Annual Report

Fiscal Year 2077-078

Government of Bagmati Province
Ministry of Health
Health Directorate
Hetauda, Nepal

Government of Bagmati Province
MINISTRY OF HEALTH

Hon'ble Minister
Nima Lama

Hetauda, Nepal

MESSAGE

Ministry of Health Bagmati province, always explore innovative and holistic approach in ensuring that everyone in the province realise and utilize 'Health' as a fundamental right as guaranteed by the constitution of Nepal. The ministry is committed to translate the essence of national and provincial health policy, national health sector strategy, periodic plans, and other strategic documents to achieve Universal Health Coverage for all. In this context, the Ministry has supported and improved the holistic public health system: promotive, preventive, curative and emergency health care services in the provinces.

It is crucial that periodical program review is an important responsibility for the institutions to analyse and comprehend program success, explore pertinent issues, set an evidence-based approaches for the coming years. I am pleased to know that the Ministry of Health, Health Directorate has been releasing a comprehensive Annual Health Report for FY 2077/78, by compiling the reviews and reflections from a series of annual health review workshops held at various levels throughout the province.

The statistics presented in this annual health report highlights performance of all the components of health care delivery including our achievements, challenges and innovation approaches in addressing existing problems and future challenges with the action plans for near future. On behalf of the ministry, I assure that a significant resources and knowledge investment will be made to strengthen the quality health care system of the province by addressing the gaps with evidenced based research and priorities highlighted in this report. The Ministry of Health is also committed to collaborating with all the stakeholders including health care experts, universities, schools, development partners and civil societies along with governmental bodies to achieve our holistic goal "Making our Health Services Quality and Accessible for the wider positive impact". I am confident that this annual health report will be a reference point for the health managers, planners, researcher, and health care service providers and users as whole towards evidence-based informed planning and decision making in health sector of the province.

The ministry of health recognizes the efforts of all the healthcare managers and health care providers for ensuring the continued service provision even during the COVID-19 pandemic context and also request be alert for any kind of outbreak might happen in the future.

Finally, I congratulate the Director and his entire team and all those involved in the preparation and publication of this annual health report.

Wishing every a very best Health in All,

Mr. Nima Lama
Hon'ble Health Minister

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Government of Bagmati Province
MINISTRY OF HEALTH

Hetauda, Nepal

Hon'ble State Minister
Kalpana Nepali

MESSAGE

I am pleased to know that Provincial Health Directorate is bringing out the Annual Health Report of fiscal year 2077/78. This report is a comprehensive document based on the annual performance of all components of the health care delivery system along with their reviews accomplished at the local level and provincial level. It provides detailed and up to date information with regards to resources, services provided, analytical trends and disease patterns in the province.

This annual health report describes the activities that were conducted in fiscal year 2077/78 throughout the health system of the country. This is a result of the hard work of the entire teamof Health Directorate and external development partners. I would like to thank all the team members who are directly and indirectly involved during preparation and finalization of this report.

I am very happy and confident that this annual report will be helpful for policy makers, public health professionals, health service providers, researchers, and students. This report will play an important role in policy formulation, planning, and programming.

I express my sincere appreciation and thanks to all health-related cadres; from FCHV's level to the top-level policy makers of the province who had tried their best to improve the health of the people. Again, I would like to thank all the key stakeholders including government and non- governmental sector for their valuable contribution to the health sector.

Kalpana Nepali
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Government of Bagmati Province
MINISTRY OF HEALTH

Hetauda, Nepal

Ref. No.:

Date: 2nd June 2022

PREFACE

It is my pleasure to bring this annual report of the health directorate of the ministry of health for the fiscal year 2077/078. The report reflects annual performance of all the components of health system as well as their reviews conducted at local provincial levels. This progress report not only reviews the past performance but also aims to guide a robust and evidence-based planning at all levels. I believe that the information provided in this report play an important role in planning and implementing evidence-based program in the changing context of health.

This annual report is comprehensive document covering all the major activities of the Ministry of Health and its institutions. Local governments and external development partners, non-governmental organizations & private sector as well. The report identifies pertinent issues and constraints and suggests possible actions to address those issue to improve health service delivery.

I am grateful for all the efforts of the Health Directorate and other provincial intuitions, as well as all categories of health professionals at the provincial and local levels, including the FCHVs who are serving in the communities. My appreciation also extends to all the EDPs such as UN agency, INGOs, NGOs and private sector who have made important contributions to improving the health of people in Bagmati province. Without their efforts, we would not have been able to achieve and maintain the success that we have today: they deserve our heartfelt gratitude and congratulations. While we should be proud of our accomplishments, we should equally be mindful of maintaining the progress that has already been made and accelerating our efforts to reach the milestones that have yet to be reached.

Finally, I extend my gratitude and congratulations to the Director of Health Directorate and his team, especially annual report preparation committee and other concerned personnel for their contributions to the report's formulation and finalizations.

Mr. Badri Bahadur Khadka
Secretary
Ministry of Health
Hetauda, Makwanpur

Government of Bagmati Province
Ministry of Health
Health Directorate

Hetauda, Nepal

Ref. No.:

FOREWORD

It is a matter of great pleasure to me to bring this consecutive Annual Health Report of Health Directorate Bagmati Province for the fiscal year 2077/78. It clearly reflects the performance of major health programs and activities as well as issues, bottlenecks, and recommendations to improve the health service delivery at all levels in the province. The report also covers the progress of activities performed by private health institutions and External Development Partners (EDPS).

The Health Directorate, Bagmati province is committed to translate the aspirations of the constitutions of Nepal, National Health Policy 2076, Nepal Health Sector Strategy (2072-2077), in achieving universal health coverage. I am much delightful to share that major health indicators are progressing in right direction to achieve the target of SDGs and the Nepal Heath Sector Strategy and Implementation Plan. The facts and figure presented and interpreted in this report are based on the information generated through Health Management Information System (HMIS) and annual performance reviews conducted at various levels. The data, statistics, and analysis presented in this report provide us with a clear picture of the status of our health system. While this report provides an opportunity identifying new focus areas or readjusting our focus on existing areas. I would urge all of us, policy makers, managers, and planners to extensively use the information presented in this report to guide our decision making at various levels.

I extend my sincere gratitude and congratulations to the Hon'ble Minister Nima Lama, Ministry of Health, Hon'ble State Minister Kalpana Nepali, Ministry of Health for their commendable message and leadership and direction. I am also thankful to the Secretary of Ministry of Health, Badri Bahadur Khadka for his leadership and direction for improving the province's health sector.

I would also like to express thanks to Mr. Shambhu Kafle, Sr. Public Health Administrator; Mrs. Sabitri Kumari Poudel; Sr. Nursing Administrator; Dr. Narendra Kumar Jha; Sr. Health Administrator and Dr. Suresh Maharjan; Sr. Consultant Ayurveda, Mr. Nil Prasad Dhital; SRHR Officer WHO and all the staffs of Health Directorate and representative of EDPs for their meticulous support to make this report. Finally, I hope that this report will be a valuable resource for all the stakeholders to design, implement and monitor evidence- based programs and help to strengthen health services for uplifting the health status of all citizens in this province.

