Progress of Health and Population Sector

2021/22 (2078/79 BS)

National Joint Annual Review Report

Government of Nepal
Ministry of Health and Population
Ramshahpath, Kathmandu
November 2022

Progress of Health and Population Sector
2021/22 (2078/79 BS)

National Joint Annual Review Report

Government of Nepal

Ministry of Health and Population

Ramshahpath, Kathmandu

November 2022

Table of Contents

Acronyms **2**

Executive Summary **6**

1. Introduction **11**

Background 11

Status of Aid Memoire 12

2. NHSS Results Framework **16**

2.1. Background 16

2.2. Overview of progress 16

2.3. Regular Programme Reviews 24

2.4. Financing scenario during the NHSS period 25

3. NHSS Progress by Outcome **27**

3.1 Outcome 1: Rebuild and Strengthen Health Systems: Infrastructure, Human Resources for Health, Procurement, and Supply Chain Management 27

Outcome 1a. Infrastructure 27

Outcome 1b. Human Resources for Health 33

Outcome 1c. Procurement and Supply Chain Management 36

3.2 Outcome 2: Improved Quality of Care at Point-of-delivery 43

3.3 Outcome 3: Equitable Distribution and Utilisation of Health Services 48

3.4 Outcome 4: Strengthened Decentralised Planning and Budgeting 52

5 Outcome 5: Improved Sector Management and Governance 58

3.6 Outcome 6: Improved Sustainability of Healthcare Financing 65

3.7 Outcome 7: Improved Healthy Lifestyles and Environment 71

3.8 Outcome 8: Strengthened Management of Public Health Emergencies 74

3.9 Outcome 9: Improved Availability and Use of Evidence in Decision Making Processes at All Levels 76

Population Management **83**

References **85**

Annexes **86**

Acronyms

AMR	Anti-Microbial Resistance
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
ART	Anti-Retroviral Therapy
AWPB	Annual Work Plan and Budget
BC	Birthing Centre
BEONC	Basic Emergency Obstetric and Neonatal Care
BHS STP	Basic Health Service Standard Treatment Protocol
BHS	Basic Health Services
BiPAP	Bilevel Positive Airway Pressure
BS	Bikram Sambat
CAC	Comprehensive Abortion Care
CAPP	Consolidated Annual Procurement Plan
CAPP-MC	Consolidated Annual Procurement Plan- Monitoring Committee
CEONC	Comprehensive Emergency Obstetric and Neonatal Care
CGAS	Computerised Government Accounting System
CLPIU	Central Level Project Implementation Unit
CME	Continuing Medical Education
COVID	Corona Virus Disease
CPAP	Continuous Positive Airway Pressure
CPR	Contraceptive Prevalence Rate
CS	Caesarean Section
CSD	Curative Service Division
CT	Computed Tomography
DDA	Department of Drug Administration
DHIS-2	District Health Information System 2
DLI	Disbursement Linked Indicators
DoAA	Department of Ayurveda and Alternative Medicine
DoHS	Department of Health Services
DPR	Detailed Project Report
DTCO	District Treasury Comptroller Office
DUDBC	Department of Urban Development and Building Construction
e-CAPP	electronic Consolidated Annual Procurement Plan
ECG	Electrocardiogram
EDCD	Epidemiology and Disease Control Division
EDP	External Development Partner
e-GP	electronic Government Procurement
EHR	Electronic Health Records
EHS	Emergency Health Services
EID	Embryo Infectious Dose
e-LMIS	electronic Logistic Management Information System
EMR	Electronic Medical Record
EPI	Expanded Programme on Immunisation
EVM	Effective Vaccine Management
EWARS	Early Warning and Reporting System
FCGO	Financial Comptroller General Office
FCHV	Female Community Health Volunteer
FMoHP	Federal Ministry of Health and Population

FP	Family Planning
FWD	Family Welfare Division
FY	Fiscal Year
GBV	Gender-Based Violence
GESI	Gender Equality and Social Inclusion
GoN	Government of Nepal
GRB	Gender Responsive Budgeting
HCWM	Health Care Waste Management
HDPs	Health Development Partners
HDU	High Dependency Unit
HEOC	Health Emergency Operation Centre
HF	Health Facility
HIIS	Health Infrastructure Information System
HMIS	Health Management Information System
HO	Health Office
HRH	Human Resource for Health
ICDH	Infectious and Communicable Disease Hospital
ICU	Intensive Care Unit
IHIDP	Integrated Health Infrastructure Development Programme
IHMIS	Integrated Health Information Management Section
IHR	International Health Regulation
IP	Infection Prevention
IUFD	Intra Uterine Fetal Death
JCM	Joint Consultative Meeting
LCLH	Lekhnath Community Lions Hospital
LISA	Local Government Institutional Capacity Self Assessment
LLG	Local-Level Government
LMBIS	Line Ministry Budget Information System
LMIS	Logistic Management Information System
LNOB	Leave No One Behind
MBTS	Madhesh Blood Transfusion Service
MD	Management Division
MDA	Mass Drug Administration
MNCH	Maternal Neonatal and Child Health
MoF	Ministry of Finance
MoHP	Ministry of Health and Population
MoSD	Ministry of Social Development
MoU	Memorandum of Understanding
MRI	Magnetic Resonance Imaging
MSS	Minimum Service Standards
NCD	Non-Communicable Diseases
NDHS	Nepal Demographic and Health Survey
NHA	National Health Accounts
NHEICC	National Health Education, Information and Communication Centre
NHFS	Nepal Health Facility Survey
NHIDS	Nepal Health Infrastructure Development Standards
NHRC	Nepal Health Research Council
NHSS	Nepal Health Sector Strategy
NHSSP	Nepal Health Sector Support Programme

NHS-SP	Nepal Health Sector-Strategic Plan
NHTC	National Health Training Centre
NICU	Neonatal Intensive Care Unit
NJAR	National Joint Annual Review
NRA	National Reconstruction Authority
NRT	Nicotine Replacement Therapy
NSI	Nick Simon Institute
NSSD	Nursing and Social Security Division
NTC	National Tuberculosis Control Centre
O&M	Organisation and Management
OAG	Office of the Auditor General
OCMC	One-Stop Crisis Management Centre
OOP	Out-Of-Pocket
OPD	Outpatient Department
OTC	Outpatient Therapeutic Centre
PAHS	Patan Academy of Health Sciences
PAMS	Public Assets Management System
PCR	Polymerase Chain Reaction
PE	Procuring Entity
PFM	Public Financial Management
PHD	Provincial Health Directorate
PHLMC	Provincial Health Logistic Management Centre
PHTC	Provincial Health Training Centre
PIP	Procurement Improvement Plan
PLAMAHS	Planning and Management of Assets in Health Services
PNC	Post-Natal Care
PPA	Public Procurement Act
PPHL	Provincial Public Health Laboratory
PPMO	Public Procurement Monitoring Office
PPR	Public Procurement Regulations
PPSC	Provincial Public Service Commission
PPSF	Public Procurement Strategic Framework
RDQA	Routine Data Quality Assessment
RF	Results Framework
RUSG	Rural Ultra Sonography
SBA	Skilled Birth Attendant
SBCC	Social and Behaviour Change Communication
SBD	Standard Bidding Document
SDG	Sustainable Development Goal
SDP	Service Delivery Point
SMNH	Safe Motherhood and Neonatal Health
SNCU	Special Newborn Care Unit
SNG	Sub-National Government
SOP	Standard Operating Procedures
SSU	Social Service Unit
STP	Standard Treatment Protocol
SU	Spending Unit
SuTRA	Sub-National Treasury Regulatory Application System
SWAp	Sector Wide Approach

TGCS	Ten Groups Classification System
TSB	Technical Specification Bank
UHC	Universal Health Coverage
USG	Ultra-Sonography
VfM	Value for Money
VSC	Voluntary Surgical Contraception
VTM	Viral Transport Media
WASH	Water Sanitation and Hygiene

Executive Summary

The Nepal Health Sector Strategy (NHSS) was developed in 2015 to guide the health sector programme design, management and implementation for 2016-2021 and to provide a sector wide approach (SWAp) framework. The aim was to accelerate progress to universal coverage of essential health services. An Implementation Plan was developed in 2016 to facilitate NHSS operationalisation. The implementation period was extended to mid-July 2022 as a result of the COVID-19 pandemic.

The NHSS vision was that "all Nepali citizens have productive and quality lives with the highest level of physical, mental, social and emotional health". The NHSS mission was to ensure the fundamental rights of citizens' to stay healthy by utilising available resources optimally and through strategic cooperation between service providers, service users and other stakeholders. The strategy set out four strategic directions: equitable access to health services; quality health services; a multi-sectoral approach; and health systems reform. The strategy stated its ambition to progressively expand health services with continuous improvement in the quality of care being delivered, to make these services more affordable, and to extend coverage of vulnerable and poor populations. There are nine health sector outcomes and 26 outputs in the NHSS. Progress are being measured using 29 outcome level and 56 output level indicators.

This report highlights the major progress of the health and population sector against its outcomes particularly over the last NHSS implementation year (Fiscal Year [FY] 2021/22)[1], summarises lessons learned, and sets out the way forward for the next implementation period. Nepal has seen steady progress in health outcomes, particularly in life expectancy, child survival and maternal health during the NHSS implementation period. During FY 2021/22 priority was given to establishing new health facilities, strengthening existing facilities, enhancing quality related interventions such as minimum service standards (MSS) and roll out of standard treatment protocol for basic health services, and equitable distribution of health services.

The strategy was developed in the context of a unitary system of governance, but was implemented during a period of transition to a federal system, and the resulting administrative restructuring. Implementation has taken place during a period of post-earthquake rebuilding and response to the COVID-19 pandemic. Federalisation provided opportunities to reform and restructure the health system towards decentralised leadership and governance, evidence-based planning and budgeting, and broader collaborative structures. New policy and legal frameworks were developed to reflect the federal governance arrangements. Under the new structure, local levels are responsible for free provision of basic health services (a constitutional right of all citizens). Provincial governments are responsible for the operation and management of provincial level hospitals and health system functions. The federal government is responsible for stewardship of the sector, setting policies, and developing the legal framework, strategies, plans, standards and protocols; and also manages national level tertiary and specialised hospitals.

The Ministry of Health and Population (MoHP)[2] continued to prioritise the prevention and vaccination campaign against COVID-19 in FY 2021/22. As of 10th November 2022, 99.5% of the target population above 12 years had been fully vaccinated against COVID-19[3]. In the current FY, Nepal is currently

[1] FY 2021/22 of Gregorian calendar refers to FY 2078/79 in Nepali calendar. Mapping of the FY in Gregorian and Nepali calendar is provided in annex.

[2] MoHP refers to the federal MoHP unless otherwise mentioned.

[3] Department of Health Services. Family Welfare Division. Vaccination milestone. www.fwd.gov.np

experiencing an epidemic of Dengue: as of end of October 2022, Dengue has been reported from all 77 districts; over 50,000 cases and 57 deaths have been confirmed since mid-July 2022.

Major achievements

The major achievements of the health and population sector in the FY 2021/22 were:

Strategies

- Finalisation of the "Nepal Health Sector-Strategic Plan (NHS-SP) 2022-2030" which has been proceeded for the endorsement. This sets the priorities and implementation framework for the sector as an operational plan of the National Health Policy, 2019 and an instrument of the SWAp in alignment with the sustainable development goals (SDGs)
- Final draft of National Health Financing Strategy was developed in November 2021 through a participatory approach adopting rapid results initiatives and was proceeded for the endorsement.
- National Strategy on Human Resources for Health 2020/21- 2029/30 was endorsed by the FMoHP in 2021. This new strategy assesses the situation of the HRH in Nepal and sets roadmap for the management of the human resources for future

Information Management and surveys

- The Integrated Health Information Management System (IHMIS) roadmap (2022-2030) has been endorsed in 2021. The roadmap aims to initiate coordinated mechanism for health information management for various health information systems and increase the use of information and digital technology management
- As envisioned in the IHMIS Roadmap, all HMIS tools have been revised after 9 years to align with ongoing health sector programmes and services, and their implementation have also been initiated from current FY
- The FMoHP continued to expand the electronic reporting of service data from HFs. In FY 2021/22, altogether 2,970 public health facilities submitted HMIS monthly reports electronically
- The final report of the Nepal Health Facility Survey (NHFS) 2021 has been published. The NHFS 2021 collected information from all different types of public, private and non-governmental facilities covering all 77 districts of the country
- The Nepal Demographic and Health Survey (NDHS) 2022 has been completed, and its major findings has been disseminated in November 2022.
- MoHP has been conducting a maternal mortality study basing on the Nepal Population and Housing Census (NPHC). While the data collection was accomplished following the population census, data analysis is being done. This study is expected to provide the robust estimates of the maternal mortality in Nepal and can be supportive to design necessary interventions to reduce such mortalities.

Epidemic response (COVID-19 and Dengue)

- The daily monitoring, reporting and dissemination of COVID-19 (and Dengue for the latest months) status is being continued by the national Health Emergency Operations Centres (HEOCs) in coordination with concerned entities. Provincial HEOCs are functional in each of seven provinces.
- The number of reported cases of COVID-19 has reduced. Progress has been made in vaccine coverage after the vaccination campaign officially started on 27 January 2021. The booster dose of COVID-19 was initiated in January 2022. The guideline for vaccination against COVID-

19 among the group 5 to 11 years was developed, and the vaccination was initiated to that age group.

- As of September 2022, 99.5% of the target population above 12 years (23,208,483) have received the first dose of the COVID-19 vaccine, and 95.7% (22,324,933) have received the full dose

Procurement and supply chain management

- The Public Procurement Strategic Framework (PPSF) for Management of Medicines and Medical Goods (2022/23-2026/27) has been endorsed to address the challenges related to procurement and supply chain management
- The process of developing Consolidated Annual Procurement Plan (CAPP) has been institutionalised at the Department of Health Services (DoHS). The electronic CAPP for the FY 2021/22 was prepared on time.
- After the transformation of the federal procurement implementation plan (PIP) into the PPSF, the three provinces (Madhesh, Lumbini and Sudurpaschim) prepared their respective PIPs coherent with the federal PPSF
- The capacity development of the officials working on procurement and supply chain management through facilitation, procurement clinics, on-site coaching, and distance support were continued throughout the year. The orientation sessions were organised on cost-estimate, specification preparation, and bid evaluation in health sector procurement to the officials of Departments, Centres and Hospitals.

Infrastructure, assets management and service standards

- A total of 467 designs were received for the establishment of Basic hospitals (primary level) by the end of October 2022, of which 178 have been approved; the rest are being updated for resubmission of revised drawings.
- The inventory audit of 54 hospitals was conducted using Planning and Management of Assets in Health Services (PLAMAHS) in the FY 2021/22 and audit of additional 80 hospitals has been planned for the FY 2022/23
- Over the period from July 2021 to April 2022, FMoHP conducted various capacity enhancement events on health infrastructure, involving a total of 146 participants despite the restrictions created by the COVID-19 pandemic
- Public hospitals and health facilities were assessed using MSS to improve the quality of health services. A digital data system was established to monitor the MSS score in FY 2021/22. The MSS score of a total of 118 hospitals comprising of federal, provincial and local level hospitals has been systematically monitored
- The Department of Ayurveda and Alternative Medicine (DoAA) developed the MSS for different levels of Ayurveda institutions (Federal, Provincial, District and Aaushadhalaya) and their implementation has been initiated
- Standard treatment protocols (STP) for basic health services and emergency health services were finalised was endorsed in 2021 and orientation was conducted for their implementation
- A guideline for the disposal of medicine and medicinal waste has been developed to address the emerging issue of environmental and health hazards, and has been endorsed and distributed to all health institutions, provincial and local governments

One-stop Crisis Management Centres (OCMCs), Social Service Units (SSUs) and Geriatric Health

- Eight additional One-stop Crisis Management Centres (OCMCs) were established in 2021/22 which makes a total of 88 OCMC sites in 77 districts. In FY 2020/21, 11,400 survivors received

services from the OCMCs. Six more OCMCs are planned for 2022/23. SSUs are operationalised in 58 hospitals and FMoHP has planned for an additional 29 SSUs in FY 2022/23.

- The OCMCs provide free hospital-based health services including identification of survivors, treatment, psychosocial counselling, and medico-legal services, and coordinate with multisectoral agencies that provide survivors access to safe homes, legal protection, personal security and rehabilitation. They also refer clients for specialist health services as required.
- Fifty OCMC staff nurses have been certified as psychosocial counsellors after successful completion of six-month long psychosocial counselling training from the National Health Training Centre (NHTC) and 40 OCMC focal persons are in-process to complete the counselling course to become certified counsellors
- Fifteen new Social Service Units (SSUs) were established in referral and district-level hospitals; the total number of SSUs has gone up to 58. More than 200,000 beneficiaries (Female 50%; Poor 47%, Senior Citizens 39%, People with disabilities 4%, Destitute 3.8%; GBV survivors 0.6% and others) received free or partially free service in 2021/22 from 58 SSUs. The FMoHP plans to establish new SSUs in 29 hospitals in FY 2022/23.
- An additional twenty-five geriatric wards were established in different-level hospitals in 2021/22 making a total of 49 hospitals with geriatric wards. The FMoHP has the plan to establish new geriatric health services in 12 hospitals in FY 2022/23
- Geriatric Health Service Strategy (2078), Leave No One Behind (LNOB) Budget Marker Guideline for the health sector (2078), SSU Operational Guideline (2078), Geriatric Health Service Operational Guideline (2077), Geriatric Health Service Protocol (2079) have been developed/revised and endorsed

Training and mentoring

- The National Nursing and Midwifery Strategic Action Plan 2020-2030 has been developed with a projection of the nursing and midwifery workforce required to provide quality services
- The NHTC developed training materials for 13 different areas; essential critical care, paediatric essential critical care, integrated training for vector-borne diseases, screening for infertility, ambulance driver, basic emergency medical technician training, social accountability, disability-related training for medical officers, management training for health section chiefs at the local level, orientation for elected bodies at the local level, acute respiratory distress syndrome management, public health leadership.
- The NHTC has revised five existing training materials: Rural obstetric ultrasound training, infection prevention (IP) training, Voluntary Surgical Contraception (VSC)/minilap training for MDGP/OBGYN/Surgeons, basic Intensive Care Unit (ICU) training for nurses, first-trimester safe abortion training for MDGP/OBGYN
- NHTC conducted 29 different types of training of trainers and basic training through which 10,882 human resources were trained
- The Family Welfare Division (FWD) and NHTC/ Provincial Health Training Centre (PHTC) trained 61 MNH clinical mentors from province one, Gandaki, Karnali, Madhesh, Sudurpashchim and Lumbini province, and established clinical mentors training sites at Surkhet provincial hospital Karnali province, Pokhara academy of Health Science, Gandaki Province and Janakpur Provincial hospital.
- The Nursing and Social Security Division (NSSD) started clinical mentoring of nursing staff on routine nursing care at six federal hospitals. A learning resource package for nursing mentoring covering nine areas was developed, thirteen mentors were developed, and 165 nursing staff received in-house mentoring

- The training package on Gender Responsive Budgeting (GRB) and LNOB Budget Marker was finalised and approved by FMoHP. Based on this training package, training was provided to 16 health staff from 5 provincial health ministries at NHTC.

Service expansion

- The health insurance scheme is being implemented in all 77 districts with exception of some local levels in Kathmandu. Approximately 20.4% of the population have enrolled in the scheme by the end of 2021/22 while there was 28.9% drop out. Health Insurance Board (HIB) has initiated online systems for the renewal and has planned to initiate online enrolment.
- The National Ambulance Guideline 2021 has been developed and endorsed to facilitate effective and timely referral of complicated cases. The guideline aims to strengthen pre-hospital care services and defines different categories of ambulance services
- The Department of Ayurveda and Alternative Medicine (DoAA) published the implementation plan and handbook for the effective implementation of Citizen Wellbeing Programme *(Nagarik Aarogya Karyakram).* Healthy lifestyle management programme under Nagarik Aarogya Karyakram (Citizen Wellbeing Programme) was conducted from 380 Ayurveda health institutions and 298 citizen wellbeing centres
- Around 7,700,000 children received vaccination against Typhoid through Typhoid vaccination campaign, and Typhoid vaccination has been integrated to routine immunisation programme
- The TB Free Nepal Declaration Initiative was initiated in 25 local governments based on the TB Free Nepal Declaration Guideline 2020/21.
- A non-Communicable Diseases (NCD) multisector action plan has been endorsed and a guideline has been prepared to facilitate the NCD screening
- The National Health Education, Information and Communication Centre (NHEICC) launched the SAFER initiative that include: Strengthening restrictions on alcohol availability; Advancing and enforcing drink driving counter measures; Facilitating access to screening, brief interventions and treatment; Enforcing bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion; and Raising prices on alcohol through excise taxes and pricing policies;
- The Gender Equality and Social Inclusion (GESI) strategy of Madhesh province was developed and approved by the provincial government. A number of activities in the strategy were included in the Annual Workplan and Budget (AWPB) for implementation
- Lumbini province conducted an assessment on disability-inclusive health services at hospitals and health centres. The findings of the assessment were included in the current AWPB on a priority basis

1. Introduction

Background

The Nepal Health Sector Strategy (NHSS) was agreed in 2015 to guide the health sector for the period of 2016-2021 and to provide a framework for a sector wide approach (SWAp). This strategy prioritised progressive expansion of health service coverage, improvement in quality of care and increased financial protection with particular focus on the most vulnerable and poorest population groups. The NHSS focused on delivery of Universal Health Coverage (UHC), and adopted four strategic areas: equitable access; high-quality health services; health systems reform; and a multi-sectoral approach. These four areas were delivered through nine outcomes and 28 outputs. The Federal Ministry of Health and Population (FMoHP) developed an Implementation Plan to facilitate NHSS operationalisation, presenting a broad list of interventions to be implemented in the five-year period.

The strategy was developed in the context of a unitary system of governance, but was implemented during a period of transition to a federal system, and the resulting administrative restructuring. Implementation has taken place during a period of post-earthquake rebuilding and response to the COVID-19 pandemic. As a result, the implementation timeframe of the strategy was extended until mid-July 2022. FY 2021/22 was the sixth and last NHSS implementation year.

A Joint Annual Review has been held annually since 2004 in accordance with the spirit of the SWAp as shaped by the Nepal Health Sector Strategy: An Agenda for Reform (2004). The review has provided a common platform for FMoHP and Health Development Partners (HDPs) to review annual progress, draw lessons and harmonise support in the health sector. Review meetings consider the achievements of the previous FY and identify priority strategic action points for the subsequent year. Holistic review of health sector progress also covers support from HDPs and the contribution of the private and other non-governmental sectors. An Aide Memoire is agreed at the end of the JAR summarising the strategic action points for the year ahead. The JAR and the National Annual Review used to take place as separate events, but have been organised as a single combined event since 2018.

In line with this, the current National Joint Annual Review (NJAR) which is the subject of this report focuses on review of sector progress in FY 2021/22; it identifies and reflects on lessons learnt, and proposes a way forward. It has also provided a platform to discuss and explore approaches for effective implementation of the forthcoming Nepal Health Sector-Strategic Plan (NHS-SP).

Nepal has embraced international commitments to achievement of the Sustainable Development Goals (SDGs) and UHC, and is accelerating its efforts in this direction. Policy and structural initiatives have been made to strengthen the health system and achieve UHC. FMoHP started internal consultations in 2020 to develop the next health sector strategy. However, the increasing number of COVID-19 cases and related challenges required a shift to COVID-19 response management and to ensuring continued delivery of routine health services. FMoHP and HDPs therefore agreed to extend NHSS implementation by one year until mid-July 2022. Since mid-2022, FMoHP has resumed the process of drafting the new strategy. The draft NHS-SP is now awaiting endorsement by the Cabinet.

This report focuses on overall progress in the health sector and is intended to contribute to informed discussion and review of the sector. Highlights of progress in population management have also been captured. The report is organised as per the outcomes, outputs, and interventions as defined in the NHSS focusing on FY 2021/22 along with highlights of the FY 2022/23, lessons and ways forward. The report also presents progress made against NHSS indicators as set out in the Results Framework (RF).

Status of Aid Memoire

The aide memoire, which has been one of the important tools for the operationalisation of the SWAp, outlines major strategic priorities and reform agenda of the health sector in reference to the issues and challenges discussed during the joint annual reviews. Following the SWAp in 2004, Ministry of Health (and Population) and HDPs have been practicing joint approach for identification of strategic priorities in the sector. The FY 2021/22 NJAR held in Kathmandu was followed by a business meeting between FMoHP and HDPs. The meeting concluded with the development of an Aide Memoire which identified certain strategic areas to be prioritised for the next year and was jointly signed by the Secretary of the FMoHP and the Chairperson of the HDP forum. The following table reflects the progress made towards the action points of the Aide Memoire.

Areas of Action	Agreed Action points	Progress/current status
Complete remaining action points from the last aide memoire	**Action point 1 -** MoHP in collaboration with development partners continues priority on prevention and case management including screening, tracing testing, quarantine, isolation, treatment and surveillance, while ensuring the continuation of routine services **Action point 2 -** 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, and capacity enhancement and periodically publish the implementation progress (Feb 2021) **Action point 3 -** Initiate the establishment and strengthening of the warehouse for vaccines, medicines and other logistics at federal and province levels considering the current need for COVID-19 vaccine readiness as well as for the longer-term warehouse capacity enhancement (April 2021) **Action point 8 -** In line with clause 9 of Joint Financing Arrangement /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). **Action point 15 -** Implementation of Public Financial Management Strategic Framework including the tracking of public spending in health across three levels	• Complete vaccination: 95.5% of the target population • First dose: 99.5% of the target population • Federal Public Financial Management (PFM) strategic framework in the implementation • Provincial framework approved by Madhesh and Lumbini province; draft prepared by Sudurpashchim province • Preliminary discussion conducted with the MoF to explore way out addressing issues related to reimbursed expenses
New health sector strategic plan	MoHP together with EDPs establishes a new health sector strategic plan including to: a) agree the TA modality with the development partners (June 2022), b) joint financing arrangement (July 2022), c) GoN/MoHP to formally communicate to EDPs to finance the next strategic plan (Dec 2021).	• The final draft of the NHS-SP prepared following stakeholder consultation, translated into Nepali and costing done • Concurrence from the Ministry of Finance (MoF) received and proceeded of endorsement

Areas of Action	Agreed Action points	Progress/current status
Health Sector Reform	• GoN/MoHP to review the existing institutional structure for the health sector and finalize the reform framework in consultation with provincial and local governments. EDPs to provide relevant support. (April 2022) • Strengthen the capacity of the Department of Drug Administration (DDA) for effective regulatory functions (July 2022) - Policy - Structure - Legal framework	• The Centre for Disease Control (CDC) bill was submitted to MoF • The maturity level of national regulatory authority (DDA) included in NHS-SP results framework [From current Maturity Level 1 to Maturity Level 3 to strengthen capacity on drug regulation] • New national drug policy is in drafing process
Health service improvemen t	• Develop standard operating procedure (SOP) for hospitals focused on emergency and critical care (Feb 2022) • Roll-out MSS at all federal hospitals and implement the action plan based on the findings (July 2022 and continue) • Facilitate endorsement of umbrella act for academies that facilitates linkages between hospitals and academic institutions (July 2022).	• STP for emergency health services was developed and orientation was conducted at the provincial level • Digital data system established to monitor the progress on MSS • MSS has been implemented in 11 federal level hospitals and MSS is being drafted for other specialised hospitals • The concept paper on umbrella act for academies approved and draft being prepared
Medical equipment management	• MoHP to conduct an inventory audit of essential medical equipment, and develop a mechanism (SOP) for monitoring, maintenance, repair and replacement (July 2022)	• An inventory audit of 54 hospitals conducted using PLAMAHS in FY 2021/22 • Audit of an additional 80 hospitals planned for the FY 2022/23
Social accountabilit y in the health sector	• GoN/MoHP to support provincial and local governments to regularize social audits, public hearings, and other social accountability measures in the health sector. (April 2022)	• Guideline developed; implementation done in 9 local levels of three provinces
Coordination across three tiers	• Develop a mechanism to regularize technical interaction, cross-learning, periodic review, joint planning, and coordination meetings between federal, provincial and local level through an institutional arrangement. (April 2022)	• Intensive consultation was done as part of the NHS-SP development and annual planning • A section of the Health Coordination Division dedicated to provincial and local-level coordination. • Interaction among three levels conducted in July 2022 along with EDPs
Health insurance	• Develop a mechanism for online enrollment and rapid clearance of backlog reimbursement (July 2022) • MoHP and EDP to develop a plan to improve the population coverage of social security in health	• The process of online renewal has started • Development of SOP and software planned for the current FY for online enrollment

Areas of Action	Agreed Action points	Progress/current status
	focusing on the poor and vulnerable, considering the findings of assessments (Dec 2022)	• Approx. 75% of the claim of last FY was settled, the rest is in the review process
Strengthen Basic Health Service (BHS) delivery by strengthening the local government's capacity towards building a resilient local health system	• Strengthen technical and management capacity at all levels with a focus on the local level, especially on priority health interventions, planning, budgeting, and procurement process (July 2022) • MoHP together with provincial and local governments to explore a mechanism among the adjoining local governments to establish a joint action plan (for example hospital, solid waste management, cross-referral) and execute it through next AWPB (June 2022)	• Training on STP for BHS conducted; guideline for the BHS prepared and in the consultation process for endorsement • NHTC prepared an orientation manual for orientation to newly elected local representatives • Training planned for current FY
Information management	• Develop standards of integrated Electronic Health/Medical Record Systems and facilitate adaptation and roll out. (July 2022) • Set up inter-operability between Health Facility (HF) registry, Electronic Health Records (EHR)/EMR, Health Management Information System (HMIS) and other health-related information systems (finance, HR, training, infrastructure) (July 2022)	• Prototype for hospital-based software for EHR developed and its piloting is planned for this FY • Database of RDQA, SSU, OCMC, and Geriatric services made interoperable with DHIS-2
COVID-19 Response and management	• Reorganize and upgrade Health Emergency and Disaster Management Unit)/ HEOC as the central coordinating body (Jan 2022) - Develop and implement COVID-19 Rapid Action Plans based on epi-modeling projection - Review and update COVID-19 related policies, guidelines, procedures, protocols and algorithms • Integrate COVID-19 vaccination through regular EPI services as appropriate	• The action plan was developed considering the fourth wave COVID-19 • Reviewed and updated guidelines and protocols in the evolving context • School-based campaigns conducted for the vaccination of children in coordination with local levels • Female Community Health Volunteers (FCHVs) and health workers were mobilized from the local health facilities
Health Promotion and NCD control	• GoN/MoHP to endorse the NCD multisector action plan (Jan 2022) and reflect the roll-out plan through next AWPB (July 2022). • Develop a standard package for health screening (March 2022)	• Endorsed • A guideline prepared to facilitate the NCD screening
Regulation, procurement and supply chain management	• Develop and amend existing regulatory mechanisms for drugs, equipment, medical supplies/commodities (July 2022) • Develop/revise and endorse procurement regulations and guidelines (Dec 2022)	• Public Procurement strategic Framework for Management of Medicines and Medical Goods (PPSF) endorsed. • Provincial Procurement Improvement Plan endorsed by

Areas of Action	Agreed Action points	Progress/current status
		three Provinces (Madhesh, Lumbini and Sudurpashchim)
Climate resilient health systems in Nepal	• GoN/MoHP to reflect the COP26 commitments through next AWPB (July 2022)	• Multisectoral consultation on the health impact of adverse environmental conditions • Assessment of the health impact of greenhouse emissions initiated
Review and strengthen joint planning, budgeting, and review mechanism/ platforms	• MoHP and EDPs expand the scope of Joint Consultative Meetings (JCMs) to include: - Pre- JCM for review of AWPB and priority setting - Jan/Feb 2022 • JCM to discuss the business plan - March/April 2022	• Completed • Conducted in May 2022

2. NHSS Results Framework

2.1. Background

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

2.2. Overview of progress

Health outcomes have improved over the previous two decades (Table 2.2.1). Since 1996: the maternal mortality ratio has fallen over 50% (539 to 239 per 100,000 live births); the institutional delivery rate has increased markedly from 8% in 1996 to 79% in 2022; the proportion of children fully vaccinated has risen from 43% to 80% (though this has fluctuated over time); the total fertility rate has decreased gradually from 4.6 to 2.1. There has been over 50% reduction in the prevalence of childhood stunting – with a marked 31% reduction between 2016 and 2022.

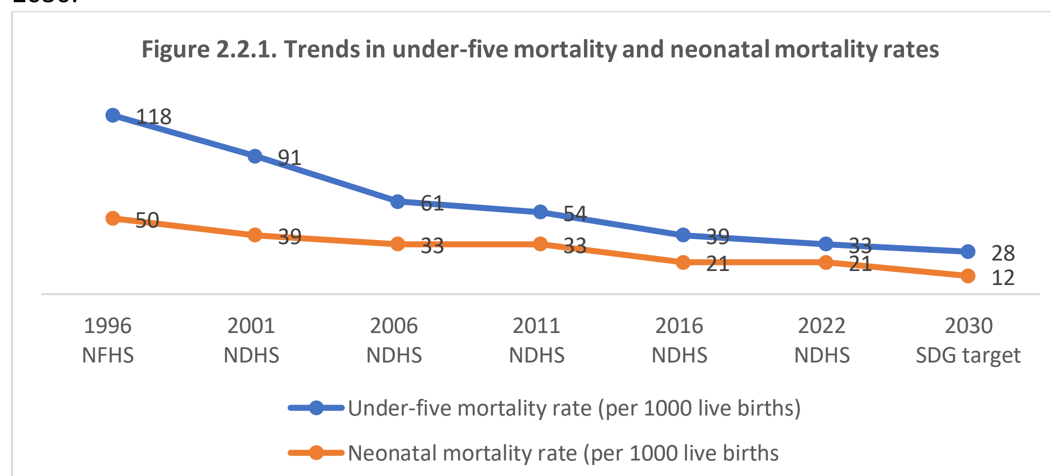
Table 2.2.1: Progress in major health indicators

Indicators	Year					
	1996	2001	2006	2011	2016	2022
Maternal Mortality Ratio (per 100,000 live births)	539		281		239	
Under-five mortality rate (per 1,000 live births)	118	91	61	54	39	33
Neonatal Mortality Rate (per 1,000 live births)	50	39	33	33	21	21
Fully vaccinated children (%)	43	66	83	87	78	80
Children under 5 years stunted (%)	57	57	49	41	36	25
Institutional delivery (%)	8	9	18	35	57.4	79
Total fertility rate (births per 1,000 women aged 15-19)	4.6	4.1	3.1	2.6	2.3	2.1

Data Sources: Nepal Family Health Survey 1996 and Nepal Demographic and Health Surveys 2001, 2006, 2011, 2016, 2022.

Trends in under-five mortality and neonatal mortality rates

The under-five mortality rate (U5MR) has shown an overall decrease from 118 per 1,000 live births in 1996 to 33 per 1,000 live births in 2022 (Table 2.2.1 and Figure 2.2.1). Reduction in neonatal mortality rate (NMR) has been uneven, with periods of stagnation in progress (at 33 per 1,000 live births between 2006 and 2011, and again at 21 per 1,000 live births between 2016 and 2022). There is a need to accelerate interventions to meet the SDG target to reduce NMR to 12/1000 live births by 2030.



Data Sources: Nepal Family Health Survey 1996 and Nepal Demographic and Health Surveys 2001, 2006, 2011, 2016 and 2022.

Disaggregation of selective health indicators by Provinces (Table 2.2.2)

The NDHS 2022 found that the contraceptive prevalence rate varied across the provinces: the highest rate was in Bagmati Province (66.2%) and the lowest in Madhesh (49%). 81% of currently married women age 15-49 years in Bagmati Province had their demand for FP satisfied, whereas the proportion was only 65% in Gandaki. Five out of seven provinces had higher than national average coverage of four ante-natal care visits. The highest rate of institutional deliveries was recorded in Bagmati Province (88%) followed by Gandaki (87.7%) and Sudurpaschim (86.8%). The proportion of institutional deliveries in Madhesh (66.6%) and Karnali (72.5%) lag behind the national average of 79.3%, indicating the need for concerted effort in these provinces to meet the national target of 90% institutional deliveries by 2030. 80% of children aged 12-23 months are fully vaccinated at the national level: six out of seven provinces having higher than average coverage but it is only 68% in Madhesh Province. Karnali Province had the highest proportion of stunted children under five years (35.8%) followed by Madhesh (29.3%), Sudurpaschim (28.4) and Lumbini (25.1). The rate of wasting among children under five was highest in Lumbini (16.2%) and Madhesh (10.1%) followed by Sudurpaschim (5.1%). Nutrition specific and sensitive interventions need to be scaled up and strengthened.

