliamentarians on the strategic role of parliamentarians on Risk Communication and Community Engagement in the context of COVID-19 in all seven provincial parliaments of Nepal.

- Briefing to more than 800 media persons; 100 audio content producers and around 100 members of professional medical and health associations such as Nepal Medical Association, Nursing Association of Nepal, Pharmacist Association of Nepal, etc. on the Science behind COVID19, and Risk communication carried out.
- Set up of video (1000 plus original content); audio (400 plus original content) and image (2000+ high quality) bank has been shared with partners for nation-wide dissemination across platforms.
- Debunking of rumours and myths done through active and passive listening through the Call Centres.

Vaccination

The government of Nepal intends to reduce COVID-19-related morbidity and mortality by vaccinating its inhabitants when vaccines become available, in phases, starting with the highest-risk groups. COVID-19 vaccination campaigns are taking place in all provinces at the same time for the first and second doses of Covishield/AstraZeneca, Sinopharm, and the first dose of Pfizer BioNTech vaccine (from 24 hospitals) to specific target groups as specified by the MoHP and as per the National Deployment and Vaccination Plan. On October 22, 2021, Nepal achieved a milestone by giving 15 million doses of COVID-19 vaccine. Nepal has received/procured a total of 25,470,630 doses of COVID-19 vaccine from various sources as of November 24, 2021. A total quantity of 1,73,43,639 doses of COVID-19 vaccinations of various types have been safely administered. For the COVID-19 vaccination campaign, the Family Welfare Division has distributed vaccine-specific interim guidelines to all provincial, district, and local levels. Fig 4.1 shows the vaccination status as of Nov 24, 2021

Figure 4.1: Status of Vaccination against COVID-19 as of Nov 24, 2021



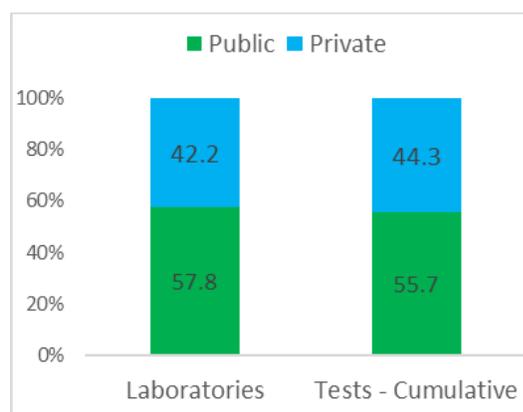
Testing Laboratories

A total of 102 RT-PCR laboratories have been established covering all provinces. Of which 58%

Current Situations	Hospital Capacity		Occupancy by COVID 19 cases		Management of COVID 19 cases	
	ICU	Ventilator	ICU	Ventilator	Home Isolation	Institutional Isolation
Level	#	#	(%)	(%)	(%)	(%)
National	2,723	1,087	234 (8.6)	55 (5.1)	6,852 (93.8)	451 (6.2)
Kathmandu valley	218	157	43 (19.7)	22 (14)		

are public and 42% are private. As of 21 November 2021, a total of 45,58,316 RT-PCR and 713,005 antigen testing has been performed. Half of the laboratories are in operation in Bagmati province.

Figure 4.2: Percentage of Test contributed by ownership type **Table 4.1: Provincial Disaggregation of RT-PCR Labs**



Province	RT-PCR Testing Laboratories					
	Public		Private		Total	
	N	%	N	%	N	%
Province 1	4	44.4	5	55.6	9	8.8
Province 2	7	70	3	30	10	9.8
Bagmati	25	46.3	29	53.7	54	52.9
Gandaki	4	66.7	2	33.3	6	5.9
Lumbini	8	66.7	4	33.3	12	11.8
Karnali	4	100	0	0	4	3.9
Sudurpashchim	7	100	0	0	7	6.9
Total	59	57.8	43	42.2	102	100

Case Management

In Nepal, there are 78 COVID-19 care units (hospitals) that can treat COVID-19 cases as of November 20, 2021. The list of the care units can be accessed at <https://heoc.mohp.gov.np/> (SitRep). Bagmati is home to over a quarter of these units. On the 20th of November 2021, almost 94 percent of cases were handled at home. Hospital/institutional isolation accounted for 6% (451) of active cases. 3 percent (234) of the total cases required ICU treatment.

Table 4.2 Hospitals (COVID-19 Care Units) capacity and occupancy status, 20 Nov 2021

Person Distribution

Overall population prevalence of COVID-19 was found to be higher in male in all age group (36.1 per thousand population) as compared to female (24.1 per thousand population). Age group 18-59 years accounts for 42.2 per thousand population COVID-19 cases whereas 0-17 years age group have the prevalence of 6.3 per thousand population which was lowest among all age group.

COVID-19 mortality was highest in older age group (60 above) i.e., 234 per 100,000 population as compared to younger age group 0-17 (1 per 100,000). Mortality prevalence was higher in male (51 per 100,000 population) as compared to female (25 per 100,000 population).

Figure 4.3 Prevalence of COVID-19



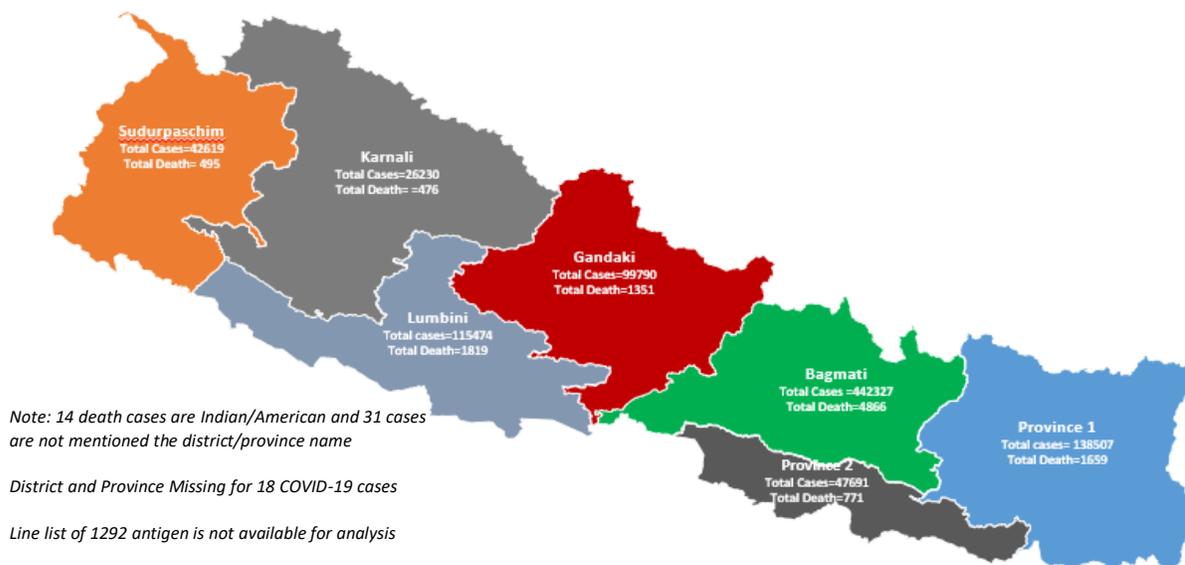
Note: * 2053 and 2497 cases of missing age in first and second wave have been excluded from the analysis in the above figure and is RT-PCR + Antigen positive cases.
 Line list of 1292 antigen testing is not available for analysis
 Medium Variant: population projection of Central Bureau of Statistics for 2021 used as a denominator for each age specific group

Note: 14 death cases are Indian/American origin
 District/province name are not mentioned for 31 cases
 Sex is missing for 14 cases
 Line list of 1292 antigen testing was missing in the analysis

Place Distribution

Figure 4.3 depicts the province-by-province distribution of COVID-19 cases and deaths till November 21, 2021. The highest number of COVID-19 cases were reported in Bagmati Province, with 442327 cases, while the lowest number of cases were recorded in Karnali Province, with 26,230 cases. COVID-19 fatalities were also greater in Bagmati (4866) than in Karnali Province (495).

Figure 4.4: Province wise distribution of COVID-19 cases and deaths

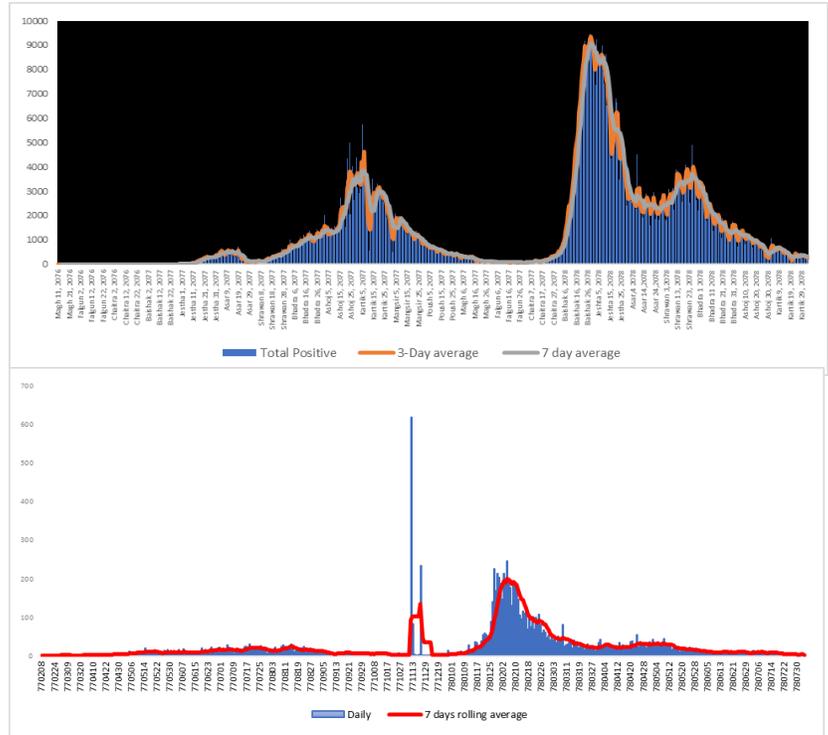


Time Distribution

The epidemic curve was created by plotting the daily incidence cases of COVID-19. Figure 4.5 depicts the exponential increase in COVID-19 cases on Kartik 5, 2077, with a peak of 5743 cases in a single day. After a six-month interval, another spike was recorded in 28 Baisakh 2078, with 9317 occurrences reported.