Mr. Maheshwar Shrestha
Director
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ACRONYMS

AAHW	Auxiliary Ayurveda health worker
AEFI	Adverse event following immunization
AES	Acute encephalitis syndrome
AFP	Acute flaccid paralysis
AGE	Acute gastroenteritis
AHW	Auxiliary health worker
AIDS	Acquired immuno-deficiency syndrome
AMR	Antimicrobial resistance
ANC	Antenatal care
ANM	Auxiliary nurse-midwife
API	Annual parasite incidence
ARI	Acute respiratory infection
ART	Antiretroviral therapy
ASBA	Advanced skilled birth attendant
ASRH	Adolescent sexual and reproductive health
BC	Birthing centre
BCC	Behaviour change communication
BTSC	Blood transfusion service centre
CB-IMNCI	Community Based Integrated Management of Neonatal and Childhood Illness
CB-NCP	Community Based Integrated Management of New-born Care Programme
CBO	Community-based organisation
CDD	Control of diarrheal disease
CEONC	Comprehensive emergency obstetric and neonatal care
CHU	Community ealth Unit
CHX	Chlorhexidine
CNR	Case notification rate
CPR	Contraceptive prevalence rate
DDA	Department of Drug Administration
DHF	Dengue haemorrhagic fever
DHIS	District Health Information System
DoA	Department of Ayurveda
DoHS	Department of Health Services
DOTS	Directly observed treatment short course
DPT	Diphtheria, pertussis, tetanus
DQSA	Data quality self-assessment
DSS	Dengue shock syndrome
EDCD	Epidemiology and Disease Control Division
EDP	External Development Partners
EHCS	Essential health care services
EOC	Essential obstetric care
EPI	Expanded Programme on Immunization
EWARS	Early warning and reporting system
FCHV	Female community health volunteer
FSW	Female sex worker
FWD	Family Welfare Division
FY	Fiscal year
GoN	Government of Nepal
HA	Health Assistant
HD	Health Directorate
HFOMC	Health facility operation and management committee
HIIS	Health Infrastructure Information System
HIV	Human immunodeficiency virus
HMIS	Health Management Information System
HO	Health Office
HOMC	Hospital Operation and Management Committee
HSS	Health System Strengthening
ICD	International Classification of Diseases
IDA	Iron deficiency anaemia
IDD	Iodine deficiency disorder

IEC	Information, education, and communication
IFA	Iron folic acid
IHIMS	Integrated Health Information Management System
IMAM	Integrated Management of Acute Malnutrition
IMCI	Integrated management of childhood illness
IMNCI	Integrated Management of Newborn and Childhood Illness
INGO	International non-governmental organizations
Ipas	International Pregnancy Advisory Services
IPV	Inactivated polio vaccine
IRS	Indoor residual spraying
IT	Information technology
IUCD	Intrauterine contraceptive device
JE	Japanese encephalitis
LAPM	Long acting and permanent methods
LARC	Long-acting reversible contraceptive
LCD	Leprosy Control Division
LLIN	Long lasting insecticidal (bed) nets
LMD	Logistics Management Division
LMIS	Logistics Management Information System
LTF	Lost to follow-up
M&E	Monitoring and Evaluation
MA	Medical abortion
MAM	Management of Acute Malnutrition
MB	Multibacillary leprosy
MCH	Maternal and child health
mCPR	Modern contraceptive prevalence rate
MCV	Measles-containing vaccine
MD	Management Division
MDA	Mass drug administration
MDG	Millennium Development Goal
MDGP	Doctor of Medicine in General Practice
MDIS	Malaria Disease Information System
MDR	Multi-drug resistant
MDT	Multi-drug therapy
MDVP	Multi-dose vaccine vials
MIYCN	Maternal, Infant, and Young Children Nutrition programme
MNCH	Maternal, new-born and child health
MNH	Maternal and new-born health
MNP	Micro-nutrient powder
MoHP	Ministry of Health and Population
MoH	Ministry of Health
MoSD	Ministry of Social Development
MPDSR	Maternal and perinatal death surveillance and response
MR	Measles/rubella
MSM	Men who have sex with men
MSNP	Multi-sector Nutrition Plan
MSS	Minimum Service Standard
MVA	Manual vacuum aspiration
MWDR	Mid-Western Development Region
NAHD	National Adolescent Health and Development (Strategy)
NCASC	National Centre for AIDS and STD Control
NCD	Non-communicable disease
NCDR	New case detection rate
NDHS	Nepal Demographic and Health Survey
NGO	Non-governmental organizations
NHIP	National Health Insurance Programme and Nepal HIV Investment Plan
NHSP-IP	Nepal Health Sector Programme-Implementation Plan
NHSS	Nepal Health Sector Strategy (2015-20)
NHSSP	Nepal health Sector Support Programme

NHTC	National Health Training Centre
NICU	Neonatal Intensive Care Unit
NIP	National Immunization Programme
NMC	Nepal Medical Council
NMICS	Nepal Multiple Indicator Cluster Survey
NTC	National Tuberculosis Centre
NTP	National Tuberculosis Programme
OPD	Outpatient
OPV	Oral polio vaccine
ORS	Oral rehydration solution
PB	Paucibacillary leprosy
PBC	Pulmonary bacteriologically confirmed
PCD	Pulmonary clinically diagnosed
PCV	Pneumococcal conjugate vaccine
PDR	Perinatal death review
PEM	Protein energy malnutrition
PEN	Package of essential non-communicable diseases
PF	Plasmodium falciparum
PHCC	Primary health care centre
PHC-ORC	Primary health care outreach clinics
PHCRD	Primary Health Care Revitalisation Division
PHD	Provincial Health Directorate
PLHIV	People living with HIV
PMTCT	Prevention of mother to child transmission
PNC	Postnatal care
PPH	Postpartum haemorrhage
PSBI	Possible severe bacterial infection
PV	Plasmodium vivax
PWID	People who inject drugs
QI	Quality improvement
RDT	Rapid diagnostic tests
RRT	Rapid Response Team
RTI	Reproductive tract infection
SAHW	Senior auxiliary health worker
SARC	Short acting reversible contraceptive
SARI	Severe acute respiratory infection
SBA	Skilled birth attendant/attendance
SDG	Sustainable Development Goal
SHSDC	Social health security development committee
SNCU	Special new-born care unit
SRHR	Sexual and reproductive health and right
SS+	Smear positive
STI	Sexually transmitted infections
Td	Tetanus and diphtheria
ToT	Training of Trainers
TT	Tetanus toxoid
UHC	Universal Health Coverage
UHC	Urban Health Centre
UNFPA	United Nations Population Fund
UNICEF	United Nations Children Fund
USG	Ultrasonogram
VA	Verbal autopsy and visual acuity
VAD	Vitamin A deficiency
VBDTRC	Vector-Borne Disease Training and Research Centre
VPD	Vaccine-preventable disease
VSC	Voluntary surgical contraception
WASH	Water, sanitation and hygiene
WHO	World Health Organisation
WHO/IPD	WHO Immunization Preventable Diseases
WPV	Wild poliovirus
WRA	Women of reproductive age

Ministry of Health
Health Directorate

FACT SHEET: TREND OF HEALTH SERVICE COVERAGE
Fiscal Year 2075/76 to 2077/78 (2018/19 to 2020/21)

Program Indicators	Three years trend in Bagmati Province			National status in 2077/78
	2075/76	2076/77	2077/78	
Number of Health Facilities				
Public Hospitals	33	34	63	201
PHCCs	43	41	40	189
HPs	640	641	643	3794
Non-Public Facilities	1163	1417	1406	2082
Health Facilities and FCHVs Reporting Status (%)				
Public facilities				
Public hospitals	90	59	57	80
PHCCs	100	100	100	100
HPs	99	100	100	100
Non-public facilities				
FCHVs	47	90	64	90
Immunization Status (%)				
BCG coverage	81	82	78	91
DPT-Hep3-Hib3 coverage	71	68	71	87
MR2 coverage (12 – 23 months)	60	61	63	81
Fully immunized children*	54	54	57	78
Dropout rate DPT-HepB-Hib1 vs 3 coverage		5.9	-2.1	1.0
Pregnant women who received TD2 and TD2+	48	45	42	60
Nutrition status (%)				
Children aged 0-11 months registered for growth monitoring	69	66.4	71	84
Underweight children among new GM visits (0 – 11 m)	3.1	1.5	1.8	2.5
Children aged 12 – 23 months registered for growth monitoring	44.1	43	48	61
Underweight children among new GM visits (12 – 23months)	1.8	1.4	1.5	3.4
Pregnant women who received 180 tablets of Iron	30	29	28	45
Postpartum mothers who received vitamin A supplements	41	41	38	61
IMNCI status				
Incidence of Pneumonia among children U5 years (per 1000) (*HF and PHC ORC only)	55	30	18	27
Incidence of Diarrhea per 1000 under five years children	249	220	213	339
% of children U5 years with Pneumonia treated with antibiotics (HF and PHC/ORC only)		134	149	150
% of children U5 years with Pneumonia treated with antibiotics (Amoxicillin)	107	110	126	117
% of children under 5 with Dairrhea treated with ORS/ Zinc	93	94	94	96
Safe Motherhood (%)				
Pregnant women who attended first ANC visit (any time)	106	108	91	101
Pregnant women who attended four ANC visits as per protocol*	67	62	64	70
Institutional deliveries*	61	68	62	65