Table 2.2.2: Provincial disaggregation of selected health indicators

Indicators	**National**	**Provinces**						
		Prov1	**Madhesh**	**Bagmati**	**Gandaki**	**Lumbini**	**Karnali**	**Sudur paschim**
Contraceptive prevalence rate (any method) among currently married women of age 15-49 years (%)	57	61.5	49	66.2	51.5	56.5	55.3	58.6
Demand satisfied for FP (all methods) (%)	73.3	77.8	69.9	80.5	64.7	70.8	70.3	72.6
Women receiving four or more ANC visits (%)	80.5	78.8	68.4	88.8	84.6	86.9	79.1	90.0
Institutional Delivery (%)	79.3	81.5	66.6	88.3	87.7	84.4	72.5	86.8
Delivery assisted by a skilled provider (%)	80.1	81.8	67.9	86.6	89.2	86.9	72.3	87.8
Fully vaccinated children age 12-23 months (basic antigens) (%)	80	80.8	67.7	83.4	93.4	85.3	84.3	88.8
Children under five years stunted (<-2SD) (%)	25	20	29.3	17.6	19.7	25.1	35.8	28.4
Children under five years wasted (<-2SD) (%)	7.7	3.8	10.1	4.5	4	16.2	3.8	5.1

Data Source: Nepal Demographic and Health Survey, 2022.

Disaggregation of selected health indicators by place of residence and wealth quintile (Table 2.2.3)

The largest disparities for selected health indicators were related to levels of wealth. The Contraceptive Prevalence Rate (CPR) among currently married women of age 15-49 years did not differ between women residing in urban and rural areas. However, the highest CPR was found in women from the highest wealth quintile (62.5%) as was the highest proportion of women who had their demand for FP satisfied. Place of residence had little effect on uptake of four or more ANC visits, but there was a wide disparity in uptake among women belonging to different wealth quintiles: 92.6% of the women from the highest wealth quintile compared with only 74.5% of the women from the lowest wealth quintile. A similar pattern was seen for institutional delivery and full vaccination of children aged 12-23 months. Almost 97.6% of women from the highest wealth quintile delivered in health facilities compared to only 76.4% of women from the lowest wealth quintile.

Disparities were seen in stunting among under five years children according to both place of residence and economic status. Almost 31% of the children residing in rural areas were stunted compared to 21.5% of the children in urban areas. The proportion of stunting among children from the lowest wealth quintile (36.9%) was found to be much higher than the proportion among children from the highest quintile (13.1%).

Table 2.2.3: Disaggregation of selected health indicators by place of residence and wealth quintile

Indicators	National	Residence		Wealth quintile				
		Urban	Rural	Lowest	Second	Middle	Fourth	Highest
Contraceptive Prevalence Rate (any method) among currently married women age 15-49 years (%)	57	56.9	58	54.3	56.4	56.2	56.6	62.5
Demand satisfied for FP (all methods) (%)	73.3	77.8	69.9	80.5	64.7	70.8	70.3	72.6
Women receiving four or more ANC visits (%)	80.5	78.8	68.4	88.8	84.6	86.9	79.1	90.0
Institutional Delivery (%)	79.3	81.5	66.6	88.3	87.7	84.4	72.5	86.8
Delivery assisted by a skilled provider (%)	80.1	81.8	67.9	86.6	89.2	86.9	72.3	87.8
Fully vaccinated children age 12-23 months (basic antigens) (%)	80	80.8	67.7	83.4	93.4	85.3	84.3	88.8
Children under five years stunted (<-2SD) (%)	25	20	29.3	17.6	19.7	25.1	35.8	28.4
Children under five years wasted (<-2SD) (%)	7.7	3.8	10.1	4.5	4	16.2	3.8	5.1

Data Sources: Nepal Demographic and Health Survey, 2022.

Progress on NHSS RF goal-level indicators (Table 2.2.4)

The maternal mortality rate has decreased from 239 per 100,000 live births to 174 per 100,000 according to the estimates of Maternal Mortality Estimation Inter-Agency Group while the NHSS target was 125. The latest status will be available after the completion of the ongoing population-based Nepal Maternal Mortality Study. The under-five mortality rate has decreased over time from 38/1000 in baseline year 2014 to 33/1000 in 2022 which however is higher than the NHSS target of 28. However, the NMR has stagnated at 21 per 1000 live births since 2016 indicating a need for renewed and accelerated efforts in newborn health. The total fertility rate has decreased from 2.3 in baseline year 2014 to 2.1 in 2022. The proportion of stunting among children under five years decreased over time to 25% in 2022 (compared to 37.4% in the baseline year 2014). The life lost due to road traffic accidents per 100,000 population has decreased from 34 in 2013 to 9.5 in 2020. However, there has been an increase in the suicide rate per 100,000 population: 23.4 in 2020 compared to 16.4 in 2014.

Table 2.2.4: Progress on NHSS goal-level indicators

Code	Indicator	Baseline		Achievement				
		Data	Source	2017	Source	Latest available	Source	Target
Goal	Improved health status of all people through accountable and equitable health delivery system							
G1	Maternal mortality ratio (per 100,000 live births)	190	UN estimates, 2013	239	NDHS 2016	174	MM Estimation Inter-Agency Group (2020)	125
G2	Under five mortality rate (per 1,000 live births)	38	NMICS, 2014	39	NDHS 2016	33	NDHS, 2022	28
G3	Neonatal mortality rate (per 1,000 live births)	23	NMICS, 2014	39	NDHS 2016	21	NDHS, 2022	17.5
G4	Total fertility rate	2.3	NMICS, 2014	2.3	NDHS 2016	2.1	NDHS, 2022	2.1
G5	% of children under age 5 years who are stunted (~2SD)	37.4	NMICS, 2014	35.8	NDHS 2016	25	NDHS, 2022	31
G6	% of women aged 15-49 years with body mass index (BMI) less than 18.5	18.2	NDHS, 2011	17.3	NDHS 2016	NA	NDHS, 2022	12
G7	Life lost due to road traffic accidents (RTA) per 100,000 population	34	MoPPTM, 2013	7.1	Police Mirror 2016/17, and CBS	9.9	Nepal Police	17
G8	Suicide rate per 100,000 population	16.5	Nepal Police, 2014	17.8	Police Mirror 2016/17, and CBS	23.4	Nepal Police	14.5
G9	Disability adjusted life years (DALY) lost: Communicable maternal, neonatal & nutritional disorders; non-communicable diseases; and injuries	9049168	BoD, IHME, 2013	9015320	Nepal BoD, 2017			6738953
G10	Incidence of impoverishment due to OOP expenditure in Health		NLSS, 2011	1.7	NHA 2015/16			NLSS, 2011

Table 2.2.5: Progress on Tracer Indicators by Programme 2019/20-2021/22

Programme Indicators	National			FY 2021/22 (2078/79) by Province							National Target*	
	2019/20	2020/21	2021/22	Pradesh 1	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	2020	2030
NUMBER OF HEALTH FACILITIES												
Public hospitals	134	201	192	43	17	43	21	26	27	15		
PHCCs	194	189	188	33	32	40	25	29	13	16		
HPs	3767	3794	3775	632	742	642	485	568	331	375		
Non-public facilities	2277	2082	2155	157	167	1433	110	164	59	65		
HEALTH FACILITIES & FCHVs REPORTING STATUS (%)												
Public facilities												
Public hospitals	82	80	88	100	100	69	100	91	99	100	100	100
PHCCs	100	100	100	100	100	100	100	100	100	100	100	100
HPs	100	100	100	100	100	100	100	100	100	100	100	100
FCHVs	90	90	90.2	94.3	97.7	65.6	97.2	100	100	100	100	100
IMMUNIZATION PROGRAMME (%)												
BCG coverage	86	91	103.5	93.8	104.3	129.4	84.6	103.1	91.8	98		
DPT-HepB-Hib3 coverage	78	87	95.2	89.3	93	102.3	87.2	96.6	94.2	102.8	90	>95%
MR2 coverage (12-23 months)	71	81	92.8	87.2	86.3	102.5	92.1	99	89.4	94.2		
Fully Immunized children*	65	78	91.2	85.4	95.2	88.1	88.7	96.5	87.6	90.4	90	95
Dropout rate DPT-Hep B-Hib 1 vs 3 coverage	8.9	1.0	3.7	3.6	10.1	0.62	1.9	1.8	0.67	-1.4	< 10 %	< 5 %
Pregnant women who received TD2 and TD2+	59	60	71.7	67.6	83.3	65.9	58.7	73.9	66.3	69.2		
NUTRITION PROGRAMME (%)												
Children aged 0-11 months registered for growth monitoring	77	84	104.1	93.2	92.6	108.2	115.3	109	119.7	116.2	100	100
Underweight children among new GM visits (0-11month)	2.5	2.5	3.2	1.4	5.7	2.5	0.9	3.1	3.3	3.1		
Children aged 12-23 months registered for growth monitoring	54	61	77.2	63	78.2	74.1	90.1	75.6	85.3	91.1	100	100
Underweight children among new GM visits (12-23month)	3.4	3.4	4.1	2.3	7	1.4	1.1	4.1	5.3	5.1		
Pregnant women who received 180 tablets of Iron	44	45	60	47.8	48.1	49.8	80.2	75.8	72.5	74.1		
Postpartum mothers who received vitamin A supplements	57	61	76.3	56.6	75.9	58.4	64.2	98.2	88.4	100.3		

Programme Indicators	National			FY 2021/22 (2078/79) by Province							National Target*	
	2019/20	2020/21	2021/22	Pradesh 1	Madhesh	Bagmati	Gandaki	Lumbini	Karnali	Sudur pashchim	2020	2030
INTEGRATED MANAGEMENT OF NEONATAL & CHILDHOOD ILLNESS (IMNCI) PROGRAMME STATUS												
Incidence of pneumonia among children U5 years (per 1000) (HF and PHC/ORC only)	43	27	36.8	44.1	18.5	34.9	26.8	29.3	86	60.5		
% of children U5 years with Pneumonia treated with antibiotics (HF and PHC/ORC only)	156	150	126.1	136.5	201.2	119.9	107.1	100.3	101	115.4		
% of children U5 years with Pneumonia treated with antibiotics (Amoxicillin)	115	117	105.3	102.9	145.4	105.6	100.5	94.9	95.2	97.7	100	100
Incidence of diarrhoea per 1,000 under five years children	350	339	364.8	309.8	325.5	310.8	262.8	346.6	595.2	601		
% of children under 5 with diarrhoea treated with ORS and zinc	95	96	94.5	88.8	93.6	92.8	96.9	98.7	94.8	97	100	100
SAFE MOTHERHOOD PROGRAMME STATUS (%)												
ANC first visit as per protocol	67.8	69.2	91.4	97.3	73.7	113.9	88.2	93.5	89.9	87.7		
Pregnant women who attended four ANC visits as per protocol	53	70	79.2	68.5	48.8	139.1	82	79.5	72.3	74.2	70	90
Institutional deliveries*	66	65	79	72.1	57.2	98.6	64.4	94.2	82.6	92.8	70	90
Deliveries conducted by skilled birth attendant*	62	61	75	69.5	55	97.7	63.5	89.8	70.1	80.6	70	90
Mothers who had three PNC check-ups as per protocol*	19	25	40.8	36.8	23.6	42.2	35.5	53.7	52.8	60.3	50	90
FAMILY PLANNING PROGRAMME STATUS (%)												
Contraceptive prevalence rate (CPR-unadjusted)*	37	39	40	41	46	35	35	37	38	47	56	60
CPR (Spacing methods)	18	18	20	21	11	20	19	23	25	32		
FEMALE COMMUNITY HEALTH VOLUNTEERS PROGRAMME (FCHVs) STATUS												
Number of FCHVs	49481	49605	50229	8654	7645	8959	5756	8958	4272	5985		
% of mothers' group meeting held	81	89	95	91.8	97.9	95.1	86.8	95.2	96.7	102	100	100
COVID-19 PANDEMIC STATUS												
Total COVID cases++	17177	645393	316832	48618	9196	189852	36263	20636	4206	8061		
Total Death cases++	39	9424	2447	429	48	1112	427	292	71	68		
Total RT-PCR Lab- test	298829	3147757	2328817									
Case Fatality Rate (CFR)	0.23	1.5	0.8	0.9	0.5	0.6	1.2	1.4	1.7	0.8		
COVID Vaccine: First dose coverage (in million)	-	-	20.39	3.29	3.88	4.89	1.76	3.62	1.08	1.86		
COVID Vaccine: Full dose coverage (in million)	-	-	20.44	3.27	3.98	4.78	1.97	3.60	1.04	1.80		

MALARIA AND KALA-AZAR PROGRAMME												
Annual blood slide examination rate per 100	2.1	1.3	2.5	2.2	1.4	4.4	1	3	1.4	2.7		
Annual parasite incidence (API) per 1,000 pop risk	0.05	0.03	0.04	0	0.03	0.02	0.01	0.08	0.04	0.06		
% of PF among Malaria Positive case	9.1	13.5	22.8	20	13.6	48.8	23.1	38.7	2.1	10.7		
Number of new Kala-azar cases	186	212	383	47	11	38	0	69	112	106		
TUBERCULOSIS PROGRAMME												
Case notification rate (all forms of TB)/100,000 pop.	93	95	127.1	87.4	144.9	140.9	95.6	155.4	95.7	123.4	NA	NA
Treatment success rate	89	91	91.6	91.1	92.4	92.6	90.4	91	91.1	90.3	>90	>90
LEPROSY PROGRAMME												
New case detection rate (NCDR) per 100,000 population	6.2	7.2	7.8	6.9	14.8	1.4	3.7	11.4	4	7.5	10	7
Prevalence rate (PR) per 10,000 population	0.7	0.7	0.78	0.69	1.5	0.14	0.37	1.1	0.4	0.75	0.1	0.4
HIV/AIDS and STI PROGRAMME												
Number of new positive cases	2416	2944	3270	343	675	951	247	659	70	325		
HIV incidence rate	0.03	0.03									0.03	
Adult HIV prevalence	0.13	0.12									0.03	0.029
% of TB patients had HIV test result	51	72		58	56	91	84	74	60	72	100	
CURATIVE SERVICES												
% of population utilising outpatient (OPD) services	84	77	92	99.5	66.5	98.9	109.5	94.5	104.5	92.1		
% of population utilising Emergency services at hospitals	8.0	6.9	10.1	11.8	3.7	20.2	10.9	7.2	5.0	7.1		
% of population utilising inpatients services at hospitals	4.5	3.8	10.1	11.8	3.7	20.2	10.9	7.2	5	7.1		
% of inpatients who referred out	1.3	1.9	1.7	1.7	1.7	0.91	2.8	1.9	3.1	3.2		
Bed occupancy rate	41	35	46.6	57.1	11.9	52	35.3	54.1	39.8	31.4		
Average length of stay at hospital	3	3	3.5	2.6	1.2	4.5	3.2	4.2	3	2.8		

Note: *NHSS RF and/or SDG indicators; ++ Data available in the aggregate number at FMoHP
Source: HMIS/DoHS

Immunisation programme: The full vaccination coverage rate has improved remarkably in the last two fiscal years following a fall between FY 2017/18 and FY 2019/20. 91% of children were fully immunised in FY 2021/22 an increase of 17% over the previous year. The highest completion rate was in Lumbini Province (96%) and the lowest in Pradesh 1 (85%). BCG coverage has also increased over time; at the national level it has now exceeded 100%. DPT/HepB/Hib3 and MR2 coverage rates are also increasing. However, the national level dropout rate for DPT/HepB/Hib (children who had an initial dose but failed to complete three doses) increased from 1% in FY 2020/21 to 3.7% in FY 2021/22. Six out of seven Provinces reached the national target of a dropout rate <10%. 72% of pregnant women received two or more doses of Tetanus and Diptheria vaccine (TD2+) in FY 2021/22.

Nutrition programme: There has been remarkable progress in the enrolment of children aged 0-11 months for growth monitoring during the last two fiscal years; the proportion is >100% in FY 2021/22 compared to 84% in FY 2020/21. The proportion of underweight children identified at a new growth monitoring visit has increased slightly from 2.5% in FY 2020/21 to 3.2% this year. The highest level was in Karnali Province (3.3%) and lowest in Province 1 (1.4%). The proportion of pregnant women receiving 180 iron tablets has increased from 44% in FY 2019/20 to 60% in FY 2021/22. The proportion of postpartum mothers receiving Vitamin A supplements has also increased from 57% in FY 2019/20 to 76% in FY 2021/22.

Community Based - Integrated Management of Neonatal and Childhood Illness: At the national level, the incidence of pneumonia (per 1000 under-five children) increased from 27% in FY 2020/21 to 37% in FY 2021/22. The incidence was found to be highest in Karnali Province (86%) and lowest in Madhesh Province (18.5%). Almost all under-five children with pneumonia were treated with Amoxicillin in FY 2021/22.

Safe Motherhood: coverage of ANC first visit and four ANC visits for pregnant women have risen over the last three FYs: the ANC first visit increased from 69.2% in 2020/21 to 91.4% in FY 2021/22; completion of four ANC visits increased from 70% to 79.2% during the same period. The proportion of institutional deliveries increased from 65% to 79%. More deliveries were attended by skilled birth attendants in FY 2021/22 (75%) compared to the previous year (61%). Although there has been some increase in PNC coverage over the years, the coverage is still only 41%.

Family Planning and Female Community Health Volunteers: The unadjusted CPR has increased slightly over the last three years to 40% in FY 2021/22. The highest CPR was observed in Sudurpaschim Province (47%). There were approximately 50,000 FCHVs working in FY 2021/22, a small increase from the previous year. Almost 95% of mothers' group meetings were held as planned by FCHVs in FY 2021/22.

COVID-19 Outbreak status: Numbers of cases and deaths, and case fatality rate have all decreased this year: approximately 320,000 people were confirmed positive for COVID-19 (a 51% reduction compared to the previous FY). 2557 COVID-19 deaths were recorded, a case fatality rate of 0.8%.

Disease Control (Malaria, TB, Leprosy, Kala-azar, and HIV/AIDS): Plasmodium Falciparum cases were 22.8% of all malaria cases in FY 2021/22, increased from 13.5% in the previous year; the highest proportion was recorded in Bagmati Province (49%). The case notification rate for all forms of TB has increased from

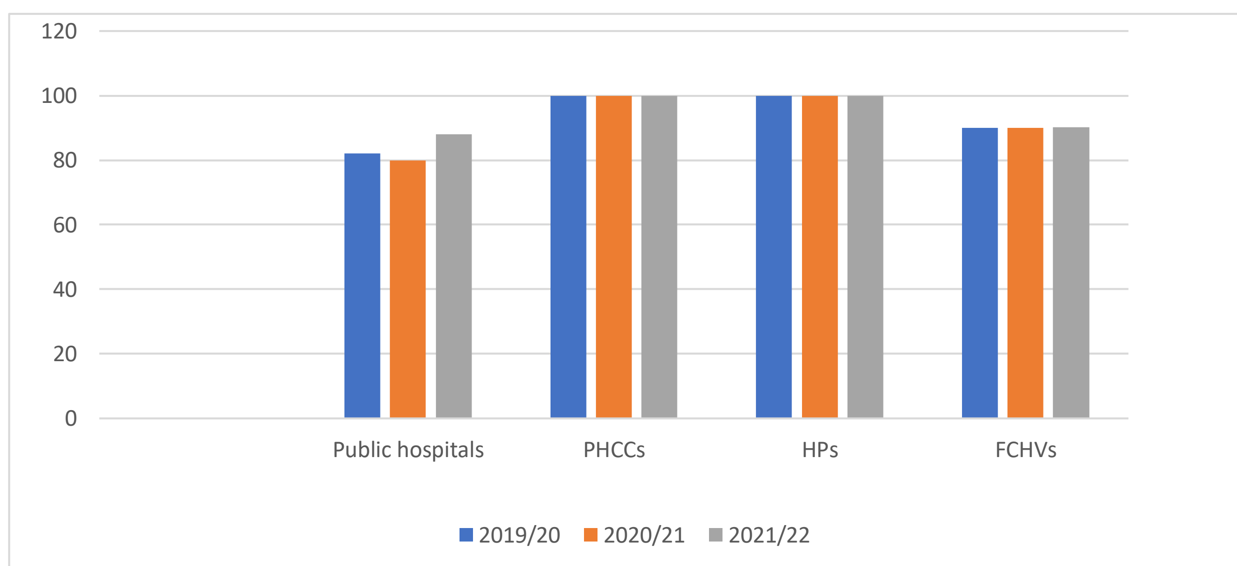
95 per 100,000 population in FY 2020/21 to 127 per 100,000 population in FY 2021/22. All Provinces achieved a treatment success rate of over 90% in FY 2021/22. The leprosy prevalence rate of 0.7 per 10,000 population has remained unchanged over the last three years. The number of new Kala-azar cases has increased from 186 in FY 2020/21 to 383 in FY 2021/22. The number of new HIV-positive cases has also increased over the last three years: 3270 new positive cases were reported in FY 2021/22.

Curative service: The proportion of the population utilising outpatient services increased from 77% in FY 2020/21 to 92% in FY 2021/22. The proportion using emergency and hospital inpatient services has also increased.

HMIS Reporting Status:

HMIS monthly reporting from public hospitals has improved in FY 2021/22 (88%) compared with the previous FY (80%) (Figure 2.1). All Primary Health Care Centers (PHCCs) and Health Posts (HPs) have provided annual reports during the last three years. Reporting by FCHVs has remained unchanged at 90%.

Figure 2.1. HMIS annual reporting status of health facilities and FCHVs (%)



2.3. Regular Programme Reviews

The National Annual Review and Joint Annual Review were held separately until 2018 but have been combined into a NJAR for the past four years. The NJAR 2021/22 is the fourth review of its kind. The main objectives of the review are to:

a) Jointly review the annual progress of the NHSS implementation
b) Build common understanding among all stakeholders on achievements, problems and challenges in the sector
c) Identify strategic priority areas based on existing problems and challenges that need to be addressed in the following year.

2.4. Financing scenario during the NHSS period

The budget for NHSS implementation from different sources is presented in Table 2.4.2. The total budget increased gradually from FY 2016/17 to FY 2021/22, but then decreased from NPR 100,975 million in FY 2021/22 to NPR 69,380 million in FY 2022/23. The 2021/22 budget was 31% lower than that for 2016/17. The composition of the capital and recurrent budgets has varied over time. 86.3% of the total budget was allocated for recurrent expenditure in FY 2021/22.

The proportion of the budget provided by external development partners increased from 23.6% in FY 2016/17 to 63% in FY 2020/21. This increase was mainly the result of additional funding for the COVID-19 response. Most of the external development funding has been provided as loans.

Table 2.4.1 Composition of allocated budget for NHSS implementation by sources

Description	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Total MoHP budget (in million NPR)	40,563	31,781	34,082	42,671	60,679	100,975	69,380
Composition by capital and recurrent (%)							
Capital	13.3	18.6	25.1	19.2	25.2	13.7	21.0
Recurrent	86.7	81.4	74.9	80.8	74.8	86.3	79.0
Composition by financing sources (%)							
GoN	76.4	74.2	65.3	79.4	36.9	52.0	71.4
Development partners (DPs)	23.6	25.8	34.7	20.6	63.1	48.0	28.6
Composition of DPs' support (%)							
Grant	100.0	65.2	36.1	54.8	19.2	17.1	20.3
Loan	-	34.8	63.9	45.2	80.8	82.9	79.7

Note: Budget data and composition is of the FMoHP exclusive of the conditional grants to province and local levels.
Source: Red Book of respective years, MoF.

Table 2.4.2 presents a comparison between the projected costs of a range of NHSS implementation scenarios and the actual health sector budget allocations., The (middle case scenario) projected costs for NHSS implementation were estimated to increase by a factor of 1.8, from NPR 40.7 billion in 2015/16 to NPR 74.5 billion in 2021/22 (using constant prices). However, the total funding for health in actual terms (disbursed through FMoHP and through conditional grants to provincial and local levels) increased by a factor of 3.6 from a baseline figure of NPR 36.7 billion in 2015/16 to NPR 133.0 billion in 2021/22.

Please note that actual health budget (adjusted for inflation) was much lower than the projected cost scenario during the initial years of NHSS implementation. This was later compensated by a significantly raised level of funding mainly in response to the COVID-19 pandemic.

Table 2.4.2: Comparative scenario of projected cost of NHSS versus actual allocation of budget

Amount in billion NPR

Description (project and actual budget)	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Projection of for the NHSS implementation period (constant price)							
Low case scenario	39.6	46.0	52.0	54.6	56.6	62.5	66.8
Medium case scenario [A]	40.7	48.5	55.7	59.2	62.0	69.2	74.5
High case scenario	41.8	50.8	58.6	62.9	66.4	74.5	80.6
Budget allocation for the health sector (current price)							
MoHP- exclusive of conditional grants	36.7	40.6	31.8	34.1	42.7	60.7	101.0
Conditional grants for health	-	-	15.1	22.3	26.1	30.0	32.0
Health subtotal (MoHP inclusive of conditional grants)	36.7	40.6	46.9	56.4	68.8	90.7	133.0
Provincial and local level allocation for health (internal resource)	-	-	2.5	6.0	13.5	19.9	24.2
Health total (MoHP inclusive of conditional grants and subnational internal allocation)	36.7	40.6	49.4	62.4	82.3	110.6	157.3
Budget of the health sector (After adjustment for inflation)							
Health subtotal (MoHP inclusive of conditional grants [B]	36.7	34.9	40.1	45.6	48.3	62.7	87.2
Health total (MoHP inclusive of conditional grants and subnational internal allocation) [C]	36.7	34.9	42.3	50.5	57.8	76.5	103.0
Difference between project costs versus actual budget (after adjustment for inflation)							
Difference between A and B [A-B]	4.0	13.7	15.5	13.6	13.7	6.5	(12.6)
Difference between A and C [A-C]	4.0	13.7	13.4	8.7	4.3	(7.3)	(28.5)

Note: Original projection of cost for NHSS extrapolated for latest years; Federal level budget allocation are from respective Red Book (MOF); internal allocation for health from province and local level is based on Budget Analysis (NHSSP, 2021) Inflation adjusted using GDP deflator for health and social work sector.

3. NHSS Progress by Outcome

3.1 Outcome 1: Rebuild and Strengthen Health Systems: Infrastructure, Human Resources for Health, Procurement, and Supply Chain Management

Outcome 1a. Infrastructure

Background

The focus during the initial years of NHSS implementation was on building and repairing physical infrastructure and medical equipment in earthquake-affected districts. More recently priority has gradually shifted to establishment of new facilities and upgrading existing facilities in line with the federal structure.

This outcome has three outputs:

- Health infrastructure developed as per plan and standards
- Damaged health facilities rebuilt
- Improved management of health infrastructure

FMoHP continues to improve the HF network across the country, guided by the NHSS priorities to build earthquake-resilient infrastructure, adopt upgraded standards and improve regular maintenance and inventory management practices. FMoHP has been working in coordination with provincial and local governments to promote good practices and to ensure a harmonised approach to health-related infrastructure. It has continued to use information from the Health Infrastructure Information System (HIIS) to encourage a rational and efficient HI network at sub-national level while at the same time supporting the GoN's goal to LNOB by locating HFs in areas that cover ethnically and geographically marginalised communities. Municipalities are being provided with a capital budget and standard guidelines to upgrade HFs to 5-bed, 10-bed or 15-bed primary hospitals. FMoHP is also supporting local governments to develop designs and proceed with construction.

Major Progress

Significant progress has been made in FY 2021/22 and FY 2022/23. Major achievements are summarised below:

Infrastructure Policy Development

- The Nepal Health Infrastructure Development Standards (NHIDS) and Integrated Health Infrastructure Development Programme (IHIDP) present categorisation, delineation and investment plans for HI development, and are being implemented by all levels of government. Standard designs have been developed for all type of HF in line with these standards and have been adopted for the planning and implementation of HF upgrading.
- **Repair and maintenance guidelines and action plan:** FMoHP prepared this document to address HI repair and maintenance issues and to support governments to maintain existing HI in terms of sustainability, safety and efficiency in smooth service delivery. FMoHP has also established a

mechanism and methodology for regular and emergency repair and maintenance, and is collecting statistics on deterioration and efforts in repair and maintenance. This will enable government agencies to draw up repair and maintenance plans and budgets, and to maintain monitoring reports.

- **Land acquisition and relocation policy:** FMoHP has drafted a policy and guidelines on land acquisition and relocation for federal, provincial and local governments. The guidelines will support provision of high-quality and equitable health care services by acquiring appropriate land for HFs. It requires sites to be accessible, in locations with a large population (catchment area), and suitable for construction of multi-hazard-resilient buildings, constructed in compliance with existing standards and codes. The policy draft has been sent to the federal government for review.

Ongoing Post-Gorkha-Earthquake 2015 Reconstruction

- Most of the remaining reconstruction work being implemented by different government and other agencies is yet to be completed. The National Reconstruction Authority (NRA) was closed last year, and responsibility for completion of remaining work has been given to the Department of Urban Development and Building Construction (DUDBC). The Central Level Project Implementation Unit (CLPIU) in DUDBC is overseeing 439 health building reconstruction projects of which 291 are funded by the GoN, 10 by the Saudi Fund for Development, and 138 through Government of India Grant Assistance. The progress status of these projects is presented below: 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	148	92	28	268
Academic Hospital	1	0	0	1
Primary Hospital	4	2	3	9
District Health Office		1		1
Ayurved Ausadhalaya	9	2	1	12
Total	**162**	**97**	**32**	**291**

Table 3.1.1b Progress status of HI reconstruction by NRA-CLPIU through Saudi Fund for Development

HI types	Ongoing	Completed	DPR preparation	Total
Health Post	8	1		9
Ayurved Ausadhalaya	1			1
Grand Total	**9**	**1**		**10**

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

HI types	Ongoing	Completed	DPR preparation	Total
Health Posts	98	21		119
Primary Hospital	2			2
Ayurved Ausadhalaya	16	1		17
Grand Total	**116**	**22**		**138**

GoN has also conducted HF reconstruction through bilateral arrangements with HDPs. These projects are being implemented by the partners: retrofitting and construction works supported by UKaid, KOICA, JICA, GIZ, KfW (FC recovery phase-1) and USAID (Nepal Reconstruction Engineering Services – NRES) have been completed and handed over. The progress of the remaining projects is set out in Table 3.1.2 below.

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

Agency	Works description	Progress
KfW	**FC Recovery Phase – 2:**	
	Reconstruction of Melbisauni Primary Hospital Reconstruction of Jhaukhel Health Post, Sankhu Primary Hospital, Kathmandu (B2) and Bhimeshwor Health Post	Preparing for Tender call
CHINA	Chautara hospitals	Reconstruction work is ongoing

KfW: German Development Bank

Regular construction programme for HFs by DUDBC

The FMoHP collaborates with DUDBC to construct, extend and refurbish HFs. There has been an acceleration in the number of projects completed since FY 2015/16, with a corresponding reduction in the number of 'sick' projects (projects that have been stalled or halted as a result of, for example, technical or contractual problems). The progress status of these projects is given in Table 3.1.3a. FMoHP authorised DUDBC to implement 192 projects in FY 2021/22, of which 78 have been completed. At the time of this report there are 147 live projects carried over from previous years. 45 new projects were commissioned in FY 2021/22.

Table 3.1.3a: HI construction works budgeted and authorised to DUDBC as of July 2022

Building type	No of projects	Design/ tender process	Construction Ongoing	Completed
Hospitals (Secondary and Primary)	48	7	31	10
Health Post	94	2	39	53
Public Health Office	1	0	1	
Provincial Public Health Laboratory	5	1	4	
Ayurved Hospital	4	1	2	1
Ayurved Health Centre	2	1	0	1
Ayurved Health Post	13	0	8	5
Quarter	10	2	3	5
Others (pharmacy, retaining wall, postmortem etc.)	15	4	8	3
Total	**192**	**18**	**96**	**78**

Construction of Primary Hospitals by Local Governments

In FY 2019/20 FMoHP provided budgets to selected municipalities to upgrade 396 HFs to 5-bed, 10-bed, or 15-bed primary hospitals. FMoHP also listed 259 municipality HFs (including HPs and PHCCs, categorised in accordance with the NHIDS) for construction site assessment and Detailed Project Report (DPR) preparation, and to be funded in FY 2020/21. FMoHP has issued a set of guidelines for construction, including: Local Level Primary Hospital Construction Guideline 2077; 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 Site Selection for Health Facilities Construction 2073. FMoHP will now issue Monitoring tools and formats in line with the Monitoring Framework and is developing a web-based system, integrated with the HIIS platform, to track the progress reporting from the municipalities.

As of end of October 2022, 300 municipalities had issued construction contracts and started work on site.

To ensure that the design of primary hospitals adheres to current national standards and guidelines FMoHP HI technical team has been reviewing adjusted primary hospital designs submitted by municipalities. A total of 467 designs had been received since FY 2020/21 until the end of October 2022, of which 178 have been approved; the rest are being updated for resubmission of revised drawings, adjusted as per feedback provided through the review. Across the country the breakdown is as follows:

Table 3.1.4: No. of Primary Hospitals provided approval from MoHP after review of the adjusted design proposals.

Name of Province	No. of primary hospital
Province 1	40
Madhesh Province	32
Bagmati Province	24
Gandaki Province	14
Lumbini Province	33
Karnali Province	12
Sudurpaschim Province	23
Total	**178**

Health Infrastructure Information System (HIIS)

The HIIS has been a useful tool for evidence-based planning. It is being developed into an online HI information portal which will enable data to be updated. It was also used for analysis and mapping of government HFs to deliver COVID-19 response services. The HIIS collates a wide range of information, including relevant information related to gender equality, social inclusion, care and quality, and progress-monitoring of planned construction.

Capacity Enhancement

Despite COVID-19 related travel and meeting restrictions, FMoHP was able to conduct HI capacity enhancement events between July 2021 to April 2022. See Table 3.1.5 below for details.

Table 3.1.5: HI capacity enhancement events, July 2021 – July 2022

Name of Training	No. of Participants			
	Official	Technical	Politicians	Workers
Orientation training for FPIU, Contractors Engineers and Supervisors on retrofitting of WRH		11		2
Orientation to contractors and engineers on retrofitting activity sequencing		6		0
Workers' Training on retrofitting techniques and health & safety				54
Orientation on Activity Sequencing and Functional Retrofitting of Maternity Block of Patan Academy of Health Sciences (PAHS)/ WRH		11		0
Onsite demonstration on Retrofitting for workers, supervisors and site engineers		5		34
Onsite demonstration on Retrofitting for workers, supervisors and site engineers		4		8
Onsite training on drywall construction for site engineers and construction workers		5		9
Orientation on Retrofitting Techniques for Maternity Block at BKT		5		2
Training on multi-hazard resilience health infrastructure - Sudurpashchim Province, Dhangadhi	29	2	5	
Training on multi-hazard resilience health infrastructure - Madhesh Province, Bardibas	39	4	2	
Training on multi-hazard resilience health infrastructure - Lumbini Province, Butwal	32			
Total	**100**	**53**	**7**	**109**
Total no. of participants who benefitted from the training	**269**			

Retrofitting of Bhaktapur Hospital and Western Regional Hospital Pokhara

The retrofitting of the Western Regional Hospital (WRH), Pokhara and Bhaktapur Hospital is a flagship FMoHP HI programme activity. As well as strengthening and rehabilitating two significant hospitals, it will provide replicable skills and experience that can be used for HI improvement in HFs across the country. It is based on 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 decanting areas, improved water management and energy efficiency).

This patient-centred construction process has involved close cooperation with the DUDBC Health Buildings Division. Progress 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 (55% physical progress)
'Green' retrofitting package	Preparation of bid documents
Bhaktapur Hospital, Bhaktapur	
Decanting block	Completed and handed over
Decanting services tender	Ongoing
Main retrofitting works	Construction works ongoing (45% physical progress)
'Green' retrofitting package	Preparation of bid documents

Lessons and way forward

- Funds for health infrastructure development have been sent by FMoHP to provincial and local governments for operational and capital expenditure. However, these governments have limited absorptive capacity to use these health infrastructure development funds.
- There is a need to:
    - Continuously monitor HF construction and maintenance at provincial and local levels, and take timely actions to speed up planning and construction and increase budgetary absorption as per the plan
    - Enhance the absorptive capacity of the health system to effectively and efficiently use available funds for infrastructure at the federal, provincial and local levels.
- Sub-national governments (SNGs) are still developing institutional arrangements. They should:
    - Continue to work closely with DUDBC and provincial and local governments to improve planning and decision-making for health infrastructure.
    - Continue to strengthen the stewardship capacity of hospital management and leadership in infrastructure management (new construction, renovation and maintenance)
- SNGs have to strategically plan and implement projects considering the scarcity of skilled human resources.
    - Continue investment in capacity enhancement for improving technical skills at the federal and sub-national level, targeting managerial and technical staff.
- There is a lack of health infrastructure information on HF type and condition in many districts, impeding planning and implementation. Only 36 districts have comprehensive updated HI data.
    - Further strengthen evidence-based decision-making through improved HIIS data and analysis and wider geographical coverage.
    - Update and regularise the HIIS to ensure comprehensive and up-to-date data on health facilities is available to plan and implement HI development and maintenance.
- Update HF building standards to cover multi-hazard resilient, climate responsive, environment and user-friendly health infrastructure.
- Continue 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.