To assess the daily trend, the total number of deaths reported was shown. On 4 Jestha 2077, an index death was reported. On 11 Baisakh 2077, a high number of daily deaths (619) was reported (cumulative of death managed by army officials was added). The timeframe is matched by the high number of cases and deaths.

Figure 4.5 Daily trend of COVID-19 cases and Deaths



Key Statistics in 1st and 2nd wave of COVID-19

	1 st Wave		2 nd Wave	
	2076 Magh 9 – 2077 Chaitra 1		2077 Chaitra 2 Onwards	
Total RT-PCR tests	22,15,411	Till Chaitra 1	2,342,905	As of Mangsir, 2078
Total RT-PCR positive cases	2,75,178	Till Chaitra 1	543,841	As of Mangsir, 2078
RT-PCR Positivity rate (Cumulative) (%)	12.42	Till Chaitra 1	23.2	As of Mangsir, 2078
Highest number of RT-PCR tests/Day	20,118	Kartik 5	22,353	Jestha 08
Highest number of RT-PCR positive cases/Day	5,743	Kartik 6	9,317	Baisakh 28
Lowest number of RT-PCR positive cases/Day	53	Chaitra 1	79	Chaitra 02

	1 st Wave		2 nd Wave	
	2076 Magh 9 – 2077 Chaitra 1		2077 Chaitra 2 Onwards	
Highest positivity rate (%)/Day	34.8	Kartik 10	51.8	Baisakh 27
Weekly highest RT-PCR positive cases	25,929	1st week, Kartik	61,814	Last week, Baisakh
Highest number of active cases/Day	38,461	Kartik 27	110,263	Jestha 02
Total deaths	3,014	Till Chaitra 1	8,482	As of Mangsir, 2078
Highest number of deaths/Day	45	Kartik 25	246	Jestha 05
Case fatality rate (%)	1.09	Till Chaitra 1	1.6	As of Mangsir, 2078
Highest number of districts reporting new cases/Day	71	Kartik 30	75	Baisakh 21

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Annexes

Annex 1: Mapping between Nepali Fiscal Years and the corresponding Gregorian Years

Nepali Fiscal Years	Corresponding Gregorian Years
2060/61	2003/04
2061/63	2004/05
2062/63	2005/06
2063/64	2006/07
2064/65	2007/08
2065/66	2008/09
2066/67	2009/10
2067/68	2010/11
2068/69	2011/12
2069/70	2012/13
2070/71	2013/14
2071/72	2014/15
2072/73	2015/16
2073/74	2016/17
2074/75	2017/18
2075/76	2018/19
2076/77	2019/20
2077/78	2020/21
2078/79	2021/22
2079/80	2022/23
2080/81	2023/24
2081/82	2024/25

Annex 2: Health Sector Progress Status of the Results Framework of the 15th Plan

क्र.सं.	सूचक	ईकाई	२०७६/७७ प्रगति	२०७७/७८ प्रगति	२०७७/७८ को लक्ष
१	पहिचान भएका क्षयरोगीमध्ये उपचारको सफलता दर	प्रतिशत	८८.९	८९.२	९५
२	स्वास्थ्य विमामा आवद्ध भएको जनसंख्या	प्रतिशत	११	१८.१७	५०
३	परिवार नियोजनको आधुनिक साधन प्रयोग दर	प्रतिशत	३८		५२
४	स्वास्थ्य संस्था मार्फत प्रसूति सेवा लिने महिला	प्रतिशत	६५.७	६२.१	७०
५	दक्ष स्वास्थ्यकर्मीको उपस्थितिमा सुत्केरी भएका महिला (जीवित जन्ममा)	प्रतिशत	६२.५	५८.२	७०
६	प्रोटोकल अनुसार चार पटकसम्म गर्भवती जाँच गर्ने महिला	प्रतिशत	५२.६	५४.८	७२
७	प्रोटोकल अनुसार बच्चाको जन्मपछि तीन पटक सेवा प्राप्त गर्ने महिला	प्रतिशत	१८.८	२४.७	५५
८	भिटामिन ए प्राप्त गर्ने सुत्केरी महिला	प्रतिशत	५७.३	५९.	७६
९	तोकिए बमोजिमका सबै खोप पाउने बालबालिका	प्रतिशत	६४.५	७६.४	९३
१०	डिपीटी हेप खोप तेस्रो प्राप्त गर्ने बालबालिका	प्रतिशत	७८	८६.२	९३
११	दादुरा खोप प्राप्त गर्ने बालबालिका	प्रतिशत	८०	८१.१	९४
१२	औलो रोगबाट संक्रमित व्यक्ति (इन्डोजेनस संक्रमण मात्र)	संख्या	१०२	८४	१००
१३	एचआइभीबाट नयाँ संक्रमित ब्यक्ति	प्रति लाख	०.०००३	०.०००३	०.०२
१४	गर्भवती महिला मध्ये पी एम टी सी टी सेवा पाएका महिला	प्रतिशत	५१.२	५७.६	८०
१५	कालाजारको संक्रमण भएका व्यक्ति	प्रति दश हजार जनसंख्या	०.०६	०.१५	<१
१६	हात्तीपाइले रोगको Prevalence rate	प्रति लाख जनसंख्यामा	१.४७	१.४७	<१
१७	औलोज्वरो Incidence rate	प्रति हजार जनसंख्यामा	०.०५	०.०२	०.०४

Annex 3: Joint Commitments of Local Levels to Improve Public Health Situation



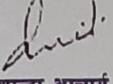
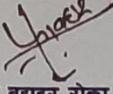
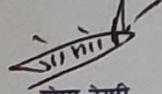
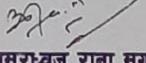
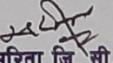
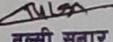
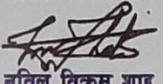
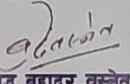
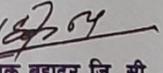
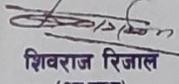
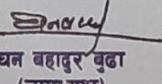
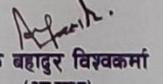
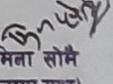
प्यूठान जिल्लाको स्वास्थ्य प्रतिवद्धता

मिति: २०७४।६।२७

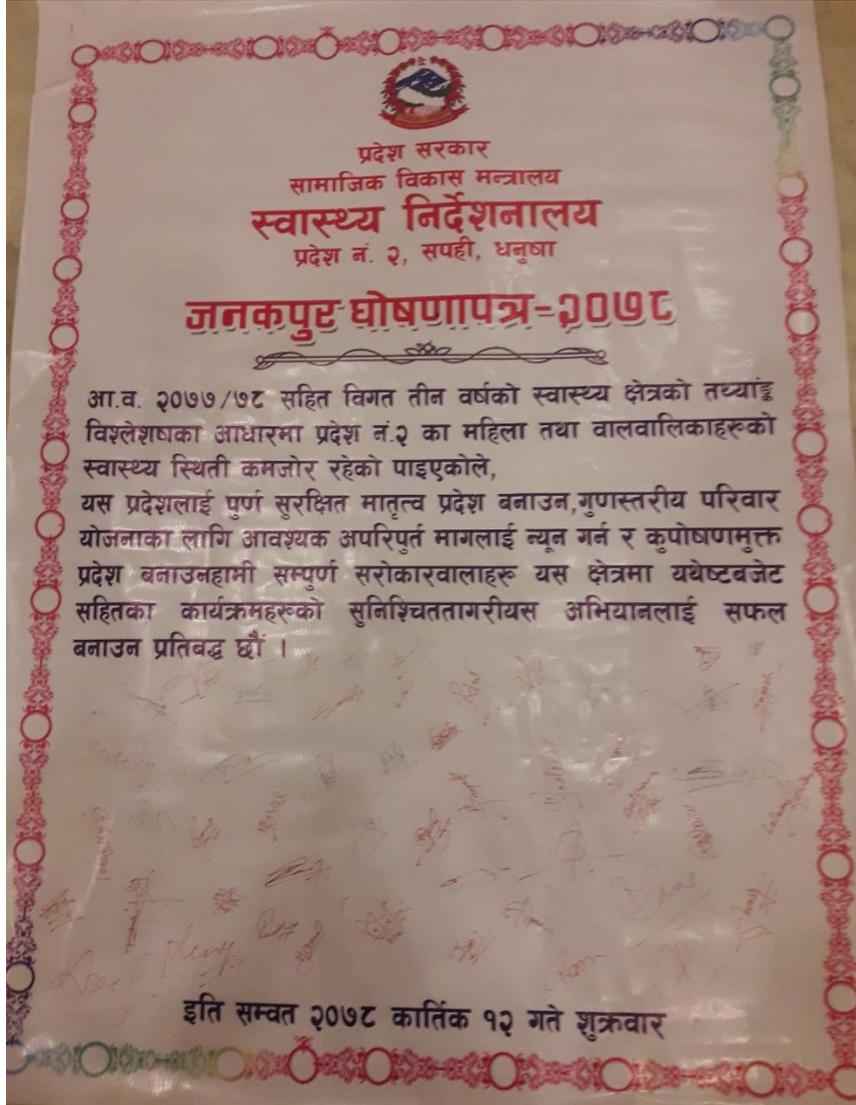
हामी प्यूठान जिल्लाका तपशिल बमोजिका नवनिर्वाचित (प्रमुख/उपप्रमुख, अध्यक्ष/उपाध्यक्ष) पदाधिकारीहरू जिल्लाको जनस्वास्थ्यको क्षेत्रमा उल्लेख्य प्रगति हासिल गर्न तपशिल बमोजिम कार्य गर्न प्रतिवद्धता जाहेर गर्दछौं ।

तपशिल:

१. नेपालको संविधान २०७२ धारा ३८ मा उल्लेख भएको "प्रत्येक महिलालाई सुरक्षित मातृत्व र प्रजनन स्वास्थ्य सम्बन्धी हक हुनेछ" भनिए बमोजिम सुरक्षित मातृत्व कार्यक्रम अर्न्तगत पूर्ण गर्भ जाँच र पूर्ण संस्थागत सुत्केरी (Full ANC Visit and No More Home Delivery) अभियान उन्मुख भई घोषणा गर्दै लैजाने ।
२. पूर्ण खोपयुक्त जिल्ला घोषणा गरेको सन्दर्भमा यसको दिगोपना/सुनिश्चितताका लागि स्थानीय तहबाट निरन्तर कार्ययोजना गराई दिगोपना कायम राख्न कटिबद्ध हुने ।
३. M-Health कार्यक्रम पूर्ण रूपमा लागु गरी दिगोपनाका लागि स्थानीय तहबाट आवश्यक श्रोतको व्यवस्थापन गर्ने ।
४. सुर्तिजन्य पदार्थ नियन्त्रण तथा नियमन गर्ने ऐन, २०६८ पूर्ण रूपमा पालना गर्ने, सार्वजनिक स्थलमा सुर्तिजन्य पदार्थ, लागु पदार्थ र मादक पदार्थको सेवन निषेध गर्ने ।
५. हाल विभिन्न स्वास्थ्य संस्थाबाट दिइदै आएको स्वास्थ्य सेवालाई थप सुदृढिकरण गरी स्वास्थ्य सेवा पाउने आम नागरिकको अधिकारलाई सुनिश्चितता गर्ने ।

 अर्जुन कुमार कक्षपति (प्रमुख) प्यूठान नगरपालिका	 शान्ता आचार्य (उप प्रमुख) प्यूठान नगरपालिका	 नेत्र बहादुर रोका क्षेत्री (प्रमुख) स्वर्गद्वारी नगरपालिका	 गोमा रेग्मी (उप प्रमुख) स्वर्गद्वारी नगरपालिका
 अमरभञ्ज राना मगर (अध्यक्ष) मल्लरानी गाउँपालिका	 सरिता जि. सी. (उपाध्यक्ष) मल्लरानी गाउँपालिका	 विष्णु गिरी (अध्यक्ष) गौमुखी गाउँपालिका	 तुल्सी सुनार (उपाध्यक्ष) गौमुखी गाउँपालिका
 नविल विक्रम शाह (अध्यक्ष) ऐरावती गाउँपालिका	 बुद्ध बहादुर वस्नेत (उपाध्यक्ष) ऐरावती गाउँपालिका	 तिलक बहादुर जि. सी. (अध्यक्ष) भिमरुक गाउँपालिका	 पवित्रा जि. सी. (उपाध्यक्ष) भिमरुक गाउँपालिका
 शिवराज रिजाल (अध्यक्ष) नौवहिनी गाउँपालिका	 घन बहादुर बुढा (उपाध्यक्ष) नौवहिनी गाउँपालिका	 भक बहादुर विश्वकर्मा (अध्यक्ष) सरुमारानी गाउँपालिका	 मिना सोर्मै (उपाध्यक्ष) सरुमारानी गाउँपालिका
 श्रीधर रोका (अध्यक्ष) माण्डवी गाउँपालिका	 मुगा पुन मगर (उपाध्यक्ष) माण्डवी गाउँपालिका	 विशाल सुवेदी (जिल्ला जनस्वास्थ्य प्रमुख) जिल्ला जनस्वास्थ्य कार्यालय प्यूठान	

Annex 3: Examples of Provincial Commitments to Address Provincial Health Issues



आ.व २०७७/७८ को प्रदेश स्तरीय वार्षिक स्वास्थ्य समीक्षाले तय गरेका कार्यदिशा

नेपालको संविधानले निःशुल्क आधारभूत तथा आकस्मिक स्वास्थ्य सेवालाई मौलिक हकको रूपमा स्थापित गरेको छ। संघीय संरचनामा गुणस्तरीय स्वास्थ्य सेवामा सर्वव्यापी पहुँच पुर्याउन प्रदेशको समेत महत्वपूर्ण भूमिका रहेको छ। तिन वटै तहले सम्पादन गर्न तोकिएका कार्यक्षेत्रहरू, प्रदेश सरकारको नीति तथा कार्यक्रमहरू, दिगो विकास लक्ष्य एवं प्रदेशमा विद्यमान स्वास्थ्य क्षेत्रका समसामयिक मुद्दाहरूलाई तथ्य तथा प्रमाणमा आधारित भई प्राथमिकीकरण गरी कार्यान्वयनमा ल्याइएका छन्। यसको लागि स्वास्थ्य सेवा व्यवस्थापनमा नवीनता तथा सृजनशीलता कायम गरी सामाजिक न्यायको आधारमा समतामूलक स्वास्थ्य सेवा प्रदान गर्न पर्याप्त लगानी र समुचित उपयोग आवश्यक रहेको छ।

प्रदेशमा शुरू भएका र योजनामा रहेका महत्वपूर्ण कार्यहरूलाई निरन्तरता दिन र संस्थागत गर्न असल शासन तथा कुशल प्रशासनको माध्यमबाट जवाफदेहिता र पेशागत आचरणमा सुधार गरी स्वास्थ्य सेवा प्रदायक, सेवाग्राही र सरोकारवालाहरू बीच रणनीतिक सहकार्य गर्न उत्तिकै जरुरी छ। स्वास्थ्यलाई तिनै तहको सरकारले साझा मुद्दाको रूपमा स्थापित गर्नु, संघीय संरचनामा स्वास्थ्य सेवा र संरचनाको खाका निर्माण हुनु र स्वास्थ्य प्रणालीको एकिकृत विकासका लागि प्रतिबद्धता रहनुलाई अवसरको रूपमा आत्मसात गर्दै यसका लागि तत्कालिन, मध्यकालीन तथा दीर्घकालीन सुधारका कार्य योजनाहरू तय गरि कार्यान्वयन भइरहेका छन्।

यस समिक्षाबाट हाल सम्म प्राप्त उपलब्धिहरू, भोगिएका समस्याहरू एवं चुनौतिहरूका साथै अवसरहरू पनि उजागर भएका छन्। समग्रमा स्वास्थ्य सुचकहरू सन्तोषजनक रहे पनि समतामूलक उपलब्धी हासिल गर्नका लागि थप कार्यहरू गर्नुपर्ने देखिन्छ। यस कार्यक्रममा गरिएको सुक्ष्म विश्लेषण तथा प्राप्त सुझावहरूको आलोकमा प्रदेशले देहायका कार्यदिशा तय गरेको छ।

१. मन्त्रालय र मातहतका निकायहरूमा कुशल व्यवस्थापन गर्न तथा वित्तीय जोखिमहरू कम गर्न आन्तरिक नियन्त्रण प्रणाली तयार गरि लागु गर्ने ।
२. स्वास्थ्य क्षेत्रको संस्थागत तथा व्यवस्थापन सर्वेक्षण; प्रादेशिक स्वास्थ्य जनशक्ति रोडम्याप; प्रादेशिक स्वास्थ्य सेवा गुणस्तर सुध्दृढीकरण रणनीति, प्रादेशिक अस्पतालहरूको औजार उपकरणहरूको प्रयोग अडिट, नसर्ने रोग रोकथाम तथा नियन्त्रण सम्बन्धी प्रादेशिक बहुक्षेत्रिय कार्ययोजना लगायत नीतिगत व्यवस्था गरि कार्यान्वयन गर्ने ।
३. लगानीको अनुपातमा उच्चतम प्रतिफल हासिल गर्न अन्तर्राष्ट्रिय, राष्ट्रिय तथा प्रादेशिक लक्ष्य र प्राथमिकताहरू सँग सामञ्जस्यता कायम गरि योजना पहिचान, छुनौट र कार्यान्वयन गर्न स्थानीय तहहरूसँग आवश्यक समन्वय गरी सहजीकरण गर्ने ।
४. स्वास्थ्य कार्यालय र स्थानीय तह बीच समन्वय र सहकार्यको लागि नीतिगत व्यवस्था गरी कार्यान्वयनको खाका निर्माण गर्ने

५. विगतका केहि वर्षमा लुम्बिनी प्रदेशले राष्ट्रिय खोप कार्यक्रममा उल्लेखनिय सफलता हासिल गर्दै प्रदेश भित्रका सम्पूर्ण जिल्लाहरूलाई पूर्ण खोप युक्त जिल्लाको रूपमा घोषणा गरिसकेको परिप्रेक्ष्यमा यसको दिगोपन लाई सुनिश्चित गर्दै लुम्बिनीलाई पूर्ण खोप युक्त प्रदेशको रूपमा विकास गर्ने ।
६. दिगो विकास लक्ष्यले निर्दिष्ट गरे अनुसार प्रदेशको रोकन सकिने मातृ मृत्युलाई शून्यमा झार्न प्रदेश स्तरीय सुरक्षित मातृत्व रोडम्याप लागु गरी प्रदेश भित्रका सबै जिल्लाहरूमा CEONC सेवाको सुनिश्चितता, मिडवाइफरी शिक्षाको व्यवस्था, मातृ मृत्युको नियमित निगरानी, प्रसुतीको चाप भएका अस्पतालहरूमा विशेष व्यवस्थाका साथै संस्थागत सुत्केरीलाई थप प्रवर्धन गर्दै स्थानीय तहहरूलाई क्रमश "शून्य होम डेलिभरी" पालिका बनाउन विशेष अभियानको शुरुवात गर्ने ।
७. प्रदेश भित्रका अस्पताल तथा स्वास्थ्य संस्थाहरूमा स्वास्थ्यकर्मी तथा अन्य मानव संसाधनको उत्पादन, प्राप्ति, वितरण, परिचालन तथा व्यवस्थापनमा देखिएका नीतिगत तथा प्राविधिक समस्याको सम्बोधन गरि विशेषज्ञ जनशक्तिको समुचित वितरण र व्यवस्थापन सुनिश्चित गर्ने ।
८. प्रदेशले संचालनमा ल्याएका विपन्न नागरिक स्वास्थ्य उपचार आर्थिक सहूलियत, घरदैलोमा डाक्टर, ७० वर्षपुगेका जेष्ठ नागरिकसंग स्वास्थ्यकर्मी, दम जन्य तथा ब्रोंकाइटिस उपचार व्यवस्थापन, अस्पतालमा आधारित सामाजिक सेवा, जेरियाट्रिक इकाई, एकद्वार संकट व्यवस्थापन केन्द्र लगायतका सामाजिक स्वास्थ्य सुरक्षाका कार्यक्रमलाई चौमासिक रूपमा लेखाजोखा तथा मुल्यांकन गरि प्रभावकारी संचालनको सुनिश्चितता गर्ने ।
९. स्वास्थ्य विमा कार्यक्रममा विमा बोर्ड संग समन्वय गरी प्रादेशिक सहभागिता तथा सहजीकरण गर्ने
१०. महामारी लगायत अन्य जनस्वास्थ्य संग सम्बन्धित विपदको पूर्वतयारी र प्रतिकार्यलाई थप प्रभावकारी बनाउन विकास साझेदार सहितको कोर टिम निर्माण गरि नियमित अनुगमन तथा मूल्यांकन गर्ने ।
११. प्रदेश भित्रका सम्पूर्ण नागरिकहरूका लागि कोभिड विरुद्धको खोपको न्यायोचित वितरण तथा खोपको उपभोग कम भएका जिल्ला तथा स्थानीय तह तथा क्षेत्रहरूमा विशेष अभियान संचालन गरि समतामूलक पहुँचको सुनिश्चितता गर्ने ।
१२. प्रदेशका सबै अस्पतालाहरू विरामीहरूका लागि टोकन प्रणाली लागु गर्ने र स्वास्थ्यको एकीकृत सुचना व्यवस्थापनका लागि अन्तर-संचालित (inter-operable) विधुतीय प्रणाली विकास गरी मन्त्रालयबाट समेत निगरानी गर्न सकिने व्यवस्था गर्ने
१३. सबै आयुर्वेद चिकित्सालय तथा केन्द्रहरूबाट २ वर्ष भित्र पंचाकर्मा सेवा संचालन गर्ने ।
१४. चालु आ.व. भित्रै आयुर्वेद रोड म्याप तयार गरी लागु गर्ने ।
१५. लुम्बिनी तथा राप्ती प्रादेशिक चिकित्सालयबाट विशेषज्ञ सेवा विस्तार गर्ने ।
१६. निजी स्वास्थ्य संस्था संचालन अनुमति तथा नवीकरणका लागि हाल रहेका नियम कानुनहरूमा परिमार्जन गर्नु पर्ने भए सो समेत गरि यस कार्यलाई सरल सहज र पारदर्शी बनाउने ।