Deliveries conducted by skilled birth attendant*	61	67	60	61
Mothers who had three PNC checkup as per protocol*	13.5	17	22	25
Family Planning				
Contraceptive prevalence rate (CPR-unadjusted) *		32	35	39
CPR (Spacing methods)		17	8	11
Female Community Health Volunteers (FCHV)				
Number of FCHVs		8685	9004	49605
% of mothers' group meeting held*		79	86	89
Covid-19 Outbreak Status (date from 21 Magh 2076 to 31 Ashar 2078)				
Total COVID cases		839	337463	645393
Total Recovered cases		364	322549	615443
Total Death cases		9	4030	9424
Total RT-PCR Lab- test		135072	1878850	3147757
Total Isolation cases		466	11350	26639
People in Quarantine				292
Case Recovery Rate (CRR)		43.4	95.6	95.4
Case Fatality Rate (CFR)		1.07	1.2	1.5
Malaria and Kala-zar				
Annual blood slide examination rate (ABER) per 100	1.2	1.23	0.7	1.3
Annual parasite incidence (API) per 1000 population risk	0.02	0.006	0.01	0.00
% of PF among Malaria positive case	30.8	32.4	70.0	0
Number of new Kala-azar cases	25	16	8	59
Tuberculosis				
Case notification rate (all forms of TB)/100,000 pop.	127	103	103	95
Treatment success rate	88	87	92	91
Leprosy				
New case detection rate (NCDR) per 100,000 population	3	3.3	1.7	7.2
Prevalence rate (PR) per 10,000	0.5	0.6	0.4	0.7
HIV & AIDS and STI				
Number of new positive cases		787	1211	2944
HIV incidence rate				0.03
Adult HIV prevalence				0.12
% of TB patients had HIV test result			91	72
Curative services				
% of population utilizing outpatient (OPD) services		85	70	77
% of emergency attendances at hospitals		15.6	12.5	6.9
% of population utilizing inpatients services at hospitals		7.5	6	3.8
% of inpatients who referred in		1.5	3.5	8.1
% of inpatients who referred out		0.8	1.1	1.9
Bed occupancy rate		39	36	35
Average length of stay at hospital		4	4	3
Note: *NHSS RF and/or SDG indicators				

Source: HMIS, MoH, EDCD, FWD, NSSD, NCASC and PHD

EXECUTIVE SUMMARY

The annual report of Bagmati province, Ministry of Health, Health Directorate, is for fiscal year 2077/078. The report mentions the health programs' aims, targets, and strategies, as well as their significant achievements and trends in service coverage during last three fiscal years in the province. This report also outlines difficulties, problems, and constraints, as well as activities that health institutions can take to enhance their performance.

Child Health and Immunization

National Immunization Program (NIP) of Nepal was started in 2034 BS and considered as a priority 1 program. At the provincial level, Health Directorate oversees the immunization activities. Provincial Health Logistic Management Centre (PHLMC) executes the logistic aspects of vaccine including cold-chain management. In line with the national target to eliminate Measles and Rubella (MR) by 2023, provincial government is working intensively to prevent community transmission of MR, MR associated deaths and disabilities. The provincial coverage of BCG is 78% which is lower than national figure (91%). The province's MR2 coverage is 61 in FY 2077/78 which is slightly high than FY 2075/76. In fiscal year 2077/78, The fully immunized children have been increased by 9 percent in FY 2077/78 as compared with FY 2076/77.

Integrated Management of Neonatal and Childhood Illnesses

This integrated package of child-survival intervention addresses the major problems of sick newborn such as birth asphyxia, bacterial infection, jaundice, hypothermia, low birthweight, counseling of breastfeeding. It also maintains its aim to address major childhood illnesses like pneumonia, diarrhea, malaria, measles and malnutrition among under 5 year's children in a holistic way. In FY 2077/78, highest incidence of pneumonia was in Sindhupalchock district (84.5) and the least incidence in Nuwakot district (5.9) in that fiscal year. Likewise, highest incidence of diarrhea was in Rasuwa district (846.6) and the least in Nuwakot district (67.5). The percentage of children U5 years with pneumonia treated with antibiotics was highest in Makawanpur district and the least in Dhading district. The district with highest coverage of percentage of U5 years children with diarrhea treated with ORS and Zinc was Sindhuli district (107) and that of least was Lalitpur district (79.2).

Nutrition

The national nutrition program is a priority program of the government. It aims to achieve the nutrition well-being of all people so that they can maintain a healthy life and contribute to the country's socioeconomic development. There is a high-level commitment to improve the nutritional status especially of adolescence, pregnant and lactating mother, and children under five. The highest

percentage of children aged 0-11 months registered for growth monitoring was in Rasuwa district (125) and the least in Kathmandu district (37.5) in that fiscal year. Likewise, highest percentage of underweight children among new GM visits (0 – 11 m) was in Lalitpur district (7.2) and the least in Rasuwa district (0.2). The percentage of 12 – 23 months registered for growth monitoring was highest in Rasuwa district (104.2) and the least in Kathmandu district (27.2). The district with highest percentage of underweight children among new GM visits (12 – 23 m) was Lalitpur (4.7) and that of least was Rasuwa (0.4). Similarly, the percentage of pregnant women who received 180 tablets of iron was the highest in Dolakha (51.9) and the least in Kathmandu district (9.1). The percentage of postpartum mothers who received vitamin A supplementation was highest in Rasuwa (61.2).

Safe Motherhood

The goal of the National Safe Motherhood program is to reduce maternal and neonatal morbidity and mortality and improve maternal and neonatal health through preventive and promotive activities and by addressing avoidable factors that cause death during pregnancy, childbirth and the postpartum period. In Bagmati province, 37 hospitals have been providing CEONC service and there are 42 BEONC service sites and 414 birthing centers. During FY 2077/78, the provincial level ANC 4th visit (as per protocol) as percentage of expected pregnancy was 56.7%. Nepal has committed to achieving 74 percent of all deliveries in health facilities by 2022 (FY 2077/78) in order to meet the SDG target of 90 percent by 2030. But there are only 61.7 percent deliveries in Bagmati province this year which below than target. However, thepercentage of mothers who received three postnatal care visits as per protocol at HF among expected live births has slightly increased to 22% in FY 2077/78 from 16.9% in FY 2076/77.

Family Planning

The family planning program (FP) in 2077/78 has been experiencing a downturn in uptake of family planning services. Provincial modern Contraceptive Prevalence Rate (CPR) has been slightly increased by 2 percent between FY 2077/76 and FY 2077/78. The CPR is either stagnant or increasing steadily in most of the district. Rasuwa district has highest CPR (53%) and Kathmandu has lowest CPR (21%) in FY 2077/78.

Safe Abortion

In Nepal, abortion service, after being legalized in 2002, National Health Training Center (NHTC) was the training accreditation body of Nepal. Similarly, the authority of listing to SAS sites and service providers was only with Family Welfare Division (FWD). However, after Nepal being federalized country, Provincial Health Training Center (PHTC) at provincial level added as training accreditation body in the country and authority of listing has been shifted to local and provincial government by SMRH

Act 2018 and its regulation 2020. In the fiscal year 2077/78, eighty-one (81) health facilities in Bagmati province provided the safe abortion service. Rasuwa has only one safe abortion service sites, whereas Kathmandu has the most (14) safe abortion service sites. During FY 2077-78, a total of 14623 abortion services have been provided. Kathmandu (3972) had the largest number of safe abortion service users followed by Chitwan (3842), while Rasuwa (52) had the lowest number of safe abortion service in the FY 2077/78.

Malaria

Government of Nepal has set a vision of malaria elimination by 2025. For assessing the risk areas,program has been conducting micro-stratification on annual basis. The trends of the malaria epidemiological situation for recent three years in the province shows in decreasing trends. Confirmed malaria cases decreased from 219, 141 and 85 in 2075/76, 2076/77 and 2077/78 respectively. However, the proportion of p. falciparum infections among total malaria positive cases has been increased such as 32% in FY 2076/77 to 2077/78 in Bagmati province. The trends of number of total slides examined for malaria was slightly decreased in Bagmati province.