- Carry out infrastructure risk analysis, with the development and incorporation of a multi-hazard resilience perspective.
- Update the technical specification bank (TSB) regularly to ensure uniformity and quality of medicines, diagnostics, and bio-medical equipment applicable for all levels
- Regulate the import and use of high-tech bio-medical and other equipment by conducting health technology assessments
- Establish a system for regular inventory review, forecasting and monitoring of bio-medical and other equipment to ensure the continuous availability of appropriate and adequate equipment
- Develop and implement protocols for the repair, maintenance and disposal of biomedical equipment
- Establish biomedical equipment repair and maintenance workshops at federal and provincial levels.

Outcome 1b. Human Resources for Health

Background

The quality of health services depends largely on the production and deployment of a contextually suitable mix of skilled human resources as prioritised in the NHSS. Adjustment of HRH across federal, provincial and local levels was a crucial function of NHSS implementation. Strengthening HRH production, mobilisation, deployment, and retention and improving worker competencies to deliver high-quality health services is a major FMoHP priority. This outcome depends on two outputs: improved availability of human resources with a focus on rural retention and enrolment; and improved medical and public health education and competencies.

Major Progress

- The national strategy on HRH 2077/78 - 2086/87 to address human resource needs was developed and endorsed in 2021. In FY 2021/22 FMoHP presented a framework for implementation of this strategy, which addresses HRH needs for the following 10 years
- The National Nursing and Midwifery Strategic Action Plan 2020-30 has been developed, projecting the nursing and midwifery workforce needed to provide quality services, setting out plans to produce and deploy this workforce, and presenting a capacity enhancement plan for nursing staff
- NHTC developed training materials covering: essential critical care; paediatric essential critical care; integrated vector-borne disease training; screening for infertility; ambulance driver; basic emergency medical technician training; social accountability; disability-related training for medical officers; management training for health section chiefs at the local level; orientation for elected bodies at the local level; acute respiratory distress syndrome management; and public health leadership
- The NHTC has revised five existing training materials: Rural obstetric ultrasound training; IP training; VSC/minilap training for MDGP/OBGYN/Surgeons; basic ICU training for nurses; first-trimester safe abortion training for MDGP/OBGYN
- NHTC accredited 10 additional training sites in FY 2021/22[4]

[4] Lumbini Provincial Hospital, Butwal; Siraha Hospital, Siraha; Rapti Provincial Hospital, Dang; Family Planning Association, Kanchanpur; Koshi Hospital, Biratnagar; Nobel Medical College, Biratnagar; Bheri Hospital, Banke; TU teaching hospital, Kathmandu; Dhulikhel Hospital, Kavre; Karnali Pradesh Hospital, Jumla

- NHTC conducted 29 different types of training of trainers and basic training for nearly 11,000 staff. Program specific trainings in 2021/22 included:
    - MPDSR- training on cause of death assignment including birth defects
    - Newborn care/Facility Based Integrated Management of Neonatal and Childhood Illness mentoring
    - ToT on Point of Care Quality Improvement (Karnali and Sudurpaschim Provinces)
    - Coaching and training on Community Based Integrated Management of Neonatal and Childhood Illness
    - Technical support for integrated FP and reproductive health service
    - Training on immunisation for health workers from public and private health facilities (12 batches - 300 health workers)
    - Review and orientation on misoprostol for prevention of post-partum haemorrhage
    - Orientation on Adverse Events Following Immunisation for paediatricians, medical officers and stakeholders at the provincial level
    - ToT in Kangaroo Mother Care for the expansion of KMC units and level-II newborn care for medical officers
    - Orientation on Typhoid vaccination campaign and integration of Typhoid vaccine in the routine immunisation programme for doctors, professional bodies and media personnel
    - ToT on Comprehensive Nutrition Specific Interventions for health section chiefs at local levels
    - Orientation on GeneXpert operation, maintenance and quality improvement
    - Orientation on drug-resistant TB for stakeholders at the provincial and local levels
    - Capacity development on Drug Resistant TB prevention and psychosocial counselling
    - Capacity development for human resources on data analysis and use
    - Continuing Medical Education related to TB in Medical colleges and federal hospitals

- Major service and management-related training and capacity development measures included:
    - ToT on NCDs and injury management
    - ToT on the treatment of Hepatitis B and C for medical officers (113 participants)
    - Training for health workers on HIV/AIDS and TB (human rights, medical ethics)
    - Logistic management training for staff at ART/Prevention of Mother-to-Child Transmission (PMTCT)/Opportunistic Infection centres and stores (225 participants)
    - Capacity building workshop for health workers on rational use of drugs
    - Capacity building of health workers on care of elderly people in the western model
    - Nursing leadership development for nursing staff in blended modality (43 participants)
    - Capacity building of nursing staff on IP in the blended model. 29 participants completed 6 weeks of self-paced online class followed by 6 weeks of practical exercise
    - Mentorship programme for nursing staff to maintain nursing skills in six hospitals[5]
    - Training on haemodialysis for 35 nursing staff working at the hospitals with Bipanna Nagarik Aausadhi Upachar Karyakram, and haemodialysis machine maintenance training for 10 staff of the same hospitals

[5] Koshi, Bir, Bheri, Bharatpur, Birgunj and Dadeldhura

- Capacity building of medical officers to deliver geriatric health services (14 participants)
- Capacity building of health workers on geriatric care (140 participants)
- Master Training of Trainers (MToT) on International Classification of Disease – 11 (ICD-11)
- Orientation of health workers on clinical protocol related to GBV in Bagmati, Gandaki, Sudurpaschim, Madhesh and Lumbini Provinces
- ToT on disability and rehabilitation
- ToT on Indoor Residual Spraying for control of Malaria and Kala-azar
- Orientation of health workers in the public and private sector on national treatment protocols related to Malaria, Dengue, Scrub Typhus, Chikungunya, Zika and other emerging diseases
- Training on component preparation (washed red cell, platelets concentrate, cryoprecipitate) at blood banks
- Capacity building of human resources working at the National Public Health Laboratory (NPHL)
- ToT on quality and audit in laboratories at federal hospitals and provincial public health laboratories
- Orientation for focal persons related to one reporting (OCMC, SSU, and geriatric ward)
- ToT on LNOB approach to health workers
- Capacity development training on Panchakarm, Yoga, Healthy lifestyle management for Ayurveda Physicians and health workers
- Training of health workers on the management of Lymphatic Filariasis including disability prevention
- e-TB training for 550 health workers working and Palikas and health facilities
- Active TB Drug-safety monitoring and management training for health workers working at 22 Drug Resistant TB centres
- Training on Tuberculosis control for doctors, laboratory personnel and health workers in all seven provinces

Lessons and way forward

- A large number of sanctioned posts remain unfilled: these should be filled to improve health service quality
  - Put in place a robust mechanism to deploy and mobilise motivated health workers who are available and can be retained at their duty stations, especially in rural areas
  - Continue to mobilise human resources produced through government scholarship to fulfil HRH gaps.
- There is inadequate availability of an appropriate mix of skilled staff at health facilities due to mismatch between HRH production and distribution
  - Ensure revision of the curriculum of HRH in collaboration with universities, academia and medical education council
  - Develop a comprehensive projection, production, distribution, retention and post-retirement strategy and plans to ensure an appropriate mix of skilled HRH across federal, provincial and local levels; specifically: assess the need for skilled HRH; develop and implement a five-year HRH production plan based on the estimates of HRH needs for the next 10 years

- Revise the pre-service curricula for different health cadres to ensure a skill mix to fit the health service delivery system and practices.
    - Increase advocacy for investment in HRH production and development at the federal, province and local levels
    - Establish a joint mechanism to conduct regular meetings between the bodies responsible for HRH production and deployment to increase the quality of HRH production; increase partnerships with the academic institutions to produce human resources as per need, and ensure the quality of medical education
    - Establish a joint mechanism and conduct regular meetings between the HRH production and utilisation bodies to increase the quality of HRH
- Sanctioned posts in Ayurveda health institutions are insufficient to meet the demand for Ayurveda health services. The inadequate number of skilled human resources for Ayurveda health services is posing a challenge to delivering quality services
    - Build/develop the capacity of human resources for Ayurveda health services through training, mentoring and supervision support
- Promotion of a learning environment among health workers through an integrated training approach including technology-based learning
- Regularly update the knowledge and skills of health workers through continuous professional development, coaching, supervision and monitoring support
    - Institutionalise continued profession development, onsite coaching, mentoring, monitoring and supervision to update the knowledge and skill of health workers
- Strengthen the regulatory capacity of the existing professional councils in light of the federal context
- Strengthen the human resource information system by updating the HR registry and making it interoperable with other major health information systems
- Organisational and management survey for health institutional at all levels
- Deploy a multi-disciplinary team at all Basic Hospitals and officer level manager at all local levels

Outcome 1c. Procurement and Supply Chain Management

Background

Procurement and supply chain management are interdependent activities that support quality service delivery at health facilities. The principles of economy, efficiency, efficacy, fairness, competition, accountability, and transparency in procurement procedures, supported by well-functioning logistics management contributes to value for money (VfM).

The FMoHP is committed to strengthening procurement and supply chain management functions, which was one of the main NHSS priorities. FMoHP has been enhancing the capacity of spending units responsible for the procurement and distribution of quality medicines and equipment in order to ensure timely and efficient procurement; and has directed them to follow mandated procurement systems. The (federal) Procurement Implementation Plan (PIP), 2017-2022 includes strategic indicators to monitor FMoHP procurement management system. FMoHP has also directed the DoHS to institutionalise and regularly plan and monitor procurement.

The PIP has now been updated as the "Public Procurement Strategic Framework for Management of Medicines and Medical Goods, (2022/23–2026/27)" with time-bound strategic objectives. The main objective of this strategic framework is to deliver quality health services to the people by strengthening procurement and supply chain management practices.

Major Progress

The COVID-19 pandemic impacted on the performance of procurement and supply chain management throughout the year 2021/22. Despite this, FMoHP has made the following progress in 2021/22:

- *Preparation of new PPSF:* FMoHP undertook to improve procurement practices in the health sector; the PIP, 2017-2022 was prepared as part of the NHSS reform initiative. Following devolution of health sector responsibilities, responsibility for procurement of medicines under basic health services was transferred to provincial and local levels. In this context, the "Public Procurement Strategic Framework for Management of Medicines and Medical Goods, (2022/23–2026/27)" was published: it sets out objectives and addresses challenges to make procurement process transparent, competitive, and result-oriented and to sustain VfM.
- *Procurement of COVID-19 vaccine and testing materials:* following the emergency approval of COVID-19 vaccines by vaccine manufacturing countries, FMoHP was able to procure a considerable quantity of vaccines. Cabinet issued a special vaccine provision and accompanying regulation, to enable procurement of COVID-19 vaccines. Timely procurement of related commodities (syringes for vaccination, and medicines, equipment, test kits and consumables for the response) helped to manage the pandemic. Technical and financial assistance from the World Bank, Asian Development Bank and other EDPs supported the initiative.
- *Consolidation of annual procurement plan:* this refers to the preparation of a single document reflecting all procurement activities by each spending organisation. The CAPP is a tool to measure procurement efficiency and VfM. DoHS has prepared a CAPP since FY 2014/15. FMoHP also prepares a federal-level CAPP in the electronic platform of TABUCS (e-CAPP), which consolidates the procurement activities of all Departments, Centres, Councils, Hospitals, and Academies under it. The e-CAPP for FY 2021/22 was prepared on time.
- *Functioning of CAPP-MC:* A CAPP Monitoring Committee (CAPP-MC) chaired by the Director General, DoHS was established in 2017. The committee monitors progress of procurement, and issues and challenges in procurement execution. All DoHS procurement was included in the CAPP for FY 2021/22. The CAPP-MC has identified a need for capacity development on emergency procurement in the health sector and to reduce audit discrepancies.
- *Dynamic use of Technical Specification Bank:* The TSB contains the technical specifications of pharmaceuticals and medical equipment. The TSB was restructured and put into operation in 2017/18 as an IT system, open to all users. As of end of October 2021, there are more than 1,700 registered users. Technical specifications have been prepared for 1,421 items (drugs, equipment and medical consumables); 36 new equipment and 6 new pharmaceutical items were added in 2021/22. A separate section of COVID-19 items was added to the TSB during the pandemic.
- *Standardising procurement process:* FMoHP promotes standard methods of procurement in accordance with the Nepali Public Procurement Act (PPA) and Public Procurement Regulations (PPR). Use of the Standard Bidding Document (SBD) and the Electronic Government Procurement (e-GP) system are now becoming regular practice. The online bidding system has increased transparency, fairness, and competition of procurement. More than 99% of total DoHS

procurement by value is now carried out through open competition using e-GP. The Public Procurement Monitoring Office (PPMO) has been asked to introduce a separate SBD and framework agreement for health sector procurement.

- *Use of SOP and guideline:* SOPs for (i) Procurement of Medical Goods and (ii) Operation of e-GP in the health sector were prepared, endorsed, and distributed to all levels of health institutions in FY 2017/18, and are now appropriately implemented across all three levels of government. Their use has been supported by providing procurement clinics at the DoHS and FMoHP. The FMoHP developed and disseminated SOP for Emergency Procurement to support COVID-19 pandemic related emergency procurement. A revised and updated second edition of the SOP for Procurement of Medical Goods has been prepared with annexes on the bid document preparation checklist and steps for medical goods procurement. SOPs for Pre-Shipment Inspection and Post-Delivery Inspection with Sampling Guidelines and QA procedures have been prepared and distributed to PEs including provinces and local levels noting the devolution of procurements to SNGs and the limited capacity of PEs to assure quality of procurement.
- *Emergency procurement made easy:* the Nepal PPA and PPR provide for emergency procurement in special circumstances but have not often been used in the health sector; there were no clear procedures guiding their use. FMoHP/DoHS made use of Special Circumstance Procurement (SCP) during the COVID-19 pandemic and established a short cut method to solicit bids using e-GP and to award contracts in a short time. A customised bidding document, acceptable to funding partners (particularly the World Bank and the Asian Development Bank), was developed and used. PPMO has now developed an additional module for e-GP system allowing short period notices for SCP.
- *Users training and maintenance support:* A Technical Working Committee, led by Biomedical Engineers in coordination with the Director General, DoHS, was set up for the management and preventive maintenance of medical equipment, especially equipment donated during the COVID-19 pandemic. The committee piloted ToTs and training of technicians conducted by the NHTC at the Civil Service Hospital and Bhaktapur Hospital. Eleven trainings (seven trainings for all provinces and four trainings in Kathmandu) covered handling and maintenance of the equipment.
- *Supply Chain Management Working Group meetings:* Provincial Health Logistic Management Centres (PHLMCs) and HDPs collaborated with the Management Division (MD) to continue to provide technical and financial support to quarterly Supply Chain Management Working Group meetings at federal and provincial level. These meetings address supply chain performance issues (eg storage, reporting, and stock levels). Key performance metrics and evidence-based remedial actions were discussed, as were issues related to policy, SOPs, strategies to strengthen supply chain performance, and capacity development of health workers.
- *Switching to monthly Reporting of Logistic Management Information System (LMIS):* The MD switched from quarterly to monthly LMIS reporting during the current year. The guideline and reporting forms were updated, and virtual orientation was organised for all 753 Local Level Governments (LLGs) and Service Delivery Points (SDPs).
- *Capacity enhancement:* Capacity development of procurement and supply chain management officials continued throughout the year through facilitation, procurement clinics, on-site coaching and distance support. Orientation sessions on Cost Estimation, Specification Preparation and Bid Evaluation in health sector procurement were held for officials of departments, centres, academia, and hospitals. A procurement "knowledge bank" was established at the DoHS with a

pool of trainee procurement officials. Support was provided for e-GP execution, bidding document preparation, and handling suppliers' queries. The CAPP preparation process has been rolled out to the provinces. A three-day training on the e-GP system was organised in three provinces: Madhesh, Lumbini and Sudurpaschim. Technical support was provided to hospitals at federal, provincial, and local levels in equipment setup, maintenance, and planning. Capacity-building programmes covering e-LMIS, logistics and inventory management were provided in the provinces. Twenty master trainers in Province 1 were provided a five-day MToT on basic logistics and public procurement policy. The master trainer rolled out training for 90 more participants of all LLGs from 4 districts in Province 1.

- *Organising supportive supervision:* supportive and mentoring visits, based on data analysis generated from the e-LMIS, were carried out to seven PHLMCs, fourteen Health Offices (HOs), twenty-eight LLGs and fourteen SDPs medical stores. These visits consisted of a site assessment (using a supportive supervision tool), onsite coaching and capacity building of local staff to transfer skills and ownership for sustainable good warehousing and inventory management, including e-LMIS system utilisation, recording, and reporting. Stores were reorganised in line with good warehousing and inventory management practices, and all logistic records were updated to ensure an accurate inventory.
- *Provision of equipment to hospitals:* FMoHP allocated funds to the Health Management Programme and Family Welfare following experience of COVID-19 related disruptions and realisation of the need to provide hospitals with equipment for hospital services. FMoHP used the funds to procure equipment including: Haemodialysis Machines, Digital Radiography Systems, C-Arm X-ray Machines, ECG Machines, USG Machines, Delivery Beds, General Beds, Plasma Steriliser, Equipment for Health Waste Management. These were distributed to federal and provincial level hospitals. Such strengthening of hospitals will be continued.
- *Development of provincial PIPs*: three provinces (Madhesh, Lumbini and Sudurpaschim) endorsed their respective PIPs to support sustainable procurement and logistics management in line with the federal PPSF.
- *Orientation on new SBD:* a Single Stage Two Envelop (1S2E) bidding procedure[6] for the procurement of goods where technical qualification is needed has been included in the 12th amendment of PPR by the government. Orientation was given to the procurement staff of DoHS-MD on the key features of the new provision. In addition, technical inputs and comments were provided to the PPMO which is developing a new SBD for 1S2E.
- *Forecasting and quantification at SNGs:* Forecasting and supply planning is a regular supply chain function to monitor commodities in the pipeline, develop and update supply plans accordingly, and prepare annual forecasts. A National Consensus Forecasting and Quantification exercise workshop was conducted for programme products and vaccines. Data used for quantification were generated from e-LMIS (consumption data and stock-on-hand data) and the HMIS. Quantification of health commodities including Maternal, Neonatal and Child Health (MNCH) products was also organised at the provincial level. The workshops strengthened the technical

[6] Bidders submit two sealed envelopes simultaneously, one containing the technical proposal and the other the price proposal, enclosed together in an outer single envelope. Initially, only the technical proposals are opened at the date and time advised in the bidding document. The price proposals remain sealed and are held in custody by the purchaser.

skills of the PHLMC, HO, LLGs and hospital staff, and contributed to institutionalisation of health commodity quantification.

- *Pipeline reporting and monitoring:* Drug status pipeline reports are produced from live e-LMIS at the national and provincial levels. Four national quarterly reviews were conducted for 40 key commodities related to: FP (5), MNCH (6), Vaccination (9), Syringes (2), Nutrition (3) and Essential Medicines (15). The workshops reviewed the stock status of commodities in order to avert stockouts, and organised redistribution of overstocked products to other facilities with low stock. Pipeline shipments were rescheduling as required.
- *Management information system and rollout of the e-LMIS System:* e-LMIS is a key health system strengthening intervention to improve supply chain operations and performance. Scaling-up of e-LMIS continued to health facilities by utilising identified e-LMIS trainers and facilitators from GoN in close with the Integrated Health Information Management Section (IHIMS) and Provincial Health Directorate (PHD). There is a total of 1486 live e-LMIS sites including 753 LLGs, 77 Health Offices, and provincial and federal stores. Additionally, 6788 SDPs report through LMIS quarterly.
- *Enhancing warehouse and inventory management:* Warehouses were enhanced with materials handling equipment (medicine shelving, pallets, ladders, trolleys, thermometers, hygrometers, fire extinguishers, expired drug storage trunks, locker rack etc.) at all 7 PHLMCs, 9 HOs, 15 LLGs and 2 SDPs. The HOs, LLGs and SDPs were selected in coordination with the respective PHLMCs. The seven LLGs (one in each province) were selected last year; they will be provided with model health stores which can be used as learning sites and models for other LLGs equipped to maintain good warehousing practices at all LLGs this year. As a part of continuous support for good warehousing practices and to strengthen the capacity of health workers in the supply chain, training was organised on Basic Health Logistics and e-LMIS for all health facilities of the LLGs in Gandaki Province and Province 1.
- *Expansion of vaccine stores:* A modern vaccine store is under construction at Teku. In view of the storage and distribution of COVID-19 vaccine, the FMoHP upgraded the central store and provincial stores. The central store at Pathalaiya has been operational with a cold chain facility. In addition, with the support of HDPs, FMoHP could step towards the availability of ultra-cold chain facilities. A new cold room storage building has been constructed at Teku as an expansion of the existing vaccine storage capacity.

Lessons and way forward

There has been good progress in systemising procurement and supply chain management systems: this should be built on to further enhance quality, efficiency and timeliness in supplying essential medicines, diagnostics and medical products.

- *Rolling-out PPSF and PIPs:* After devolution of procurement functions to the SNGs, it was learned that a structural relationship was needed between health sector PEs at all three levels. A guiding document was needed to overcome the challenges of procurement and supply chain management. Therefore, a PPSF at the federal level and PIPs for three pilot provinces (Madhesh, Lumbini and Sudurpaschim province) were prepared.
    - Ongoing support will be needed to roll out and institutionalise use of the PPSF and PIPs.
    - PIPs should be developed for the remaining provinces and for local governments.

- *Linkage and compatibility of different systems:* There is inadequate linkage between various information systems such as AWPB, CAPP, TSB, e-LMIS, and Public Assets Management System (PAMS). This has led to inadequate pre-bid and planning systems information, and has reduced the efficiency of monitoring. There is also uncertainty on whether to use the e-LMIS or PAMS
    - There needs to be compatibility and effective linkages between these systems avoiding duplication of entry.
- *Institutionalisation of pre-bid Information system:* There is limited use of market analysis when collecting pre-bid information and preparing cost estimations. Availability, and price analysis of medicines in local/foreign markets affects cost estimates.
    - Cost estimation practices should be more realistic to reduce deviation between the cost estimate and contract value, especially in the procurement of medicines.
    - A single system should be developed to enter the unit price list of drugs and equipment procured and all price information.
- *Enhancing e-LMIS intervention:* The e-LMIS aims to guide strategic decision-making and improve supply chain operations and performance through improved data access and visibility. The system also strengthens and optimises inventory management, forecasting, supply planning, procurement, storage and distribution practices. However, existing LMIS/e-LMIS has not effectively informed the quantification and forecasting of all medicines and equipment requiring technical and functional support such as through the help desk.
- *Standard bidding document (SBD):* There is no health-specific SBD in the e-GP which hinders the procurement of medicine at all levels of government. There is also no Framework Agreement SBD; such a long-term agreement would facilitate procurement of medicines by the SNGs
    - Advocacy is needed to develop a separate health sector SBD
    - A Framework Agreement should also be developed
    - Harmonisation of the procurement process at all levels should be done through e-GP
- *Upgrading of TS*B: The IT-based TSB is accessible from anywhere. The specifications uploaded to the bank are in a standard format and are coded with unique identification of each specification. This helps health sector PEs to save time, increase efficiency and get VfM when preparing standard specifications and evaluating bids.
    - The TSB should be extended to include additional technical specifications for BHS medicines.
    - Continuous updating of TSB is also necessary to comply with changes in the technical specifications of medical equipment which are dynamic in nature with respect to time and technology.
- *Improvement of contract management:* The post-bid information system and contract management system is very weak due to the limited capacity and systems support.
    - Contract management capacity should be developed, reflecting its importance for full operationalisation of contract management system.
    - The contract management system in the e-GP should be operationalised in coordination with PPMO.
- *Effective procurement planning:* Consolidation of APPs of the expending organisation is found effective tool for efficiency in procurement and VfM.
    - Similar practices can be promoted at the provincial and local levels.

- *Monitoring management through committee approach:* The committee approach of monitoring procurement by CAPP-MC is effective in management of efficient procurement and in reducing audit observations.
    - This approach could be enhanced with IT-based monitoring function.
    - The CAPP-MC approach could also be used by SNGs to monitor procurement and supply chain functioning.
- *Strengthen supply chain management:* Warehousing and inventory management are key components of the supply chain. Enhancing warehouses capacity will ensure effective storage and regular supply of essential medicines, diagnostics and health products. Poor quality and stock-outs result from poor warehousing and inventory management. Therefore, the continued strengthening of the management of warehouses at all tiers of the supply chain is necessary. The quantification of health commodities is the first step in procurement and supply chain management
    - Forecasting and quantification are important for SNGs to determine required procurement quantities and to develop procurement plans which will avoid shortages and over-ordering/waste of commodities.
- *Capacity development:* Availability and capacity of the human resources related to supply chain remains a challenge in Nepal. Capacity of the SNG in procurement of medical goods is very crucial. Capacity building of bidders and suppliers at SNG level is another issue to be resolved immediately.
    - Institutional and professional capacity building is required at all levels (federal and SNG). A programme of competency-based in-service training, supportive supervision, exposure, and mentorship is needed to improve procurement and supply chain management at SNG levels.
    - Skill shortages are found at all levels of the supply chain; continued capacity development is needed for all staff.
- *Supportive supervision and monitoring:* A “learning by doing” process between supervisors and supervisees is the best way to improve and enhance skills in the supply chain, good warehousing practices, e-LMIS utilisation, timely reporting, and data accuracy.
    - A regular supervision and monitoring cycle should be established to strengthen the relation between supervisors and their subordinates.
- *Training and maintenance support:* users of equipment are increasingly comfortable with routine operation and can do minor maintenance and replacement of spares by themselves.
    - The technical working committee led by biomedical engineers could prepare a group of trained users at different hospitals. This technical manpower should be maintained as a “preventive maintenance cadre” in the health sector.
- *Quality assurance plan:* quality assurance of procured medicines and equipment, based on full inspection and testing before and after shipment, and proper storage is an important part of an effective procurement and supply chain system.
    - A Quality Assurance Plan with pre-shipment and PDI of drugs at all levels should be mandatorily done.
    - Strengthening of regulatory provisions and organisational capacity for pharmacovigilance should be established to improve the procurement and supply chain management system.

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

Background

Quality health service delivery is one of the strategic directions towards the goal of universal health coverage as envisioned in the NHSS. The strategy addressed quality of care by covering eight dimensions: effective; safe; client centred; timely; equitable; culturally appropriate; efficient; and reliable. Readiness of the health facilities has been addressed in the MSS that have been developed for primary, secondary, and tertiary level hospitals. FMoHP has emphasised improvement in quality of care at point-of-delivery through a number of different initiatives.

The NHSS focused on improving the quality of health services by adopting the following three outputs:

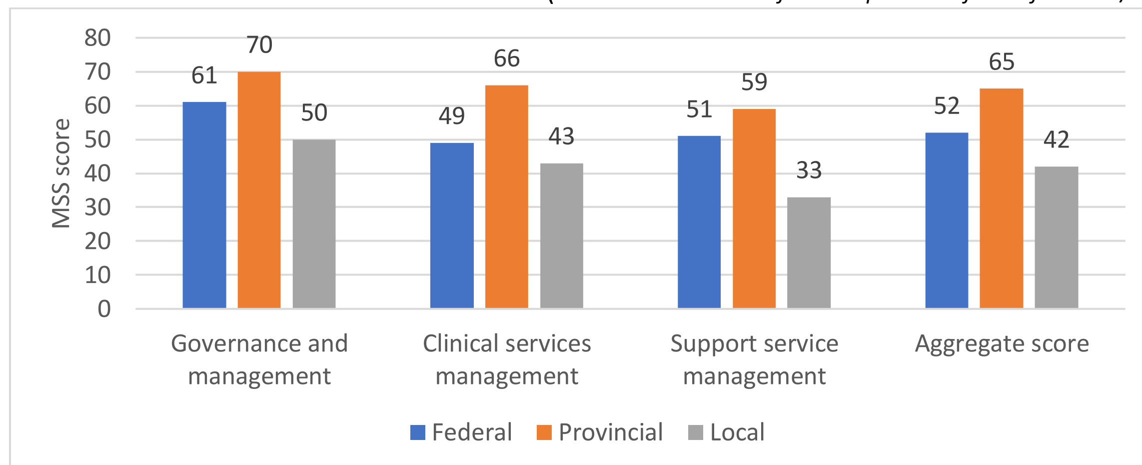
- Quality health services delivered as per protocols/guidelines,
- Quality assurance system strengthened, and
- Improved IP and healthcare waste management practices.

Major Progress

- Divisions and centres of the FMoHP and DoHS continued to develop and revise national strategies and plans for improving the quality of care, and guidelines for implementing specific interventions. Examples include:
    - Clinical coaching/mentoring programme facilitation guide 2079 BS developed for maternal and neonatal health service providers at Birthing Centre (BC)/Basic Emergency Obstetric and Neonatal Care (BEONC)/Comprehensive Emergency Obstetric and Neonatal Care (CEONC) sites
    - Implementation guidelines for introduction and management of CS monitoring at CEONC facilities using Robson classification (2078)
    - Implementation guideline including reference manual and guide for clinical mentors and
    - Reference manual and handbook for mentees for on-site clinical mentoring programme for routine nursing care (2078)
    - National Medical Standards for Reproductive Health volume 3 (2079)
    - Revision of IMNCI treatment protocols/ guidelines as per the recent evidence
- The Nepal Health Facility Survey, 2021, identifies factors and challenges related to quality of care. This issue has received increased attention at strategic, policy and implementation levels. The survey revealed progress in readiness of health facilities and service availability. For example, 75% of all health facilities now provide a set of basic services (outpatient curative care for sick children, child growth monitoring, child vaccination, any modern method of FP, ANC, STI services) compared with 60% in 2015. Health facilities were more likely to have all of the basic amenities considered essential for delivering quality health services (regular electricity, a client latrine, communication equipment, and emergency transport) in 2021 (17 %) than in 2015 (11%)
- The MSS are being implemented at different HF levels; implementation status and scores are monitored through the HMIS. Health institutions and Palikas are addressing gaps identified during MSS assessment using ad hoc funds or through annual planning and budgeting. The MSS scores of public hospitals at the federal, provincial and local levels are presented in figure 3.2.1.

Figure 3.2.1: MSS score of public hospitals

(*Based on assessment of 118 hospitals as of end of FY 2021/22)*



- The FWD and NHTC/PHTC trained 61 MNH clinical mentors from Province 1, Madhesh, Gandaki, Lumbini, Karnali and Sudurpashchim provinces. Clinical mentors training sites have been established at Surkhet provincial hospital Karnali province, Pokhara academy of Health Science, Gandaki Province and Janakpur Provincial hospital.
- A total of 263 local governments mobilised clinical mentors and provided mentoring to 1746 MNH service providers at their BC/BEONC sites, and another 553 MNH service providers received in-house mentoring sessions at 30 hospitals. The mentors and mentees conducted assessment and improvement planning for MNH service readiness at 255 BC/BEONC and 67 hospitals. Improvements in knowledge, decision-making and skills of MNH service providers and service readiness scores were observed while comparing two assessment reports.
- Refresher and review/planning workshops were organised for clinical mentors including 144 Skilled Birth Attendants (SBA) clinical mentors and public health nurses from Gandaki province, Karnali province, Madhesh province, Province one and Sudurpashchim provinces. The workshops emphasising the management of post-partum haemorrhage, the leading cause of maternal death in Nepal. The MNH quality improvement reporting system was established using the Open Data Kit system which facilitated the reporting of implementation status and data on clinical mentoring, service readiness and Robson classification
- Quality improvement interventions were conducted in some provincial hospitals to strengthen post-natal FP services. The process of developing facilitators to strengthen pre-service education for strengthening screening of cervical cancer has been initiated in Kathmandu University and the National Academy of Medical Sciences (NAMS)
- FWD developed the Robson Criteria Guideline 2078; orientation has been completed based on this guideline
- FWD revised the National Medical Standard for Maternal and Newborn Care in 2022 and updated the guideline to ensure effective interventions for mothers and newborns based on recent evidence
- NSSD started clinical mentoring of nursing staff on routine nursing care at six federal hospitals. A learning resource package was developed for nursing mentoring covering nine subject areas. Thirteen mentors were developed, and 165 nursing staff received in-house mentoring

- Forty-one SBA trainers' knowledge and skills were enhanced at five hospitals (Bheri, Lumbini, Janakpur, Narayani and Gajendra Narayan Singh Hospital) in Lumbini and Madhesh provinces. Follow-up assessment showed an improvement in trainers' knowledge and skills and service readiness scores at these hospitals
- In response to increasing CS rates in Nepal, FWD with the support of TA introduced the use of the Robson ten groups classification system (TGCS) at 33 hospitals to assess and monitor institutional CS rates at these hospitals.
- Dashboards for health service indicators have been operationalised in 17 municipalities of Karnali and Sudurpaschim Provinces
- The Curative Service Division (CSD) carried out various activities to improve the quality of care which include:
    - Development of Basic Health Services STP (BHS STP) and Emergency Health Services STP (EHS STP) and orientation in all provinces
    - Development of guidelines and standards for clinical audit and strategy for the management of blood disorders
    - Development of standards for eye, nose, year, throat and oral health in health facilities
    - Development of STP for various diseases and conditions; gynae/obs, pediatric, neonate, orthodontics, and prosthodontics
    - Development of pediatric COVID-19 management protocol and post-COVID management protocol and oriented doctors based on this protocol
    - Orientation on palliative care for doctors in all seven provinces
    - Orientation on eye, nose, ear, throat and oral health for health workers
    - Developed
- The DoAA developed the MSS for different levels of Ayurveda institutions (Federal, Provincial, District and Aaushadhalaya)
- The MD conducted onsite coaching in eight hospitals to strengthen health care waste management practices. Video material has been developed to promote healthcare waste management practices
- Conducted a six-day MToT for health officials of Lumbini and Sudurpaschim Provinces on environmental health, healthcare waste management, and Water, Sanitation and Hygiene (WASH)

Lessons and way forward

- The MSS in health institutions has provided a coherent strategic framework to align fragmented quality improvement initiatives.
    - Monitoring MSS implementation needs to be strengthened through digitisation and close follow up.
    - Develop MSS guidelines for the assessment of basic health centres (Primary Health Care Centres and Health Posts)
    - The accuracy and timeliness of routine monitoring of health services data should be improved to ensure robust monitoring of health services quality
    - Development, implementation and monitoring of patient safety standards across health care facilities

- Only a limited number of surveys have been carried out to substantiate the perceived lack of quality in health care services.
    - There should be an in-depth assessment of the situation of quality of health services
    - The mechanism for interactive and continuous clinical audit system should be institutionalised to improve quality of service at the point of delivery
- The availability of an adequate number of provincial-level officers to guide and monitor programme implementation is critical to ensure the effective implementation of quality improvement interventions.
    - There is a need to develop a defined structure with specific ToR at provincial level health authorities (Health Directorate and/or provincial health offices) to facilitate programme guidance and monitoring
    - Continue to advocate for establishment of a national-level accreditation body for ensuring the quality of health services and accreditation of institutions
- There is a need to continue policy dialogue, discussions, planning, budgeting, and programming to enhance the implementation of strategies and plans at the provincial and local levels to maintain and improve the quality of essential health services
    - The process of developing institutional linkages among health institutions at the federal, provincial and local levels should be accelerated to strengthen the care coordination mechanisms including referral to ensure a continuum of care.
    - Strengthen coordination with concerned stakeholders (building construction, environmental department, provincial and local levels) for registration, upgrade and monitoring of the specialised and super-specialised hospitals
- Continuous facilitative supervision and monitoring of trainers and training sites is a prerequisite for quality training, providers' capacity enhancement and quality at point-of-delivery.
    - A training management committee should be set up at each training site as per the recommendation of the "National Training Management Guideline 2018" for better ownership and management of in-service training by the hospital management.
    - Strengthening coordination with universities and the Council for Technical and Education and Vocational Training (CTEVT) to incorporate national programme requirements in the pre-service curriculum
    - Enhancing coordination, collaboration and partnership between programme divisions and other stakeholders at the federal and provincial levels to achieve high-quality health training and management
- Monitoring of the CS rate using the Robson classification has been effective in ensuring the appropriate use of this intervention.
    - A central monitoring committee should be set up to monitor and motivate the implementation of Robson TGCS
- Intensive efforts have been initiated for healthcare waste management in 13 hub hospitals outside Kathmandu Valley
    - A strengthened system should be established for the safe and timely disposal of pharmaceuticals, diagnostics and health care wastes and chemicals of public health concern

- the WASH and health care waste management standards, IP and control mechanisms should be revitalised

- Strengthen mechanism for minimising antimicrobial resistance by updating STPs and guidelines
  Improving quality control mechanisms of Ayurveda medicines through strengthening of DoAA and extension of Ayurveda section in DDA with adequate human resources
- Strengthening the organisational capacity of DoAA to monitor governmental, community and private Ayurveda and alternative health institutions

3.3 Outcome 3: Equitable Distribution and Utilisation of Health Services

Background

Equity is one of the four NHSS strategic approaches to achieving UHC. The mainstreaming strategies are important for reaching the unreached segments of the population with quality health services. Over the last two decades, FMoHP has initiated some comprehensive and concerted efforts to improve the accessibility and equitability of health services. Gender, caste, wealth, ethnicity, and geographic location continue to affect peoples' access to health services. Equitable access to health services requires the development of activities that give priority to populations and areas that lack or have limited access to health services. The NHSS focused on expanding client-centred care that is best delivered when services are closer to communities. This outcome depends on the following two outputs:

- improved access to health services, especially for unreached populations, and
- health service networks, including a referral system, strengthened.