Annex 4: Community-based Initiative for Improving Antenatal Care Services in Kalaiya Submetropolitan City

Introduction

Provision of basic health services to every citizen including access of maternal and reproductive health service provisioned in the constitution of Nepal. Safe Motherhood (SM) is one of the priority programme of the MoHP that includes the provision of Antenatal Care (ANC) services, safe delivery and Postnatal Care (PNC) services. Despite the provision policy provisions and resources, the coverage of SM services has not been increased up to the desirable level in Nepal including in Kalaiya Sub-Metropolitan City (KSMC)¹⁶ which is at the district headquarter of Bara district in Province 2.

Utilisation of Safe Motherhood services: Due to the low level of awareness among the public, weak capacity of Female Community Health Volunteers (FCHV) and poor reporting

Population	1,00,234
Area (in square kilometer)	108.9
No. of wards	27
Major ethnicity (Muslim and Yadav)	19.2% and 10.8%
Literacy rate	54.05%
No. of Public health facilities	30
No. of private health facilities	27
Number of birthing centers	2
No. of wards with public HF	27
No. of FCHVs	173
Provincial Hospital	1
Data Source: Health sector Factsheet, KSMC	

Table: ANC and PNC services

% of pregnant women 4 ANC visit as per protocol		2075/76	2076/77	2077/78
	Municipality	15.5	10.9	15.7
	District	29	26	32.7
	Province	41.5	40	43.2
	National	55.9	52.6	55
% of women who had PNC-3 as per protocol		2075/76	2076/77	2077/78
	Municipality	0.61	2.9	3.3
	District	9	9.9	14.6
	Province	15.2	13	14.1
	National	16.14	18.8	24.8

Data Source: HMIS

compliance, the coverage of SM services was found to be very low. The HMIS data revealed that the four ANC visits and three PNC visits as per protocol remained stagnant over last three years which is below the district, province and national average in comparison. During last FY 2077/78, only 15.7% of pregnant women had 4 ANC visit and 3.3% of mother had utilized PNC services as per protocol. Based on the monitoring visiting and consultation with health facilities, it was found that most of the pregnant women do not seek ANC services on timely manner until and unless the pregnancy appears to be visible or they start facing any specific health problem. Most of pregnant women visited HFs lately (after 5-6 month) first time for receiving ANC services. Many FCHVs were not competent enough to provide necessary education for motivating pregnant

women to receive ANC services by conducting regular home visits.

Considering such challenges at the local level, a discussion meeting of key decision makers of the KSMC was organised to discuss on overall health issues including SM service coverage. During the issue-based discussion among key stakeholders of KSMC including Mayor, Deputy Mayor, Chief Administrative Officer, Ward chairperson and Health Facility In-charges core issues were revealed and general understanding was made to focus on improvement in the service uptake by addressing underlying problems. The meeting and discussion with key stakeholders agreed to formulate guidelines to improve the ANC services and implement it across all the wards. The meeting has agreed to follow the implementation guidelines as illustrated on Box 1.

¹⁶ This municipality is one of the local levels where UKaid/NHSSP has been providing technical support to strengthen health systems at subnational level.

Implementation Approach

Considering the existing challenges, the municipal health section sensitised to increase ANC coverage by implementing the guidelines which includes the mobilization of local health workers (Auxiliary Nurse Midwives and Health Assistants/ Auxiliary Health Workers) for conducting home visits in their

Box 1: Implementation guidelines for improve ANC check-up under SM

- Mobilise health workers (2-3) from respective health facility while ensuring adequate staff at health facilities.
- Collect data on pregnant (eligible) women and ensure the ANC checkup.
- Motivate all pregnant women to seek healthcare and sensitise them on provision of incentive after completion of the ANC checkup as per protocol.
- Maintain database of contact phone number of eligible woman and invite them (in case they don't visit) by a reminder call.
- Ensure that required logistics (medicine, forms and tools, registers) are carried by health workers while visiting to the community and conduct general checkup and counseling at community level.
- While conducting the community field visit, mobilise FCHVs of respective municipal wards.

respective catchment communities along with FCHVs. During their visits, health workers identified the pregnant women, provided health education from ANC perspectives and collected data of eligible women for ANC services, invited them to receive ANC services from the nearest HFs so that the overall SM services could be improved. The data collected during the community visits consisted of information on name of pregnant woman, age, last menstruation period date, estimated date of delivery, contact phone number

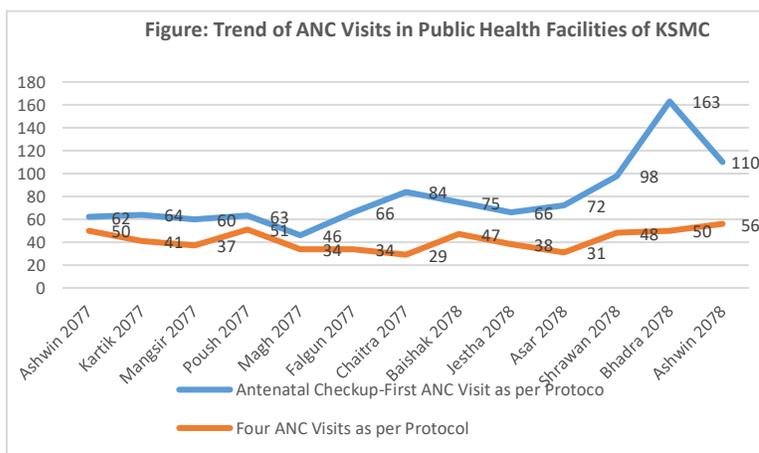
and the information on whether the client sought any ANC care (if yes, name of health institution and the date).



Local Health Worker and FCHVs collecting data of pregnant women at Kalaiya SMC ward no 25, Sisahaniya

The officials of health section conducted follow up meetings at each health facilities in which HFOMC members including health facility in-charges agreed to implement the initiatives along with the commitment for required resources. Accordingly, community level interventions were conducted in coordination with concerned stakeholders.

Key Results Once local Health workers (ANM and AHWs) of the health facilities were mobilized in the community for sensitization on the importance of the service update, the First and Four ANC visit as per the protocol increased within one month of the intervention. The HMIS report shows that number of first ANC visit as per protocol during first three months of FY 2078/79 are 98, 163 and 110 respectively which are significantly higher than the last 10 month of FY 2077/78. Likewise, the Four ANC visits as per protocol have been 48, 50 and 56 respectively for the same period which are higher than the last 10 month of FY 2077/78. Details in the enclosed Figure.



The health section chief of Kalaiya Sub-metropolitan city said that *many FCHVs are old age and not literate. They were not able to fulfil all the responsibilities of the FCHVs as expected. Many of them were not conducting home visits or meet pregnant women to motivate them for receiving ANC services. So, our health worker supplemented FCHVs works to improve the safe motherhood program. This initiative has really worked to increase the ANC visits and we are hopeful not only to improve the safe motherhood services and the health seeking behavior in general.*

Lessons Learnt

Provision of the ANC services is one of the major functions of the local health system and engagement and sensitization of stakeholders is pivotal in improving service uptake such as Safe Motherhood service delivery. Community based efforts for awareness generation and supply side interventions to improve the quality of services should go in parallel to enhance the service uptake by the needy population. Though, FCHVs are the first contact point health workers to sensitize the pregnant women to encourage for the ANC services, the alternative approach of conducting home visit by mobilising existing health workforce could be instrumental to improve the utilization basic health services including ANC services. Uptake of other basic health services and reporting to routine health information system need to be analysed and institutionalization of such initiatives helps to sustain the services. Overall learning of this initiative is that sharing of the root causes among the key decision makers, coordination between stakeholders and participatory approach in implementation can lead to context tailored solutions. Furthermore, replication of such initiatives in other local levels with low service uptake could be considered to improve utilization of priority health services including ANC services.