Kala-azar

Kala-azar is one of the high priority public health problems of Nepal. To eliminate kala-azar from Nepal, strategies to improve health status of vulnerable and risk population has been made focusingon endemic areas of Nepal, which leads to elimination of kala-azar, and it would be no longer becomes a public health problem. In Bagmati province, the trend of kala-azar cases has been decreasing significantly for the last several years. Total 25 cases of kala-azar were reported in FY 2075/76 and only 8 new cases of kala-azar were seen in FY 2077/78 in Bagmati province.

Lymphatic Filariasis

Lymphatic filariasis, commonly known as elephantiasis, is a neglected tropical disease. Infection occurs when filarial parasites are transmitted to humans through mosquito. Lymphatic filariasis is a public health problem in Nepal. The goal of lymphatic filariasis is the people of Nepal no longer suffer from lymphatic filariasis. The highest lymphedema cases were found in Dhading (824) and lowest case were found in Makwanpur district (119) in FY 2077/78.

Leprosy

The goal of leprosy control program is to end the consequences of leprosy including disability and stigma within the country. The prevalence rate per 10,000 of leprosy in FY 2077/78 is 0.4 in Bagmati province which is lower than national figure (0.7). The prevalence rate of leprosy is highest for Chitwan with 1.93 and lowest for Rasuwa with 0. More than one prevalence rate of Chitwan shows the demand of active screening and testing of leprosy cases for early detection and treatment.

Tuberculosis

Tuberculosis (TB) remains a major public health problem in Nepal. The Case Notification Rate (CNR) of all forms of TB, of Bagmati province in 2077/78 is 103/100,000 population which was slightly decreased than the fiscal year 2075/76. The district having highest CNR is Kathmandu (131) and with lowest CNR is Ramechhap (41) and there are eight districts having CNR less than 100/100,000 population. Provincial treatment success rate of TB in 2077/78 was 92 percent which is increased from 87 percent of last fiscal year, but Treatment Success Rate (TSR) has been maintained as per national strategic targets of TSR at least 90% in each year.

HIV/AIDS and STI

With the first case of HIV identification in 1988, Nepal started its policy response to the epidemic of HIV through its first national policy on Acquired Immunity Deficiency Syndrome (AIDS) and Sexually Transmitted Diseases (STDs) control, 1995 (2052 BS). Taking the dynamic nature of the epidemic of HIV into consideration, Nepal revisited its first national policy on 1995 and endorsed the latest version: national policy on Human Immunodeficiency Virus (HIV) and Sexually Transmitted Infections (STIs), 2011. Ending AIDs epidemic in Nepal by 2030 is the vision of national HIV strategic plan of Nepal government. The number of new positive cases is 1211 in FY 2077/78 which is increased from 787 in FY 2076/77 in Bagmati province.

Hospital Services

The core objective of the provincial government is to provide quality curative services with specialized care to reduce morbidity and mortality by ensuring early diagnosis and prompt treatment from health facilities. There are 24 hospitals currently operated under government, of which 10 hospitals are under federal, 13 under provincial and 1 under local government. Of these, disaggregated by level, there are 10 tertiary hospitals, 5 secondary level hospitals and 9 Primary hospitals.

Minimum Service Standards (MSS) is a comprehensive tool for optimal preparation of the hospitals for the minimum services that are needed to be provided by these health facilities and has potential to bring a positive change. MSS of Health Facilities is the service readiness and availability of tool for optimal requirement of the hospitals to provide minimum services that are expected from them. This tool entails for preparation of service provision and elements of service utilization that are deterministic towards functionality of hospital to enable working environment for providers and provide resources for quality health service provision. MSS for hospitals reflect the optimally needed minimum criteria for services to be provided but in itself is not an "ideal" list of the maximum standards.

Non-Communicable Diseases (NCDs) & Mental Health

Non-communicable diseases (NCDs) are a global health and developmental emergency, causing

premature deaths, exacerbate poverty and threaten national economies. The World Health Organization (WHO) and the Government of Nepal have been working closely to improve the health of the people of Nepal for many years, together they provide a basis for all possible collaborations, including in-depth analysis of the strengths, opportunities, gaps and challenges, taking into account the strategic objectives of the Ministry of Health. The WHO Package of Essential Non-communicable Disease Interventions (WHO PEN) for primary care in low-resource settings is an innovative and action-oriented response to the above challenges. It is a prioritized set of cost-effective interventions that can be delivered to an acceptable quality of care, even in resource-poor settings. It will reinforce health system strengthening by contributing to the building blocks of the health system. Mental health and substance abuse is recognised as one of health priorities and also addressed in Sustainable Development Goals (SDG). Community Mental Health Program is implemented with capacity building of non-specialized health workers working in the community.

School Health Nurse Program

School health nurse program is an innovative and unique health program of Bagmati province. It is important to teach and bring awareness in the student from the school level about the overall health cleanliness, nutrition, mental health, sexual and reproductive health, communicable and non-communicable diseases to lead a healthy life. So Bagmati province in the fiscal year 2075/2076 had started a pilot programme as an initiative model health promotion program which is one school one nurse programme. Initially this programme was conducted in 20 secondary level schools of Bagmati province. Taking consideration to the effectiveness of which the program is being expanded each year. Currently SHN program is running in all local level (119) of Bagmati province. Currently there are total 459 school health nurses working under Bagmati province.

Provincial Health Emergency Operation Centers (PHEOC)

PHEOC was established in 2020 after emerging of covid 19 pandemic in Bagmati province under Provincial Health Directorate. The building of PHEOC is built by the MOH of Bagmati Province itself. From the establishment period, technical and other logistic support is provided by WHE (WHO Health Emergencies) Nepal. In the manner of Health Emergency Operation Center (HEOC) , PHEOC will also be a command center of the province in case of any health emergencies and/or disasters. It will host necessary resources and data for effective coordination within the province including local level, intra-province, and the federal level.

Ayurveda

Ayurveda is the oldest documented medical system of the world. Ayurveda focuses on the preventive medicine and promotion of health rather than the curative medicine. Ministry of Health of Bagmati

Province is responsible for planning, management, supervision, monitoring and evaluation of Ayurveda and miscellaneous medicines throughout the province. The section works through its network facilities of 13 District Ayurveda Health Centers and 50 local level Ayurveda Aushdhalaya and 41 Citizen Ayurveda Health Centers. Total 1,55,788 patients got the OPD Service in the Fiscal Year 2077/78 which is 1.006 times greater than that of the previous fiscal year.

Health Training Center

Provincial Health Training Centre (PHTC) is one of the central entities of Ministry of Health, Bagmati Province for human resource development. It was established in 2019 AD to coordinate and manage all health-related training through one door under MoH. It caters to training needs of all directorate, centers, hospitals and local level health institutions, thus contributing through training and skill development to meet the targets envisioned in National Health Policy 2019 and Sustainable Development Goals (2030) AD. It plans and conducts health related training activities for provincial and local level health workers. Similarly, it coordinates with the provincial and local health related N/IGOS for quality and uniformity of health-related training in the province. Total 53 events of training in different area were conducted by HTC in FY 2077/78. Total 658 service providers were trained in different area by HTC in FY 2077/78.

Health Logistic Management Center

Health Logistics Management Center (HLMC) was established in FY 2075/76 as a key wing of Ministry of Health for the management of essential medicines, vaccines, health commodities and biomedical equipment in the province. It has big warehouse to store medicines, vaccines and health commodities and equipped with transportation vehicles and capable human resources to achieve the objectives of the HLMC. HLMC established oxygen plant in 7 provincial hospital and PCR Lab in 3 hospital of Bagmati province in FY 2077/78. Essential drugs, vaccines, FP / MCH commodities and other required logistics are being distributed regularly by HLMC.