Major Progress

- Eight new CEONC sites were established during the reporting year with four of them in remote districts. In total, CEONC services are being provided at 226 sites (public and private).
- The monthly availability of CS at 102 public sites increased from 93% of total months in 2020/21 to 96% in 2021/22[7].
- The booster dose of COVID-19 was provided from January 2022. Vaccination of 5 to 11 year olds was initiated after developing guidelines for this target group.
- 7,700,000 children were vaccinated against typhoid. Typhoid vaccination has been integrated into the routine immunisation programme
- PNC home visit orientation to 356 local levels was done through 65 provincial health officers. A total of 639 SNGs provided PNC home visits in 2021/21. This has resulted in improved access to PNC services by mothers and newborns in their most vulnerable period. Coverage of three PNC check-ups as per protocol increased from 25% in 2020/21 to 41% in 2021/22.
- All 7 provinces, 77 HOs, 753 palikas, and elected leaders and health coordinators of 302 palikas were oriented on SMNH Roadmap 2030, SAS and ANC to PNC continuum of care guidelines. All provinces adapted the SMNH roadmap 2030 based on provincial needs and used the roadmap as a guide for prioritisation and budget allocation in AWPB process.
- Some of the local governments and the hospital at Agarkhanchi district have developed the EOC referral guideline (2078) to implement free EOC referral and have implemented this successfully.
- FMoHP has formalised the establishment of a federal level GBV Multi-sectoral Coordination Committee. This committee is the federal-level coordination committee for strengthening GBV/OCMC. The committee is chaired by Population Management Division Director. The Committee meets on a quarterly basis and these meetings have been highly fruitful to strengthen the much-needed federal-level coordination to address the GBV concerns.
- Annual review of GESI-targeted interventions were conducted i.e. OCMC, SSU and Geriatric programmes of federal and provincial level hospitals. The reviews provided opportunities for

[7] UN process indicator – CEONC site is considered functioning if the site conduct one C/S in three months. Considered non-functioning if the site do not conduct C/S for three consecutive months.

sharing experiences and learning including good practices from each other including for institutionalisation of these services into the health system.

- Orientation conducted to more than 35 GBV multi-sectoral coordination committees at OCMC and SSU-based hospitals for the functionality of OCMC and SSU services thereby strengthening coordination and collaboration in a meaningful way. This contributed to increase the number of survivors and target group populations at OCMC and SSU-based hospitals.
- MoHP continues to expand SSUs in government hospitals as a platform to facilitate social health security schemes including health insurance. Fifteen new Social Service Units (SSUs) were established in referral and district-level hospitals; the total number of SSUs is now 58. More than 200,000 beneficiaries (Female 50%; Poor 47%, Senior Citizens 39%, People with disabilities 4%, Destitute 3.8%; GBV survivors 0.6% and others) received free or partially free services from 58 SSUs in 2021/22. FMoHP plans to establish new SSUs in 29 hospitals in FY 2022/23
- Geriatric health services have been provided by 49 hospitals in 2078/79. FMoHP has planned to scale up this service in an additional 12 hospitals in 2079/80. FMoHP plans to establish geriatric outpatient department (OPD) services from 50 and above bedded government hospitals across the country.
- The number of OCMCs has increased to 88 by the end of FY 2078/79. A total of 50 OCMC focal persons were certified as trained counsellors and 40 OCMC focal persons are in-process to complete the counselling course. This will support strengthening OCMC effectiveness and reaching out to survivors and potential survivors.
- Monitoring and coaching support were provided to OCMCs of 50 hospitals. Regular follow-up support was provided to newly established OCMCs on service delivery, roles of different agencies, coordination, referral system, case management, and recording/reporting through phone-communication, and virtual meeting with the Medical Superintendent, doctors, OCMC focal persons and staff.
- FMoHP facilitated the broadcast advocacy messages on GBV and OCMC services for 3 months (April – June) from 202 community radios across the country
- Several GESI learning products are being prepared in 2079: a) GBV and the health sector response of OCMCs, b) Institutionalising GESI into the health system in Nepal, c) Strengthening the health system to provide quality care to aged persons, d) Promoting LNOB through the health budget
- The training package on Gender Responsive Budgeting (GRB) and LNOB Budget Marker was finalised and approved by FMoHP. Based on this training package, training was provided to 16 health staff from 5 provincial health ministries. There is plan to rollout the training package in all provinces in a phase-wise manner.
- The FWD has initiated interventions to increase access to emergency contraceptive pills through public health facilities and FCHVs
- The National Tuberculosis Control Centre (NTC) conducted Tuberculosis Free Nepal Declaration Initiative events at 25 local levels, based on the TB Free Nepal Declaration Initiative Operational Guideline 2020/21
- The NTC expanded the XPert® MTB/XDR service[8] through six new 10-color GeneXpert, and expanded GeneXpert sites in 14 districts

[8] A proprietary TB molecular diagnostics system provided by Cepheid

- The CSD and National Health Training Centre developed training curricula on social auditing to roll-out the Health Sector Social Accountability Federal Directives 2020. Training was rolled out to 21 participants from seven provinces based on the training curricula. The CSD has included roll-out of training in AWPB of 2079/80 and has also developed an action plan, which includes the conduction of training of trainers at provinces to rollout social audit at local levels.
- Provided orientation and initiated service for immunoglobulin against Rabies at 13 referral-level hospitals throughout the country
- Completed Mass Drug Administration (MDA) campaign with three drugs including a new drug-ivermectin in five districts (Morang, Kapilvastu, Dang, Banke, and Kailali). Completed the MDA campaign with two drugs in five districts (Jhapa, Bara, Lamjung, Parbat and Baglung)
- Testing for Malaria is being carried out in 255 vulnerable wards throughout the country
- Personal profile of 29,821 people in Bhaktapur Municipality and 38,500 people in Bardibas Municipality have been prepared through the mobilisation of community nurses
- The NSSD conducted a review programme with stakeholder organisations on the effectiveness of Bippanna Nagarik Aausadhi Upachar Karyakram
- The National Public Health Laboratory (NPHL) initiated Gene Sequencing Testing. HLA testing and associated flow cytometry service for human organ transplantation has been initiated
- The biopsy service has been initiated in Naryani Hospital, Birgunj and Dadeldhura hospitals
- The NPHL has initiated Polymerase Chain Reaction (PCR) service for Dengue and Chikungunya, Double marker triple marker testing service for Down's Syndrome
- The Ministry of Social Development (MoSD) of Madhesh Province approved their Health Sector GESI Strategy, 2078.

  Provincial governments have started to include homeopathy, Sowa Rigpa, Naturopathy and other alternative medicine in policies and programmes after the interaction programme with stakeholders at the provincial levels

Lessons and way forward

- Further efforts are required to institutionalise GESI responsive and sensitive planning and execution of health service delivery
- Enhancing the capacity of local governments to develop and implement free EOC referral has shown improvements in rational and timely referrals
  - Targeted interventions/ programmes should be developed to address the health care needs of the marginalised, underserved, and hard-to-reach population
  - local governments should be supported in health planning focusing on reaching the unreached and marginalised/vulnerable groups
  - Given the low coverage of PNC, tailored interventions such home visits in rural areas may need to be explored
  - Strengthen and scale up specific approach such as OCMCs and SSUs that addresses needs of the targeted and vulnerable population groups.
- Expedite the process for endorsement of GESI strategy and facilitate its roll out at the federal, provincial and local levels.
  - Establishment of GESI institutional mechanism and support to province and local levels for the roll-out of the GESI strategy

- Continue capacity enhancement of local governments to deliver of basic health services, basic emergency services and associated program activities
- Expand specialised and super-specialised medical and surgical services according to the evolving need
- Strengthen of Ayurveda services and health facilities at provincial and local levels
    - Expand the coverage of Ayurveda, Naturopathy, Homeopathy, Unani, Acupuncture, Sowa-Rigpa, Amchi and other traditional health care systems in a coordinated way
- Strengthen partnerships with non-governmental health institutions, cooperatives and private sector HFs to harmonise delivery of equitable and quality health services
- Strengthen compliance with health service protocols and monitor this through clinical audits or other periodic assessments. Develop mobile application for STP to help concerned health staff to facilitate adherence with the protocols.
- Strengthen monitoring of availability and quality of the BHS across the local levels to ensure smooth delivery of services as per the package.
- Establish service linkages between tertiary and primary level facilities through expansion of telemedicine services.
- Continue the extended services of tertiary hospitals through satellite clinics targeting marginalised, underserved and hard-to-reach populations
- Adopt the life course and continuum of care approach to streamline and ensure service coverage for new-borns, children and adolescents
- Enhance interventions for control, elimination and eradication of identified, emerging and re-emerging diseases including cross-border issues
- Enhance the capacity of public health facilities to widen service packages including Eye, ENT, Oral health services
- Develop a robust mechanism to identify and address factors behind the persisting inequities in health

3.4 Outcome 4: Strengthened Decentralised Planning and Budgeting

Background

FMoHP had taken a decentralised approach to health sector planning and budgeting even before federalisation, aiming to make systems more accountable to the public and responsive to their needs. The NHSS highlighted the need to focus on a decentralised approach to health sector planning and budgeting. There is a single output for this outcome:

- Strategic planning and institutional capacity strengthened at all levels

Federal government responsibilities are to: define national priorities; establish the necessary regulatory framework; monitor progress; and arrange necessary technical and financial resources. According to the constitutional provision, all three levels of government have a mandate to operationalise their policies and strategies and to develop an AWPB. The organisational structure of the FMoHP and health service delivery system was revised for the federal, provincial and local levels and staff adjustments have been completed accordingly. At the provincial level, the MoSD/MoHP, PLHMC, Provincial Public Health Laboratory (PPHL) and PHTCs have been established and are functional. A separate ministry has been established in four provinces (Province 1, Bagmati, Gandaki and Lumbini) to exclusively oversee and manage health sector functions.

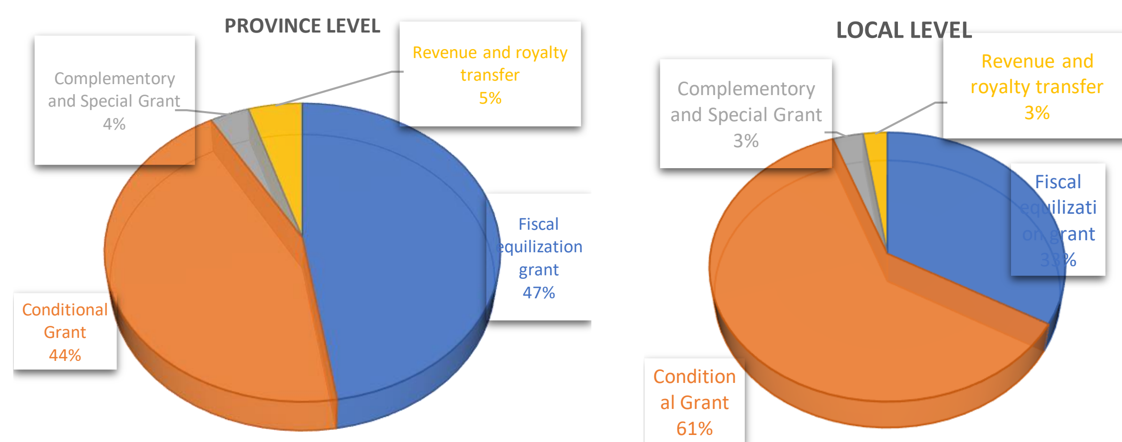
Funding for the health sector at the provincial and local level is mainly provided through conditional grants from the federal level. Respective governments have also been allocating additional budgets to address their specific needs. As per the Constitution, the federal government presents its AWPB by 15 Jestha (approx. end of May); 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). Besides, the increase in the budget for health infrastructure, there were no other major changes in the pattern of the programmatic budget for the local levels in 2021/22.

Major Progress

- New executive bodies and local assemblies have been formed following the second local government elections in May 2022,. Some of these local level governments have faced challenges in the timely deliver of annual plans and budgets for this fiscal year as the newly elected local assemblies was formed just before the start of the 2022/23planning and budgeting process.
- All local governments have been using the Sub-National Treasury Regulatory Application System (SuTRA) to prepare budget formulation, implementation, accounting and reporting; SuTRA has also facilitated the tracking of resource flows at the local level.
- FMoHP has provided programme implementation guidelines for activities funded by conditional grants to provinces and local levels; guidelines for current fiscal year were released at the start of the year (15th July 2022).
- An orientation programme was organised for newly elected local-level chiefs, deputy chiefs and health coordinators, covering on federalisation, investment in the health sector, and budget allocation and expenditure analysis.

- Different initiatives have been adopted by local levels to address context-specific issues, particularly focusing on community outreach. [case studies from the provinces are included as annexes].
- Conditional grants constitute the bulk of the fiscal transfers from the federal to sub-national levels, particularly at the local level: 61% of the grants are for programmes conditioned by the federal level. The two other major fiscal transfer components are revenue transfer and equalisation grants; these are unconditional, and make up 52% of provincial and 36% of local level revenue. Local levels thus have less flexibility than provinces in programme planning and implementation. The 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 Inter-governmental Fiscal Transfer for Provincial and Local Levels, FY 2022/23



Source: Red Book of FY 2022/23 and Economic Survey of 2020/21, Ministry of Finance (MoF), 2022.

- 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 for specific programmes and activities. 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 2022/23 is depicted in Table 3.4.1. For FY 2022/23, an average of NPR 398.9 million was provisioned per local level in the form of equalisation (NPR 133.1 million) and conditional grants (NPR 244.0 million)
- The volume of per-province grants from the federal level for FY 2022/23 was NPR 18,494.4 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 2022/23

Description	Financial equalisation	Conditional	Special Grant	Complementary Grant	Total (Amount in Million NPR)	
					Total	Average (per level)
Province	61,432	57,168	4,564	6,296	129,461	18,494
Local Level (total)	100,231	183,726	9,141	7,273	300,372	399
Metropolitan	3,396	6,558	153	206	10,313	1,719
Sub-metropolitan	3,767	6,189	231.6	235.5	10,423	948
Municipality	43,543	83,157	3,903	2,858	133,460	483
Rural municipality	49,535	87,823	4,854	3,974	146,185	318
Total	161,663	240,895	13,705	13,569	429,832	-

Source: Red Book, MoF, 2022.

- Table 3.4.2 presents the values of conditional grants provided from federal to provincial and local levels for health. The total conditional grants provided for provincial and local levels were NPR 6,266.8 million and NPR 27,444.3 million, respectively. This is an average of NPR 895.3 million per province and NPR 36.5 million per local level, for FY 2022/23. The conditional grant to provinces has decreased by 2.7% from FY 2021/22; for local levels it has increased by 6.8%. The grants to sub-metropolitan governments have increased by a higher percentage than for other LGs.

Table 3.4.2: Summary of the conditional grants in the health sector to provinces and local levels as provisioned by federal government, FY 2021/22 and 2022/23

Amount in million NPR

Description	Total grant 2021/22		Total grant 2022/23		% Change
	Total	Average (per level)	Total	Average (per level)	
Province	6,438.4	919.8	6,266.8	895.3	(2.7)
Local Level	25,708.1	34.1	27,444.3	36.5	6.8
Metropolitan	624.2	104.0	607.8	101.3	(2.6)
Sub-metropolitan	562.1	51.1	635.6	57.8	13.1
Municipality	10,987.8	39.8	11,896.5	43.1	8.3
Rural municipality	13,534.0	29.4	14,304.4	31.1	5.7
Total	32,146.5	-	33,711.1	-	4.9

Source: MoHP budget records.

- As in previous years, FMoHP developed implementation guidelines for provinces and local levels to facilitate the implementation of health programmes as provisioned through 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 at the provincial 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.

- A comparative scenario of federal grants (equalisation and conditional grants) to selected (2 LG covering all types of LG and Province) local levels for FY 2021/22 and FY 2022/23 is presented in Table 3.4.3; this shows that the flow of grants is not uniform across local levels. For example, Pokhara Metro, Modi and Kharpunath Rural Municipality are exceptional among the sites selected in receiving a reduced grant in FY 2022/23 compared to previous year. Among the selected sites, the highest percentage increase (11.2%) in the federal grant was observed for Birendranagar 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, performance and revenue-generating capacity, which are the two major components that define equalisation and conditional grants at local levels.

Table 3.4.3: General pattern of the federal grant to selected local levels

S.N	Municipality	Equalisation Grant			Conditional Grant			Total		
		2021/22	2022/23	Change in %	2021/22	2022/23	Change in %	2021/22	2022/23	Change in %
1	Itahari Sub Metropolitan, Sunsari	3,365	3,497	3.9	4,307	4,676	8.6	7,672	8,173	6.5
2	Sabha Pokhari Rural Municipality, Sankhuwasabha	954	1,012	6.1	1,209	1,245	3.0	2,163	2,257	4.3
3	Gaur Municipality, Rautahat	1,383	1,349	(2.5)	2,008	2,168	8.0	3,391	3,517	3.7
4	Janakpur Dham Sub-Metropolitan, Dhanusha	3,602	3,764	4.5	5,270	5,810	10.2	8,872	9,574	7.9
5	Hetauda Sub Metropolitian, Makawanpur	3,449	3,575	3.7	6,742	7,120	5.6	10,191	10,695	4.9
6	Shivapuri Rural Municipality, Nuwakot	919	981	6.7	2,195	2,192	(0.1)	3,114	3,173	1.9
7	Pokhara Metropolitian, Kaski	6,291	6,586	4.7	18,964	18,580	(2.0)	25,255	25,166	(0.4)
8	Modi Rural Municipality, Parbat	992	1,064	7.3	2,874	2,776	(3.4)	3,866	3,840	(0.7)
9	Butwal Sub-Metropolitan City, Rupandehi	3,333	3,480	4.4	4,083	4,523	10.8	7,416	8,003	7.9
10	Tribeni Rural Municipality, Rolpa	1,008	1,074	6.5	2,158	2,203	2.1	3,166	3,277	3.5
11	Birendra Nagar Municipality, Surkhet	2,520	2,657	5.4	4,787	5,465	14.2	7,307	8,122	11.2
12	Kharpunath Rural Municipality, Humla	699	732	4.7	1,754	1,646	(6.2)	2,453	2,378	(3.1)
13	Aalital Rural Municipality, Dadeldhura	880	945	7.4	2,003	1,983	(1.0)	2,883	2,928	1.6
14	Dhangadhi Sub-metro, Dhangadi	3,148	3,280	4.2	5,398	5,818	7.8	8,546	9,098	6.5

Source: MoHP budget records

- With a broader objective of enhancing the capacity of the local levels in delivering the mandated functions, Ministry of Federal Affairs and General Administration 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. As per the LISA, aggregate capacity score of the local levels has increased from 51.9 in 2020/21 to 59.1 in 2021/22 out of total optimum score of 100.

- Various capacity-building events to strengthen decentralised planning were organised as follows.
  - Workshop on result based AWPB at sub-national level supported by the NHSSP
  - Orientation programme on Mid-Term Expenditure Framework and periodic plan formulation at the local level
  - Capacity building of sub-national staff on developing Annual Action Plan
  - Sensitisation workshops on strengthening the health sector for newly elected Chief/Deputy Chief and health section chiefs at the local level
  - Health programmes specific various trainings and orientations

Lessons and way forward

- Empowerment and engagement of the local governments and other bodies are critical in health programme planning and execution in the federalised context.
  - The capacity of locally elected representatives should be enhanced further to ensure the prioritisation of health service delivery
  - Health Facility Operation and Management Committees should be strengthened to improve health infrastructure, governance, accountability and effective management of health service delivery at the local level health institutions
  - Local governments should be supported to institutionalise an evidence based AWPB process involving wide stakeholders at the local level
  - Governments at all levels should increase their capacity to collect, analyse, and use of data (including from HMIS, LMIS, PAMS, HIIS) for effective planning and budgeting
- Some local levels have initiated organisational and management surveys to reform their organisational structures while additional staff are also hired on a contract basis. Although the staff adjustment has been completed, there are still higher or lower levels of posting of staff in comparison to the sanctioned post affecting the service delivery
  - In such a context, federal government may need to set standards and benchmarks to harmonise staffing patterns and address the different needs across local levels
- Challenges remain in monitoring programme implementation status at local level to enhance the quality-of-service delivery and improve budget absorption
- Budgetary allocations should be prioritised for expansion of SSUs, One-Stop Crisis Management Centres (OCMCs), geriatric, disability services, leprosy control programme and mental health-related programmes
- The services and benefits available in the basic health service package, health insurance and other free health care programmes (SSUs, Deprived Citizens Fund, Aama Programme, Emergency Free Care, Geriatric, Disability Health Care, etc.) should be harmonised
- SuTRA has been used as a platform for the planning, budgeting and accounting of expenditures,
  - effective linkages of SuTRA should be developed with the FMoHP and provincial governments to better connect planning and budgeting across the three levels of government

- The establishment of the BHS Centres in all wards is yet to be completed. The rationale allocation of the budget for staff remains to be a challenge in the absence of a robust HR database
- Ensuring continuous availability of the drugs and supplies remains a challenge
    - Alignment of supplies from the provincial level with procurement at the local level.
- The policy, strategy, guidelines and provisions on disability management, geriatric, GBV, mental health and support for the poor and marginalised have been introduced. However, the implementation is slow and insignificant which is hindering access of target populations to the essential health services
- Monitoring of disabilities and birth defects remains a challenge as related information is not captured by the HMIS.

5 Outcome 5: Improved Sector Management and Governance

Background

During the NHSS period, the FMoHP aspired to further improve health aid effectiveness by adopting the principles and priorities of Nepal's Development Cooperation Policy 2014. GoN developed a new International Development Cooperation Policy in 2019 guiding the mobilisation of foreign assistance to Nepal. The FMoHP has emphasised strengthening of SWAp arrangements by creating a conducive environment to maximise the flow of external financial support through government systems and improving alignment of technical assistance with government priorities. The following outputs were adopted to achieve this outcome:

- MoHP structure is responsive to health sector needs
- Improved governance and accountability
- Development cooperation and effectiveness improved
- Multi-sectoral coordination mechanisms strengthened
- Improved public financial management

Major Progress

Policies, Acts, Guidelines and Structure

- FMoHP has drafted the Nepal Health Sector Strategic Plan (2022-2030) as an operational plan of the National Health Policy 2019; it will be the instrument of the SWAp for the next phase. The NHS-SP is awaiting endorsement by the Cabinet.
- The Geriatric Health Service Strategy, Geriatric Health Service Operational Guideline and Geriatric Health Service Protocol have been approved
- Digitisation of OCMC, SSU, and geriatric service recording and reporting tools in DHIS2 platform has been completed. Most hospitals are now recording and reporting in this integrated platform.
- Regular meetings of the Multisectoral Medico-Legal Service Implementation Committee were conducted under the chair of the Quality Control and Regulations Division Chief, FMoHP as per the Medico-Legal Service Guidelines, 2075 (2019). Medico-legal training was conducted in all provinces. A total of 137 medical officers were trained to improve skills needed for reporting and examination of GBV cases, especially for rape survivors.
- The GESI strategy of Madhesh province was developed and approved by the provincial government and several activities in the strategy were included in the AWPB for implementation.
- The National Ambulance Guideline 2021 has been developed and endorsed to facilitate effective and timely referral of complicated cases. The guideline aims to strengthen pre-hospital care services and defines different categories of ambulance services
- Maternal and Perinatal Death Surveillance and Response (MPDSR) programme implementation guideline 2078 has been approved
- Developed guideline for the integration of Typhoid vaccine in routine immunisation programme and vaccination campaigns
- The Safe Abortion Service Implementation Guideline 2078 has been approved
- The implementation guideline for the maternal and neonatal health security programme 2078 has been approved

- National standards for WASH, 2078 have been approved and are being implemented. These standards set criteria for different types of healthcare facilities to improve the current situation of WASH and reduce WASH-related infections
- The five years strategic action plan on Tuberculosis 2078/79-2082/83 has been approved
- The National HIV Strategic Plan, 2021-2026, and National HIV Testing and Treatment Guidelines, 2022 have been finalised
- The prevention, treatment and management guideline for scrub typhus has been approved
- The Community Health Programme Guideline 2078 has been approved
- National Essential In-Vitro Diagnostic List has been developed
- The National strategy for blood transfusion service has been prepared
- The NSSD has developed the implementation guideline 2078/79 to provide reimbursement to hospitals providing treatment services to the people injured during the conflict, public movement, Madhesh Aandolan, victims of conflict and earthquakes.
- The major policy/strategic initiatives, among others, taken during the implementation timeframe of the NHSS period are included in the box below.

Box 1: Highlights of policy, regulatory and strategic documents developed during the NHSS period

- Immunisation Act, 2016
- National Strategy on Reaching the Unreached (2015-2030), 2015
- National eHealth strategy, 2017
- Health Insurance Act, 2017
- Disability Management (Prevention, Treatment and Rehabilitation) Policy, Strategy and 10 Years Action Plan (2017-2026), 2017
- The Right to Safe Motherhood and Reproductive Health Act, 2018
- Disaster Risk Reduction National Strategic Plan of Action, 2018
- Social and Behaviour Change Communication (SBCC) Strategy, 2018
- Public Health Service Act, 2018
- National Health Policy, 2019
- National SMNH Roadmap 2030, 2019
- Public Health Service Regulation, 2020
- National Adolescent Health and Development Strategy 2030, 2020
- Nepal Human Resource for Health Strategy 2020/21
- National Health Financing Strategy (draft)
- Universal Health Coverage: Strategic Framework, 2021 (draft)
- National Ambulance Guideline, 2021
- National HIV Strategic Plan (2021-2026), 2021
- Geriatric Health Service Strategy, 2021
- National Roadmap for Zero Leprosy Nepal (2021-2030), 2021
- National Nursing and Midwifery Strategy, 2022
- National Health Care Quality Assurance Framework 2022
- National Strategic Plan to End Tuberculosis in Nepal (2021/22-2025/26), 2022
- Integrated Health Information Management System Roadmap, 2022

- Highlights of progress in the drug management and regulation include:
  - Release of the sixth edition of the National List of Essential medicines, 2021; development of a national life-saving emergency drug list and orphan drug list
  - The DDA is revising the national medicines policy, developing guidelines for good distribution and storage practices, and revising the drugs act.
  - The DDA is developing a protocol for risk-based post marketing surveillance, and developing guideline on Good Manufacturing Practice inspection
  - Conducted Strengths, Weakness, Opportunities and Threats (SWOT) analysis of the DDA using the World Health Organisation (WHO) global benchmarking tool, and conducted regulatory gap analysis

- Initiated the process for the price adjustment, and developed a draft guideline for price regulation
- Assessment/inspection of 88 national and 63 international pharmaceutical companies carried out to ensure good manufacturing practices
- Conducted Good Laboratory Practice monitoring of the laboratories of 32 pharmaceutical companies
- Inspected 3663 pharmacies in FY 2021/22 to assess and ensure rational distribution of medicines. Filed 64 cases, suspended 261 pharmacies and punished 5 pharmaceutical companies during the FY 2021/22
- Initiated the process for implementing a quality management system targeting ISO 9001:2015 certification

Disbursement-linked indicator (DLI) achievement during the NHSS period

Progress status on the DLI during the NHSS period is presented in the table below.

		Status Achieved/ Not Achieved					
DLI #	**DLI Indicators**	**Year I**	**Year II**	**Year III**	**Year IV**	**Year V**	**Year VI**
DLI 1	Percentage of contracts managed by the MD through the PPMO's online procurement portal	Achieved	Partial Achievement	Achieved	Achieved	Achieved	Achieved
DLI 2	Establishment and functioning of web-based grievance redressal mechanism	N/A	Achieved	Achieved	Achieved	Achieved	In Process
DLI 3	Percentage of procurements done by Management Division (MD) using standard specifications	Achieved	Partial Achievement	Achieved	Achieved	Achieved	Achieved
DLI 4	Central medical stores and medical stores of Provinces report through eLMIS	N/A	Achieved	Achieved	Achieved	Achieved	Achieved
DLI 5	Percentage reduction of less than minimum stocks (understock) of tracer health commodities in sub-provincial medical stores	N/A	N/A	N/A	Achieved	Achieved	Not Achieved
DLI 6	Percentage improvement in EVM Score over 2014 baseline.	N/A	Achieved	N/A	N/A	Achieved	N/A
DLI 7	Percentage of the FMoHP spending entities submitting annual plan and budget using eAWPB	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved
DLI 8	Percentage of the FMoHP's annual spending captured by the TABUCS.	Achieved	Achieved	Achieved	Achieved	Achieved	Achieved
DLI 9	Percentage of audited spending units responding to the OAG's primary audit queries within 35 days.	Achieved	Achieved	Achieved	Achieved	Achieved	In Process
DLI 10	Health facilities reporting annual disaggregated data using District Health Information System (DHIS2) in a timely manner.	Achieved	Achieved	Achieved	Achieved	Achieved	In Process
DLI 11	MoHP to provide guidance and support to the subnational governments on citizen engagement mechanism	N/A	Not Achieved	Achieved	Partially Achieved	Achieved	In Process
DLI 12	Equity in Essential Health Service Utilization	Achieved	Partial Achievement	Partially Achieved	Partially Achieved	Not Done	Not Done

Public Financial Management

- The Internal Control System Guideline for FMoHP was endorsed by the ministry in September 2021 and is being implemented
- The Internal Control System Guidelines have been developed for DoHS as the Financial Procedures and Fiscal Accountability Act, 2076 (2019) and Regulation and it is in the endorsement process
- Provincial Financial Management Improvement Plan has been developed for Madhesh, Lumbini and Sudurpaschim provinces and have been endorsed
- The internal audit and final audit of FY 2077/78 (2020/21) have been completed under FMoHP entities by the Financial Comptroller General Office (FCGO)/ District Treasury Comptroller Office (DTCO) and Office of the Auditor General (OAG) respectively. The audit annual report was presented by the Auditor General of Nepal to the President on 13 July 2022 including the FMoHP audit too. Audit queries against the audited amount decreased (3.35%) in FY 2020/21 audit, while it was 7.01% in the previous FY (2019/20) audit. 87.5% of Sus responded to the preliminary OAG audit report as required within 35 days.
- The PIP has been updated as the Public Procurement Strategic Framework, which has been endorsed.
- Audited financial statements: The audited financial statements of FY 2020/21 have been submitted to the OAG; the audit report was certified by the OAG on 29th July 2022 which was also shared with the HDPs.
- Various capacity enhancement events and orientations were conducted at the federal and subnational levels to facilitate efficient procurement at the subnational level. Among them, orientation on APP was conducted in Lumbini, Sudurpashchim and Madhesh provinces. Training on e-GPS with technical support of PPMO were conducted in Lumbini, Sudurpashchim and Madhesh provinces
- 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

- MoHP has prepared the draft organisational structure of different levels of health facilities which have been shared as the recommended structure in the present context
- First meeting of the Public Health Committee as formed as per the provision of Public Health Service Act in 2022 in which draft NHS-SP was discussed highlighting the importance of multi-sectoral coordination in addressing the health issues
- Establishing a strong governance platform for SSUs is critical for their success. In each hospital, SSU Functionality Committee chaired by Medical Superintendent has been established.
- The Population Management Division organised programmes on various aspects of GESI and GBV at federal and provincial levels. Some of these include – orientation of strategy related to ending sex-selective abortion, high-level meeting with inter-ministerial partners and stakeholders on GBV management, the orientation of GESI programme and activities including related strategies, policies, guidelines and concepts to mainstream print and audio-visual media, the orientation of GESI programmes to all HDPs, civil society and government organisations at Madhesh province.

Likewise, several rounds of meetings were held to raise awareness of GESI and LNOB among health policy makers and influencers including Minister, Secretary, DGs, and Divisions/Centres Directors at FMoHP and DoHS.

- The MD has updated the inventory of medical equipment of more than 54 public hospitals throughout the country

Lessons and way forward

- Local level institutional capacity is still insufficient to manage complex health sector functions particularly developing context-specific policies and plans, and steering health programmes in coordination with different levels of government and stakeholders
    - There should be a comprehensive review of the organisational structure of the management entities and health facilities to enhance organisational and management competency of health institutions at all levels
    - 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
- Full implementation of the PFM strategic framework and internal control system guidelines is needed for the overall improvement of financial management
    - Strengthen public financial management systems and link these to the National Health Financing Strategy
    - Coordinate with National Natural Resources and Fiscal Commission, MoF, and respective ministries to ensure financial accountability and regular health expenditure reporting.
- Use of the Line Ministry Budget Information System (LMBIS) and Computerised Government Accounting System (CGAS) are now mandatory in government service units, though TABUCS is still being used for recording audit queries and management of revenues and hospital accounting
    - Enhance institutional capacity for implementation of LMBIS, CGAS, eGP system; prepare Financial Monitoring Reports as required by FMoHP.
- Prioritise other digital platforms such as electronic medical recording to facilitate financial management and reporting
- Provincial health entities find it difficult to clear the audit queries which were previously directed to the federal level
- Social accountability mechanisms such as social audits, public hearings, and community scoreboards should be strengthened to improve health service delivery accountability
    - Continue mechanisms for a public interface such as exit interviews, citizen charter, grievance handling to provide user feedback for improvement in services
    - Organise sensitisation forums, policy dialogues and peer learning events on strengthening local health governance and multi-sectoral coordination
- Coordination and collaboration among ministries and different tiers of government (federal, provincial and local levels) should continue to address the health sector issues requiring multi-sectoral efforts
- There continues to be poor adherence to treatment protocols and standards
- Robust mechanisms should be developed to address the problem of anti-microbial resistance

- A cross-border mechanism is needed to prevent and control illegal trade/transport of medicines, medical products and diagnostics
- Preparedness measures and strategies for response management should be institutionalised drawing lessons from the management of health emergencies, most notably COVID-19.
- Promote harmonisation of foreign aid to the health sector through renewal of joint financial arrangements
- Strengthening the capacity for regulation and quality assurance of health services, medicines, equipment and diagnostics at public and private health institutions
- Establish mechanism or standards for pricing of health services of different level for their monitoring and regulation
- Reinforce ethical practices and rational use of medicines, diagnostics and services by promoting behaviour change communication and other practical approaches
- Minimise the external reliance on the pharmaceutical sector by creating the right incentives for the production of quality medicines and medical supplies in-country.
- There are challenges in maintaining gains made in GESI in the health sector at the federal, provincial, and local levels. Provision of "one-door" service for GBV survivors as enshrined by the OCMC guidelines and the long-term rehabilitation of GBV survivors are still challenging
    - All levels of government should implement GRB and LNOB Budget Marker Guidelines
    - Promote the use of disaggregated data (from GESI and social inclusion perspective) and evidence during planning, programming, and monitoring at each level
    - Establish and strengthen institutional mechanisms at the provincial level to mainstream the GESI agenda in policy and programme formulation.
    - Conduct studies on the status of disability-inclusive health services in Nepal and roll out of Disability Inclusive Health Service National Guidelines across all level hospitals

3.6 Outcome 6: Improved Sustainability of Healthcare Financing

Background

The NHSS focused on increasing investments in the health sector, improving the mobilisation of existing resources, and better pooling resources and risks. The major issue for sustainable financing in Nepal is a low level of public financing in the health sector resulting in a high level of OOP spending for the utilisation of health services. As Nepal is graduating from the least developed country status, it may impact the availability of grants for the social sector including health. Securing adequate funds for the health sector can be more challenging in this context. To achieve this outcome, the following two outputs were adopted:

- Health financing system strengthened, and
- Social health protection mechanisms strengthened

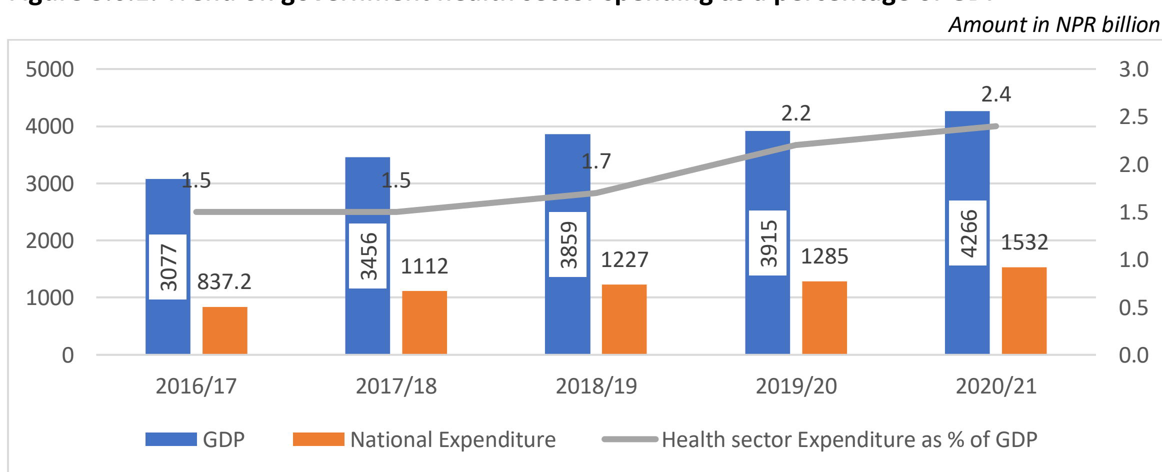
Major interventions proposed under this outcome, particularly include developing and introducing a resource allocation formula, enhancing the FMoHP's capacity on performance-based resource allocation, enhancing capacity for the institutionalisation of the National Health Accounts and the harmonisation 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 2.4%. There is a 0.7 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 FMoHP, other line ministries, and the health budget from provincial and local governments.