Annexes 5: Enhancing health systems of municipalities based on participatory assessments and prioritization in Karnali and Lumbini Provinces

Background

In 2015, Nepal made the shift to federalism from a unitary, centralized form of government. Reforms were made to the political and health systems at all administrative levels, including the restructuring of sub-national accountabilities in health from 77 districts to 753 municipal health systems. USAID's Strengthening Systems for Better Health (SSBH) Activity conducted detailed, participatory assessments of health systems in 105 municipalities of Karnali and Lumbini Provinces between December 2018 and June 2019. These assessments provided insight into existing institutional capacities and readiness to plan, implement, manage, and monitor health programs. The assessments also identified strengths, weaknesses, gaps, and opportunities, which would help to develop customized technical assistance plans to strengthen health systems at municipal level.

Several tools were used throughout these assessments. One was based on municipal responsibilities for management and delivery of health services, another drew from Organizational Capacity Assessment tool, and SSBH referred to various other health systems assessment tools while developing the assessment instrument. Assessment teams visited each municipality and briefed local authorities about the process and importance of the assessment, before engaging elected officials, senior staff, and Health Coordinators to collect, analyze, and synthesize the information.

Strategies for implementation

Consultation with local stakeholders was done to share and validate key findings and discuss opportunities and priorities to prepare customized technical assistance plans for each municipality. These plans outlined technical and logistical support from the Activity to 1) prepare municipal health policy; 2) enhance service delivery and quality; 3) improve data generation and use; 4) engage stakeholders for planning and managing health services; 5) submit routine health and logistics information; and 6) to facilitate coordination and collaboration with stakeholders at municipal level. The improvements in the health system were assessed annually, and these improvements were used to guide the preparation of annual workplans and budgets for the following fiscal year. The overall approach is displayed in the Figure 1 below.

Figure 1: Municipal Capacity Assessments and Technical Assistance Approach



Based on the needs identified through these assessments and in partnership with local, provincial, and federal governments, the Activity provided 1) GESI training to 1,427 participants; 2) Skilled Birth Attendant training to 169 nursing staff; 3) Family Planning Counselling and Long Acting Methods Training to 215 health workers; 4) Clinical Coaching and Mentoring to 3,248 health workers; 5) Health Facility Operations and Management Committee training to 2,459 participants; 6) Infection Prevention and Care Training to 1,811 health workers; 7) training on Health Management Information Systems, District Health Information Software, and Routine Data Quality Assessments to 1,658 health workers; 8) Health Logistics Management Training to 319 health workers; 9) Coaching and Mentoring on Health Information Systems to 2,061

health workers; 10) Integrated Management of Childhood Illnesses Training to 88 health workers; and 11) provided support to develop 184 municipal policies and acts.

Results Achieved

Municipal capacity assessments comprise of eight health system domains, with each domain assigned a score between 0 and 100, and the mean scores calculated for each domain. Assessments in subsequent years were conducted using a streamlined version of the initial tools, and any improvements were monitored. The overall mean capacity assessment score improved from 45.9 in 2075/76 to 72.7 in 2077/78. Figure 2 below shows overall results of the assessments by domain:

In 2077/78, Municipalities have improved capacity to strengthen their local health system compared to 2075/76.

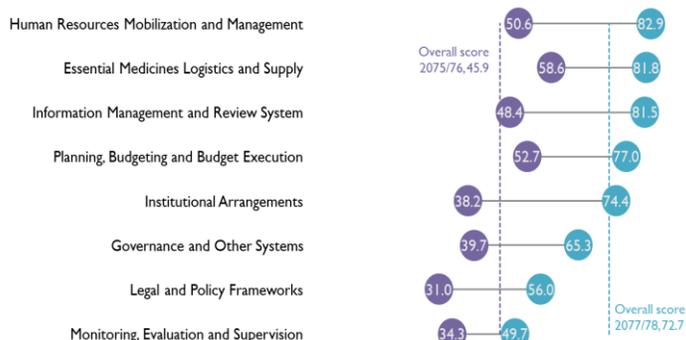


Figure 2: Municipal Health Systems Capacity Assessments in FY 2075/76 and FY 2076/77

Improvements in maternal health indicators were observed in SSBH working areas, with institutional delivery increasing from 76% to 85%, and instances of four antenatal check-ups as per protocol rising from 56% to 66% in the space of two years. Overall municipal budget allocation for health also increased by 17.5% between FY 2076/77 and FY 2077/78. With regards to data

reporting, timely and facility-based entry of Health Management Information System reports improved from 10% to over 80%, and District Health Information Software entry by health facility increased from 10% to 45% between FY 2075/76 and FY 2077/78.

Key success factors

The Activity followed a participatory approach to conduct capacity assessments and collaborate with stakeholders, even implementing a cost-sharing model with local and provincial health authorities to conduct trainings. SSBH shared findings from the assessments and health information systems data to plan and prioritize health interventions. Hand on support was provided by highly mobile multi-disciplinary team members with expertise in health systems, information systems, and clinical services. Health workers were provided onsite technical assistance through the coaching and mentoring, supplemented by priority-based trainings and critical in-kind support. All of these approaches helped to realize needs, priorities, and opportunities that helped to achieve desired results.

Key challenges and lessons learnt

Transforming from a unitary to a federal system of government is a significant undertaking, which poses both challenges and opportunities. The participatory process for capacity assessments and preparation of evidence-based technical assistance plans helped prioritize support based on identified needs. Continuous engagement and hands-on support at health facility and municipal levels helped to build trust and credibility, which were crucial to bring necessary improvements in municipal health systems.

Significant effort is required to sustain Nepal's improvement in health outcomes over the past two decades and to ensure continued gains. Such assessments and customized technical assistance help local, provincial, and federal governments to identify capacities, needs, and priorities to guide customized policy formulation, program planning, and delivery.

Annex 6: Transforming Maternal and Child Health through simulation-based education

Background

Improving maternal and neonatal health in Nepal is a key area highlighted in the National Health Policy 2014. Nepal has made meaningful development in maternal and child health over the past couple of decades. Despite this progress, the MoHP is cognizant of the fact that the training system still needs to be improved to a more proficient level to meet international standards. The training on highly complex medical procedures traditionally takes place directly in a real clinical setting. This raises concern regarding the safety of patients. Students who learn clinical skills directly on patients can potentially contribute to unsafe and bad quality patient care. Simulations realistically replicate medical scenarios that enable healthcare professionals to practice and improve their skills without harming patients.

Nepalese students and health workers trained in midwifery and birth assistant courses using simulation-based education (SBE) have increased knowledge for improving quality of care in maternal and newborn care. The project started in 2018 and was implemented in a partnership between Laerdal, the midwifery schools of the National Academy of Medical Sciences (NAMS) and the Kathmandu University School of Medical Sciences (KUSMS) in Bagmati Province, and Skilled Birth Attendant (SBA) training site, one in each province with GIZ support and in consultation with Nepal Nursing Council (NNC), National Health Training Center (NHTC) Training has been replicated by other academic institutions and training sites using a simulation-based training method.

Strategies for implementation

- integration of the simulation-based methodology into existing curricula for both pre and in-service trainings of the health professional trainings in Nepal;
- establishment of two simulation labs at two leading educational institutions for midwifery educations (KUSMS, NAMS) to strengthen pre-service midwifery education
- exchange with training institutions already using SBE (study tour)
- monitoring and evaluation (including standardized methods to assess competency such as Objective Structured Clinical Examination (OSCE)).

Results Achieved

- 83% of in-service SBE trainees increased their capacity for clinical decision making (using OSCE for assessment)
- 80 midwifery faculty and SBA trainers/coordinators trained to use simulation-based education techniques in their teaching
- Two fully equipped simulation labs at NAMS and KUSMS
- Seven provincial SBA training sites upgraded with simulation manikins
- 26 health care professionals trained on EuSim Level 1 Simulation Instructor Course
- Draft manual on simulation-based education and guidelines for use of simulation lab

Key success factors

- Building on and aligning with methods supported by UNICEF / WHO.
- Good partnership and combination of organisations with commitment, technical know-how, ability to delivery courses.
- The project has laid the groundwork for greater use of simulation-based education techniques in the curricula of the pre-service and in-service training courses for midwives and Skilled Birth Attendants in Nepal. Learning with simulation is allowing participants to put their knowledge into practice and to identify areas of weakness which need to be improved – in a safe, supportive environment in which no patients are at risk.

Key challenges and lessons learnt

As training and education opportunities for midwives and Skilled Birth Attendants expand across Nepal, curricula need to reflect an appropriate balance between traditional teaching methods and innovative approaches which build practical skills. The sustainability of SBE in Nepal will depend upon continuous monitoring of results, exchange of experiences between the involved parties, and a commitment to maintaining (and renewing, when needed) the equipment in the simulation labs. Establishing simulation labs at other medical institutions and integration of the methodology would help to further expand skilled human resources for health.

Annex 7: Improving good governance for nutrition: Mobilizing municipal budget allocation and utilization for nutrition in Nepal

Background

Nepal faces a triple burden of malnutrition: undernutrition, micronutrient deficiency and overnutrition. The Nepal Multi-Sectoral Nutrition Plan (MSNP) II takes a multi-sector approach to tackling malnutrition and sets out guidance for the integration and implementation of both nutrition-specific and nutrition-sensitive interventions. Several national nutrition programs are implemented country-wide by the MoHP at federal, provincial, and local levels, including programs on maternal, infant, and young child nutrition (MIYCN), integrated management of acute malnutrition (IMAM); and pregnant mothers and adolescent iron and folic acid (IFA) supplementation. However, despite the political commitment for nutrition being translated into government budget allocations for both nutrition-specific and nutrition-sensitive programs, expenditure rates are still not at 100 per cent and donors' contribution to the overall nutrition budget envelope remains substantial. Also, due to the shift to federalism, responsibility of many nutrition-sensitive programs was shifted to decentralized levels. Governance for nutrition, including mobilization and ensuring timely and appropriate expenditure by local level government is key to succeed in improving the nutrition situation of its population.

Suaahara II (2016-2023), a USAID funded, multi-sector nutrition program, works to improve the nutritional status of women and children through a multi-sector approach in line with the MSNP across all municipalities (389) and wards (3,353) of 42 of Nepal's 77 districts. In addition, *Suaahara II* coordinates with stakeholders to encourage participation in the government's local level planning processes and encourage community level groups (such as civil society organizations, men and mother's groups, children's clubs, village model farmers and agricultural cooperatives, and private organizations) and elected representatives to identify nutrition-related issues, needs and priorities in their settlement, wards and municipalities.