Public Health Laboratory Center

Public Health Laboratory Center is one of the entities of Ministry of Health (MoH), Bagmati Province for quality laboratory services, disease surveillance and research. Public Health Laboratory has been functioning since 15th Shrawan 2076. The laboratory services of all the government and private laboratories have been established to ensure the quality of the public laboratory services by making them reliable. By providing training related to non-communicable diseases, infectious diseases, quality control as a part of skill development of laboratory manpower to provide quality service in complete diagnostic services and disease surveillance.

CHAPTER 1: INTRODUCTION

1.1 Background

Every year, the provincial annual health review meeting is held to analyze results and develop strategic action points to be prioritized in the coming year. Because the review meeting is a joint event to review the progress of the overall health sector, support from the EDPs, as well as contributions from non-governmental sectors, are also reviewed. To review the annual progress of the fiscal year (FY) 2077/078 and to harmonize support in health sector, the Health Directorate of the Bagmati Province organized the provincial annual health review meeting in Hetauda from Ashwin 22-24, 2078. The following were the objectives of the provincial annual health review review for the fiscal year 2077/078:

- Jointly review the annual health sector progress of Bagmati province
- Ensure that all the stakeholders have a common understanding of achievements, issues and bottlenecks in the health sector
- Identify the strategic priority areas based on existing issues and bottlenecks that need to be addressed
- Agree on the strategic actions to be included in the next year's work plan and budget.

The review was attended by 170 participants, including the Honorable Minister, State Minister Secretary of the Ministry of Health, representatives from the federal MoHP and the Department of Health Services (DoHS), local levels, hospitals, EDPs, health professionals, media personnel, and other stakeholders in the health sector. Reflections from the federal MoHP, Provincial MoH, Health Directorate, Province Health Training Centre, Province Health Logistic Management Centre (PHLMC), Health Insurance Board, and EDPs were shared during the conference.

The preparation of this annual progress report covers the municipal, hospital and district- level annual performance reviews, as well as the provincial annual performance review. This annual report summarizes the annual progress and achievements of the province in fiscal year 2077/78 and report covers the following areas:

- Policy statements, including objectives, strategies, goals, major activities, and achievements of the health programs
- Performance status of major indicators
- Problems, issues, constraints, and recommendations on improving performance and achieving targets
- Information on the contribution of other provincial counterparts, as well as external

development partners and stakeholders.

1.2 Organizational Structure of Ministry of Health Bagmati Province

The constitution of Nepal adopted in 2015 ended the unitary and centralized system of governance. In its place, it established a federal structure that distributed legislative and executive powers among three governmental levels: local, provincial, and federal. The constitution authorizes all three levels to legislate, formulate plans and policies, and mobilize resources within jurisdictions delineated to them. Since the 2017 elections, three levels of governments have been executing their duties. Bagmati province is one of the seven provinces established by the country's new constitution of Nepal. It is Nepal's most populous and fifth largest province by area. The province has 13 districts, 119 municipalities (3 metropolitan city, 1 sub-metropolitan city, 41 municipalities and 74 rural municipalities) and 1121 wards. Capital of Nepal, Kathmandu is also located at this province.

Following the country's transition to a federal setting saw the establishment of province ministries and other provincial entities under their jurisdiction. In this process, the responsibility of health in all seven provinces was entrusted to the Ministry of Social Development. Later, in 2078, the Ministry of Social Development in Bagmati Province was split to two ministries, one of which is Ministry of Health.

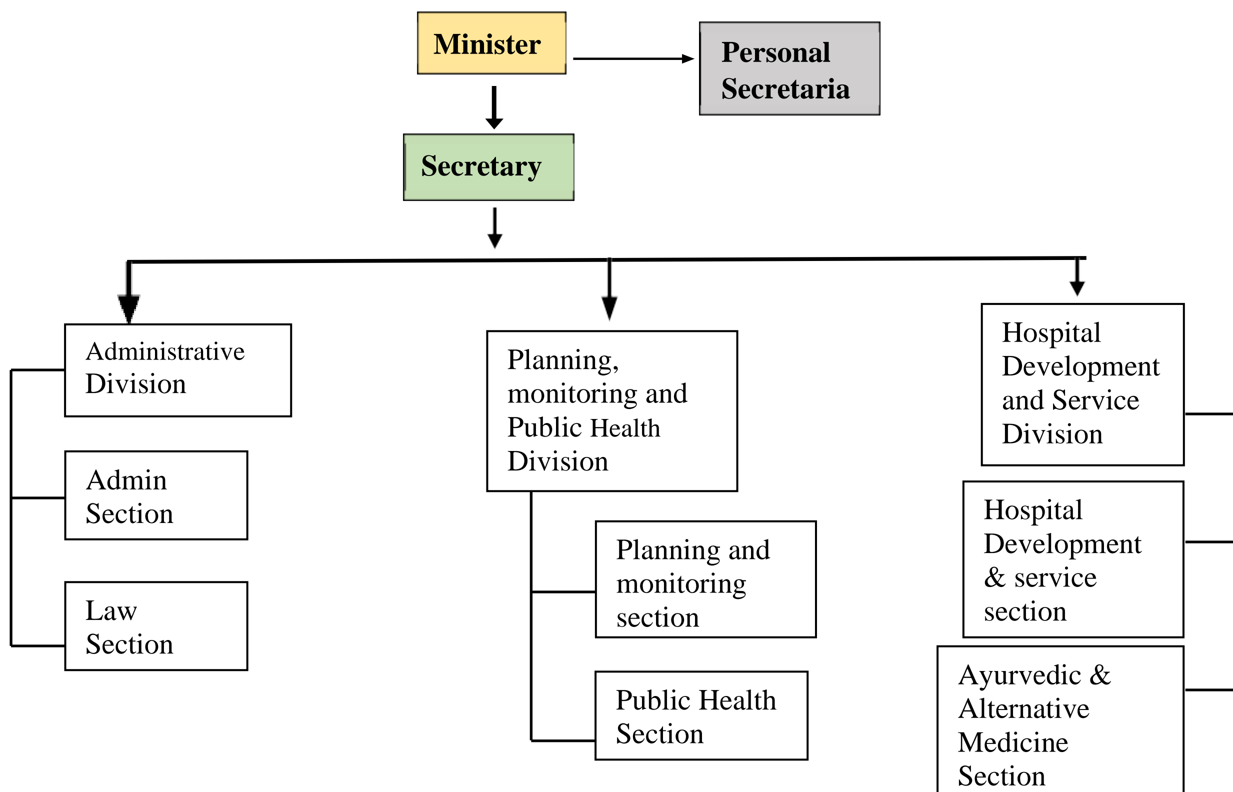


Figure 1: Organogram of Ministry of Health, Bagmati Province

Provincial Institutions under Ministry of Health, Bagmati Province:

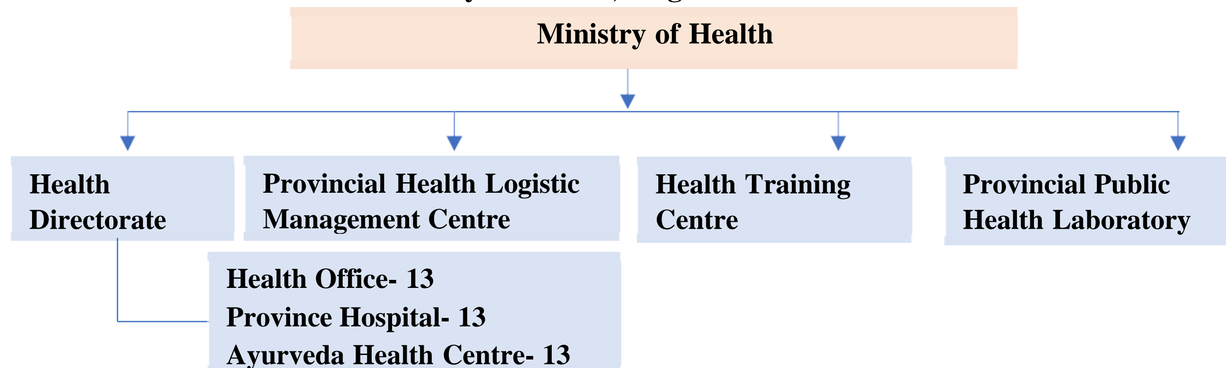


Figure 2: Provincial Institutions of Ministry of Health, Bagmati Province

1.3 Functions of Ministry of Health

This ministry of health is primarily responsible for making necessary arrangements and developing health and nutrition policies and laws to ensure theeffective delivery of curative services, disease prevention, and health promotion activities, as well as the establishment and regulation of the province overall health care system within the limitsof the powers and responsibilities conferred by the Nepalese constitution and Provincial Health Act 2075. The ministry of health is also responsible for the development and execution of numerous health programs within its jurisdiction. The functions of Ministry of Health are mentioned below.