Figure 3.6.1: Trend on government health sector spending as a percentage of GDP

Amount in NPR billion

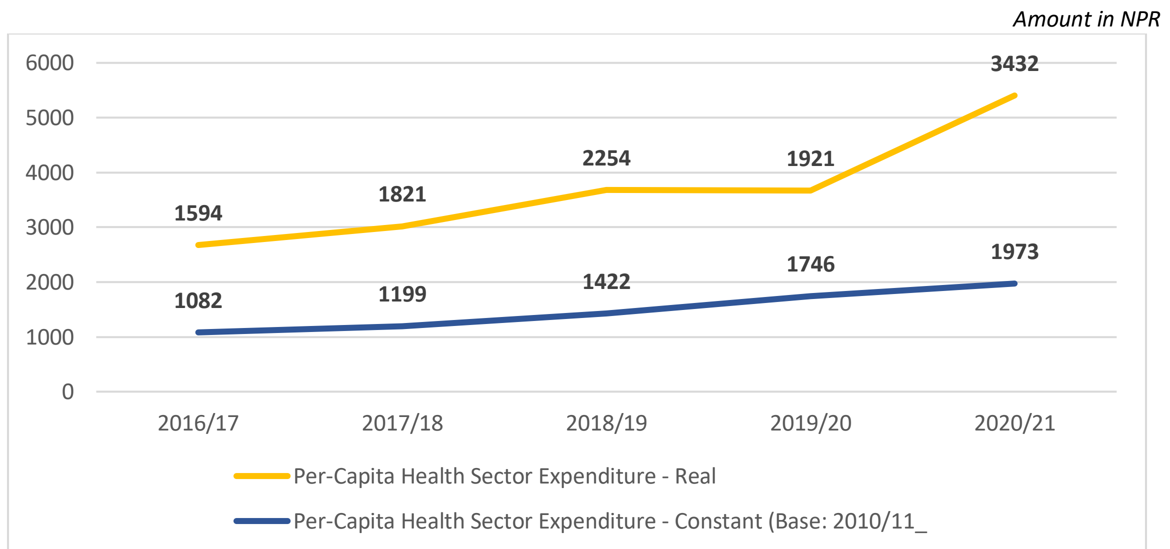


Source: Health Sector Budget Analysis: First Five Years of Federalism, 2022.

- The Chatham House report of 2014 recommended that countries should strive to spend 5% of their GDP for progressing toward 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 1,594 to NPR 3,432 in real terms. However, during the same period, government spending on health increased at slow pace from NPR 1082 to NPR 1973, 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

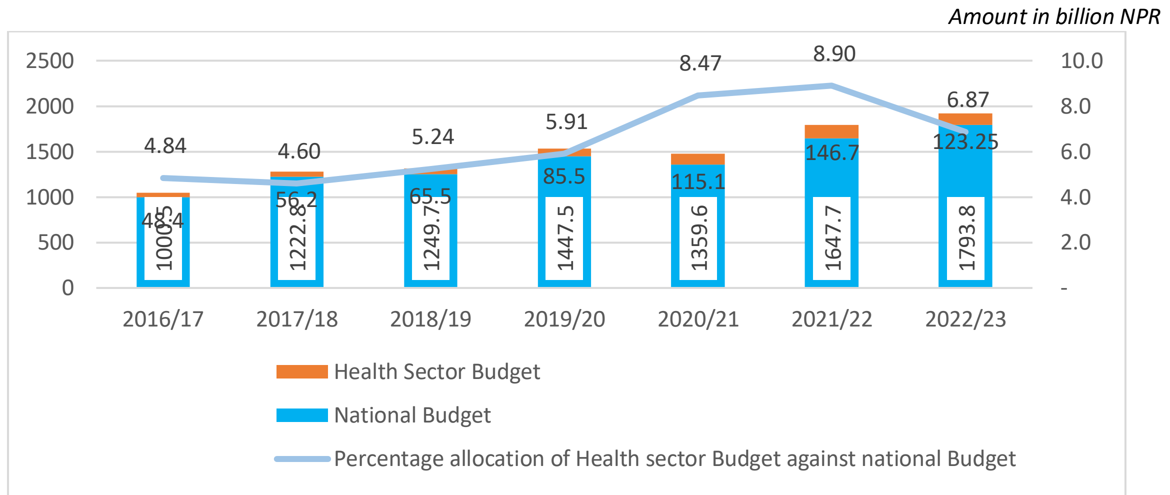
Amount in NPR



Source: Health Sector Budget Analysis: First Five Years of Federalism, 2022

- 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 a fluctuating over the years. Compared to FY 2021/22, there is a 2% decrease in the health sector budget in FY 2022/23. The NHSS sets the target of allocating almost 9% of the national budget to the health sector. This implies that this year's health sector allocation has achieved the NHSS target in FY 2021/22. In FY 2022/23, NPR 17.4 billion has been allocated to LG and NPR 6.3 billion to the PGs in the form of a conditional grant for health, NPR 69.3 billion remains with FMoHP, and the rest is allocated to other line ministries. Besides the federal allocation, PGs and LGs have made an additional allocation in health from different revenue resources. Thus, the actual health budget as a percentage of the national budget can be anticipated to rise.

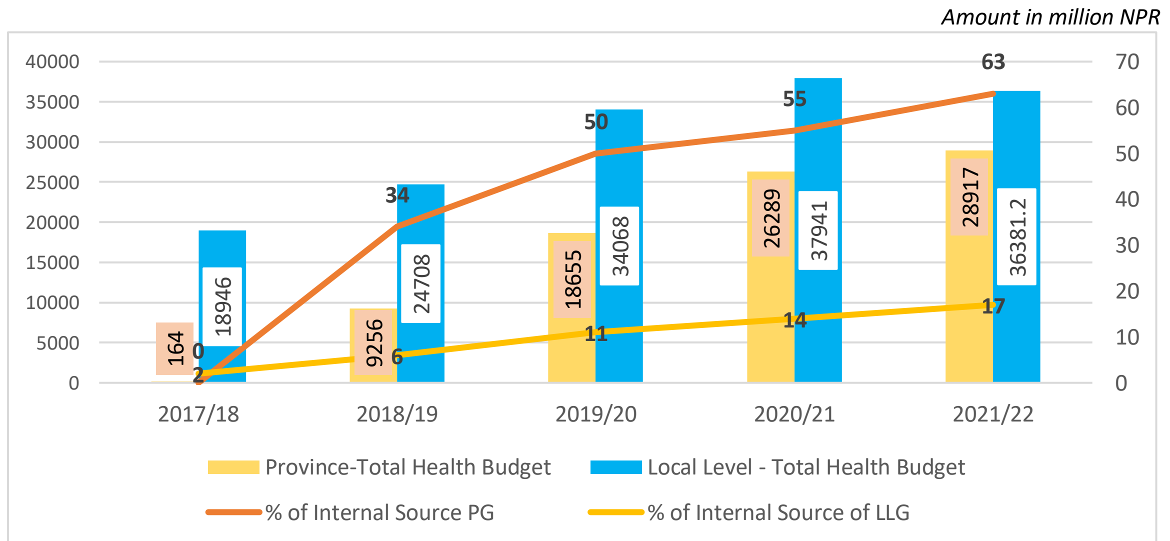
Figure 3.6.3: Health sector budget as a percentage of the national budget



Source: Red Book, MOF (exclusive of allocation from internal resources by province and local levels)

- The OOP expenditure remains to be a dominant component in health care financing (with its share ranging between 55 to 60 percent in the latest years) despite the implementation of various programmes aiming to reduce it. It demands further strengthening of the social health protection mechanisms in the country to accelerate the pace toward SDG.
- Figure 3.6.4 shows health budget allocation at the provincial and local levels by an internal source. Over the years, the share of internal sources in PGs health budget allocation has increased, from 34% in FY 2018/19 to 63% in FY 2021/22. The share of internal sources in health budget allocation has increased from 12% in FY 2017/18 to 17% in FY 2021/22 at the local level.

Figure 3.6.4: Health budget at province and local level in reference to internal source



Source: Health Sector Budget Analysis: First Five Years of Federalism, 2022.

- The FMoHP has prepared a comprehensive National Health Financing Strategy for the effective mobilisation of adequate funds in the health sector which is being endorsed
- The health insurance programme was expanded to the remaining two districts. The health insurance programme is now operational in all 77 districts of Nepal with exception of few local levels
- By the end of FY 2021/22, a total of 5.9 million people (20.44% of the total population have been enrolled in the health insurance scheme. Table 3.6.1 presents population coverage in health insurance scheme by Province.

Table 3.6.1. Coverage of health insurance scheme by province

Provinces	Total population[9]	No. of enrolees	Coverage (%)	No. of enrolees receiving service	% of enrolees receiving service
Province 1	4972021	1915448	38.52	846957	44.21
Madhesh	6126288	408195	6.66	100463	24.61
Bagmati	6084042	1189422	19.54	559350	47.02
Gandaki	2479745	745172	30.05	311927	41.85
Lumbini	5124225	901767	17.59	348263	38.62
Karnali	1694889	335725	19.80	125170	37.28
Sudurpaschim	2711270	472325	17.42	134536	28.48
Total	29192480	5968054	20.44	2426666	40.66

Source: Health Insurance Board, Teku, Kathmandu

- The health insurance board developed a number of guidelines in FY 2021/22:
  - Guideline for inclusion of sever diseases under *Bipanna Nagarik Karyakram* with health insurance programme in 2078 BS (Revised 2079 BS)
  - Guideline for declaration of the model local level for health insurance, 2078 BS
  - Claim review and evaluation guideline, 2078 BS
  - Guideline for listing service provider institutions, 2078 BS
  - Guideline for operation and management of the health insurance fund, 2078 BS (Revised 2079 BS)
  - Guideline for formation and operation of health coordination committees at the provincial and local levels, 2078 BS
  - Guideline for inclusion of the families of foreign employees in health insurance, 2078 BS
- Integrated the health insurance programme with the 'Nagarik App' of the government of Nepal which enables enrolees to monitor their remaining monetary balance
- Developed and operationalised a mobile app for the clients to provide information on health insurance. Developed and operationalised online software for online renewal of health insurance programme
- Initiated the process of integration of *Bipanna Nagarik Karyakram* with the health insurance management information system
- Altogether 34 new health institutions were listed as the service provider for the health insurance programme in 2021/22

[9] National Planning Commission. Preliminary Report of National Population Census 2021.

- Endorsement of the temporary organisational structure of the Health Insurance Board in 2022
- The health insurance board carried out a number of training and orientations as follows:
    - Integrated Management Information System (IMIS) training for service providers (11 batches, 254 persons)
    - Basic training for registration assistants (10 batches, 158 persons)
    - Induction training for registration officers (2 batches, 72 persons)
    - Orientation to locally elected bodies and other stakeholders (10 batches, 350 persons)
    - Guidelines for inclusion of prisoners in the health insurance programme, 2079

Lessons and way forward

- The health sector budget is still inadequate in comparison to the global benchmark.
    - Greater reliance on public investment and other funding sources will be essential to accelerate progress towards achieving universal health coverage
    - National Health Financing Strategy should be implemented to increase domestic financing, and strengthen prepayment systems for healthcare
    - Budget allocations for health should be increased at all levels using domestic financing and by the provision of health taxation to reduce the consumption of products harmful to public health such as tobacco, alcohol, and sugary drinks.
    - The absorptive capacity of the health system should be enhanced to ensure effective, efficient and timely execution of available funds
    - Maintain health sector expenditure tracking through budget analysis, public expenditure tracking and national health accounts (NHA)
    - collaboration and partnerships with development partners should be strengthened to improve the effectiveness of development assistance to the health sector based on the International Development Cooperation Policy, 2019.
- A fragmented approach to the management of various social health protection schemes (including free health care programmes, free delivery, health insurance) remains a challenge as identified in the draft national health financing strategy
    - Pro-poor health financing mechanisms that focus on financial protection should be implemented for those near and below the poverty line both in rural and urban areas
    - There is further a need to harmonise and streamline existing health protection schemes to improve the financial protection of the citizens by pooling resources.
    - Further effort should be made to bring very poor families under the umbrella of the health insurance programme.
    - Consult with stakeholders to accelerate identification of the poor for their enrolment in the health insurance scheme
- The renewal rate for health insurance programme is still low indicating low level of satisfaction
    - the existing health insurance service package and contribution rate should be reviewed and revised based on the most recent evidence
    - a mechanism should be developed to ensure universal enrolment of citizens (including people resident in Kathmandu) in health insurance as set out by the prevailing laws
    - Establish a permanent organisational structure (organogram) for the health insurance board to deliver effective management of the health insurance programme

- Consider establishing a third-party agreement for claim review and evaluation for health insurance to accelerate the review process in a transparent manner
- Initiate collaboration with the education sector to include contents on health insurance in school-level curriculum to increase coverage, renewal rate in health insurance

The inadequate availability of medicines in hospital pharmacies is creating challenges in delivering health services through the health insurance programme

- Strengthen and apply more transparent and systematic mechanism for the pricing of drugs and medicines, medical products and diagnosis, and regulate and promote the prescription and use of generic drugs to reduce prices
- Monitor the price of health services provided by the public and private sectors and the level of healthcare for price regulation measures linking with the treatment protocols

3.7 Outcome 7: Improved Healthy Lifestyles and Environment

Background

Human health is influenced by a range of factors beyond health such as education, income, employment, housing, social security, macroeconomic situation and environmental factors. Creating a healthy environment and living a healthy lifestyle are central to the improvement of the overall health status of the population. NHSS focused on strengthening innovative approaches for behaviour change targeting specific behaviours including smoking, alcohol consumption, and health-seeking behaviours. These approaches were adopted especially to address increasing rates of NCDs, mental and sexual health problems. The Public Health Service Act 2018 and the Public Health Regulation 2020 highlighted the need for multi-sectoral collaboration to address socio-cultural and other determinants[10,11] affecting human health.

Major Progress

- The NHEICC started the following initiatives in FY 2021/22
  - Developed the Health Promotions Strategy 2022-2030 (to be endorsed) and the Advocacy package for *Sabridha Nepal, Swastha Nepali*
  - Developed a Communication Strategy on Tobacco Control (to be endorsed)
  - launched the SAFER initiative which includes: strengthening restrictions on alcohol availability; advancing and enforcing drink driving counter measures; enforcing bans or comprehensive restrictions on alcohol advertising, sponsorship, and promotion; and raising prices on alcohol through excise taxes and pricing policies;
  - Digital health for health promotion
  - Addition of Nicotine Replacement Therapy (NRT) to the essential drug list
  - The WHO purchased NRT by WHO in collaboration with NHEICC
- NHEICC conducted the following training and capacity development activities:
  - SBCC activities conducted up to the community level
  - Capacity building on FP, safe motherhood and neonatal health for local leaders and stakeholders
  - Orientation programme to stakeholders, including journalists, on COVID-19 vaccine promotion, and prevention and control of COVID-19
  - Interaction with journalists on the effect of tobacco use and its control
  - Training of Trainer workshop on brief tobacco interventions in Nepal
  - Orientation on Risk Communication and Community Engagement and health reporting to journalists in all seven provinces
  - Advocacy meetings with the local bodies/media personnel/ stakeholders and launching of tobacco control campaign in each municipality
  - Obtaining commitment from the local bodies to control and prevent tobacco use
  - Community mobilisation interventions for NCD prevention and control through Communication for Behavioural Impact (COMBI) training
  - Interaction programme with marginalised groups on health promotion

---
[10] Public Health Service Act 2018, Government of Nepal
[11] Public Health Service Regulations 2022, Government of Nepal

- Publication of the module for Ayurveda and Yog Education at School programme
- Preparation of a final draft of the Good Agricultural and Cultivation Practice (GACP) has been
- A healthy lifestyle management programme under *Nagarik Aarogya Karyakram* (Citizen Wellbeing Programme) to 380 Ayurveda health institutions and 298 citizen wellbeing centres
- Open Yoga and Gym centres have been established in the headquarters of all seven provinces
- Public awareness activities were conducted to reduce the modifiable risk factors of NCD through lifestyle and behavioural change under *Nagarik Aarogya Karyakram* and *Nagarik Aarogya* Committee and groups were formed up to ward levels

Lessons and way forward

- An integrated and multi-sectoral approach to health promotion and IEC activities is effective for behaviour change
    - Social and behaviour change and communication interventions should be scaled up to promote healthier lifestyles, self-care and timely care seeking
    - Multi-sectoral coordination mechanisms should be established to address lifestyle and environment issues and other determinants of health
    - Cross-sectoral policies should be reviewed and wider determinants of health addressed in all such policies
    - Steps should be taken to institutionalize 'one health' and 'health in all policies' through 'whole of government' and 'whole of society' approaches
    - Scale-up of health promotion interventions should be accelerated, in health facilities, schools, workplaces, and other settings
    - Coordinate with stakeholders to designate adequate public spaces (such as parks, jogging areas, cycling lanes, open fitness centres, community yoga centres) to promote healthy recreational activities
    - Accelerate implementation of health-promoting initiatives such as healthy municipality, healthy tole, health-promoting schools, and healthy workplaces to promote health and well-being of citizens
    - Strengthen marketing regulations for unhealthy (high trans-fat, sugar, salt and processed) food and other products such as alcohol and tobacco
    - Establish a behavioural risk factor surveillance system to generate evidence on health risk behaviours and preventive health practices
- Environmental, occupational and structural factors impact on public health
    - The public health impacts of climate change should be addressed by implementation of relevant standards and development/implementation of an adaptation plan
    - develop a mechanism to assess and address the public health impact of development projects as provisioned in the public health service act.
    - Strengthen regulation of insecticide and pesticide use to minimize public health risks in collaboration with relevant stakeholders
- Mechanisms to mainstream GESI across the sector should be strengthened, including prevention of and responses to GBV

- Strengthening coordination with stakeholders to implement measures for health-friendly infrastructures and transport management systems to promote mitigation measures for the prevention of road traffic accidents and injuries

3.8 Outcome 8: Strengthened Management of Public Health Emergencies

Background

Nepal faces recurrent natural disasters and disease epidemics, and the management of public health emergencies has been a priority for the health sector. Learning from the 2015 earthquake, the NHSS prioritised the revision of protocols and guidelines for improved health sector response at the central and decentralised levels. Implementation of the NHSS began in the aftermath of the 2015 earthquake and the disruption in affected areas affected the implementation. To achieve this outcome, the following two outputs were adopted:

- public health emergencies and disaster preparedness improved
- strengthened response to public health emergencies.

Major Progress

- The vaccination campaign against COVID-19 was accelerated in FY 2021/22. The GoN has nearly achieved the target of vaccinating all target populations against COVID-19. As of September 2022, 99.5% of the target population above 12 years (23,208,483) have received the first dose of the COVID-19 vaccine, and 95.7% (22,324,933) have received the full dose[12]
- Conducted review workshops at all seven provinces and at the federal level for the development of the International Health Regulation (IHR) 2005, State Party Annual Report
- Achieved 64% COVID-19 screening and 21% antigen testing at point of entry health desks
- The FMoHP, in coordination with other line ministries, provincial and local governments, development partners, and the private sector, continued to strengthen the health system functions in response to the COVID-19 pandemic
- Purchased thermal scanners for two international airports (Bhairahawa and Pokhara)
- Equipment for COVID-19 management was exempted from customs duty to encourage in-country capacity for the effective management of COVID-19
- Completed training on Surveillance Outbreak Response Management and Analysis System (SORMAS) under CORESMA (COVID-19 Outbreak Response Combining E-health, Serolomics, Modelling, Artificial Intelligence and Implementation Research) work package in Gandaki and Sudurpaschim Provinces
- Daily monitoring, reporting and dissemination of COVID-19 status was continued by the federal HEOC (www.heoc.gov.np)
- Conducted cholera vaccination campaign in all ten palikas of Kaplivastu district and Rupani rural municipality of Saptari district
- Escalation of the preparedness measures against the monkeypox and dengue diseases in consideration to global and national context
- Prepared a comprehensive report on the Early Warning and Reporting System (EWARS for 2021.

[12] Ministry of Health and Population website (www.mohp.gov.np)

Lessons and way forward

- Health structures and systems should be transformed to provide timely responses to emergencies, and to meet increased health care needs through continuation of essential health services
    - Develop, test and update federal and provincial all-hazard risk-informed health emergency plans, including health security, pandemic preparedness, emerging and re-emerging public health threats
    - Update and strengthen hospital emergency preparedness and response plans with appropriate links to hospital safety, pre-hospital care and post-hospital care
    - Strengthen the capacity of HEOCs as entry points for preparedness and response management
    - Strengthen integrated surveillance systems for prediction, early detection, verification and notification of diseases and potential threats to public health
    - Accelerate Risk Communication and Community Engagement interventions during emergencies at all levels
    - Ensure surge services and ensure continuity of essential and priority health services during emergencies in coordination with respective clusters
    - Strengthen the public health laboratory network with biosafety and biosecurity provisions and a quality assurance system
    - Develop a strategy for the establishment of a dedicated emergency fund at the federal, provincial, and local levels to enable timely response during health emergency
    - Develop security policy for those healthcare workers who will be involved in health emergency and disaster management
- Challenges remain to align and harmonise roles and responsibilities of different authorities for the management of emergencies
    - Develop stronger multi-sectoral coordination mechanisms for IHR implementation; periodically review and evaluate these
    - Strengthen and operationalise hub and satellite hospital network mechanisms including a referral system
    - Create a national database access with the known location of medical facilities with known trauma services, respiratory management services, paediatric, and obstetric and gynaecology emergencies
    - Strengthen the national emergency service communication and coordination network system with an establishment of cellular app-based communication system that is affordable and accessible to the entire population
    - Identify, link and establish a step-down facility in hub hospitals including referral pathways from hospitals to community to provide continuation of care of patients.

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

Background

Quality evidence is essential to address the public health challenges due to shifts in the disease burden, climate change, disasters, accidents and injuries, including the continued burden of infectious diseases and NCDs. The NHSS focused on the generation of information using multiple sources to better inform policy and planning processes. It emphasised increasing access to and use of information through information and communication technologies (ICT). The NHSS aspired to make all existing routine information systems functional and interoperable, with the data being housed at a central data repository. The NHSS also prioritized to better integrate national and sub-national reviews and drawing innovations from research to support improved accessibility to quality healthcare. The outputs linked to this outcome are:

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

Major progress

Integrated Health Information Management

- The IHMIS roadmap (2022-2030) was endorsed as per the ministerial decision in 2022 (on 2078/03/24 BS). The roadmap aims to initiate coordinated mechanisms for health information management for various health information systems and increase the use of information and digital technology management.
- In line with the IHMIS Roadmap, all HMIS tools has been revised after 9 years to align with existing health sector programmes and services
- The FMoHP has established Information Management Unit (IMU) under the Integrated Health Information Management Section (IHIMS) for the effective management of COVID-related information related to surveillance, sample collection, testing, case management, logistics and human resource. A daily reporting system has been developed to help the COVID-designated hospitals report the status of COVID cases to the FMoHP. This system has helped in reimbursement of the COVID-19 case management cost to the hospitals
- The FMoHP continued to expand the electronic reporting of service data from HFs. In FY 2021/22, altogether 2970 public health facilities submitted HMIS monthly reports electronically. As health posts and primary health care centres are now being managed by the local government, the FMoHP is focusing on enhancing their capacities for health information management, including the use of the DHIS2 platform.
- All 753 local governments reported the health facility-based service statistics electronically to the national database (HMIS). This has been a milestone for the continuous flow of data from local governments 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 (dohs.gov.np). Major health indicators, such as the NHSS

RF and health-related SDG indicators, were monitored via web-based dashboards maintained on the FMoHP website

- In the DHIS2 platform, the recording and reporting tools of the One Stop Crisis Management Centre (OCMC), the Social Service Unit (SSU) and Geriatric health care have been digitalised. The Application Programme Interface (API) linkage development is in the process to link with the HMIS system. The online recording and reporting have started from all OCMC and SSU-based hospitals from this FY.
- Developed mechanism to receive monthly reporting for HMIS/eLMIS/IMU and daily reporting of COVID-19 vaccination from all 753 local levels
- Projected target populations of the health sector for FY 2022/23 adjusted based on the preliminary findings of the population census
- Completed orientation on updated HMIS/DHIS tools in seven provinces, 77 districts and 753 Palikas
- The Health Facility Registry, a tool that keeps track of all health facilities within the country, public and private, as well as provides information on which services are offered has been updated. The registry has an interface that allows other information systems to connect to it in order to keep their individual lists of health facilities up-to-date and synchronized with the FMoHP. The registry can be accessed from the FMoHP website.
- The web-based Routine Data Quality Assessment (RDQA) tool and the e-learning package have been updated incorporating feedback from the users and are made available on the FMoHP website (www.rdqa.mohp.gov.np). 426 health facilities were reported to have completed the RDQA this year. An offline version of RDQA has been developed and is being used where the internet is not available to operate the online system[13]
- Dashboards for health service indicators have been operationalized in 17 municipalities of Karnali and Sudurpaschim Provinces. The dashboard is a decision support and data sharing platform, that helps local government to track and use health data for decision making and general public can access and view health data
- The Basic Health Service dashboard has been hosted at the FMoHP website which helps monitor major health indicators under Basic health services. It can be accessed at http://128.199.69.221:8888/

e-LMIS update

Availability of real time data for the supply chain planning and data-based decision making was major issue for the logistic management system in Nepal. So GoN started implementation of electronic logistic management system aiming to phase out the manual reporting and recording in near future. The progress till date related to the eLMIS system is as mentioned below.

[13] FMoHP website (www.rdqa.mohp.gov.np)

Table 3.9.1: e-LMIS roll-out status in 2018 to 2022

Year	e-LMIS implemented Sites	
2018	eLMIS implemented at 57 sites	• eLMIS implemented at 6 Central Stores, 2 PHLMCs in Lumbini and Karnali Provinces, 22 Health Offices, 4 LLGs, and 23 SDPs
2019	• e-LMIS reporting modules implemented at all Health Offices. • eLMIS implemented at one central level and 14 LLG office.	• 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 • eLMIS 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.	• To support in smooth supply chain of COVID-19 essential medicines, eLMIS implemented at PHLMCs, Hos, COVID-19 hospitals, laboratories and Medical Colleges. 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 (753 in all provinces) rolled out
2021	eLMIS implemented at 283 sites.	• Local Level Government Office-9 • Service Delivery Points (SDPs)- 275
2022	eLMIS implemented at 999 sites	• Service Delivery Points (SDPs)- 999

IHMIS is coordinating with development partners and GoN stakeholders to roll out e-LMIS at all SDPs throughout the country as soon as possible. The system is rolled out at 2,269 sites as of November 11, 2022, including service delivery points. Many Local Level Government have been allocation the budget to rollout and requesting IHIMS/MS to provide TA which shows the ownership and system utilization from local level governments. The milestone to switch on monthly reporting from quarterly started from beginning of FY 2022/23. The reporting rate has significantly improved as the new system has been initiated.

Maternal and Perinatal Death Surveillance and Response (MPDSR)

The Maternal Death Review has been implemented in Nepal since the early 1990s, and since then it has been gradually expanded to include Perinatal deaths in hospitals and maternal deaths in the community. The Maternal and Perinatal Death Surveillance and Response (MPDSR), as it is known at present, facility – based MPDSR has been implemented in 94 hospitals (covering 58 districts) and community MPDSR in 27 districts. In four districts the training for implementation is ongoing.

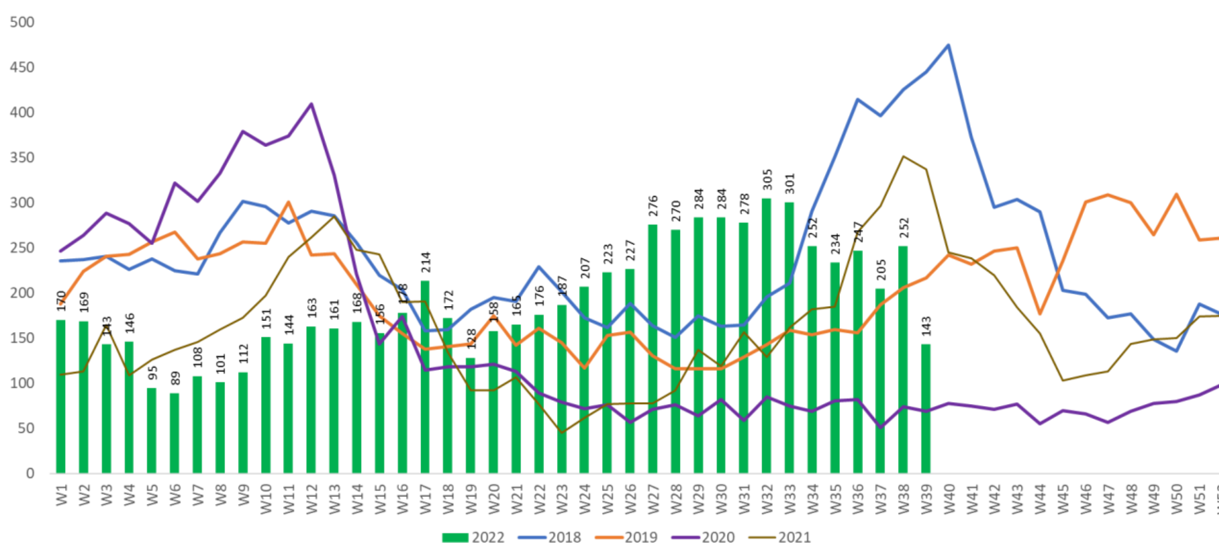
The MPDSR guideline and tools were endorsed in 2078 and the guidance document for MPDSR implementation, based on the guideline, has been prepared. In the fiscal year 2079/80, the MNH section of FWD has planned to expand the surveillance program in all government and major private CEONC sites and 11 more districts. In 2078/79 orientation was provided to four batches of service providers from MPDSR implementing hospitals and one batch of focal persons from districts. Two batches of cause of death assignment training were conducted for medical doctors from 29 hospitals. MPDSR factsheet was prepared for the FY 2077/78 and for Shrawan-Chaitra 2078. Various rounds of data analysis were done and it was shared in various forums

Early Warning and Reporting System (EWARS)

EWARS is a hospital-based sentinel surveillance system where the sentinel sites (hospitals) send weekly reports (including zero reports) on six epidemic prone, vector-borne, water and food borne diseases in order to detect outbreaks. EWARS started in 1997 with 8 sentinel sites and expanded to 24 sites in 1998, 26 sites in 2002, 28 sites in 2003, 40 sites in 2008, 82 sites in 2016 and 118 sites in 2022. A total of 36 (private hospitals and medical colleges) were included as sentinel sites across Nepal in 2019. EWARS sentinel sites are now reporting in the DHIS2 platform, which will contribute to building better linkages with the HMIS. The weekly reporting 'Early Warning and Reporting System (EWARS)' has now been upgraded to report the SARI (Severe Acute Respiratory Infection) cases on daily basis to facilitate monitoring of the SARI cases so that these are tested with RT-PCR for COVID-19 as per the National Testing Guidelines.

The figure below shows the trend of SARI cases reported in 2018, 2019 and 2020 by the epidemiological weeks. The 2020 data in the Figure reflects the data there has been an increment in the SARI cases further study is required to investigate this issue.

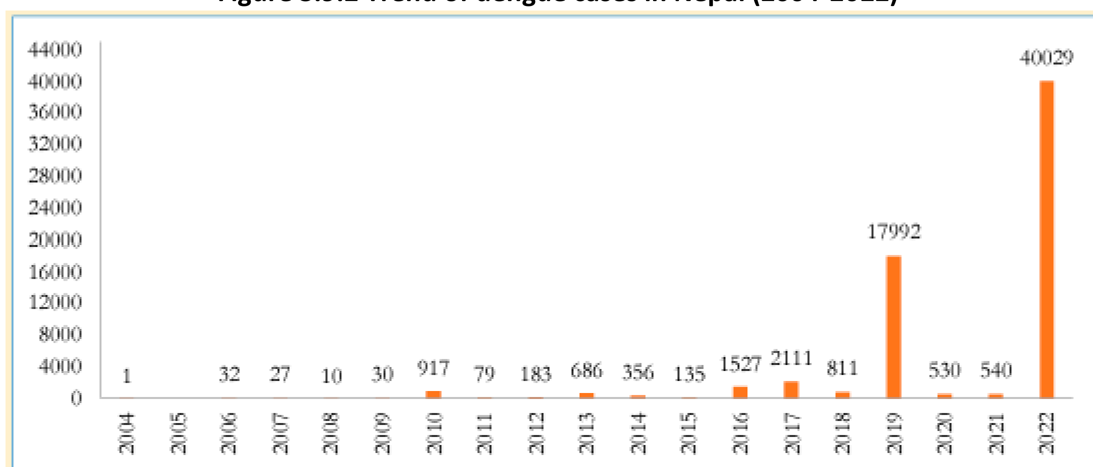
Figure 3.9.1 Trend of Severe Acute Respiratory Infection Cases



Dengue outbreak

The first case of dengue in Nepal was reported in 2004. The number of dengue cases reported in Nepal has gradually increased since then. In 2019, there was an outbreak with a total of 17,992 reported dengue cases from 68 districts across all seven Provinces. The major outbreaks were in Sunsari District (3431) followed by Chitwan (3402), Kaski (2824), Kathmandu (1589), Lalitpur (596), and Jhapa (525). Six deaths were reported from five districts of Nepal (2 deaths in Chitwan, and one each in Sunsari, Sindhupulchowk, Kathmandu and Doti) in 2019. As of 15th Oct 2022, a total of 40,029 dengue cases have been identified, with Bagmati province reporting the highest number (31,005) followed by Lumbini province (4,370), and Sudurpaschim province (1,248). The EDCD has adopted all recommended remedies to control the dengue epidemic.

Figure 3.9.2 Trend of dengue cases in Nepal (2004-2022)



Survey, Research and Studies

- The Nepal Demographic and Health Survey (NDHS) 2022 has been completed, and the final report is being prepared for dissemination. The 2022 NDHS was the sixth DHS survey conducted in Nepal in collaboration with the worldwide Demographic and Health Surveys Programme. The primary objective of the 2022 NDHS is to present up-to-date estimates of basic demographic and health issues in Nepal. The NDHS provides a comprehensive overview of population, maternal, and child health issues in Nepal. Information collected through 2022 NDHS is intended to assist policymakers and programme managers in monitoring, designing and evaluating programs and strategies for improving the health of the Nepali population. The data collection for this survey took place from January 5 to June 22, 2022.
- The final report of the NHFS 2021 has been published in 2022. This is the second survey of its kind following the one conducted in 2015. The NHFS 2021 is an assessment of health facilities in the formal sector of Nepal and was designed to provide a comprehensive picture of the strengths and weaknesses of the service delivery environment for each assessed service. The NHFS 2021 collected information from all facilities managed by the government and by private not-for-profit nongovernmental organizations (NGOs), private for-profit organizations, and mission/faith organizations in all 77 districts of the country.
- The DoAA carried out an Ethnobotanical survey of medicinal plants used in veterinary practices in Madhesh Province. The survey found that a total of 24 plant species were used by local people in Madhesh Province. The common ailments were cough, cold, fever, diarrhoea, skin diseases, cuts,

wounds etc. The DoAA also carried out a study to assess the environmental impact on the availability of Yarshagumba in its natural habitat. The findings of this study revealed that there is a decrease in Yarshagumba prevalence, over-exploitation and climate change being the main reason behind it.