Strategies for implementation

Suaahara II's work in governance includes successfully advocating for the integration of nutrition in local, provincial, and federal government policies and plans, guided by Nutrition and Food Security Steering Committees (NFSSCs) that meet regularly at national, provincial, and local government (municipality and ward) level. The strategies used included continuous sensitization and mentoring of leaders at all levels with a focus on strengthening existing decentralized governance structures for nutrition through:

- **Informing** local leaders on how investment in nutrition has a proven rate of return and can reduce healthcare costs in the later years of the lives of mothers and their children.
- **Encouraging** community based front line workers and major service delivery platforms to advocate for access and control over local funds for nutrition-related activities to improve the nutritional status of target groups, especially marginalized people and women.
- **Motivating** and supporting leaders to reflect on their plans and identify strategies to translate their commitments into action.
- **Supporting** in institutionalizing NFSSC at local level and supporting them to develop localized plans of context specific nutrition interventions jointly with health and non-health sector coordinators and integrating these interventions in the annual municipal work plan.
- **Following up** on progress of planned activities jointly with members of NFSSC to learn about the uptake of nutrition interventions at community level and identify ways to improve delivery of interventions.

Results Achieved

Capacity for nutrition governance has been strengthened exemplified by local governments giving priority to nutrition in local annual action plans and mainstreaming nutrition into local policies. Local NFSSC meetings have been improved with the introduction of fixed agendas and follow up on action plans. *Suaahara II* has implemented two rounds of sustainability workshops in municipalities. These workshops served to encourage local leaders' commitments to nutrition and increased accountability through follow-up review workshops focusing on the progress in the implementation of these commitments.

Consequently, with support from *Suaahara II*, local government has internalized the importance of nutrition and has mobilized their own budget and implemented nutrition activities. In 2018, internal *Suaahara II* monitoring data revealed that across 30 interventions districts, 173 out of 277 (62%) municipalities reported allocating USD 8.46 million to implement integrated nutrition activities for women and children. However, utilization of the allocated budget was only USD 3.5 million, not even half (41%) of total allocated funds. Since then, the *Suaahara II* team has worked on strengthening the awareness and skills on nutrition budgeting and planning of local government actors. In 2021, a total of 349 municipalities out of 389 have committed budget from their internal resources for nutrition-focused interventions with the help of *Suaahara II* program advocacy. A total of 11.37 million USD has been allocated for integrated nutrition interventions of which 9.13 million USD (80.30%) has been utilized as of June 2021.

The increased utilization rate can be witnessed in the local government recruitment of additional front-line workers to mobilize for changing nutrition related behavior in their communities. These individuals have been trained, oriented, and coached on nutrition-related themes from their municipal fund. Concrete interventions funded by municipalities include:

- Scale up behavior change activities such as key life events and fully nourished wards;
- Transportation allowance to disadvantaged families for treatment of malnourished children n;
- Scale up of the Self Applied Technique for Health approach;
- Allowance to female community health volunteers to conduct monthly health mothers group meeting; and
- Mobilization of peer facilitators for nutrition counselling in disadvantaged households.

Key success factors

Important factors of proper budget allocation identified were

- Good coordination within the municipality, between municipality and ward, and between municipality and international and national non-governmental organizations (NGOs), leading to improved integrated planning.
- A sense of responsibility among elected representatives towards their community.
- National and municipality guidelines and acts outlining the allocation and utilization process.
- Awareness and participation by community members in the planning process.
- Capacity-enhancement trainings on budget utilization, and adequate monitoring and supervision of plans during implementation.
- Awareness among municipality and ward leaders of the importance of health and nutrition, as well as involvement of *Suaahara II* in advocacy and lobbying for allocation of budget to nutrition, technical support, and joint monitoring with municipalities.

Key challenges and lessons learnt

Challenges

As reported by municipality and ward participants, EDPs such as Suaahara have helped sensitize local government on the importance of investing in nutrition. However, while awareness has been raised, other barriers to budget allocation and utilization are present, such as

- The perception that conditional budgets are enough, political motivations to invest only in programs that show “immediate effects”, and lack of nutrition activities proposed by lower levels, in part due to lack of knowledge on how to develop nutrition-related plans.
- For budget allocation in nutrition, one of the most critical findings is the need to sensitize health stakeholders at municipal and lower levels (health coordinators, health facility committee members, health workers, female community health volunteers, and health mother group members and the community in general), as the analysis shows that nutrition activities are often not demanded. Although health stakeholders are expected to be the strongest advocates of nutrition for budget allocation and are in the right position to put forward nutrition demands, they are currently doing so only to a lesser degree.

Lessons learnt

- Sensitization and capacity-building in good governance for nutrition should be continued but tailored to address identified barriers including bottlenecks and barriers to nutrition budget allocation and utilization, analysis of community nutrition needs, and the formulation of multisectoral plans to address them.
- Timeliness in government funds disbursements and supervision of budget utilization needs further strengthening in order to allow nutrition interventions to be effective.

Annex 8: Applying a multi-pronged family approach to engaging fathers and mothers-in-laws has improved infant and young child feeding practices in Nepal

Background

Nepal's 2016 Demographic and Health Survey shows that among children 6-23 months of age only 47% are fed a diet of foods from at least 4 of 7 food groups that meets the cut-off for minimum dietary diversity and only 37% are fed a minimum acceptable diet. Additionally, among children under the age of 5 with diarrhea in the 2 weeks before the survey, 27% were given less food during their illness rather than the appropriate practice of feeding a child with diarrhea the same or more food than usual (Ministry of Health and Population et al., 2017). The multi-sectoral nutrition program *Suaahara II* is implemented in 42 out of 77 districts of Nepal with the aim to improve nutrition with a focus on the first 1,000 days period, i.e. pregnant women and mothers and children up to the age of two years. *Suaahara II* is a continuation of *Suaahara I* which started in 2011. Building on learnings from phase I, *Suaahara II* (2016-2023) transitioned from a mother/child dyad focus to including fathers and other adult decision-makers including mothers-in-law, in behaviour change communication efforts. This family approach recognizes that mothers do not often make decisions or control financial resources alone and that care for herself and her children is the responsibility of the entire family. Formative research conducted in the beginning of *Suaahara II* found that mothers often consult other family members before making decision regarding health and nutrition for themselves and their children. Likewise, mothers with young children suggested that *Suaahara II* send SMS messages with information on key nutrition practices to their husbands and mothers-in-law since they too are key decision-makers regarding maternal and child health and nutrition.

To facilitate the shift to this family approach, the *Suaahara II* team designed and implemented multiple types of family approach interventions and strategies to enhance health and nutrition related knowledge of fathers and other family members.

Strategies for implementation

Suaahara II's work to improve nutrition through a family approach included developing a family engagement toolkit for enhanced interpersonal communication with all family members. Frontline workers in the *Suaahara II* program were trained in this toolkit and used it during home visits to 1,000 days households, i.e. households with pregnant women and/or children up to the age of two years. Additionally, a "Letter to the Father" tool was designed and is distributed to expecting fathers during antenatal care visits. These 'letters' reflect the voice and wishes of the unborn child in terms of the need for the father's involvement in the care and nutrition of the child and it's mother.

Bhanchhin Aama (Mother Knows Best), a popular radio program developed by *Suaahara II* focusing on good nutrition, was also revised to include new characters, namely an adolescent girl and grandparents, to expand the program's appeal to the whole family. Additionally, recognizing the high use of social media in Nepal, the program was expanded to encompass several multimedia platforms for broadcasting episodes. This helped expand the program's reach, even to those fathers who have migrated out of Nepal. Likewise, *Suaahara* use mobile technology, including interactive voice response, to send nutrition and supportive gender-role related SMS messages to fathers and mothers-in-law. Short videos, which are shared via online platforms and during community events, have also been developed emphasizing the role of the entire family in improving maternal and child nutrition.

Finally, the program mobilized and trained male GESI champions to lead nutrition and GESI-focused community discussion with fathers on changing harmful norms and household power dynamics in relation to good maternal and child practices. These discussions provide a safe space for fathers to talk, reflect and learn about nutrition and health behavior while challenging existing norms about their role.

Results Achieved

In 2019, two years after the start of the *Suaahara II* intervention and roll-out of the family approach, a cross-sectional monitoring survey was conducted to monitor the progress of key maternal and child health and nutrition indicators since the baseline. The results showed¹⁷ that three-fourths of mothers and over one-third of male household heads were exposed to at least one of three types of interventions: interactions with a *Suaahara II* frontline worker in the past six months, participation in a community event such as a health mothers' group meeting or a food demonstration or listening to *Bhanchhin Aama*. The regression analysis showed positive associations between maternal exposure to *Suaahara II* and all three outcomes: minimum dietary diversity, minimum acceptable diet, and increased child feeding when the child is sick (OR: 1.60, 95% CI: 1.19, 2.14, P=0.002), and increased feeding to the child when s/he is sick (OR: 2.11, 95% CI: 1.41, 3.17, P<0.001). Male head of household exposure to *Suaahara II* was associated with increased feeding to a sick child (OR: 2.20, 95% CI: 1.27, 3.84, P=0.005) but not the other two outcomes. Furthermore, in regression models limited to households where the mother was exposed to *Suaahara II*, the addition of male household exposure was positively and significantly associated with a nearly three-fold increase in feeding the child more food when s/he is sick (OR: 2.90, 95% CI: 1.57, 5.34, P=0.001). In the adjusted regression models, we found that increase in maternal exposure to *Suaahara II* was positively associated with all three of the child nutrition outcomes: minimum dietary diversity (OR: 1.71, 95% CI: 1.27, 2.28, P<0.001), minimum acceptable diet (OR: 1.60, 95% CI: 1.19, 2.14, P=0.002), and increased feeding to the child when s/he is sick (OR: 2.11, 95% CI: 1.41, 3.17, P<0.001). The positive association of maternal and family exposure with all IYCF outcomes, reflects that the family focus interventions should be rolled-out and intensified in the communities to increase IYCF outcomes.