1. Formulation, implementation and regulation of provincial policies, laws and standards relatedto health services and nutrition.
2. Management of preventive, promotive, curative, and rehabilitative health services required at the provincial level
3. Registration, operation permission and regulation of state level academic, professional, and professional associations related to health care
4. Monitoring and regulating the quality of health services.
5. Establishment and regulation of health institutions, health science academy within the province.
6. Quality assurance, production and storage of pharmaceutical and non- pharmaceutical technology related products in accordance with national standards, maximum retail pricing, final disposal.
7. Determination of quality, standards and registration, operation permission and regulation of industries producing such products.
8. Registration, operation permission and regulation of hospitals, nursing homes, diagnosticcenters, treatment centers and other health institutions and laboratories as per national standards.
9. Management and regulation of social health security programs including health insurance in accordance with national standards

10. Human resource development and management of the province level health sector
11. Drug monitoring, rationale use of drugs and reduction of anti-microbial resistance.
12. Immunization and family planning services
13. Procurement and supply of medicines and other health logistics.
14. Study and research on health care at the province level as well as institutional management of health information and health accounts
15. Public health surveillance management at the provincial level
16. Standards, control and regulation of drugs, tobacco, and alcohol.
17. Management of health emergencies, disaster, and epidemics. Provision of emergency health services. Management of provincial buffer stock of drugs and commodities for emergencies.
18. Prevention and control of communicable and non- communicable diseases.
19. Health infrastructure development and management as per national standards.
20. Setting of standards, implementation, and regulation of health care waste management.
21. Setting of provincial standards, implementation, and regulation of ayurvedic, Unani, Amchi, Homeopathic, naturopathy and other traditional medicine.

Health Directorate (HD) under Bagmati Province is the major technical and administrative unitfor health sector. The Health Directorate ensures proper delivery of promotive, preventive and curative health services through different health institutions in the province.

1.4 Organogram of Health Directorate

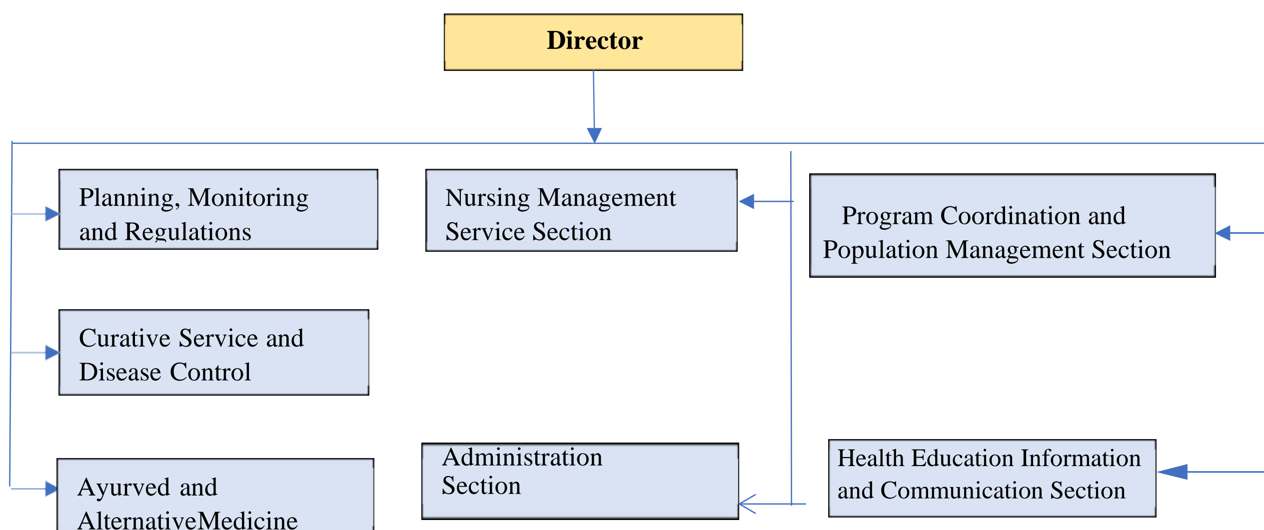


Figure 3: Organogram of Health Directorate

Major functions of the Health Directorate are:

- Planning and budgeting the Promotive, preventive, curative program within the province
- Ensure effective implementation of public health programs in the province
- Determine the requirement of manpower for health institutions in the province
- Ensure supply of drugs, equipment, instruments, and other materials at different health institutions in the province
- Manage the immediate solution of problems arising from natural disasters and epidemicsin the province at different levels
- Foster coordination with external development partners for effective delivery of resources and health services in the province.

1.5 Health Service Delivery Units

Table 1.1: Service Outlets within the Province

Organization unit	Dolakha	Sindhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchok	Ramechhap	Sindhuli	Makwanpur	Chitwan	**Total**
Tertiary Hospital	0	0	0	0	0	6	1	1	0	0	0	0	3	11
General Hospital	4	4	0	7	4	81	11	18	6	3	6	3	25	172
Teaching Hospital	0	0	0	0	0	6	2	2	0	0	0	0	5	15
Provincial Hospital	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Ayurveda Health Center	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Primary Health Care Centre	2	3	1	2	3	6	2	3	4	3	4	4	3	40
Health Post	52	75	17	49	63	58	20	38	90	51	51	43	36	643
Urban Health Centre	8	8	0	2	8	65	9	8	18	17	13	19	23	198
Basic Health Service Centre	8	15	1	35	5	4	0	13	29	3	5	17	37	172
Community Health unit	20	24	11	23	13	0	3	3	17	13	27	19	9	182
Diagnostic Center	0	0	0	0	0	90	0	16	0	0	0	0	8	114
Polyclinic	0	1	1	1	4	160	5	17	4	1	5	0	12	211
FCHVs	865	711	245	463	1123	1742	279	502	968	748	492	402	461	9004
Birthing Centre	15	31	14	72	48	11	2	16	32	43	48	40	30	402
BEONC	2	4	2	2	2	11	0	5	6	1	4	4	4	47
CEONC	1	1	0	1	1	8	4	3	2	0	1	1	10	33

In Bagmati Province, there are 13 government provincial hospitals, there are 402 birthing centers, 47 BEONC sites and 33 CEONC sites at Bagmati Province. There are 11 tertiary level hospital, 172 general hospital (public and private) and 15 teaching hospital at Bagmati Province. To improve access and utilization of health care services, the province operates 198 urban health centers, 182 community health units and 172 basic health service centers. There are 13 Ayurvedic health center. Similarly, 9004 FCHVs are being mobilized to promote and prevent public health.

1.6 Sources of Information in the Report

The main source of data for this progress report is the Health Management Information System (HMIS). Majority of the data used in this report is obtained from the DHIS2 software. These data were retrieved from DHIS2, following the completion of the provincial annual health review meeting and were summarized to analyze progress of various health programs and activities. Otherinformation systems used in the report include the Logistic Management Information System (eLMIS), disease surveillance systems, sentinel reporting, and the IMU. The report also included information obtained from the municipal and provincial counterparts during the annual health review meeting undertaken at various levels (palika, district and province). Finally, the Annual Health Report Preparation Committee collated, compiled, and examined all relevant data and then organized them into various sections and chapters in the annual health report.