- The DoAA carried out a critical review of Ganja (Cannabis sativa) from ancient and modern texts. The study revealed that Cannabis was historically cultivated across all altitudes and terrains of Nepal. Before 1973, Kathmandu was viewed as a 'hippie paradise'. Cannabis was widely available across the country, and there were even licensed dealers selling hashish in Kathmandu's famous 'freak streets'
- Initiated Rapid Assistive Technology Assessment (RATA) survey to understand the status of the need of assistive devices for rehabilitation
- Collected 2880 samples from Baitadi and Bajura districts for the study to understand the status of asymptomatic malaria

Progress of Nepal Health Research Council (NHRC)

- The eighth National Summit of Health Population Scientists in Nepal was organized from 10 to 12 April 2022. The summit was organised with the theme "Advancing Health Policy and Systems Research: Lessons for a Resilient Health System in Nepal". This was a continuum of the previous summits as an annual gathering of researchers, academicians, scientists, practitioners, and policymakers to exchange ideas and health research evidence on national health issues and priorities. Approximately 2400 people attended the summit in person. There were altogether 39 oral presentations, 77 poster presentations and 31 national and 22 international invited talks and panel discussions covering diverse health issues
- Conducted capacity building workshop on research proposal development and analysis (Conducted three workshops and trained 75 personnel)
- Developed a digital platform (system) to make all research activities of the NHRC online
- Initiated research on clinical trial registry
- Established NHRC units in three Provinces to facilitate health research at the provincial levels
- Conducted monitoring of 50 research projects and 30 Institutional Review Committees to ensure research ethics in health research
- Published four volumes of Journal of NHRC and the plagiarism software of the NHRC has been listed in International Indexing System
- Research on the development of selected medicinal plants in Nepal is being carried out. Specimens for 80 different medicinal plants with the potential to treat Diabetes have been collected and the drug extraction process has been completed.
- Conducted knowledge café meeting and five different policy briefs have been produced on different themes
- Research work on Scrub Typhus and Dengue in Chitwan, Kaski and Dolakha district has been completed
- Completed data collection process for operational research on integrated disease surveillance and report writing is in progress
- Initiated the process of establishing research for excellence in research and academic institutions

- Completed research on the status of NCDs among children, and research on Rheumatoid Arthritis is in progress
- Completed data collection process for the research on identification, prevention and control of sickle cell anaemia and thalassemia in Madhesh Province, and report writing is in progress
- Completed survey on Integrated Biological and Behavioural Surveillance among HIV-infected migrants
- All preparations have been made to initiate data collection for the survey on infertility in Nepal

Lessons and way forward

- There continue to be gaps in generation of quality evidence including systematic review/meta-analysis, and experimental studies.
  - Advanced research methods should be promoted and used to increase evidence for better programme planning and execution
  - Infrastructure should be developed for quality health research such as health research laboratories
  - health research should address health priorities not only at the federal level but also at provincial and local levels with emphasis on support to achieve health sector goals.
  - Centres for Excellence for Health Research should be established in Collaboration with Academic Institutions and Provinces
  - Communication between researchers and policy makers should be increased using the Knowledge café secretariat and a national summit of health and population scientists
- Less than 0.5% of the total health sector budget is allocated to health research
  - investment in health research should be increased
- Information systems should be expanded with increased operability between different systems
  - interoperability of the existing health information systems should be enhanced leveraging technology including through rapid expansion of the electronic health records system in public and private hospitals
  - a medicine information management system should be developed to manage information on production, import, consumption, quality and regulation of medicines and diagnostics
  - the online reporting mechanism in all health facilities should be expanded including creation of a public interface to enable easy access to data
- There is a need for continued interventions for capacity building of researchers and research institutions in the field of epidemiology, biostatistics, research management, health systems research, research ethics, clinical research and pharmacology, health economics, and health policy research
  - Promotion and strengthening of research culture in collaboration with universities, medical/health institutes and their allied professional bodies to facilitate knowledge generation and link them with government and ministries at the federal, provincial and local levels to promote evidence-based decision making
  - Developing mechanism for identifying untapped research talents within Nepal with appropriate research training and promotion of career structures in order to strengthen national research priorities
- research is needed for the development of traditional healers to improve traditional health services

- Ayurveda and other alternative medicine systems should be integrated into the HMIS

Population Management

Background

The Constitution of Nepal gives all tiers of the government functional responsibility for demographic management. The 'unbundling report' approved by the Cabinet has made reproductive health and population management a shared responsibility of the federal and provincial level governments, whereas the functions of vital registration (birth, death, marriage, divorce, and migration) have been included in the list of concurrent responsibilities of the federal, provincial and local levels. The long-term Population Perspective Plan (2010-2031), Action Plan of the International Conference on Population and Development, SDGs and National Population Policy 2014 are being implemented in Nepal to increase the opportunity for a quality lifestyle for every citizen by contributing to the creation of an equitable social, economic and cultural structure.

This section highlights the major progress of the population sector in FY 2021/22 and the initial months of FY 2022/23.

Major progress

- The Population Management Division has initiated a population-based maternal mortality study, 2021 to collect programmatically useful information which will inform investment and interventions directed toward the improvement of maternal health in Nepal.
- The infertility survey 2022 has been initiated to identify the status of infertility in Nepal. Most of the tools (questionnaires, user manual (both English and Nepal), and software for field operations) have been developed, and ethical clearance has been obtained
- A five-year migration health action plan (2023-2027) is being developed to address health-related problems seen at all stages of foreign migration. The main objectives of this action plan are to: i) establish in-country institutional arrangements and coordination mechanisms including legal framework at the federal, provincial and local levels; ii) provide access to quality health services for migrants and their families; iii) establish an integrated information system and generate evidence for policy and planning on migration health; and iv) strengthen health system capacities at different levels
- An operation and management guideline for health check-ups of foreign workers, 2079 has been developed. The guideline will be made operational by January 15, 2022. The main objective of this guideline is to establish an effective mechanism for health check-ups of foreign workers, complying with international quality.
- The Population Division is in the final stage of developing the following documents.
    - Population reference manual, 2079 (main objective: to enhance knowledge and skills of population managers and other stakeholders)
    - Model local level guideline, 2079 (main objective: to promote model local levels by addressing the following areas: utilising the demographic dividend; access of children and youths to education; reproductive health; maternal and child health; family planning;

population management and food security; gender equity; empowerment of women and children; poverty reduction; social and economic equity; labour and employment; migration and urbanisation; climate change; environment; disaster risk reduction and management; governance; data management; and institutional development)

- Guideline for inclusion of population in provincial and local plans, 2079 (main objective: to facilitate the inclusion of population issues in yearly and bi-annual plans of local and provincial levels by analysing demographic, geographic, economic, social and cultural diversity)

- The mobility survey between Nepal-India-China has been initiated with the main objective of compiling all available information on Nepal-India-China migration. The survey aims to analyse gaps in available data and statistics on migration and provide recommendations to promote evidence-based migration policies.

Lessons and way forward

- The major challenges of population management in Nepal are internal and external migration, demographic transition (ageing population) and inadequate utilization of the demographic dividend.
- There is an unbalanced distribution of population in Nepal across different geographical regions and between urban and rural areas
- There is an opportunity to utilize the working-age population for long-term development to gain a demographic dividend for the next 25 years
- There should be a mechanism for creating a supportive environment for the utilisation of skills and expertise of foreign returnees

    - A population information management system will be established and operationalised for up-to-date population profile including migration
    - The civil registration system and vital statistics will be strengthened at all levels and the linkage of civil registration and vital statistics with health facilities should be enhanced for an updated database on births and deaths
    - An effective data system will be established to collect information on internal and external migration at the local level
    - The mechanism for regulation and management of pre-departure and post-departure health check-ups will be strengthened
    - Income-generating activities will be promoted at all levels ensuring gender equity and collaborating with concerned stakeholders
    - The concept of model local level will be strengthened to promote village stay campaign
    - Physical, mental, and spiritual well-being of the elderly population will be promoted through the provision of recreation centres, libraries, yoga centres, community learning and skill exchange centres

References

DoHS website, www.dohs.gov.np

EDCD website, www.edcd.gov.np

FWD website, www.fwd.gov.np

GoN (2018), Public Health Service Act 2018. Kathmandu: Nepal Gazette, Government of Nepal

GoN (2020), Public Health Service Regulations 2020. Kathmandu: Nepal Gazette, Government of Nepal

GoN (2021), Preliminary Report of National Population Census 2021. Kathmandu: National Planning Commission, Central Bureau of Statistics

MoF (2022), Economic Survey (various years). Kathmandu: Ministry of Finance

MoF (2022), Estimates of Budget and Expenditure (various years). Kathmandu: Ministry of Finance

MoFAGA website, www.mofaga.gov.np

MoHP (2015), Nepal Health Sector Strategy (2015-2020). Kathmandu: Ministry of Health and Population.

MoHP (2019), National Health Policy, 2019. Kathmandu: Ministry of Health and Population

MoHP (2021), National Strategy on Human Resources for Health in Nepal 2020/21-2029/30. Kathmandu: Ministry of Health and Population

MoHP (2021), Progress of the Health and Population Sector (2020/21), National Joint Annual Review 2021. Kathmandu: Ministry of Health and Population

MoHP (2022), Health Sector Budget Analysis: First Five Years of Federalism 2022. Kathmandu, Ministry of Health and Population

MoHP (2022), Nepal Health Facility Survey 2021 – Final Report. Kathmandu: Ministry of Health and Population

MoHP (2022), Nepal National Health Accounts 2022. Kathmandu: Ministry of Health and Population

MoHP (2022), Situation Update Reports on COVID-19. Kathmandu: Ministry of Health and Population

MoHP (2022), Nepal Health Sector Strategic Plan (draft): unpublished

MoHP (2022), National Health Financing Strategy (draft): unpublished

MoHP website, www.mohp.gov.np

Annexes

Annex 1. Highlights of provincial progress in health sector

Province 1

Highlights of the health sector accomplishments in FY 2022/23:

- Procurement and distribution of “kha Barga” ambulance in 9 hospitals (Mechi, Madan Bhandari, Inaruwa, Udaypur, Sulukhumbu, Okahldhung, Bhojpur, Centre for Infectious disease and critical care Biratnagar, Panchthar)
- Continuation of free services from dedicated COVID-19 treatment centre in Biratnagar.
- Waste management system established in 15 hospitals
- Implemented community-based Identification and management of hypertension and diabetes in 4 Local Levels of Morang district
- Establishment of 50 bed Provincial Ayurveda Hospital at Lakhanpur, Jhapa district
- Expansion of *Gramin Aama Program* in six districts including distribution of Mother and Child Health Booklets
- Implementation of EHR /EMR system initiated in district hospital herEHR in two district hospitals- Panchthar and Sankhuwasabha, fully EMR in 5 hospitals and partially EMR in most of the government hospitals)
- Free surgery of 182 Uterus prolapse cases in coordination with Birat Nursing home
- Expansion of training sites for RUSG, SBA, Implant/IUCD training
- Conducted integrated vector surveillance in five districts
- Conducted intensified case detection of malaria disease in three districts
- Home based Growth Monitoring program launched at five local level [Rangeli (Morang), Gadhi (Sansari), Pauwadungma (Bhojpur), Madi (Sankhuwasabha), Likhu (Okhaldhunga)].

Exemplary initiatives implemented at the local levels:

- Implementation of Rural Mother Health Program in 6 districts.
- Printing and distribution of Mother and Child Health Booklet
- Maternity waiting home establishment and operationalization (10 health facilities) in Sankhuwasabha
- Community based Identification and management of hypertension and diabetes in 4 Local Levels of Morang district
- Rural Ultrasound (RUSG)Program implemented in 58 local levels
- Community led peri-conceptional folic Acid initiatives to reduce Birth Defect.

Madhesh Province

Issues and challenges from review meeting

- Untimely reporting from Public Hospitals of Province and limited reporting of Private hospital (Current reporting rate: 46%)
  Province has been able to be declared as full immunization coverage province and vaccination drop rate has not been improved. Penta 1 Vs 3 dropout rate has been increased from 7 to 10%. Still 14 local governments fall under low vaccine coverage Palika
- Growth monitoring visit and average number of visits among under 2 years children has not yet improved. (Current average visit-2.5 target 24) Still 28 local government have 50% growth monitoring status)
- Malnutrition still persists as major challenges and recovery rate of SAM cases has not been improved. (Current recovery rate of SAM cases -75%). FP user rate has not increased in Province
- High drop out between first and fourth ANC visit (1ANC 74% Vs 4ANC 49%, SDG target 90%). Institutional delivery rate has not been improved as per expectations (current 57%, SDG target 90%)
- Drug Resistance Tuberculosis cases has been in increasing trend (2077/78: 47 cases and 2078/79: 140 cases)
- Vector borne disease control programme has not delivered expected result (Malaria and Kala azar cases has increased as compared to previous years)
  Leprosy prevalence rate is in increasing trends (Current PR 1.5, target less than 1 per 10,000 population)
- Vacant position of consultant and senior consultant in hospitals has resulted in unavailability of various services in Hospitals
- Lack of programme and budget for NCDs control programme
- Effectiveness of Pharmacy facility of hospitals
- Lack of physical infrastructure in health facility as per standard and requirement and
- Unsolved and persistent issues of hospital waste management
- Health insurance programme has not been implemented effectively
- Lack of health research and studies at Province level
- Health has not been priority for all three tiers of government
- Effective platform for effective coordination for three level of governments has not been established

Way forward:

- Initiate specialized services from hospitals and upgrade the infrastructure capacity of health facilities
- Meet the standard quality of health services at all levels
- Strengthen supply chain management in the system
- Increase resource allocation for prevention of NCDs including mental health
- Adequate financing for health sector from all levels of government
- Effective coordination and collaboration with different level concerned stakeholders

Gandaki Province

Highlights of the health sector accomplishments in FY 2078/79:

- Endorsement of Province Health Policy, 2078
- Conducted 2 days workshop on health sector programme implementation status, priorities and annual workplan development with all the 85 Local level governments and Provincial stakeholders
- Achieved 100% reporting rate and 90% reporting on time
- Initiated issue-based review and planning meetings and indicator-based monitoring and evaluation of health services and institutions
- Roll-out of eLMIS from all the health facilities of Kaski district
- Enrolled 4845 family members of Martyrs, victims of different people's movements, B-grade disability, people requiring regular dialysis services
- As per the Province government policy, provided 13158-pint blood free of cost to the service users
- Provided Airlifting service to 6 complicated pregnant women. Till date 52 completed pregnancies have been evacuated through airlifting
- For the proper management of ambulance service, 125 ambulances are equipped with GPS device
- Provided grants to hospitals for the treatment of haemophilia in the province.
- In collaboration with Pokhara Old-age home, established and operationalized geriatric ward
- Collaboration with Pokhara Academy of Health Science, Western Regional Hospital for the expansion of specialized cardiac services, treatment of kidney and cancer diseases. For this Dialysis machine, RO machine and Cath Lab accessories were procured and handed oved
- Total of 1,485 Health workers have been trained in various trainings through Health Training Centre and updated in the training information management system

Exemplary initiatives implemented at the local levels:

- Regular Screening, referral and management of NCDs in collaboration with Kusma Municipality, Health office and Hospital in Parbat
- Delivery of drugs and medicine to chronic patients at their home during COVID-19 pandemic by Rupa Rural Municipality, Kaski
- Establishment of High-Altitude Rescue Centre in Nasom Rural Municipality-7, Manang

Lumbini Province

A . Highlights of the health sector accomplishment / progress in FY 2078/79

- All the 12 districts of the province have been declared as Fully Immunized Districts for routine immunization
- Coverage of MR 2 increased to 99% from 94% in 2077/78 while drop out of Pent1 Vs MR 2 decreased to 0.18%.
- 93 % of people above 5 years are fully immunized against COVID.
- Growth monitoring of children has increased from 77 % in2077/78 to 92 % in 2078/79
- The SAM cases admission has increased from 1323 in 2077/78 to 2625 in 2078/79
- Increased in 4 ANC according to protocol (60.7 % to 79.4%), 180 iron tablet (54.9 % to 75.8%) , institutional delivery 79.7 to 94.2 , birth attended by SBA (77% to 89.8%), 3 PNC (29.2 % to 52.2)
- Free USG service for poor and destitute pregnant women – 4 ANC has increased from 61 in 2077/78 % to 74 % in 2078/79
- 13 out of 109 local levels have reported Zero Home Deliveries in FY 2078-79
- TB case notification rate (CNR) has increased by 37% in FY 2078/79 compared to the FY 2077/78.
- Lumbini Provincial Hospital is the second largest hospital providing maternity service (12930 cases) in the country.
- The province has top 4 hospitals out of 10 in MSS, led by Bardiya Hospital 95 % standing at top-most position among provincial hospitals of the country.
- All the hospitals in province are upgraded to 50 bedded hospital providing eye, dental, ENT, physiotherapy, and 24 hours laboratory, pharmacy, USG, immunization and nutrition service.
- All hospitals have 24 hours laboratory, radiology and pharmacy services
- Procurement of MRI machine and operation of burn ward and cardiac catheterisation lab in Lumbini Provincial Hospital
- Operation of CT Scan service in Bhim Hospital
- Commencement of Endoscopy service in Pyuthan Hospital
- Dialysis service is operating from 2 hospitals
- Building for communicable disease hospital is under construction through financial support of federal government
- Construction of BSL-II Laboratory, 85% is completed with support of Save the Children in Tamnagar, Rupandehi
- Construction of Pediatric Block completed in Rapti Provincial Hospital, maternity block in Lumbini Provincial Hospital
- Sickle cell and thalassemia disease diagnosis and counselling centre has been established in 8 government hospitals in above district
- 1103 people were benefited through 3 mobile camps from ''Gharma Doctor Karyekram'' (Doctor at Home program) in hard-to-reach area
- 13,000 senior citizens above 70 years old received health service at home
- 40 thousand people above 20 years were benefitted in diabetes and hypertension screening
- Screening and awareness campaign on sickle cell and thalassemia disease at Tharu community in Banke, Bardiya, Dang, Kapilvastu and Nawalparasi east
- Establishment of Ayurved Health Centre in Nawalparasi and Rukum East
- Expansion of surgical service in Provincial Ayurveda Hospital
- Upgrade of Lumbini Ayurveda Chikitsalaya (Dispensary) to 15 bedded hospitals
- 835 health workers received training from PHTC on different areas of health services
- All the 26 tenders called by PHLMC has been completed
- Slides examined by Province Public Health Laboratory

Policy and legal paper on health at Province level

- Operation and Management Guideline on Province Health Partnership, 2078
- Provincial Health Special Remedial Financial Support, 2078
- Guideline on Health Worker with Senior citizen Program, 2078
- Operation Procedure on Specialist Doctor Mobilization of Provincial Hospital and Medical College, 2078
- Guideline on screening, diagnosis and treatment of Sickle cell, Thalassemia disease, 2078
- Draft of Province Public Health Act, COVID-19 Review and Response Plan, and Provincial Health Sector Strategic Action Plan prepared

B. Exemplary initiatives implemented at province, district or even at local levels.
A general medical examination of children is done before immunization by health facility in charge in every immunization session [Mayadevi Municipality: Rupandehi]

- Municipality has established air conditioning in immunization clinic in one place and has plan to expand to other places.
- One Community, one health worker is endorsed. The health worker visits community and participates in health mother group meeting regularly with FCHV. H/She provides available services and refer to health facility based on needs.
- Zero home delivery ward declaration
- Mass meeting with pregnant women is conducted in each health facility every year where Birth Preparedness Package, Jeevan Suraksya, municipality provides nutrition service also.

Memorandum of Understanding between Rural Municipality NIC Asia to carry out health camps through Cooperate Social Responsibility [Thaawang Rural Municipality: Rolpa]

A guideline on Alcohol Control has been prepared and implemented in the local level to regulate on selling and consumption of Alcohol [Paritwartan Rural Municipality: Rolpa]

Karnali Province

Highlights of the health sector accomplishments in FY 2078/79:

- Total Physical and financial progress of MoSD has been increased than previous year i.e., 80.5 percent and 72.8 percent respectively
- Health Information Systems (IHMIS/ DHIS, e-LMIS, I) has been further strengthened. The timeliness of HMIS reporting has tremendously increased than preceding year i.e., 83.5 percent. Despite of poor internet service in Karnali province electronic reporting from health facilities seems increased
- Increasing coverage of family health, disease control and hospital service-related routine indicators
- Provincial Health Service Act, 2078 has been endorsed and Health Service Regulation (drafting)
- Telemedicine operational guideline, 2078 has been prepared, endorsed and implemented aIEHR guideline draft is in progress
- COVID-19 response and emergency health related aids and equipment for High Dependency Unit (HDU)/ICU/Pediatric Intensive Care Unit, oxygen plant, cylinders, concentrator, ventilators, Bilevel Positive Airway Pressure (BiPAP), Continuous Positive Airway Pressure (CPAP) machine, etc. have been managed
- PPHL and PHLMC have been established and equipment for strengthening lab services has been procured and installed; PHLMC, PPHL and Provincial Ayurveda Hospital are under construction
- Substantial number of Ambulance and Hearse Van procured at district and local level
- Hospital Building Construction is in progress in different 5 districts and some local levels
- More than 70 percent targeted population have been vaccinated against COVID -19 vaccines
- Typhoid Vaccine Campaign coverage is more than 95 percent
- Out of ten districts in province, eight have been declared full immunization districts
- Doctors, nurses, paramedics and other health human resources have been fulfilled even by recruiting on contract
- Increasing ownership of Community Health Units and Birthing Centres at local levels
- Land acquisition and initial work have been initiated for the establishment of Provincial Infectious and Communicable Diseases Hospital
- MSS assessment in all province level hospitals and Dullu Hospital (Local Level hospital). Among Secondary B level hospital, Karnali Province Hospital has ranked first securing 79 percent at National level. Hospital and HP MSS reports are prepared

Exemplary initiatives implemented at the local levels:

- Sufficient Budget has been allocated to expand and strengthen Telemedicine service in all Province level hospitals of Karnali province. A separate working procedure guideline is finalized
- Local level government also have allocated enough budget for human resources to continue the health services depending on their available resource
- Six new districts have been declared as full immunization districts recently (Total eight out of 10 districts have been fully immunized)
- Physiotherapy unit with minimum human resource has been established in all district hospitals
- Establishment of Eye Unit and government owned blood bank in Karnali Province Hospital
- Anti Retroviral Therapy (ART) Centre has been established in Salkot PHC considering the case load of western Surkhet

Sudurpaschim Province

Highlights of the health sector accomplishments in FY 207879:

1. **Financial progress:** Total physical progress achieved is 87% and financial progress achieved is 79.74%.

2. **Policy work:**
    - Endorsement of province health policy, 2078
    - Final Draft of provincial public health regulation prepared
    - Development of Provincial Ayurved Hospital Management Committee Order, 2078
    - Prepared the Sudurpashchim Province health science foundation bill

3. **Capacity building**
    - Total 1305 health workers (doctor, nurse, paramedics, ayurvedic clinicians) received various knowledge and skills-based training.

4. **Physical Infrastructure**
    - COVID-19 special treatment and isolation wards established in Seti Provincial hospital (100 beds), Mahakali Provincial Hospital (100 beds), Tikapur hospital (60 beds) and district hospitals (10 beds in each district).
    - Constructed emergency treatment rooms in Mahakali provincial hospital
    - Constructed communicable disease hospital under Tikapur hospital
    - Provided budget to under construction building of Health Office, Bajura, Province Ayurvedic Centre, Kailali, Maternity building of Seti Province Hospital, building of district hospital, Bajhang, and communicable disease hospital in Doti

5. **Health Logistics Management**
    - The PHLMC purchased CR system-20, Anaesthesia Machine-1, BiPAP/ CPAP Machine- 40/40, ILR-14, Binocular Microscope-24, Autoclave Machine-24, Deep Freezer-5, ECG Machine-1, Infusion Pump Set-7, and Syringe Pump-8 and handed over to concerned institutions
    - Purchased tools and equipment for operation of laparoscopy and other services of hospitals
    - Expansion of laboratory services in district hospitals with modern equipment including fully automated Analyzer, Complete Blood Count Machine
    - Laboratory service operation in all Ayurveda offices under the province
    - One ultrasound machine, one ECG machine and lab equipment handed over to Dhangadhi sub-metropolitan city for specialist clinic services
    - Regular management and supply of essential medicine, drugs and equipment through PHLMC
    - Procurement of Computed Tomography scan (CT Scan) and Magnetic Resonance Imaging (MRI) Machine for Seti Provincial Hospital

6. **Service Delivery Progress**
    - The HMIS system is strengthened and functioning well. Province is maintaining more than 90 % HF reporting on-time to HMIS.
    - The BCG vaccination coverage is 98% and more than 94% of children (12-23 months) received MR2 vaccine. Out of 88 local of the province, 39 local levels are placed under category I (coverage >=90%, dropout <10%), 23 local levels are placed under category II (coverage >=90%, dropout >=10%), 16 local levels are placed are under category III (coverage <90%, dropout <10%) and 10 local levels are placed under IV (coverage <90%, dropout >=10%).

- The Antenatal Care Check-up (ANC) as per protocol is also increasing with 74% women completing their ANC as per the protocol.
- The institutional delivery of the province has been improved with 93%. District specific data shows, Doti district have 76% institutional delivery and Kailali have 119% of institutional delivery.
- TB case notification rate and treatment success rate has been improved. The leprosy prevalence rate in the province is 0.8 per 10,000 population reported highest in Kailali with 1.4 per 10,000 population.
- The cases of Malarial, Kala azar and Dengue has been increasing in the province.
- The MMS score for primary level hospital are improved (Achham-85%, Doti-78% and Darchula-69%). The MSS score for Tikapur hospital decreased from 57% in 2077/78 to 53% in 2078/79, Mahakali Provincial hospital is increased from 63% in 2077/78 to 72% in 2078/79 and Seti Provincial hospital is increased from 45% in 2077/78 to 57% in 2078/79.
- The maternal and neonatal deaths in the province are still high compared to other provinces. The total early neonatal deaths reported in the hospital are 56 and late neonatal deaths reported in the hospital are 25. Total maternal deaths reported in the hospital are three.

7. COVID-19 prevention and control

- Health check-up at the border, quarantine/isolation management, covid-19 testing, security material management, public awareness activities, treatment of infected people, rescue of those stranded at the border, etc.
- Establishment and operation of 1000-bed holding centre at Bhagatpur in Kanchanpur district and 1000-bed holding centre at Trinagar Customs in Kailali district for the control and management of Covid-19
- By the end of June 2078/79, the number of people who got vaccinated against Covid-19 has reached 82 percent of the first dose, 79 percent of the second dose and 31 percent of the booster dose
- Establishment and operation of laboratories for covid-19 testing at 8 locations across the province
- Purchased 3 sets of PCR machine, 20 ventilators, 3 sets of anaesthesia machine, 6 sets ultrasound machine and 10 sets of CR system machine 10.
- Organized health camps in flood affected areas

Exemplary initiatives implemented at the local levels:

- Rural ultrasound programme has been scaled up and effectively implemented in the province focusing maternal and neonatal health.
- Special health camps organized for senior citizens as a part of Chief Minister’s Senior Citizen programme.
- School health nurse programme implemented in selected schools to improve health habits of students and address adolescent sexual reproductive health needs.
- Suicide prevention school-based programme implementation
- “Ma hidchhu mero Pradesh hidchha” programme has been implemented in all the districts of the province.
- Yoga instructor training programme, health promotion programme, reproductive health camp and village doctor programmes are in operation
- Emergency air rescue of 19 people who suffered from complicated childbirth and serious accidents
- The temporary staffing structure of Provincial Health Promotion Centre, Kanchanpur has been approved and the office is operational
- Provided treatment assistance to 697 people under the poor citizen health treatment assistance programme
- Implementation of complete vaccination assurance and sustainability declaration programme in 9 districts.
- Provided ICU and ventilator training to 20 health workers and critical care training to 98 health workers.

- Establishment and operation of province-level biomedical engineering laboratory at Doti to maintain equipment
- Tuberculosis Treatment Centre operation at Godavari Municipality, Kailali
- Establishment of Entomology Laboratory at Kanchanpur
- Expansion and establishment of laboratories in 27 health posts
- Establishment and operation of hospital waste treatment centre at Seti Provincial Hospital and Mahakali Provincial Hospital
- Extension of dialysis services at Seti Provincial Hospital
- Establishment of telemedicine centre in Seti and Mahakali provincial Hospital
- Molecular set up in province public health laboratory
- Conducted macroscopy camps for tuberculosis, malaria, leprosy etc. in remote areas
- Conducted NCD camps and running a sustainable NCD clinic with tools and equipment
- Health desk establishment and operation in Budar for road accident reduction and epidemic control

Annex 2. New initiatives in health sector, success stories, and case stories

Province 1

2.1. Community Based Identification and Management of Hypertension and Diabetes

Background

Non-communicable Diseases (NCDs) – mainly cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes – are the leading cause of death in Nepal. Hypertension and diabetes constitute major public health problems amongst non-communicable diseases. Ministry of Health, province 1 initiated a community-based identification and management of hypertension and diabetes program in 2078. The program covered four local levels of Morang district. Main goal of the program is to address burden of hypertension and diabetes at community level by mobilizing female community health volunteers (FCHV). Objectives of programs are:

- To identify the persons having high blood pressure and raised glucose level and manage appropriately at community level by mobilizing female community health volunteers
- To provide counselling, health education and referral support to the persons identified with high blood pressure (systolic >140 and diastolic >90 mmHg) and raised glucose level (above 126 milligrams per decilitre, fasting) by well-trained FCHV

Program coverage area: 4 local levels of Morang district-Sundarharaicha Municipality, Jahada Rural Municipality, Dhanpalan Rural Municipality and Letang Municipality

Program implementation approach

Health office Morang selected four local levels of northern part of district as pilot intervention area. Local facility-based health workers were oriented on the program for one day. Major steps of program implementation are as fols:

2. I. Total 87 FCHVs, who can read and write were selected from the four local level and provided with 3 days basic training on identification of high blood pressure and raised blood glucose level along with health education and counselling at community level. Trained FCHVs are provided with digital blood pressure measuring set and digital glucometer along with recording and reporting tools.

II. Trained FCHV holds meeting with mother group and community people and sets a community place to gather 40 years and above people and adult persons suspected of hypertension and diabetes whoever regardless age.

III. Trained FCHV identifies persons with high blood pressure and raised blood glucose level at community setting, provides counselling and health education, keep records, and refer for treatment. FCHV gets Rs. 10 for per test as an incentive.

IV. FCHV conducts follow visit to individual who have been referred for management of hypertension and diabetes.

V. Monitoring and supervision of community-based identification and management of hypertension and diabetes by FCHVs by local facility-based health workers and supervisors from health office.

VI. A review is held at the end of years and program is handed over to local level for next year implementation while health office continues to provide technical backstopping and assistance.

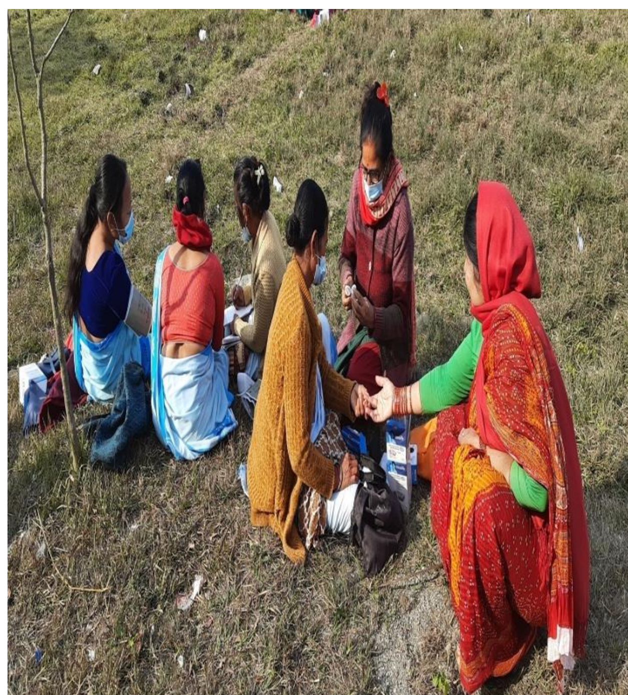
Results achieved

During one year period, 87 FCHVs from four local levels tested 7439 people of 40 years of age and above along with individuals having perceived risk of hypertension or diabetes. High blood pressure was reported in 23 percent while raised blood sugar was reported in 25 percent of tested population.

Local level	BP test (N)	High BP(N)	High BP percent	Blood glucose test (N)	Raised blood glucose level(N)	Raised blood glucose level percent
Sundarharaicha	3621	671	19	1928	498	26
Jahada	1337	429	32	1058	283	27
Dhanthanpalan	1433	345	24	888	151	17
Letang	1048	270	26	1139	317	28
Total	7439	1715	23	5013	1249	25

Key Strength of program as observed during monitoring by health office:

- Low-cost intervention
- Early diagnosis and management of hypertension and diabetes at community level
- BP and blood sugar test and counselling available at doorstep and community
- Poor and rural people are benefited from the program
- Community people's trust was built on FCHVs as many undiagnosed cases of hypertension and diabetes cases are identified in community and getting appropriate treatment
- Timely logistic supply, monitoring and technical backstopping from health office



Key challenges and lesson learnt

Key challenges and lesson learnt of community-based Identification and management of hypertension and diabetes are as follows:

- It is tedious to follow up the referred people with high blood pressure and raised glucose level by FCHVs. Many people are noticed not visiting the health facility for treatment and depending upon local and domestic remedies for management of hypertension and diabetes.
- Some FCHVs were not found motivated owing to provided incentive to them
- Validation of test by FCHVs is hindered as laboratory services is not available in some health facilities.
- A robust recording system with disaggregated database is to be developed
- Testing facilities and appropriate drugs for hypertension and diabetes should be available at local health facilities.