Key success factors

- The extensive implementation architecture of the *Suaahara II*, including significant presence in or close to communities, has helped ensure that 1,000 days households were exposed to multiple family approach interventions
- The multi-pronged intervention strategy pairing knowledge on good nutrition practices with positive gender norms and engagement of fathers in the health and nutrition of their wife's and children has helped increase father's and mothers-in-law's exposure to these messages
- Continuous reinforcement of these messages from several channels, including the use of positive role models, has helped supporting father's behavior change for improved nutrition
- Several of the family approach interventions have been adopted and incorporated into local government nutrition plans.

Key challenges and lessons learnt

Designing and implementing quality family approach interventions are resource demanding both in terms of money and time. It requires formative research to design relevant materials that speaks to different target audiences with different barriers and motivators to engage in good nutrition practices. Likewise, implementation of these approaches requires resources. For example, frontline workers require more time as all family members may not be available at the same time thus requiring several visit and increased targeting of SMS to different family members has budget implications. Addressing gender norms during capacity building of frontline workers is another important pre-requisite as they may otherwise find it difficult to engage fathers and mothers-in-law in nutrition related discussions and to encourage them to participate in community events for nutrition. It is important to consider these factors when designing, planning and budgeting for family approaches in nutrition. Still, as our research shows, these approaches can be integrated into existing platforms and ultimately pays off in terms of improved nutrition practices.

¹⁷ <https://onlinelibrary.wiley.com/toc/17408709/2021/17/S1>

Annex 9: Improving newborn and pediatric quality of care by strengthening access to safe use of oxygen and infection prevention and control measures

Background

Nepal has significantly reduced under-five mortality in the last two decades, however progress is still needed: the neonatal mortality rate in 2019 was 20/1000 live births and the under-five mortality 31/1000 live births. The two most common causes of neonatal deaths in 2016 were respiratory and cardiovascular disorders, followed by Acute respiratory infections among under-five children and pneumonia is a leading cause of under-five deaths in Nepal.

Between September 2020 and June 2021, UNICEF, with support from USAID, collaborated with the MOHP, the Perinatal Society of Nepal (PESON), and two hospitals in Province 2 (Narayani and Janakpur hospitals) to strengthen quality of care on oxygen therapy and infection prevention and control in neonatal and pediatric health care settings. The overall objectives of this initiative are as follows:

- To improve the quality of newborn and pediatric quality of care (QoC), triggered by the COVID-19 pandemic.
- To strengthen access to and safe use of oxygen, and infection prevention and control.

The COVID-19 pandemic has strained Nepal's weak health system and exposed existing gaps, with shortages of oxygen, ventilators, and essential medicines compounding frustrations of a depleted health workforce and causing secondary impacts on routine essential health care for women, newborns, and children. Narayani and Janakpur hospitals are among tertiary level referral hospitals with high flow of clients in Province 2, providing neonatal intensive care and pediatric care services as well as referral services to all eight districts in Province 2.



A rapid baseline assessment was carried out in both hospitals which identified a number of quality gaps.

In infrastructure and supplies, it was found that there was unavailability of critical equipment, including central oxygen supply, oxygen analyzers, Continuous Positive Airway Pressure (CPAP) machines, and pulse oximeters, as well as improper waste management. In terms of human resource capacity, there were training gaps on level II newborn care, pediatric emergency care, oxygen therapy, and infection prevention and control. For documentation and performance improvement, it was noted that there was poor functionality of the Maternal and Perinatal Death Surveillance and Review with focus solely on adult mortality. Based on the baseline reports activities were planned and implemented.

Strategies for implementation

Collaboration and coordination at federal and provincial level: UNICEF partnered with the PESON to provide overall coordination and technical insight under the leadership of the Family Welfare Division of the MOHP. UNICEF and PESON developed a national guideline on oxygen therapy for newborns and children, addressing areas such as identification and management of hypoxemia, methods and sources of oxygen delivery, and monitoring of children on oxygen therapy. A guideline on Infection, Prevention and Control (IPC) at newborn and pediatric units was also developed and implemented.

Infrastructure improvement: Support was provided to the hospitals in repairing and upgrading components of their oxygen supply. Janakpur hospital strengthened its piping system for oxygen in the pediatric unit ensuring all pediatric beds were equipped with oxygen, originating from cylinders via a manifold system. In addition, equipment required for oxygen therapy in neonatal and pediatric units of both hospitals, including oxygen concentrators, pulse oximeters, oxygen analyzers and CPAP machines for both the neonatal and pediatric wards were supplied by UNICEF. To improve infection prevention, Narayani hospital constructed handwashing stations for patients and their families.

Capacity building: Capacity building of facility staff was targeted to the NICU, pediatric unit, and pediatric emergency unit. Over a period of 12 weeks, using a shift schedule, more than 45 staff members were trained on diagnosis and management of hypoxemia, use of pulse oximeters, CPAP, concentrators and cylinders, proper handwashing, equipment cleaning, and IV site management in neonates and young children. A follow up training and onsite coaching was conducted for a total of 40 health workers in both hospitals.

Reporting and documentation: Through continuous advocacy and support for improved documentation, there is now regular reporting from sick newborn care units. There are limited efforts on improving reporting from pediatric units which need to be further strengthened.



Major Results

The initiative helped to align federal and provincial levels and both hospitals around expanding existing QoC initiatives beyond maternal/newborn to pediatric care units. Although Nepal has a long history of implementing community based integrated management of childhood illness, pediatric care in secondary and tertiary settings has not been standardized, lacking established mechanisms for monitoring and reporting. The initiative was a milestone towards this endeavor.

Improving oxygen supply and capacity in safe oxygen use ensured that newborns and children in need can receive timely oxygen therapy. There has been significant increase in newborn and pediatric beds equipped with oxygen as compared to baseline. More than 45 health workers (doctors and nurses) were trained on diagnosis and

management of hypoxemia. Oxygen therapy record keeping has improved significantly. During the period

of implementation, 935 neonates and 1,500 children under five were admitted across the two hospitals, of which more than 200 required and successfully received oxygen therapy.

Key success factors

- Collaboration with GoN and professional organization: Collaboration has been the key factor for the overall success of the project. From the beginning of the project, UNICEF partnered with professional organization (PESON) to provide overall technical inputs and develop the technical guidelines on the safe use of oxygen for children. PESON took a lead role in coordinating, developing and facilitating the training packages at the provincial level.
- Baseline assessment: UNICEF conducted a rapid baseline assessment at the beginning of the project which helped to identify the gaps and needs in the provision of safe oxygen to newborns and children.
- Need based approach: The project was able to address the dire need to strengthen the oxygen therapy in neonatal/paediatric units of the hospitals that was further aggravated by the COVID-19 pandemic. The project provided the needed supplies/equipment for delivery of oxygen along with the skills to the health workers and technicians.
- Involving local doctors as trainers: The training sessions on paediatric oxygen therapy was jointly facilitated by paediatricians as well as doctors from both Center and local hospitals. This helped in streamlining the need at the local context as well as strengthening the local capacity.

Key challenges and lessons learnt

Challenges: The COVID-19 infection in Province 2 had a major impact on the implementation of this initiative, mainly due to prioritization of the COVID-19 response, including in maternity and pediatric units, and the transformation of pediatric into COVID-19 wards as well as absenteeism of health workers due to COVID-19. Some of the trainings of health worker staff had to be conducted virtually, which limited the effectiveness of the practical skills demonstrations. Another challenge is related to the regular reporting of cases and interventions at neonatal and pediatric care units. While some indicators are captured in the HMIS, there is a greater need to establish a comprehensive reporting system for pediatric care.

Lesson Learned: In response to the COVID-19 pandemic and the further anticipated impact on children, the GoN has prioritized strengthening pediatric intensive care units. The experience from this initiative will be instrumental in informing the government in expanding quality pediatric care within and beyond the two hospitals. The oxygen therapy training material has been used to inform the development of a pediatric critical care training resource package. The initiative built basic capacity of health workers in safe use of oxygen in newborns and children. Continued follow up and mentoring are needed to maximize the benefit of the training on the new equipment, as well as the engagement of biomedical engineers to ensure proper maintenance of oxygen equipment.

Annex 10: HIV pre-exposure prophylaxis for key population in Nepal, from demonstration to scaling up

Background

Nepal is a country with a concentrated epidemic of HIV. Condom is the major means of HIV prevention in Nepal. The coverage of condom use varies according to key populations (KPs). It ranges from 66 percent in people who inject drugs (PWID) to 91 percent in transgender people.¹⁸ This indicates the need for an alternative approach for HIV prevention other than condoms. Considering this, The United States Agency for International Development (USAID)- and The U.S. President's Emergency Plan for AIDS Relief (PEPFAR)-supported Linkages across the Continuum of HIV Services for Key Populations Affected by HIV Project (LINKAGES) Nepal project managed by FHI 360 Nepal in collaboration with National Center for AIDS and STD Control (NCASC) and National Public Health Laboratory (NPHL) Ministry of Health and Population (MOHP) Nepal, carried out a demonstration project on HIV pre-exposure prophylaxis (PrEP) in November 2018 to June 2019 to assess the feasibility and acceptability of HIV PrEP in Nepal. The project demonstrated that PrEP is feasible in Nepal and acceptable to KPs at risk of HIV. Based on the result of the demonstration project, National HIV Testing and Treatment Guidelines 2020 recommended PrEP as an alternative approach to HIV prevention. Then LINKAGES Nepal project initiated rolling out implementation of HIV PrEP and currently USAID- and PEPFAR-supported EpiC Nepal managed by FHI 360 Nepal is continuing HIV PrEP implementation for KPs and partners of people living with HIV (PLHIV) in 19 districts through its city clinics in Nepal.

Strategies for implementation

EpiC Nepal is offering PrEP to KPs namely men who have sex with men (MSM), transgender people, female sex workers (FSWS) and partners of HIV positive individuals diagnosed HIV negative in the community or at the city clinics. Individuals accepting PrEP offer are screened for eligibility based on the presence of HIV risk (condom less anal and vaginal sex, recurrence of sexually transmitted infection, virally not suppressed HIV positive partner and requesting PrEP) and laboratory criteria (to confirm normal kidney function). Those who are eligible and provide consent to start PrEP are provided PrEP drugs—initially for a month. During follow-up, HIV testing is conducted every three months and other tests are also done as recommended by World Health Organization (WHO). PrEP drugs are prescribed by the medical doctors, follow-up and pill distribution are done by trained paramedics (case managers). Case managers are supported by a team of doctors to resolve clinical issues through a regular weekly call.