CHAPTER 2: FAMILY WELFARE

2.1 Child Health and Immunization

Background

The National Immunization Program (NIP) formerly Expanded Program on Immunization (EPI) was started in 2034 and is considered as a Priority 1 program. It is one of the successful public health interventions of Ministry of Health and Population making a large contribution to Nepal's achievement of Millennium Development Goal 4 and 5 by reducing morbidity and mortality among children and mothers from vaccine prevention diseases. Immunization is important for reaching the Sustainable Development Goals (SDGs). Immunization reaches more people than anyother health or social service, making it the cornerstone of primary care and a significant driver toward universal health coverage. This makes immunization critical to achieving SDG3 – ensuring healthy lives and promoting well-being for all people of all ages. Nepal's constitution has assured access to basic health care services as a fundamental right of the people. The immunization Act endorsed (BS 2072 Magh 12) has ensured the right to access quality of vaccines to every child.

National Immunization Program has included total twelve antigens-BCG, DPT-Hib (Penta), PCV, OPV (bOPV), fIPV, Measles Rubella (MR), Japanese Encephalitis and ROTA provided through over 16600 service delivery points in health facilities (fixed session), outreach sessions and mobilize clinic(sessions). Smallpox has now become history due to eradication in 2034 BS (1977 AD). Maternal and Neonatal Tetanus (MNT) was eliminated in 2005 and the elimination status has been sustained since then. The last case of polio in Nepal was reported in 2010, and along with other countries of the Southeast Asia Region, Nepal was certified polio free in 2014. This status has been maintained since then. The province has sustained the achievement since then and has a very good track record of meeting the targets for control, elimination, and eradication of vaccine preventable diseases.

At the federal level, the Family Welfare Division (FWD) plans, implements, and monitors a varietyof immunization activities, while the logistic management section procures, stores, and distributes vaccine across the country as directed by the FWD's Child Health and Immunization Section. The NHEICC is responsible for generating communication and social mobilization tools for routine and supplementary immunizations and works closely with the immunization section.

At the provincial level, Health Directorate plans, executes and monitors various immunization activities. Furthermore, Provincial Health Logistic Management Centre (PHLMC) executes the logistic plan including storage and distribution of vaccine and vaccine related commodities including cold-chain management.

In line with the national target to eliminate Measles and Rubella (MR) by 2023, provincial government is working intensively to prevent community transmission of MR, MR associated deaths and disabilities. MR being one of the most infectious diseases and to achieve the target of elimination will require very high routine immunization coverage of more than 95% of both first and second routine immunization dose of MR vaccine from ward level to municipal level and district level.

Comprehensive Multi Year Plan of Action

The Comprehensive Multi Year Plan (cMYP) 2012-16 ended in 2016 and new cMYP 2017-21 isin place. The province level activities are being carried out in line with the national plan. The cMYP's (2017-2021) goal is to reduce the morbidity, mortality and disability associated with vaccine preventable diseases. The following are the strategic objectives of the cMYP:

1. Reach every child for full immunization
2. Accelerate, achieve and sustain vaccine preventable disease control, elimination and eradication
3. Strengthen immunization supply chain and vaccine management system for quality immunization services
4. Ensure financial sustainability for immunization program
5. Promote innovation, research and social mobilization activities to enhance best practices.

Target Population

- Under-1-year children for BCG, DPT-HepB-Hib, OPV, FIPV, PCV and Measles/ Rubella1 (MR1) vaccine.
- Under 1-year children for JE
- 15 months children for MR II
- Pregnant women for Tetanus Toxoid containing (Td) vaccine.

Major Achievements

- Based on immunization microplanning, immunization campaign has been successfully implemented in 13 districts.
- Routine Immunization sustained at all level in this province despite COVID-19 challenges
- Strengthened collaboration for essential health service during the COVID-19 context.
- Planned, secured all the vaccine requirement, and proper distribution, and stock management at all levels.
- As per plan, micro-planning activities were completed for the district level on-time.
- Updated cold-chain inventory for the immunization supply chain
- Introduction of Rota vaccine.

National Immunization Schedule

Table 2.1.1: National Immunization Schedule

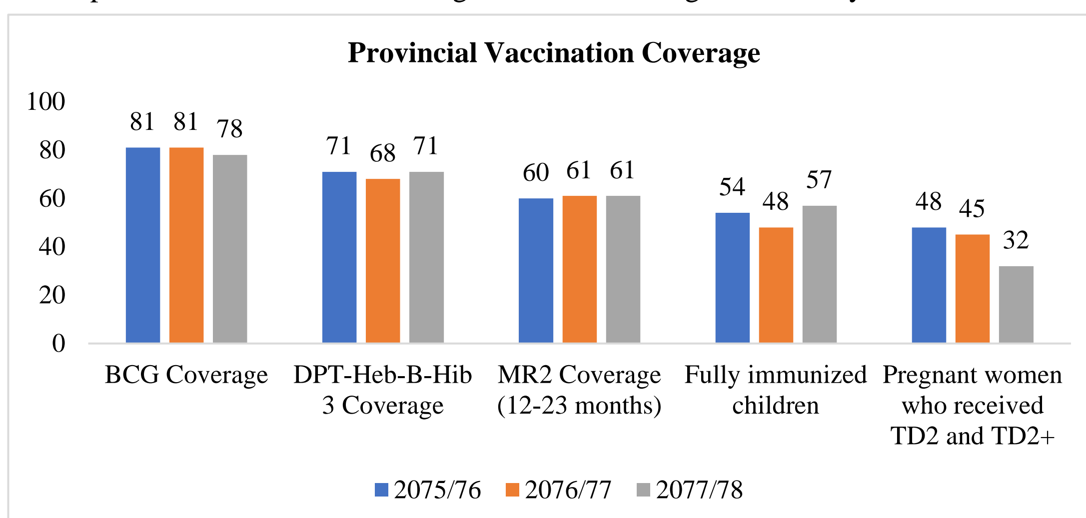
SN	Types of vaccine	Number of doses	Recommended age
1	BCG	1	At birth or on first contact with health institution
2	OPV	3	6, 10, and 14 weeks of age
3	DPT-Hep B-Hib	3	6, 10, and 14 weeks of age
4	FIPV	2	6, 14 weeks
5	PCV	3	6,10 weeks and 9 months of age
6	Rota	2	6,10 weeks
7	Measles-Rubella	2	MR1 at 9 months and MR2 at 15 months of age
8	Td	2	Pregnant women: 2 doses of Td one month apart in first pregnancy, and 1 dose in each subsequent pregnancy
9	JE	1	12 months of age

Immunization Status of Bagmati Province

The national immunization program (NIP) is one of the government's highest priority programs. In line with the National Immunization program, this province has included several underused andnew vaccines in program. Currently there are 12 antigens-BCG, DPT-HepB-Hib (Penta), PCV, OPV (boPV), FIPV, Measles and Rubella (MR) and JE provided through 2984 sessions (EPI clinics-2704) (service delivery points in health facilities, outreach sessions and mobile clinics. Government of Nepal procures BCG, OPV, Td, JE, MR first dose and co-finances to GAVI supported vaccines DPT-HepB-Hib (Penta), PCV and MR second dose.

Figure 4. Provincial Vaccination Coverage

Figure 4 shows provincial vaccination coverage for selected antigen for three years, from FY 2075/76 to



FY 2077/78. BCG coverage is decreased by 3% whereas the coverage of DPT-HepB-Hib3 and MR2 is increased by 3% and 1% respectively in 2077/78. The fully immunized children have decreased by 6% whereas pregnant women who received TD2 and TD2+ is decreased by 13% in FY 2077/78.

The table presented below show the routine immunization vaccination coverage and achievement status in FY 2077/78.

Table 2.1.2: Provincial vaccination coverage, FY 2077/78

SN	Antigens	Target Population	Target	Achievement	% Achieved
1	BCG	Under 1 year	129429	100955	78%
2	DPT-HepB-Hib3	Under 1 year	129429	91895	71%
3	Measles-rubella 2nd dose	Under 12-23 months	129532	79015	61%
4	All antigen for children	Under12-23 months	129532	62176	48%
5	Td2 an Td2+	Expected live birth	132633	42443	32%

Figure 5 shows the district wise BCG vaccine coverage. Kavrepalanchock has a higher BCG coverage rate (98.8%) followed by Lalitpur (96.6%). Bhaktapur has lowest BCG coverage (43.4%) which needs to be improved.