2.2. Health Sector Declaration of Province 1 for the FY 2079/80

आ.व ०७९/८० को लागि प्रतिबद्धताहरु

१) प्रदेश तथा स्थानिय तहको स्वास्थ्य संस्था तथा कार्यालयहरुमा रिक्त रहेको जनशक्तिको व्यवस्थापन र दरबन्दी सर्वेक्षणलाई मुख्य प्राथमिकतामा राखी आवश्यक प्रक्रियाको लागि सम्बन्धीत निकायमा समन्वय गरिनेछ।

२) प्रदेशमा कुपोषणको दरलाई न्युनिकरण गर्न कुपोषित बच्चाहरुको समयमै पहिचान र उपचारका साथै बहिरंग उपचार केन्द्र र पोषण पुर्नस्थापना गृहको स्थापना, सुदृढिकरण र निरन्तर संचालनमा जोड दिईनेछ।

३) पुर्ण खोप सुनिश्चितता, सरसफाई प्रर्वदन र दिगोपनालाई निरन्तरता दिदै प्रदेशलाई पुर्ण खोप सुनिश्चितता प्रदेश घोषणा गरिनेछ।

४) न्युनतम सेवा मापदण्ड कार्यक्रममा देखिएका सुधार गर्नुपर्ने पक्षहरुलाई आवश्यक कार्ययोजना तथा बजेट निर्धारण गरि कार्यन्वयन गरिनेछ।

५) सम्पुर्ण संस्थाहरुबाट गुणस्तरिय तथ्याकंहरु विभिन्न सुचना प्रणालीहरु मार्फत समयमै र पुर्णरुपमा प्रविष्ट गरिने दर ९० प्रतिशत भन्दा माथि पुरयाईनेछ।

६) क्षयरोगको केश पहिचान दरलाई वृद्धि गर्दै क्षयरोग मुक्त पालिकाको अभियानलाई निरन्तरता र विस्तार गरिनेछ।

७) स्वास्थ्य संस्थाजन्य फोहोर व्यवस्थापनलाई अस्पताल सुदृढिकरणको लागि प्राथमिकतामा राखि यो सम्बन्धी समस्याहरु समाधान गरिनेछ।

८) सुरक्षित गर्भपतन सेवा प्रदायक स्वास्थ्य संस्थाहरुबाट नियमित गुणस्तरिय सुरक्षित गर्भपतन सेवा प्रदान गर्ने व्यवस्था मिलाउने।

९) गुणस्तरिय जनस्वास्थ्य कार्यक्रमहरुको पहुँच दुर्गम तथा ग्रामिण क्षेत्रमा रहेका गरिब, पिछडिएका सिमान्तकृत समुदायमा पुरयाउन जिल्लास्तर बाट सुक्ष्म योजना निर्माण गरि कार्यन्वयन गरिनेछ।

१०) महामरी रोगको समय अनुकुल पहिचान तथा व्यवस्थापनको लागि आवश्यक प्रतिकार्य योजना तथा संयन्त्रको निर्माण गरिनेछ।

११) बर्थिङ सेन्टरलाई थप सुदृढिकरण गर्दै स्वास्थ्यकर्मिहरुलाई आवश्यक तालिमको व्यवस्थापन गरि गुणस्तरिय सेवालाई वृद्धि गरिनेछ।

१२) नसर्ने तथा मानसिक रोग सम्बन्धि रोकथाम तथा उपचार कार्यक्रमको विस्तार गरिनेछ।

१३) सन्तानको योजना बनाएका दम्पतीहरुमा फोलिक एसिडको प्रयोग दर बढाउने र जन्मजात हुने अपाङ्गाता न्युनिकरण गरिनेछ।

१४) प्रदेशको समग्र स्वास्थ्य सुधारका लागि साझेदार तथा सरोकारवालाहरुसंगको समन्वय र सहकार्यलाई सुदृढ र प्रभावकारी बनाउने।

१५) प्रदेश जनस्वास्थ्य प्रयोगशाला मार्फत प्रदेश र स्वास्थ्य कार्यालय संग समन्वय गरी पालिका मातहतका सवै किसिमका प्रयोगशालाको गुणस्तर मापदण्ड निर्धारण र नियमन गर्ने र External Quality Assurance प्रणालीमा आवद्ध गरी certified गर्ने कार्यलाई निरन्तरता दिईनेछ।

१६) प्रदेश जनस्वास्थ्य प्रयोगशाला लाई प्रदेशभर कै साधन स्रोत सम्पन्न, रिफ्रेन्स ल्याबको रुपमा स्थापना गरिनेछ। साथै सर्ने तथा नसर्ने रोगहरुको परिक्षणको दायरा बढाउँदै सो सम्बन्धी तालिमका व्यवस्थापन गरिनेछ।

१७) सर्ने, किटजन्य, यौनजन्य तथा माहामरी जन्य रोगहरुको नियन्त्रण, निवारण तथा उन्मूलनको लागि स्थानीय तहको सहकार्यमा योजना वनाइ कार्यान्वयन गरिनेछ।

१८) स्वास्थ्यकर्मिहरुको निरन्तर क्षमता अभिवृद्धिलाई निरन्तरता दिदै विभिन्न सरोकारावालाहरुको सहकार्यमा एकिकृत तालिमका एकिकृत प्याकेजहरु तयार गरिनेछ।

१९) आवश्यकताको आधारमा स्वास्थ्य संग सम्बन्धित सामग्रीहरु, औषधी, औजार, उपकरणको नियमित प्रक्षेपण गरि समयमै खरिद तथा वितरण गरिनेछ। साथै औषधी तथा औषधीजन्य सामग्रीको जिन्सी व्यवस्थापन, अभिलेख व्यवस्थापन लाई दुरुस्त बनाउन सेवा प्रदायक तहसम्म e-LMIS लाई विस्तार तथा व्यवस्थित गरिनेछ।

२०) प्रदेशमा रहेका एम्बुलेन्सहरुलाई प्रादेशिक प्रेषण केन्द्र मार्फत संचालन र व्यवस्थित बनाउदै लगिनेछ।

२१) स्वास्थ्यको समस्याको पहिचान गरि सो अनुसारको कार्ययोजना बनाई स्थानिय तह संग समन्वय गरेर कार्यन्वयन गरिनेछ।

२२) मेडिकल कलेज, एकेडेमी संग समन्वय गरी दुर्गम जिल्लामा विशेषज्ञ सेवाको पहुँच पुरयाईनेछ।

२३) अस्पताल तथा स्वास्थ्य कार्यालयमा रहेका Biomedical Equipment को मर्मत सम्भारको Biomedical workshop स्थापना गर्दै स्वास्थ्य संस्थाहरुको भवन निर्माण तथा मर्मतलाई समेत प्राथमिकतामा राखिनेछ।

२४) संयुक्त सुपरिवेक्षण गरी पहिचान गरिएका समस्याहरुलाई प्राथमिकरण गरी कार्यन्वयन गरिनेछ।

२५) प्रदेश स्वास्थ्य आर्पुती केन्द्रको भवन निर्माण तथा भण्डारण वितरण कार्यलाई व्यवस्थिा बनाउन क्षमता अभिवृद्धिलाई निरन्तरता दिईनेछ।

२६) स्वास्थ्य बिमाको दायरालाई वृद्धि गर्दै ५० प्रतिशत पुरयाईनेछ।

२७) नियमित खोप कार्यक्रमहरुको अनलाईन प्रणालीबाट दर्ता गर्ने व्यवस्थाको लागि आवश्यक प्रयासहरु गरिनेछ।

२८) विधालय स्वास्थ्य तथा पोषण कार्यक्रम अन्तर्गत किशोरीहरुलाई आईरन फोलिक एसिड वितरण कार्यक्रमलाई निरन्तरता र विस्तार गर्दै लगिनेछ।

२९) स्थानिय तह संग समन्वय र सहकार्य गरि स्वास्थ्यका कार्यक्रमलाई गुणस्तरिय ढंगबाट संचालन गर्न जिल्लास्तरमा प्रत्येक महिना मासिक बैठक संचालन गरिनेछ।

३०) स्वास्थ्यको प्राथमिक विषयमा अध्यायन, अनुसन्धान गरी अल्पकालिन तथा दीर्घकालिन योजना तर्जुमा गरिनेछ।

३१) बिकास साझेदार संस्थाहरुले प्रदेशस्तरका सम्बन्धीत कार्यलय र स्थानिय तह संग समन्वय गरि कार्यक्रम संचालन गरिनेछ।

Madhesh Province

2.3 Chief Minster household/home visit health service programme
(Mukhyamantri Ghardailo Swasthya Sewa Karyakram)

Background

Substantial progress has been made in health sector of Nepal since last decade. However, new health challenges such as non-communicable and mental health problems, health issues of elderly people, behavioural and lifestyle related health issues and nutritional problems etc. are on the rise. Therefore, to combat the shifting epidemiological trend of diseases from communicable to non-communicable is imperative and urgent priority of the province government. Constitution of Nepal has ensured the access to basic health services for all the people, and no one should be deprived of getting emergency services. Despite easy geographical terrain in Madhesh Province, still may people be out of reach to basic health services from health facilities due to socio-cultural issues. Thus, the service utilization from public health facilities by the marginalized, hard to reach and women is not optimum. Hence, increasing the access to basic health services at the grass root level, province government has promulgated the ***Chief Minister Home visit Programme*** from the current FY.

Objectives

Madhesh province government has endorsed the programme and budget for FY 2079/080 to enhance the access to health services at household level for the prevention and control of communicable and non- communicable disease through mobilization of health assistant and Staff nurse in rural municipalities. The programme focused on following objectives:

- To expand availability of promotive, preventive, and curative health services to people at household level
- To screen the status of NCDs (i.e., body weight, blood pressure, blood sugar, urine examination) and provide advice to seek services from nearest health facility if any suspected problem identified and regular follow up of cases
- To improve nutritional status and achieve the status of malnutrition free ward
- To ensure full immunized wards
- To ensure safe motherhood wards
- To provide adolescent health services and FP counselling services

Key implementation approaches/process

For the effective implementation of programme; there will be formation of steering committee at province level at MoSD and health coordination committee at palika level and ward level. Thus, the programme will be executed in close coordination between province and local government. The recruitment, deployment, monitoring, and evaluation of the programme will be conducted according to the programme procure developed by the province government.

Programme Coverage

The programme will be implemented in 59 rural municipalities of Madhesh province. It will cover all the wards of these rural municipalities.

Expected output

- Awareness related to NCDs will increase and burden of NCDs will be decrease
- Increased service utilization by community people
- Regular follow up of cases at household level
- Strengthened referral mechanism from community to health facilities
- Improvement in health reporting and recording system
- Functioning of health and wellbeing centres at community level
- Mainstreaming of Private sector.

2.4 Establishment and expansion of laboratory services in Madhesh Province

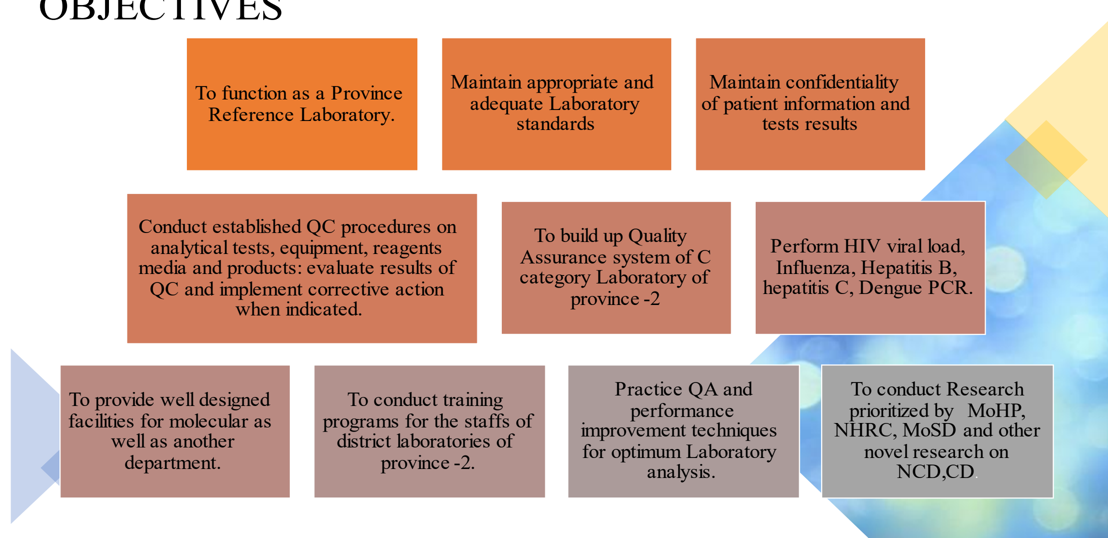
Background

The Province Public health laboratory (PPHL) services at Madhesh Province was established in 2019. The main goal behind the establishment of PPHL at Janakpurdham was to ensure the quality of the laboratory services of the people by organizing the laboratory services of all the government and private laboratories. The PPHL of Madhesh Province provides diagnosis services, disease surveillance, performs research and other activities. These findings and services not only show the cause of the disease also help in identifying it in the initial period before the disease worsens and providing appropriate treatment and helping to determine whether the treatment is effective or not and verifying that the disease is completely cured.

The PPHL of Madhesh Province uses modern laboratory technology to diagnose diseases in a timely manner. It works to achieve the goal of guaranteeing the right of the people to be healthy by exposing the facts of the effectiveness of treatment and all the indicators of health promotion. In the context that the constitution of Nepal establishes health as a fundamental right of citizens, to organize the laboratory service and in accordance with the concept adopted by the National Health Policy 2076, to ensure a healthy and happy life for the target alert and conscious citizens, by making maximum and effective use of the resources, cooperation, and partnership in the laboratory service. Apart from daily services, PPHL Madhesh is making its effort to control communicable and non-communicable diseases.

Objectives of the PPHL

The main objective of the PPHL is to assure quality of laboratory service in Madhesh Province. The specific objectives are shown in figure below



Major achievements of PPHL

- Establishment of PCR laboratories in 8 districts of Madhesh Province. Strengthening of District Hospital Laboratories Managing covid-19 PCR laboratories in all districts of Madhesh Province with 100 % functional round the year
- Finding of influenza cases in the province after the delta wave, the samples from Birganj and Janakpur were sent for further confirmation and informed to the Epidemiology and Disease Control Division (EDCD) and WHO, now COVI-19 and influenza combo PCR test kits are available and disease surveillance is on track. PPHL is now performing both COVID-19 and Influenza surveillance.
- We confirmed Cholera outbreak in Rupani of Saptari district by doing culture on TCBS media. The findings were informed to EDCD and thereafter cholera vaccination programme was conducted in the area.
- Evaluation of testing of SARS CoV-2 directly from saliva and comparing with the result obtained from sample collected in viral transport media (VTMs). Findings showed that direct saliva sample is more sensitive than that of VTM (lower CT value in saliva sample) and the evaluation was reported.
- PCR testing in tuberculosis diagnosis in the province for scale up of testing and found more cases of tuberculosis in the province. Evaluated by PCR testing and found that among sputum samples collected and turned out negative by microscopy were found to be positive (6.1%) among smear negative samples. The report was presented shared in the meeting organized by NTC, the open system PCR testing kits can perform in any PCR platform available for covid testing in the country and can be utilized for case finding in tuberculosis as per the need of Country tuberculosis control programme.
- We have performed gene sequencing of COVID-19 cases and further the sequence of COVID-19 variants were submitted to Global Initiative on Sharing All Influenza Data (GISAID) from PPHL.
- Evaluation of the first vaccine of Newcastle Disease Virus (NDV) prepared by Biovac (private sector company) in Nepal. Vaccines were tested by real time PCR to quantify the virus titre in the vaccine and since this is live virus vaccine, Embryo Infectious Dose (EID) 50 of vaccine was calculated by inoculating the virus in embryonated eggs.
- PPHL Madhesh Pradesh provide the HIV viral load, Hepatitis B Virus Viral Load and Hepatitis C Virus viral load testing facility.
- We are providing Gene Expert facility for identification of Mycobacterium tuberculosis. Samples are received from all the 8 districts of Madhesh Province. We have one Gene Expert machine with four modules.
- PPHL is also supporting in logistic supply and maintenance of the equipment's at the TB microscopy and Gene Expert centres of the Madhesh Province.

- We are also actively participating in National External Quality Assurance System, Randox International Quality Assurance Scheme and Royal College of Australia Quality Assurance Programme.
- We are also involved in malarial parasite Vector surveillance, environmental surveillance, case finding, tracing, and testing.
- PPHL is also providing trainings of basic training on microscopy of TB, Skill development, Quality assurance, EID, communicable disease quality control workshop, NCD-CD-AMR workshop.
- PPHL has established blood bank service in Anakpurdham under the Ministry of Social Development, Madhesh Province. Madhesh Blood Transfusion Service (MBTS) situated in Mujelia Janakpurdham has capacity of storing 1500 units of blood. The MBTS has the facility to separate blood into its various components so they can be used most effectively according to the needs of the patient. It can separate one unit of blood to plasma, platelets, factor VIII, and packed RBC. The MBTS also has the facility to check the transfusion reaction which occurs as adverse events associated with the transfusion of whole blood or one of its components

- Memorandum Of Understanding (MOU)
  - MoU between NHRC & PPHL on Sickle cell anaemia and Thalassemia study in Madhesh Province
  - MoU between PAHS and PPHL for gene sequencing of influenza samples from PAHS
  - MoU between Central Department of Biotechnology, Tribhuvan University and PPHL
  - MoU between Centre for Molecular Dynamics (CMDN), Biovac Nepal and PPHL for validation of Newcastle Disease Vaccine produced by BIOVAC Nepal

Future Plan of PPHL

- PPHL building completion in Mujelia Janakpurdham
- District Ayurveda Laboratories establishment
- Strengthening of District Blood Transfusion Services
- Establishment Laboratories at the 186 Palikas of Madhesh Province
- Recruitment of Human Resources for the 136 Palikas Level Laboratories
- Participate in the project “at assisted smartphone microscopy for automatic detection of par”sites".

2.5 Hospital Management Strengthening Prog–amme - Minimum Service Standards in Madesh Province

Introduction

The MSS for hospitals is the service readiness and availability of tool for optimal requirement of the hospitals to provide minimum services that are expected from them. The primary aim of Minimum Service Standard is to improve the readiness of hospitals through self and joint assessment using “Minimum Service Standard tools”, using the information to identify existing gaps, developing action plan for improvement and providing management grants to implement the action plan based on contextual priority.

This programme has established a 'National Hospital Standardization System' in Nepal. This programme has been supported and conducted by Ministry of Health & Population, Ministry of Social Development Madhesh Province, Provincial Health Directorate Madhesh Province, and Nick Simon's Institute. in initial phase and due course of time NSI handover this Programme to provincial Government 2078. Since 2078 MoSD has been leading this programme with some support of NSI taking ownership of this Programme provincial Government has been Allocating Budget for it Yearly. MSS Unit has been established in PHD 2078. MSS Resource Person are Sufficient in Madhesh Province. As for the concern in Madhesh Province, the Secondary A (Table 2) and Secondary-B (Table 3) level hospitals has improved their minimum service standard score to above 50% but the Primary Hospitals and Tertiary Hospitals are still behind.

Different Provincial Hospitals (Secondary-A) has initiated novel activities like initiation of Library (Siraha, Lahan, Kalaiya, Jaleshwar), Physiotherapy Services (Kalaiya, Siraha), upgraded Lab services, Paediatric ward (Siraha and Kalaiya), EHS clinic at Siraha Hospital, Store for Housekeeping, Repair and maintenance room, Dialysis service, ICU, Special Newborn Care Unit (SNCU), proper waste management at Jaleshwor Hospital, training site at Siraha Hospital, and many more. Therefore, these are the examples and many more are still left which Minimum Service Standard Unit has focused on the gap where the hospitals are lacking behind and helps to uplift the services by showing guidelines on how to improve the standards.

Although there are different hospitals in Madhesh Province which have been providing quality services to the people yet there are different factors which have been pulling down its services like inadequate ratio of human resource and patient flow, lack of skilled manpower, lack of 24 hours services like lab, x-ray, improper waste management, etc. Minimum Service Standard is the programme for strengthening of hospital and everyone should understand that this is the Government programme for the hospitals and to bring all the positive change (quality of service) doesn't totally depend on only Hospital, it also depends indirectly on other supporting Governmental bodies. So, this is the time for all Governmental bodies to come together for beginning, to stay together for progress and to work together for Success of achieving minimum service standards of all the Hospitals and make Madhesh Province as a Province of readiness to provide Quality of Health Care services in all Health care Levels. Based on the MSS scores provided in table below, all hospitals have been improving their MSS scores since last fiscal three years

Table 1. Individual Hospital MSS Score of Madesh Province

Hospital Name	2076/077	2077/078	2078/079
Bhardah Hospital	38	52	58
Pokhariya Hospital	54	55	54
Bardibas Hospital	22	33	39
Chandranigahapur Hospital	45	29	36
Nayanpur Hospital	19	29	34

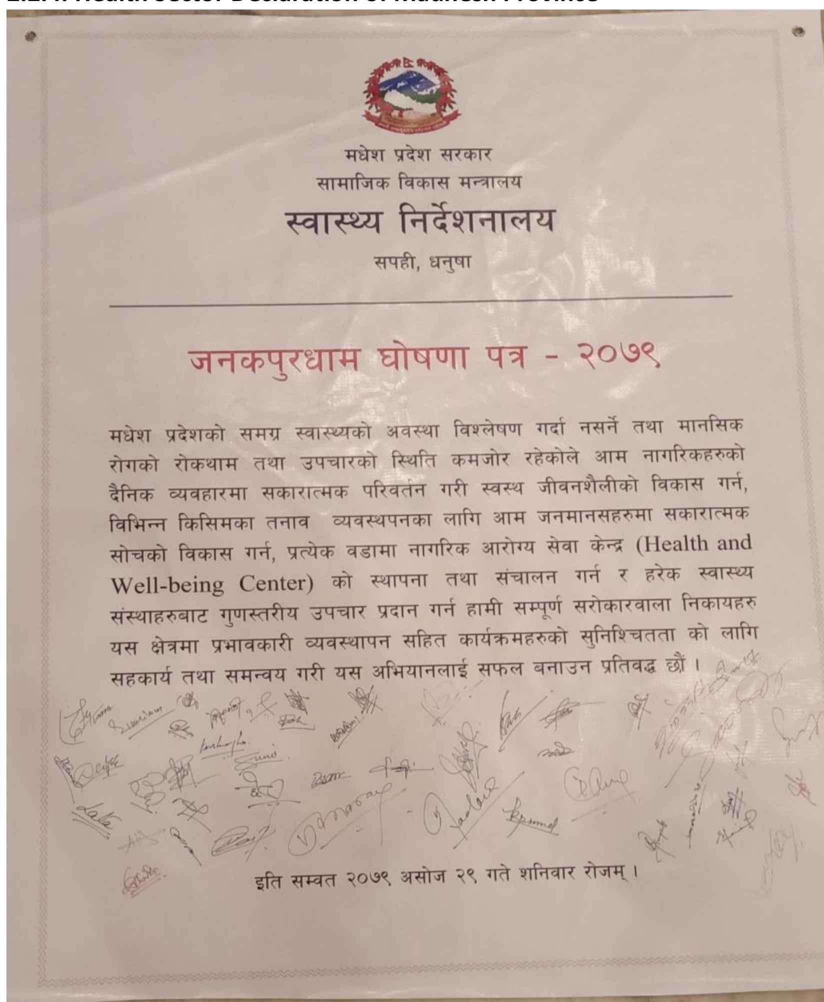
Table 2. Secondary A Provincial Hospitals

Hospital Name	**2076/077**	**2077/078**	**2078/079**
Siraha Hospital	59	86	91
Kalaiya Hospital	50	52	72
Lahan Hospital	49	53	70
Jaleshwar Hospital	54	60	70
Malangwa Hospital	41	50	57
	35	39	50

Table 3. Secondary B Hospitals in Madhesh Province (Central Level)

Hospital Name	2076/077	2077/078	2078/079
Janakpur Hospital	39	54	57
Narayani Hospital	26	33	44
Gajendra Narayan Hospital	39	28	30

2.2.4. Health Sector Declaration of Madhesh Province



मधेश प्रदेश सरकार
सामाजिक विकास मन्त्रालय
स्वास्थ्य निर्देशनालय
सपही, धनुषा

जनकपुरधाम घोषणा पत्र - २०७९

मधेश प्रदेशको समग्र स्वास्थ्यको अवस्था विश्लेषण गर्दा नसर्ने तथा मानसिक रोगको रोकथाम तथा उपचारको स्थिति कमजोर रहेकोले आम नागरिकहरुको दैनिक व्यवहारमा सकारात्मक परिवर्तन गरी स्वस्थ जीवनशैलीको विकास गर्न, विभिन्न किसिमका तनाव व्यवस्थपनका लागि आम जनमानसहरुमा सकारात्मक सोचको विकास गर्न, प्रत्येक वडामा नागरिक आरोग्य सेवा केन्द्र (Health and Well-being Center) को स्थापना तथा संचालन गर्न र हरेक स्वास्थ्य संस्थाहरुबाट गुणस्तरीय उपचार प्रदान गर्न हामी सम्पूर्ण सरोकारवाला निकायहरु यस क्षेत्रमा प्रभावकारी व्यवस्थापन सहित कार्यक्रमहरुको सुनिश्चितता को लागि सहकार्य तथा समन्वय गरी यस अभियानलाई सफल बनाउन प्रतिवद्ध छौं ।

इति सम्वत २०७९ असोज २९ गते शनिवार रोजम् ।

Bagmati Province

2.6 Trishuli Hospital in Bagmati province: Service with Smile

Introduction

Trishuli Hospital is a 50 bedded provincial hospital situated in the district headquarter- Bidur of Nuwakot district. The hospital was established in 2021 B.S. initially to provide health services to the employees of Nepal Electricity Authority and gradually extended its services to the public and started its services as a health center in 2032 B.S. (1975 A.D.). Initially the hospital delivered its services as a 15 bedded district hospital under District Health Office (DHO) then upgraded to 50 bedded in 2069 B.S. There are 4 blocks in the hospital for providing the preventive, curative and rehabilitative services.

Besides the Nuwakot district, the hospital provides service to the large number of people from Rasuwa and Dhading districts with total patient turnover of more 350 per day. The hospital extends in a land area of 13-0-0-2 ropanis with its own land ownership.

Background

The process of transformation from unitary to federal system of governance and delegation of power and authorities to local and provincial level provides number of opportunities and many of these are being capitalized by many local and provincial governments. The process has helped to improve ownership and accountability in service delivery and its governance through inclusiveness, capacity enhancement and gradual transfer of resources to independently exercise their authorities. As a result, it helped to improve access to quality health services and governance mechanisms through close and regular oversight on service delivery and health equity maximizing responsiveness and service delivery through need-based customized plan.

In line with the government of Nepal’s decision to improve minimum service standard in every Hospitals, Bagmati province government decided to make hospital with high quality services for citizens. Accordingly, Trishuli hospital followed up the MSS guideline for initiate the improved health services in their premises. This hospital able to get first position in the evaluation and monitoring of health services and resources. Then, Nepal government and Bagmati provincial government evaluated the services, Trishuli Hospital is now a district hospital which is considered as a step towards ensuring accessibility, availability, improving access and enhancing utilization of health care services to around 350 people per day.

Coordination, cooperation and resource management

To Main Building was constructed with the help of Korea International Cooperation Agency (KOICA)**.** Intensive Care Unit (ICU) was installed with the help of Bagamati provincial government budget and other sponsors. Handicap International helped to establish Physiotherapy Department. Good neighborhoods supported for the installation of oxygen plant system, complementing to the resources need for the operationalization of the Hospital. In addition, health development partners and many others have been supporting to strengthen the institutional capacity of hospital. The hospital development committee is taking the lead role in operations and management of hospitals.

Outcomes and achievements

Total 167 technical and non-technical staff members under the leadership of medical superintendent are providing services in the hospital with the capacity of 50 beds including ICU and NICU. 24/7 emergency services, pharmacy, tropical disease isolation and laboratory services are available in the Hospital. Additionally, the hospital has out-patient, ultrasound, echocardiography, inpatient, public health, ICU and HDU services. The hospital has established GeneXpert center aiding the diagnostic capacity of TB and tested more than 300 samples where 43 tested positive. The hospital has its own oxygen plant with capacity of 300 liter per minutes production. Furthermore, Trishuli has the most advanced Electronic Medical Record (EMR) system.

The hospital provided clinical services predominantly to people suffering from COVID – 19 and Dengue fever. During the F/Y 078/79 Safe Abortion Services was provide to 386 peoples, One Stop Crisis Management Center provided service to 60 peoples. Inpatient Services Was provided to 3523, Emergency Services was utilized by 1869 people. 533 people benefited from Social Service Unit and 5103 peoples got surgical service from the Hospital. The hospital was successfully established the ICU within very short period. Hospital has now fully functioning district hospital for Secondary "A "Level. Trishuli Hospital achieved 94% score and became the national first in the MSS review and awarded. It the success of the Hospital for service readiness.

2.7 One School One Nurse Program: Improving the child's health

One School One Nurse Program is one of the exemplary programs of Bagmati province. One School One Nurse Program was initiated in FY 2074/75 with 20 community schools and until FY 2078/079 this program is extended to 459 secondary schools with high marginalized population. The provincial government has planned to extend 60 schools in FY 2079/080. A Nurse with basic medicines and equipment to carry out the curative first aid services and a small grant to carry out health promotional activities have been provided by the provincial government. School Health Nurses are primarily responsible to carry out health promotion, preventive, curative, and referral services, psycho-social counselling services, regular health check-ups of students, provision of first-aid services, restriction of junk food consumption at school, etc. Consumption of junk food is an increasing trend among school-going children because it's an easily available, attractive, and appealing advertisement. So, they prefer junk food in comparison to homemade foods. However, these foods do not have sufficient nutritive value to fulfil their dietary needs affecting growth and development.

Miss. Arisha K.C is working as a School Health Nurse at Bajrabarahi secondary school in Godawari Municipality ward no. 11, Lalitpur for 2 years. After being appointed as a school health nurse she observed children consuming junk food rather than homemade food and because of that feeding practice, she had a doubt that most of them might be undernourished. So as a School Health Nurse she started to advocate for the restriction of junk food on school premises along with that she conducted activities such as anthropometric measurements for the assessment of the nutrition status of children. During a regular anthropometric measurement of children, she found out 20% of children from her school are prone to undernutrition. Among them, a five-year-old girl named Khushi Things is severely malnourished, and here is the story of Miss. Arisha (SHN) improving the nutrition status of that child.

Khusi Thing is a 5-year-old child from Godavari municipality ward 11. At the time of the first height weight measurement, her height was 109 cm, her weight was 13kg and her standard deviation score was -2SD (World Health Organization) is severely malnourished. She along with her parents visited a nearby health facility for confirmation of malnutrition and to initiate treatment. She counselled her parents on the consumption of homemade food and restricted the consumption of junk food. After that, the child was regularly screened through home visits of the school health nurse to monitor the improvement status. Within a month her nutrition status got improved and her height become 111cm and her weight increased to 18kg. Now the child is happy and healthy. On the other side, School Health Nurse shared this whole story at school and the school along with their parents decided to ban junk food and all parents agreed to provide a homemade meal to their child.
"We were not aware of the consequences that come with undernutrition because of the consumption of junk food. We have started preparing homemade snacks for her and also increase child-caring practice Thank you sister for the awareness and for taking care of our child."

2.8 Health Sector declaration of the Bagmati Province announced as part of annual review of FY 2078/79

1. Provincial Health Policy will be developed and endorsed by the end of the FY
2. Health in All Policies will be ensured by developing the action plan.
3. All health facilities including government, community, and private, NGOs will be enrolled in the DHIS II reporting system and eLMIS will be expanded at the local level health facilities by ensuring the quality of data.
4. Electronic Medical Record (EMR) system will be developed and implemented in the Provincial Hospitals
5. All ambulances under the province will be connected to the GPS and 24 hours' ambulance service will be functionalized by strengthening four dispatch centres.
6. Operation of at least "KHA" category ambulance will be ensured in all Provincial Hospitals and Mortuary Van will be managed for at least five hospitals in this FY
7. Tele Medicine Services will be expanded at least in the five hospitals and local-level hospitals
8. Special campaigns will be organized to prevent and control NCDs
9. Clinical Mental Health Services will be ensured in all Provincial Hospitals
10. Specialized health services will be ensured in all Provincial Hospitals and geriatric wards will be established and functionalized in Hetauda and Bhaktapur Hospitals
11. Palliative care service will be operated in Bhaktapur Hospital
12. Bagmati Province will be declared full immunization ensured Province by this FY
13. Prevention, control, and treatment will be managed of the emerging and re-emerging diseases like Dengue
14. Local levels will be selected for effective initiation of TB-free local levels and special programs will be implemented
15. Provincial Health Emergency Operation Centre will be strengthened for effective operation of preparedness and response to ensure minimum health services during health emergencies. A health contingency plan will be prepared and implemented by all health offices
16. Provincial Organization and Management (O & M) Survey will be completed, and organization will be upgraded, improved and human resources will be managed
17. One School, One Nurse program will be expanded and managed in the coordination and collaboration of the local governments
18. Action plan will be developed and implemented for the improvement of the nutrition of women, children, and adolescents. The treatment system of severe and mild acute malnutrition will be managed, and regular growth monitoring will be operated as a special priority
19. Capacity improvement will be done for local level health management system strengthening in functional coordination and collaboration with federal, provincial, and local level.

2.9 Ayurved and Alternative Sector Declaration of the Province announced as a part of the Annual Review of FY 2078/79

1. Prepare and endorse provincial Ayurveda and alternative medicine policy by this FY.
2. District Ayurveda Centers will be gradually increased in 25 beds Ayurveda hospital. Organization and Management (O & M) Survey of the provincial Ayurveda health centers will be completed, and the organization will be upgraded, improved and human resources will be managed
3. Ayurveda medicine production centre, Ratnanagar-Chitwan will be upgraded to make capable to fulfil the need of quality Ayurveda medicine to the provincial Ayurveda centers
4. Basic Health Care Services as per the public health regulation 2077 will be provided from all health institutions
5. Initiative will be taken to establish Ayurveda and Alternative Medicine Division in the Ministry of Health of Bagmati Provincial Government
6. High Level "Provincial Herbs Board" will be established in the collaboration of different ministries for research, identification, protection, and well managed consumption of herbs available in the province

7. Useful services like Yoga and Panchakarma will be promoted to support the health tourism of the province.
8. Open Gym and Yoga room will be built to promote healthy lifestyle for prevention of non-communicable diseases
9. District Ayurveda Centers will be widely publicized for promotion and expansion of Ayurveda services and Ayurveda Integrated information centre will be developed
10. All Ayurveda health facilities including government, community, and private who are not self-enrolment in the reporting system will be enrolled in the reporting system through AHIMS and eLMIS will be expanded from district to local level health facilities by ensuring the quality of data.
11. Ayurvedic health services and program will be planned and implemented based on the national and international target and indicators
12. Electronic Medical Record (EMR) system will gradually develop and implemented in the District Ayurveda Centers
13. Portable Ultrasound will be immediately provided to those all-District Ayurveda Centers where needed for diagnosis services expansion and effectiveness

Gandaki Province

2.10 Success Story - Establishment of infectious and communicable disease hospital in Gandaki province: A step towards Universal Health Coverage

Introduction

Infectious and Communicable Disease Hospital (ICDH) is Nepal's first provincial infectious disease hospital [1]. The Gandaki province government decided to convert the previous Lekhnath Community Lions Hospital (LCLH) to provide treatment for infectious diseases in the province on 12th April 2020. The hospital is operational as the provincial government hospital since 16th July 2020. The LCLH was providing general health care services to people in the region for nearly sixteen years. LCLH was functional through the generous donations from individuals, families, foundations, governmental and non-governmental organizations.

ICDH is now operational under the MoHP of Gandaki province. The hospital has been established by the Gandaki province government under the "Infectious and Communicable Diseases Management and Operations Committee (Formation) Order, 2077". Since July 2020, the hospital has been providing clinical care to people suffering from infectious and communicable diseases.

Background

The process of transformation from unitary to federal system of governance and delegation of power and authorities to local and provincial level provides number of opportunities and many of these are being capitalized by many local and provincial governments. The process has helped to improve ownership and accountability in service delivery and its governance through inclusiveness, capacity enhancement and gradual transfer of resources to independently exercise their authorities. As a result, it helps to improve access to quality health services and governance mechanisms through close and regular oversight on service delivery and health equity maximizing responsiveness and service delivery through need-based customized plan.

In line with the government of Nepal's decision to establish an infectious and communicable disease hospital in each province, Gandaki province government decided to establish provincial infectious and communicable disease hospital. Accordingly, the Gandaki province government decided to take over and convert to LCLH which was under operation providing general health services in Pokhara Metropilitancity-30, Mohoriya, Lekhnath of Kaski district on 12th April 2020. On 19th August 2020, the Gandaki province government decided the name of the hospital as "Infectious and Communicable Disease Hospital (ICDH), Gandaki Province, Kaski". The hospital is the Nepal's first provincial infectious and communicable disease hospital. The LCLH, Then, upon an agreement between the Gandaki province government and the LCLH team, ICDH is now a provincial hospital which is now considered as a step towards ensuring accessibility, availability, improving access and enhancing utilization of health care services to around 2.5 million people in the province reducing the OOP expenditure in health care services.

Coordination, cooperation and resource management

To make a reality of ICDH establishment and operationalization multiple stakeholders has played key roles under the leadership of Gandaki province government. The Nepal government has provided fund like conditional grants as reimbursements for the free treatment of COVID – 19 admitted cases. Pokhara Metropolitan city has supported for the installation of new oxygen plant system, complementing to the resources need for the operationalization of the Hospital. In addition, health development partners like WHO, International Nepal Fellowship, Rights for Children, Nelumbo Nepal, Lions Club of Lekhnath, Lions Club of Simsar and many others have been supporting to strengthen the institutional capacity of hospital. The hospital development committee is taking the lead in operations and management of hospitals and services.

Outcomes and achievements

Total 36 technical and non-technical staffs under the leadership of executive director are serving in the hospital with the capacity of 62 beds including ICU and NICU. The services available in the hospitals includes 24/7 emergency, pharmacy, isolation and laboratory services. Additionally, the hospital has out-patient, ultrasound, echocardiography, inpatient, public health, ICU and HDU services. The hospital has established GeneXpert centre aiding the diagnostic capacity of TB in the region and already tested more than 1250 samples where 94 were positive. The hospital has its own oxygen plant with capacity of 25 large cylinders per day of production. Furthermore, ICDH has the most advanced EMR system in Gandaki province.

Since the establishment of ICDH, the hospital has provided clinical services predominantly to people suffering from COVID – 19 and now Dengue fever. During the COVID-19 pandemic, 1366 cases of COVID-19 were admitted, operated COVID-19 vaccine centre regularly on all days except for public holidays and more than 27000 doses of vaccines given already. The hospital was successful in establishing the ICU and HDU within very short period of

time. In addition to being a hospital for general health care, ICDH has now become the fully functioning provincial hospital for infectious diseases.

A step towards Universal Health Coverage

Operationalization of ICDH under province government has enabled individuals and communities to have access to high quality health services so that they take care of their own health and the health of their families without financial hardship.