Peer navigators (PNs) and community-based supporters (CBSs) are mobilized for adherence support of beneficiaries in the community. At the same time, EpiC Nepal is working with the National Center for AIDS and STD Control (NCASC) and other stakeholders for providing PrEP from the government facilities.

Results Achieved

- As of Sept 2021, 19 facilities run by EpiC Nepal implementing partner agencies (IPs) were providing HIV PrEP to 3,229 individuals at risk of HIV in 19 districts.
- NCASC initiated the process for institutionalizing PrEP services. The country is preparing a standard operating procedure (SOP) for implementing HIV PrEP from government facilities.

Key success factors

- Demand generation through online and offline platforms.

18 <http://aphub.unaids.org/>

- Training and capacity building of service providers and regular support through a weekly call with service providers.
- Supportive supervision of the staff providing services.
- Weekly and monthly review of the program data.

Key challenges and lessons learnt

Challenges

- The supply of PrEP medicines is not secured through the national logistics system.
- Discontinuation by the beneficiaries due to travel, disclosure of PrEP use, and stigma-related to HIV and PrEP use.

Lesson learned

- Paramedics with minimal support from medical doctors can provide quality HIV PrEP services.
- Regular support through a weekly call by the experts supports case managers in dealing with case-specific issues.
- Having a full functioned laboratory is not the requirement for providing PrEP, PrEP service providers can use existing public and private laboratories and purchase necessary investigation.

Annex 11: Oral fluid-based HIV self-testing in Nepal from demonstration to national scale-up

Background

Till 2017, only blood-based test was recommended for conducting HIV testing in Nepal and only 64 percent¹⁹ of HIV positive individuals knew their HIV status. National HIV Testing and Treatment Guidelines in 2017 mentioned HIV self-test (HIVST) as one of the innovative methods of HIV testing along with blood-based testing and recommended for developing guidelines and getting the regulatory approvals. Based on the recommendations of the guidelines, The United States Agency for International Development (USAID)- and The U.S. President's Emergency Plan for AIDS Relief (PEPFAR)-supported Linkages across the Continuum of HIV Services for Key Populations Affected by HIV Project (LINKAGES) Nepal project managed by FHI 360 Nepal in collaboration with National Center for AIDS and STD Control (NCASC) and National Public Health Laboratory (NPHL) , conducted a demonstration study for oral fluid-based HIVST from June to September 2019 to assess the feasibility and acceptability of HIVST in Nepal. The study demonstrated the acceptability and feasibility of oral fluid based HIVST in the country. Based on the demonstration study findings and recommendations, LINKAGES Nepal project initiated rolling out implementation of HIVST and currently USAID- and PEPFAR-supported EpiC Nepal managed by FHI 360 Nepal is continuing HIVST implementation. National HIV Testing and Treatment Guidelines, 2020 recommended HIVST using oral fluid as one of the methods for HIV test for triage along with blood-based screening.

Strategies for implementation

EpiC Nepal implements oral fluid-based HIVST as one of the methods of HIV screening in the community along with the blood-based screening method. HIVST kits in the community are distributed through community-based supporters (CBSs) and peer navigators (PNs). CBSs and PNs are trained in performing HIV screening using HIVST kits. CBSs during their regular outreach and PNs during their visit to people living with HIV (PLHIV) offer HIV testing using self-test kits. Clients are given options to choose between supervised (conduct self-testing with the guidance of CBS or PN) and un-supervised (take HIVST kit home and conduct testing independently) approaches of the testing. Upon the receipt of the HIVST result, all with the reactive result are accompanied to the HIV testing site for confirming the result. If the client cannot visit the testing site, confirmatory testing following National HIV Testing Algorithm is provided in the community by visiting laboratory technician. All with confirmed HIV positive test results are provided accompanied referral to HIV treatment center and all the confirmed HIV negative test results are referred for HIV pre-exposure prophylaxis (PrEP) services.

Results Achieved

- From October 1, 2020 to September 30, 2021, a total of 12,095 HIVST kits were distributed, and of those 12,073 (99.8%) were used for testing. Of those tested, 11,221 (93%) were first-time testers. Out of the 11,221 screened, 680 (6%) were found reactive and 626 (92%) were confirmed HIV positive through the national HIV testing algorithm, contributing to 41 percent of the total HIV positive identified by the project in the reporting period.
- HIVST was used as one of the methods of HIV screening by maintaining a safe physical distance during the coronavirus disease (COVID-19) pandemic. HIVST is attracting the population who usually did not test due to fear of blood-based test.

Key success factors

¹⁹ National HIV Infections Estimation 2016 and NCASC Routine Program Data 2017

- Demand generation through virtual and physical platforms
- Training and capacity building of service providers
- Regular onsite and virtual supportive supervision, coaching and monitoring of the staff providing services
- Weekly and monthly review of the program data, provide guidance to program team as per the finding of the analysis

Key challenges and lessons learnt

Challenges

- The supply of oral fluid based HIVST kit is not secured through the national logistics system.
- As the number of tests increases, the gap between reactive cases and the number of confirmed after screening from HIVST is increasing. The project is exploring it to find out the reason.
- Despite the efforts from the project, beneficiaries are reluctant to perform unsupervised HIVST due to the fear of getting the wrong result.

Lesson learned

- HIVST can attract large number of first time HIV testers, as it is an easy, painless and user-friendly method of testing and this method is also a major contributors of HIV case finding in the project along with high yield case finding approaches like index testing and enhanced peer outreach approach
- HIVST kit can be distributed, and test can be conducted by mobilizing lay service providers with minimal training and regular supervision
- Providing HIV confirmatory tests in the community contributes to minimizing the number of unconfirmed HIVST reactive cases.

Annex 12: List of Regulations, Standards and Guidelines on Medical Education

- नेशनल बोर्ड अफ मेडिकल स्पेसियालिटिज अन्तर्गत चिकित्सा शिक्षा अध्यापन गर्ने शिक्षण संस्थाहरुको अनुगमन, गुणस्तर मूल्याङ्कन तथा सीट निर्धारण कार्यविधि, २०७८ (स्पेसियालिटि तथा सबस्पेसियालिटि तह)
- चिकित्सा शिक्षा आयोगको एकीकृत प्रवेश परीक्षाको म्याचिङ्ग प्रणाली सम्बन्धी कार्यविधि, २०७८
- राष्ट्रिय चिकित्सा शिक्षा (पहिलो संशोधन) नियमावली, २०७८
- चिकित्सा शिक्षा विषयमा स्नातक तह, स्नातकोत्तर तह, फेलोसिप कार्यक्रम तथा उच्चस्तरीय तालिमका लागि वैदेशिक अध्ययन अनुमतिपत्र सम्बन्धी निर्देशिका, २०७७
- चिकित्सा शिक्षासम्बन्धी प्रमाणपत्र तहभन्दा मुनीका कार्यक्रम सञ्चालन गर्न अनुमति प्राप्त गरेका संस्थाको स्तरउन्नति सम्बन्धी मापदण्ड, २०७७
- स्नातकोत्तर तहको सिट निर्धारण सम्बन्धी आन्तरिक कार्यविधि, २०७७
- चिकित्सा शिक्षा एकीकृत प्रवेश परीक्षा सञ्चालन कार्यविधि, २०७७
- चिकित्सा शिक्षा अध्यापन गर्ने विश्वविद्यालय, प्रतिष्ठान र शिक्षणसंस्थाको गुणस्तर मूल्याङ्कन कार्यविधि, २०७७
- नेशनल बोर्ड अफ मेडिकल स्पेसियालिटिज कार्यक्रम सञ्चालन कार्यविधि, २०७७
- राष्ट्रिय चिकित्सा शिक्षा नियमावली, २०७७

Online Ticketing

(Online Patient Registration & Payment System)

अनलाइनबाट ओ.पि.डी. टिकट कसरी खरिद गर्ने ?

१. Google Play वा App Store बाट Prabhu Pay मोबाइल Wallet डाउनलोड गर्ने वा अस्पतालको हातामा रहेको KIOSK MACHINE प्रयोग गर्ने ।
२. "Prabhu Pay" मा लग इन गरी Hospital मा Click गर्ने ।
३. Civil Service Hospital छनोट गर्ने ।
४. पहिलोपटक Prabhu Pay एप मार्फत यस अस्पतालको टिकट खरिद गर्दै हुनुहुन्छ भने "New Patient" Click गर्ने ।
५. एक पटक यो एप प्रयोग गरी टिकट खरिद गरिसक्नु भएको छ भने "Old Patient" Click गर्ने ।
६. Billing Mode मा General OPD वा EHS (Paying Clinic) छनोट गर्ने ।
७. आफूले परिक्षण गर्न चाहेको विभाग छनोट गर्ने ।
८. Patient Type मा General Patient वा Civil Servant के हो छनोट गर्ने ।
९. Consult Date मा उपलब्ध परीक्षण मिति छनोट गर्ने ।
१०. उपलब्ध विशेषज्ञ चिकित्सकहरू मध्ये एक चिकित्सक छनोट गर्ने ।
११. त्यहाँ तपाईंले भुक्तानी गर्नुपर्ने रकम देखिनेछ । त्यस पश्चात Next क्लिक गर्ने ।
१२. त्यस पश्चात बिरामीको नाम, थर, जन्म मिति, लिङ्ग, मोबाइल नम्बर, जिल्ला, गाउँपालिका/नगरपालिका, वडा नम्बर, हस्पिटल नम्बर (पहिले परीक्षण गरेको भए) भर्ने जाने ।
१३. Get Appointment मा Click गर्ने ।
१४. टिकट खरिद गर्न पक्का हुनुहुन्छ भने Confirm गर्ने ।
१५. Receipt मा उल्लेखित मिति, समय र कोठामा जाँचाउन आउने । पुराना बिरामीहरूले आफ्नो ओपीडी कार्डसहित ओपीडीमा आउने ।
१६. एक पटक टिकट खरिद गरिसकेपछि पैसा फिर्ता गर्न नसकिने हुँदा कृपया सावधानी पूर्वक विवरणहरू भरी Confirm क्लिक गर्नुहुन अनुरोध छ ।

धन्यवाद

- निजामती कर्मचारी अस्पताल

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