Best Practices at the Hospital

- Vaccination Campaign for the control of COVID - 19
- Non - COVID - 19 Clinical Care
- Recognized as Model Government Office in the Province in FY 2078 / 79
- Established Patient Satisfaction Survey
- Robust Online Database
- Paediatric Beds, Bubble CPAP and Radiant Warmers
- ToT training Site of IP & Health Care Waste Management (HCWM)
- PSC for admitted & discharged COVID – 19 cases
- Large number of COVID - 19 cases admitted and managed (Grand Total: 1361)
- Modern Networking with Server System
- Electronic Medical Record (EMR) System
- Robust Electricity System with new cabling, wiring, Central Panel Board, Distribution Boards and Transformer (500 KVA)
- Own Water source
- Stock of PPEs, Masks, Gloves, Face Shields
- Oxygen Concentrators, Oxygen Cylinders and Oxygen Plant
- Continuing Medical Education (CME)
- Experienced clinical team for COVID - 19 Vaccination

Challenges

- Under staffing in Radiography departments, Consultants, Medical Officers
- Temporary O & M
- No posting of Biomedical Technician, IT & Computer Experts,
- Inadequate numbers of Researcher, Specialists, Nursing Officer, Medical Lab Technologist, Anaesthesia Assistant (AA), Storekeepers
- No Fencing and Quarters for the staff of the hospital
- Space for the expansion of Radiology Department (CT scan & MRI)

Way Forward

- Expand the Hospital and become the referral Provincial Hospital for Gandaki province
- Training Site for Clinical Skills Courses like ICU, HDU, IP & Control, IP & HCWM ToT, CTS
- Implement Health Care Services on behalf of Social Security Fund & Health Insurance to ensure UHC
- Special Professional Growth of Health Administration and Health Accounting System

2.11 Health sector declaration of Gandaki Province announced as a part of annual review

The constitution of Nepal has established free basic and emergency health care as a fundamental right. The provincial government has an important role in ensuring universal access to quality health care in the federal context. It is also necessary to implement the specified work areas for all tiers of government. The provincial government's health policy, annual policies and programmes, sustainable development agendas and existing contextual issues are being addressed based on the current health sector priorities backed up by evidence. In doing so, innovation, novelty and creativity of health care management is necessary to provide equitable health care services with social justice.

It is equally important to continue the important works that have been started in the region and to institutionalize them through good governance and efficient administration, to improve accountability and professional conduct, and to establish strategic cooperation between health service providers, service users and stakeholders. In the federal context, all the spheres of governments have owned health as a common agenda for development, restructuring of health infrastructures and services and the commitment to the integrated development of the health system is being accepted as an opportunity and are reflected in the immediate, mid-term and long-term plans. The annual health review and planning meeting has exposed the current achievements, problems and challenges encountered, as well as opportunities. Based on the robust discussion, critical analysis and suggestions from the stakeholders, the meeting has declared following action directions for Gandaki province:

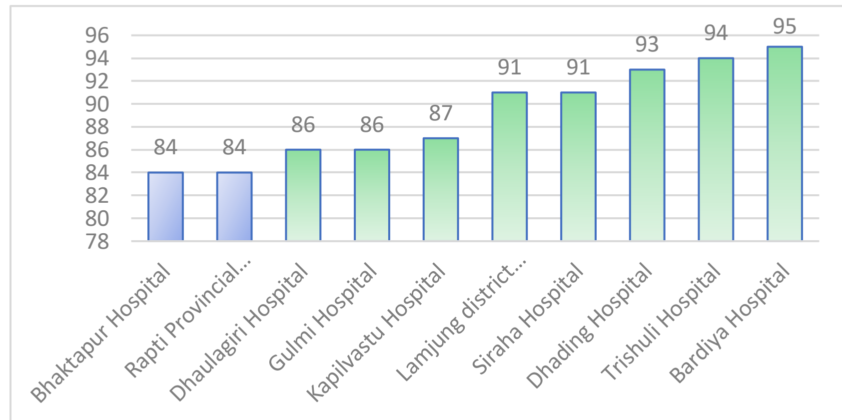
1. For the full and effective implementation of Provincial Health Policy, 2078, sectoral multi-year action plan will be developed and implemented
2. The scientific restructuring of provincial bodies, including the structure and positional work description, through the institutional and management survey of the health sector (O&M Survey), as well as the deployment of personnel through the Provincial Public Service Commission (PPSC), addressing the policy and technical problems seen in the operation, management, and distribution of specialized personnel in provincial health institutions will be ensured.
3. Competency follow-up will be implemented by formulating and implementing the provincial health training strategy.
4. The use of existing tools and equipment in health institutions under the province will be audited and based on the information received, action plans will be developed and implemented.
5. Quantification, forecasting, procurement, and supply will be arranged through scientific methods to ensure uninterrupted availability of sufficient drugs, medicines, and medicinal goods in the province.
6. To prevent and control mental diseases and NCDs, which are on the rise, a provincial multi-sectoral action plan will be developed and implemented adequately addressing the social determinants of health.
7. By increasing investment in the health sector, to achieve the highest return on investment ratio, by maintaining harmony with international, national, and provincial goals and priorities, to identify, select and implement plans, to eliminate duplication at different levels, to keep work execution agile necessary facilitation and coordination with local levels for the development and implementation of joint action plans will be done.
8. As specified by the Sustainable Development Goals, to achieve the preventable maternal deaths of the province in accordance with the target specified by the provincial government, ensuring CEONC services in all districts within the province, regular monitoring of maternal and infant deaths, and further promoting institutional delivery, the initiation of a special campaign to gradually make the local levels a "full institutional delivery" province will be done.
9. Social health security programmes such as the health treatment financial concession programme, free blood transfusion programme, etc. intervened by the province will be reviewed on a quarterly basis to ensure effective implementation.
10. Specialized maternity waiting rooms will be established at strategic locations where specialist maternity and child health services are available within the province.

11. The provincial health emergency operation centre will be capacitated with human resources to strengthen the preparedness and response to the epidemic and other public health related disasters more effective.
12. In addition to implementing the EMR system in all the provincial hospitals, arrangements will be made to integrate the health service information and develop an integrated health information system through a digital system that can be monitored by the ministry and the directorate.
13. In addition to expanding inpatient services from Ayurveda health institutions under the province, Dhaulagiri and Gandaki Ayurveda dispensaries will be developed as Ayurveda medicine production centres.
14. To make health services effective and people-oriented, innovative health programmes that contribute to sustainable development goals will be conducted with the local level and non-profit organizations based on the principle of cost-sharing.
15. An integrated health information system will be developed through a digital system including the health programmes conducted by the province government.
16. Overall, although the health indicators of the province are satisfactory, a unified monitoring, supervision and evaluation plan will be prepared and implemented to ensure the effective implementation of programmes within the province to achieve equitable, uniform and consistent achievements and to institutionalize them.
17. Studies and research activities will be conducted with an emphasis on health systems research to make health services accessible and quality.
18. Health awareness programme will be conducted through school health education programme to promote healthy lifestyle.
19. Provincial participation and facilitation will be done to make the health insurance programme effective to make health services accessible, affordable, and quality.
20. Quality health service delivery will be ensured by formulating and implementing provincial quality strengthening strategy.
21. In the province's health sector, leadership and good governance will be promoted by formulating cost-effective and result based plans emphasizing on decent, accountable and transparent performance.
22. The social health protection programmes intervened by the province will be integrated and arranged to be operated through the SSU.
23. By making public health surveillance more effective in the province, every maternal-infant death and all deaths in hospitals will be audited.
24. Necessary legal provisions will be implemented to prevent, control, and regulate misleading advertisements, information dissemination and unauthorized service delivery related to health services.
25. Since the vaccination programme has made significant progress and declared the Full immunized province, the cold chain sub-centre will be expanded and strengthened to make the vaccination programme more accessible, convenient, and quality, and to reduce the wastage rate of the vaccine, while ensuring its sustainability.
26. For providing quality health services within the province, a multi-year health infrastructure development plan will be prepared and implemented after stock-taking and assessment of the existing infrastructure.

Lumbini Province

2.12 A success story on the implementation of Minimum Service Standards

The Minimum Service Standard aspires to ensure the readiness of health facilities to deliver quality health services. MSS covers holistic dimensions of Governance and Management, Clinical Service Management and Support Service Management. Lumbini provincial government has allocated budget for MSS monitoring and assessment of hospitals under Lumbini Province. MSS program has been fully rolled out in all hospitals under the management of Lumbini provincial government. Assessment against MSS highly sensitized hospitals which has created a supportive environment for gradual strengthening of hospital services. Lumbini provincial government has been allocating budget for hospital strengthening program which is mainly for addressing gaps identified at hospitals through MSS. Good performing hospitals' MSS score as presented in the figure set example for others to improve further.



The hospital management committee, which was vacant in many hospitals in the past has been completed, which has created conducive environment in hospital management. In many hospitals, the position of accountants used to be vacant, and works was carried out deputing the accounting staffs from other offices. Now many hospitals have filled the posts of accounting staff. The problem of recording and reporting of hospital services is being gradually improved by on-site coaching during MSS follow-up visits. As regards the hospital outpatient services, at least one specialist doctor has been provisioned in each hospital. With the aim that preventive service should also be provided by hospitals, maternal and child health clinic has been established in all 13 hospitals under the provincial management. According to the government policy, the hospitals have started their own pharmacy and the management of human resources for 24 hours service has been done by the provincial government.

Among the 13 hospitals under Lumbini Province, 24 hours regular operation service has been started from all hospitals except Palpa hospital and is in process at Rukum East Hospital. Following the assessment using MSS, separate additional wards for inpatient services have been managed in many hospitals. There has been significant improvement in diagnostics and investigations. Services like USG and X-ray with CR system has been ensured in all 13 hospitals and CT scan service has been expanded in Lumbini and Rapti provincial hospitals. Radiology Department in Lumbini Provincial Hospital has come into operation in a separate building and provision of MRI service is planned for the current fiscal year. Screening services for sickle cell has been provided for free from 6 hospitals in Terai. Realizing the need for dental services in hospitals, dental services with provision of dentist has been started from all 13 hospitals. All 13 hospitals have managed Mortuary Freeze with at least 4 chambers to manage Post-mortem services. According to MSS standards, physiotherapy services required in hospitals have also been resumed from all 13 hospitals with necessary human resources.

The third and important component of the MSS is support service management, which helps to improve the quality of clinical services. Separate CSSD, and laundry and housekeeping departments have been organized. MSS also exposed the issue of costly medical equipment being broken or not being properly stored. To address this issue, a separate repair and maintenance department was established in some hospitals. For the management of hazardous waste coming out of the hospital, there is an arrangement of Autoclave in every hospital, so that such waste is

disposed of only after being sterilized. According to the policy of the government, a social service unit has been established and free treatment has been arranged for the poor, destitute and helpless citizens from each of 13 hospitals of the province. With the improved MSS score of the hospitals, health services provided by those hospitals are expected to be of better quality.

Karnali Province

2.13 A mother's love and indebtedness (case study)

Sanjok Pun 11 years old boy came to Chaurjahari Hospital Rukum with his mother, desperately seeking enough hope of treatment for his fractured in right hand side. His mother is a housewife who is always busy completing all her household responsibilities and taking care of her three sons and a daughter. She was anxious at first to seek medical care as they spoke her different mother language, which also caused her anxiety about expressing their problems. Furthermore, she also come from a poor family background and did not have sufficient fund for his well treatment.

In between, her neighbours recommended that she should visit Chaurjahari Hospital, then she began her journey on foot taking four days to arrive the hospital. Once they arrived, duty doctors made their initial assessments, and he was advised and surgery performed over his right arm. After the successful surgery for complete recovery and healing he stayed in hospital for three months. He received free treatment, free food, and compassionate care during his stay in hospital. When he completely recovered his mother was overwhelmed and grateful to the hospital team. She immediately went her home and brought a goat as a gift to the hospital team. It was very surprising moment to our hospital administration, and we asked her why she brought a goat and she spontaneously responded with tears of joy, "I am overwhelmingly happy in my heart, my mind was always up and down with thoughts of uncertainty. But now I am relieved, happy and thankful, and do not know how I can compensate the hospital for their care."

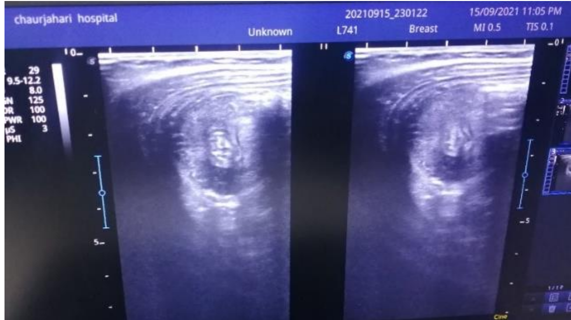
Figure 1: Happiness of Sanjok and his mother after recovery

Figure 2: Sonjok mother sharing her gratefulness to Hospital team

The goat was a symbol and act of her appreciation and love towards the hospital staff who provided impeccable service and care to Sanjok during his treatment. In this case, a goat is gifted for feasting as a sign of great honour, reverence, hospitality and appreciation. Hospital staff received gratitude from an overwhelmed mother of an 11-years old boy who thought there is no hope of recovery. The next day, Sanjok's mother was invited to share her thankfulness with the staff at the morning meeting and later both mother and son together with all the hospital staff feasted to celebrate Sanjok's recovery and the mother's love and indebtedness.

2.14 Telemedicine for Life Saving During Emergency (case study)

I’m a paediatrician serving as a General Practitioner in rural setting of Chaurjahari, Rukum West and Medical Director in this hospital since 2008 and my wife is also GP, working with me. We have a 5-year-old daughter and a 2-year-old son. I want to share an incident about when my son Sarthak was 16 months old. He had mild abdominal pain in the morning at 9 am. But he was playing and eating. We both left him for our work at the hospital. At lunch, my mother who helps us look after him said he is putting his hands over his stomach and crying now and then. We thought its abdominal colic and gave him paracetamol. It was a busy day at the hospital as usual. When we came home after 5 pm, he was still having pain abdomen and vomited once. We decided to give him iv buscopan and ondansetron. He refused to eat. The colicky pain became more frequently, and he was in agony when it came. After our daily night rounds finished at 9 pm, his pain was coming at every 15 minutes. The medicine wasn’t helping. We noticed mild jelly like blood stain on his diaper. Then we realized, this could be intussusception.



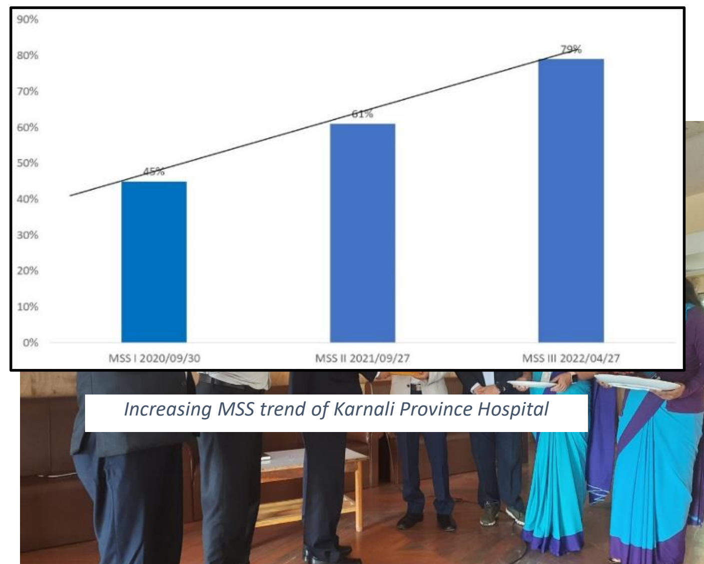
We were at a loss about what to do. None of us had dealt with this type of case before as it’s very rare. We thought let’s do an ultrasound to confirm it. There looked like a doughnut shaped mass in his right lower quadrant of abdomen. None of us there were radiology experts and here was our own son with a life-threatening condition. Suddenly Dr Rabin Khadka current Health Director of Karnali province came to my mind, I rang him at 10 pm, he picked up his phone, I shared Sarthak’s history, he came online on messenger, and I showed him the USG screen by video as I did it. He told me to show USG with a plain probe, when he saw the picture, he said it is Intussusception. That time we were not sure what to do, we felt very helpless. We prayed to God to save him, it was already more than 13 hours since he started having abdominal pain, he was in pain and crying.

We both had been busy in hospital the whole day; we saw about 350 OPD patients. We had given him anti spasmodic, pain killer, antiemetic and now in the middle of the night we found it to be intussusception! We two were the senior doctors there along with an orthopedic friend leading a team of 4 medical officers. We had never seen a case of intussusception before, let alone reduction. My wife said- ‘let’s go to Nepalgunj’. When I checked to arrange transportation, the 2 ambulances in our area had taken referred patients to Nepalgunj and were still there. Our hospital jeep was also in Nepalgunj to refill oxygen cylinders. It would take a t least 5-6 hours by road to reach to Nepalgunj. In intussusception, after 24 hours there is high chance of necrosis and perforation of intestine leading to death.

Then I called my elder brother, Dr Arun Budha, who is our guardian and a surgeon serving in Tansen Mission hospital. After knowing the reality of situation, he told us to take a plain Xray of his abdomen and take him to the Operation Theatre (OT). We then video called him, and he guided us through the Pneumatic reduction procedure. We prepared an equipment set with a foley’s catheter, urobag, and BP cuff. We gave him Ketamine and did the procedure on our 16 months son, as we were guided on video call. In second attempt, the intussusception was reduced partially. We checked with another X-ray and compared with pre procedure one. We did USG and called Dr Rabin again in middle of the night. He kindly responded and said it’s reduced. We breathed with relief. We thanked God for saving the life of our son and thanked Dr. Rabin and Dr Arun, who stayed on Tele on call for us that whole night. Sarthak was on intravenous fluid that night and slept very well, it was as if the pain magically disappeared as soon as the mass reduced. Around 5 am again Dr Rabin called to ask about our son. Thank you very much Dr. Rabin, Dr Arun, our hard-working colleagues and telemedicine for helping us treat our son.

2.15 Advancing Readiness of Health Services in Karnali Province (case study)

Province Hospital (Secondary B) is located in Birendranagar, Surkhet was established in 2019 BS as a Health post at Gothikanda which was upgraded to 50 bedded Mid-western Hospital in 2062 BS. The hospital was renamed as Province Hospital with 250 beds in 2075 BS. This is a referral hospital in Karnali province which provides specialized health services. In order to assess the readiness of health service from the hospital minimum service standard (MSS) was carried out from 12-14 Baisakh 2079 BS in the presence of MoHP team. Basically, the assessment was focused in three pillars of service availability and quality services.



Increasing MSS trend of Karnali Province Hospital

Province Hospital Director receiving award from Secretary of MoSD

Among the three pillars of MSS assessment, the province hospital is highly prioritized hospital with new advance infrastructure, clinical service and adequate support services. Karnali province secured highest score among the Secondary B level across the country. The hospital has sufficient land and located in suitable location. The hospital provides services to more than 1500 OPD cases every day. Hospital has enough best practices. It has separate information system, advanced health service, training of SBA, Medical Legal Partnership, FP and Comprehensive Abortion Care (CAC) are continued for specialized health services. New Orthopedic ward, meditation room, Neurosurgery service, oxygen plants are new initiation that has been introduced in the hospital recently. The clinical services basically maternity, inpatient, ICU, Laboratory and surgery service are growing with enough human resource and advanced medical equipment.

Karnali province health service directorate had organized three days annual review meeting from 23-25 September 2022. During the review Hospital director also shared the experience how they are advancing the clinical health service provided from hospital. Integrity, regular monitoring, CME, coaching and arrangement of enough human resources were the key action which were the contributing factors for increased readiness of hospital services. The hospital is exploring idea and strengthen service in coming days with expanded service and other support services. They are committed to increase their aggregate score than preceding years.

2.16 Case Study - Identification and management of malnourished children under the leadership of municipality

Government has introduced Integrated Management Acute Malnutrition programme in collaboration to rehabilitate the malnourished children with development partners in Karnali province districts. The health service office, Dailekh had given 7-day comprehensive nutrition package training to health workers in collaboration with USAID's/SUAAHARA II programme which is also run in Dailekh. This was cascaded down to FCHVs who received a 3-day package. The training aimed to build capacity of health works in maternal, infant and young child feeding, integrated management of malnutrition and integrated management of neonate, child illnesses. After the trainings, 14 health facilities have established outpatient therapeutic centre (OTC) to treat malnourished children. This has helped communities access the malnutrition treatment services in the nearby health facilities instead of requiring to

Measuring children's arms in an OTC.

travel long distance to the district headquarters. The OTCs are now in regular operation and OTC centres are getting continued support for review and planning meetings, follow ups, on-site coaching and supportive supervision.

Among the various health facilities operating OTC, Lyanti Bindrasaini health facility located in Chamunda Bindrasaini municipality has played an important role in the identification and management of malnourished children. They made policy decision at the nutrition and food security steering committee meetings to help identify malnourished children hidden at the community level and discussed it at the health institution operation and management committee meetings as well. They screened children for malnutrition using mid-upper arm circumference (MUAC) tape in outreach clinics and other service delivery points, and also mobilized FCHVs for screening.

Outpatient Therapeutic Centre (OTC) at Lyanti Bindrasaini Health Facility

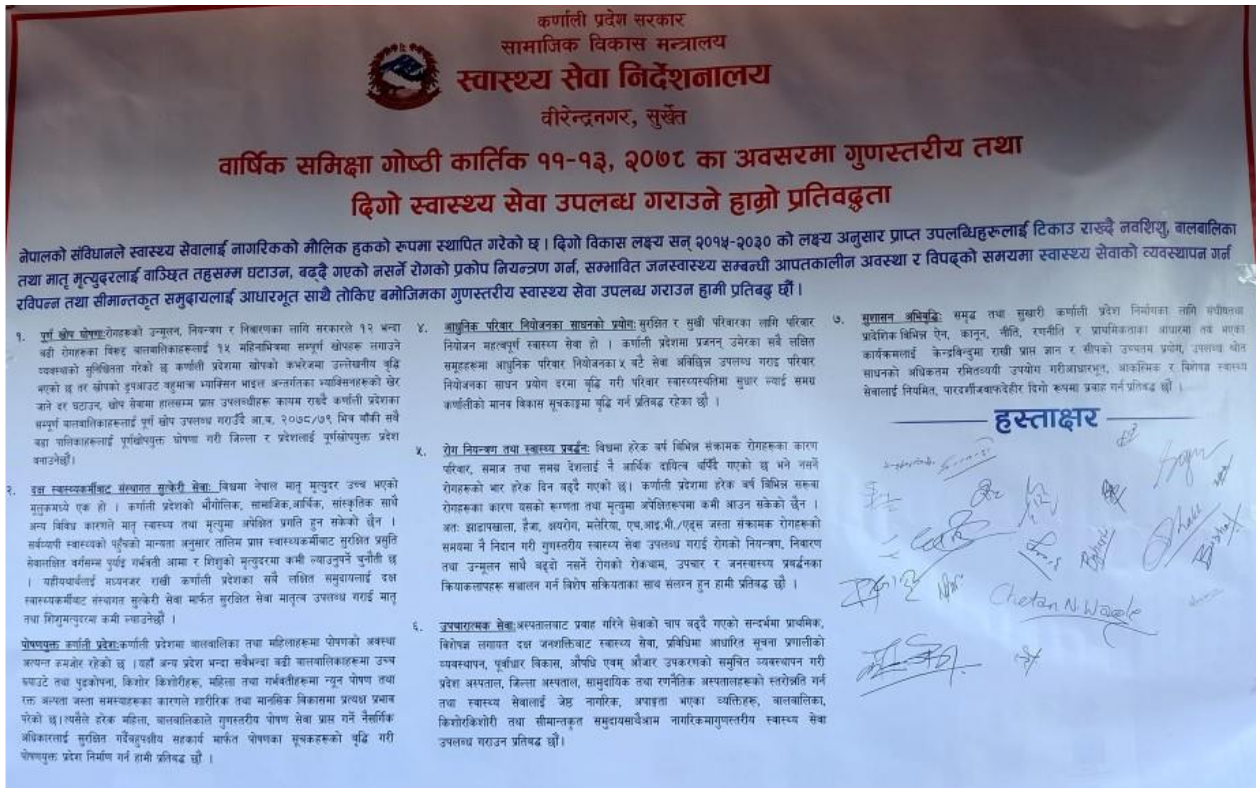
Last year, the health facility screened all children under 5 years of age for malnutrition and identified a total of 137 malnourished children, who were then admitted to OTCs. According to Hikmat Bahadur Bhandari, Head of Lyanti Bindrasaini health facility, so far 72 moderately malnourished and 57 severely acutely malnourished children have been treated by the health facility. To reduce the default rate of the treatment, FCHVs and health workers also conduct home visits.

Various activities play an important role in bringing the importance of nutrition to the community and household level. Currently, there has been an increase in the production and consumption of nutritious food at the household level. However, more OTCs are needed as it is not possible to manage SAM children with the current number of OTC. Mankumari Shahi, Municipal Chief of Health Section of the Chamunda Bindrasaini Municipality has expressed her gratitude to Suaahara II and the FCHVs for helping to identify and manage malnourished children.

Mr. Ganesh Kumar Shahi, Mayor of Municipality, also expressed his gratitude to the health office and nutrition programme staffs for contributing to reducing malnutrition of children even in difficult situation.

2.17 Provincial commitment to improve health indicators in Karnali Province

This is the Provincial Commitment aiming to improve the health indicators as well as strengthening health system during Annual Review Meeting of FY 2077/78. It is also the concurrent of declaration during the annual review meeting dated on 23-25 September 2022 stated by Provincial Health Director.



To improve the Key Service Indicators is equally important to obtain the target of SDG 2030 as well as the universal health coverage. Province has completed the annual review meeting successfully. All district managers have expressed their commitment and developed target plan during annual review meeting of FY 2078/79 as below to be shared soon. Province is committed to province technical back to meet the target by joint efforts.

Sudurpaschim Province

2.18 Case Studies - Rural Ultrasound Programme - Provincial Flagship Initiative to Save Life of Mother and Newborn

Background

The far western province is geographically considered to be remote and very challenging from the point of view of development. It occupies 13.27% land of Nepal and has 9 districts with 88 local level. Rural Ultrasound programme is one of the innovative flagship programmes of Sudurpashchim province initiated in 2077 BS. Nepal Demographic Health Survey (NDHS) and other study showed that maternal and neonatal mortality is high in Sudurpashchim province. Government of Nepal has also developed various policies, strategies and interventions to address high status of maternal and neonatal mortality, but the magnitude of the mortality is still high in comparison to other South Asian countries.

Health Directorate of Sudurpashchim province initiated the rural ultrasound programme using the special grant provided by the FMoHP in 2077 BS. In the first phase of the programme Health Directorate purchased 88 USG machines and provided to 88 local level by selecting remotest health facility of that local level. 90 nursing staffs provided 21 days USG training in first phase. This section presents the case stories related to rural ultrasound programme in Sudurpaschim Province.

Rural USG programme supporting health workers to provide quality maternal and newborn health services (case study)

Dhansinghpur Health Post is in the rural village of Tikapur Municipality, Kailali and targeted to provide basic health services to approximately 25 thousand population. Kamala Sharma, Sr. ANM at Dhansinghpur HP is one among senior health service provider providing continuous health services since last 15 years.

Kamala Sharma (Sr. ANM) Providing the RUSG services at Dhansinghpur Health Post

After the initiation of Rural Ultrasound (RUSG) Programme by Provincial Government, Sudurpashchim Province, Kamala participated the training in first phase (in Mangsir 2077) and since then she has been providing continuous services. Currently, Dhansinghpur Health Post is providing the regular RUSG programme from health post in regular basis and from its mobile camp time to time.

Kamala highlighted on the effectiveness of RUSG programme by pointing out its effectiveness on minimizing the morbidity and mortality related to pregnancy by timely identifying and referring them in higher treatment centre for further treatment. Since starting phase of RUSG services at the Health Post, Kamala had scanned more than 1730 cases so far and identified several complicated cases. The common complication she has observed were Molar Pregnancy, Intra Uterine Fetal Death (IUFD), Breach Delivery, Polyhydramnios and Oligohydramnios.

Kamala Sharma said *"I am very happy nowadays, as I can be able to save several rural women's lives by timely identifying the complicated pregnancy and sending them Tikapur and Seti Hospital for further management of complication. The recent complicated pregnancy I referred to hospital was a case of molar pregnancy, which was 23 years of primigravida from Chaudhary community. I referred her to Seti Provincial Hospital for treatment, she got operated and now her condition is normal".*

Kamala is sure on the very positive result from RUSG programme to reduce the maternal and neonatal death in the coming future. She recommends all other provinces to introduce the programme in their respective provinces, especially enforced to those provinces where there is limited access to health facilities and difficult terrain. Having very positive support from provincial and local government to strengthen the RUSG programme, there are some challenges to expand and run programme smoothly. The common challenges are limited trained human resources, availability of single machine in almost local level and limited staff araciality provide continuous outreach RUSG services.

USG programme effectiveness in Doti district (case study)

I am Deepika Dhami Khadka, working in the permanent post of Sanagaon Health Post under Purvichouki rural municipality of Doti district of Sudur Paschim Province. I also had the opportunity to take training of 21-days rural ultrasound programme organized by the Ministry of Social Development of Sudur Paschim Province. It was a challenge itself to me to present my skills to the community along with the opportunity.

The rural ultrasound programme was the new initiative for the province and a new learning experience for me. I am happy to see that the ultrasound machine is different from what I have seen and good example of technology (a Tab) and easy to carry though rural word is there.

Dipika Dhami Khadka, ANM, Sanagaun Health post, Purbichauki Rural Municipality of Doti providing USG service to rural community women

From the day of 11/15/2076, the rural ultrasound programme was started in all 7 wards under Purvichowki Rural Municipality. Looking at the state of maternal and child health in my province, it is considered risky compared to other provinces. Maternal mortality rate seems to be increasing due to geographical hardship, poverty, lack of education and health service as well as lack of health awareness during pregnancy.

I continued to provide service directly by coming to health though people should walk for several hours to reach health post and I also serve the clients, even during the risk of covid-19 epidemic that has shocked the world. I am trying my best through the rural ultrasound programme to overcome every challenge to reduce maternal and child mortality. Looking at the current progress while providing the service, a total of 1332 pregnant mothers have been checked in Purvi Chowki rural municipality through rural ultrasound programme, 137 are less than 20 years old, 1195 are more than 20 years old. Out of which 1,284 women found normal and 48 pregnant women are detected with complications and sent outside the district to Silagadhi, Dhangadhi, Nepalganj. The complicated cases found are Hydrocephaly-2, Ectopic pregnancy -1, Twins - 10, IUFD- 4, Breech- 17, Blighted ovum - 3, Oligohydramnios- 5, Placenta previa- 5, Transverse lie- 1. If these problems were not identified in time, the life of the mother and the child would probably be very difficult.

On the day of 12/02/2077, I was working in my office, Purvi Chowki Ga. Pa. ward no. 07 Pokhari health post officer informed on the phone that one pregnant woman has been sent to me for ultrasound as she is suffering from unbearable pain. She was Bhawana B.K. from Pokhari, Salena Ward No. 07 (Last Menstrual Period 2077/10/25 and Expected Date of Delivery 2078/08/02) with Gravida-1, Para-0 and she has been having trouble for two days continuously. When Bhawana came to my office, she was suffering from unbearable pain and during the ultrasound, I saw that the baby was not in the place where it should normally be, but in another place i.e., she had Ectopic Pregnancy of 6-weeks. As she was in a lot of pain, I gave her some pain reliever and started counselling her. I informed her mother-in-law that the life of the pregnant mother (Bhawana B.K.) is in danger due to her immature age (19 years) and above that she has Ectopic Pregnancy.

After that, Bhawana's mother-in-law started crying and said that she did not even have money for treatment to go to the district hospital. I can understand their difficult situation in one side they are poor and in other side the complication. After that, our Sanagaon health post family requested the Rural Municipality and the Rural Municipality helped Bhawana to reach the district hospital by arranging free transport from their own ambulance. Also, I had informed in advance that I am sending an ectopic pregnancy case to the district hospital. District hospital-based Dr. Pramod's team saved Bhawana from death by performing a successful laparotomy surgery.

Now Bhawana B.K. is healthy. I feel happy and proud that I have succeeded in saving Bhawana life and trying my best to reduce the maternal and child mortality. This is the success story of the rural ultrasound programme of my village Even today, pregnancies are like near to death experience and many people have to die prematurely without

getting treatment and advice at the right time. In the coming days, no pregnant woman should die prematurely I will continue to provide services by continuing to work to prevent maternal and mortality rates

I hope that the rural ultrasound programme will be successful not only in my Sudurpashchim Province but also in every province across the country and no pregnant woman should die prematurely. Currently Purvi Chowki Rural Municipality is providing free ambulance services for pregnant women. This has helped poor families a lot. The development of far west is like the name of the province. Even the hilly parts are more remote. Neither good treatment nor facilities. The compulsion to walk 5-6 hours to receive and provide health check-up services is still unbearable. I would like to request that the attention of all stakeholders should be drawn not only to the work of the office in the big city, but also to the truth and pain of the rural areas.

Lalita's life saved by USG programme, Achham (case study)
Lalita Bhul, 21 of Sanfebagar Municipality, Achham was living with her husband in Bangalore India, since 2019. In early 2020 she got pregnant, and COVID-19 was cases were raising all over the world. As she was living in small room and they don't have enough money in India, Lalita spent her pregnancy time without regular ANC check-ups. After 7 months of pregnancy Lalita and her husband decided that she will return to Achham from India and give birth to child as there are other relatives in the hometown, and she will have better care during and after pregnancy.

Lalita's husband requested friends who were coming to Nepal to take his wife with them and support to safely reach Achham through different routes from India to Nepal. Lalita was seven months pregnant, and it was not good for her to travel during such time but due to COVID and other family reasons she decided to come back to Nepal. When Lalita came back to Nepal, there were high rises in the COVID cases and while travelling in public vehicle Lalita was bit conscious about possible COVID infection and adhering to mask and sanitizer. When she was about to reach Sanfebagar of Achham, she was feeling fever and cough. The municipality have managed quarantine for the external person coming to the place and Lalita was asked to stay in the quarantine for two weeks. This was completely unexpected for her, and she was tested positive for COVID.

Lalita spent 15 days in the quarantine in her seven months of pregnancy and at least happy that she didn't have other complications because of COVID-19. After having negative COVID-19 test, Lalita returned to her home and preparing for safe delivery of the child and discussed with her in laws about it. One of the neighbours of Lalita working as FCHVs suggested Lalita to go for ANC check-up before her delivery. At first Lalita was little hesitant to go for ANC check-up, but she agreed to visit health facility. Lalita went to nearest Health Post and met with Namrata Thapa, ANM providing safe motherhood services to women. Namrata was well competent about safe motherhood related service and received training on rural ultrasound. Namrata Thapa took the pregnancy history and all relevant information and found that Lalita had not her regular ANC check-ups and she visited health facilities in her early 8 months. After the initial procedure, Namrata did USG of Lalita's pregnancy, and she got completely shocked after identifying the complication of anencephaly. "My feeling for Lalita was friendly when she shared that, she doesn't have her regular ANC check-ups, but I felt devasted when I found the case of Anencephaly in her pregnancy and not sure how to tell her about it. I have prepared report of USG and referred her to Bayalpata hospital for further confirmation

Namrata Thapa, ANM, providing USG service to Lalita Bhul

and treatment. I am thankful to rural USG programme because of which we are capable of detecting pregnancy and delivery related complications in rural women."

Lalita went to Bayalpata hospital, a secondary level hospital in Achham district for further consultation and treatment. The gynaecologist confirmed the case of Anencephaly and suggested Lalita to terminate the pregnancy and if not, this would cause death of child and mother. This was completely unexpected for Lalita, and she was broken down by this information. Lalita's family supported her and timely terminated the pregnancy.

2.19 Provincial commitment to improve health indicators in Sudurpaschim Province

This is the Provincial Commitment aiming to improve the health indicators as well as strengthening health system during Annual Review Meeting of FY 2078/79. The commitments are as follows:

- Continuous advocacy for allocation of at least 10% budget in health sector for SDG and Universal Health Coverage
- Regular dialogue and follow up with provincial government to provide budget to all 88 local levels in the sector of maternal / reproductive health as per the policy and act
- Advocacy for policy, institutional and financial arrangement to address maternal and neonatal mortality
- Evaluate special health initiatives implemented by the province and develop further strategies
- Conduct research and study about suicide in the province to formulate evidence-based policy for suicide prevention
- As per the policy ensure effective coordination to strengthen health insurance programme /coverage
- Request province government to ensure structural relationship with all the hospital and ensure pro-public hospital service delivery
- Advocate with the PPSC and concerned authority to open vacancy for vacant post and request the MoSD to conduct health sector O&M survey.

Annex 3. 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
2082/83	2025/26
2083/84	2026/27
2084/85	2027/28
2085/86	2028/29

Supported by

Disclaimer:
This material has been funded by UKaid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.