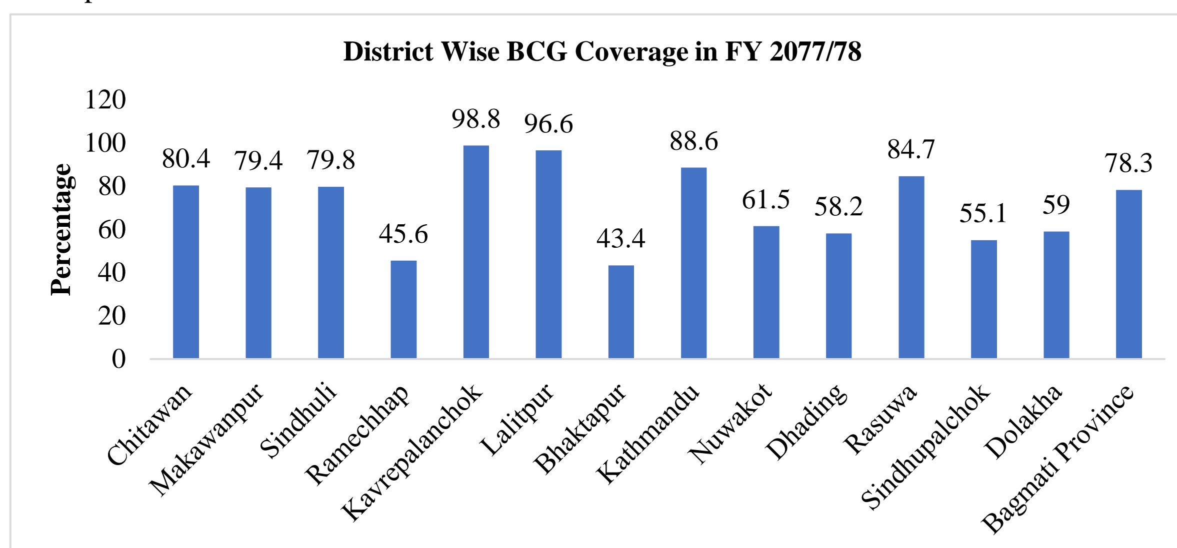


Figure 5. District wise BCG Coverage

Figure 6 shows that Rasuwa has the highest coverage (105.9%) followed by Sindhuli (90.8%) and Kathmandu (57.6%) has the lowest coverage of DPT-HepB-Hib3 vaccine coverage. Under reporting from private health institutions might be the reason of lower coverage in the districts

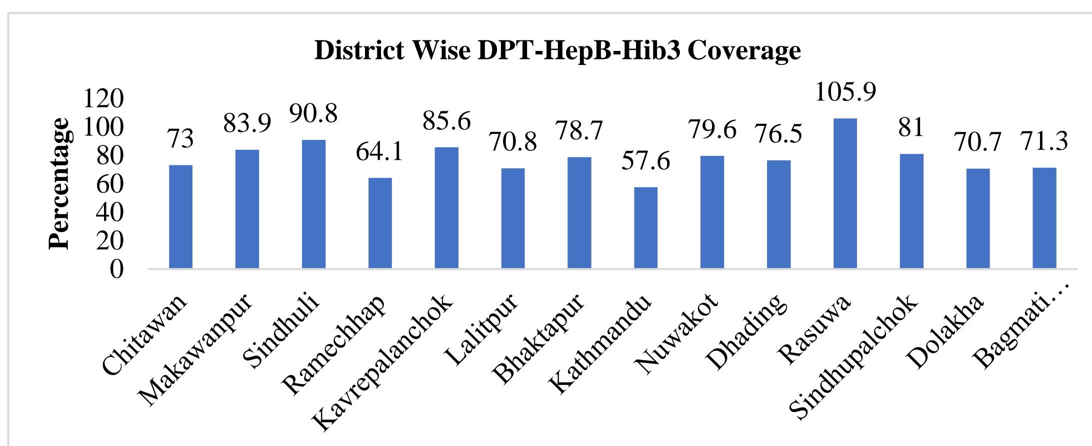


Figure 6 :District wise Coverage (%) DPT- Heb B-Hib 3 Coverage in FY 2077/78

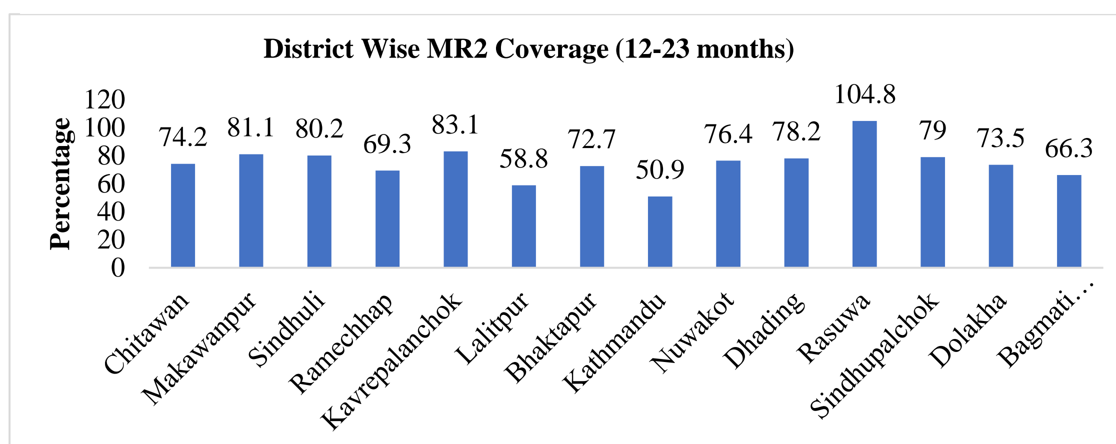


Figure 7: District Wise Coverage (12-23 months)

Figure 7 shows the district wise MR2 coverage among 12-23 months children for the FY 2077/78. Rasuwa has the highest MR2 vaccine coverage followed by Kavrepalanchock (83.1%). Kathmandu has the lowest coverage almost half of total population of 12 to 13 months children received the MR2 vaccine. Under reporting from private health institutions might be reason of lower coverage in the districts.

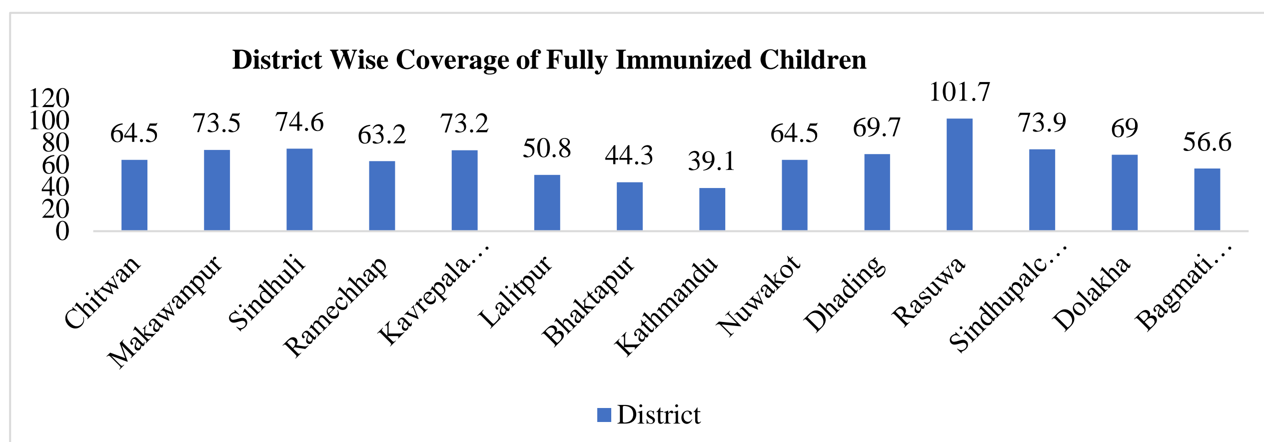


Figure 8: District Wise Coverage (%) of fully Immunized Children

Figure 8 shows the district wise vaccine coverage of fully immunized children in FY 2077/78 Rasuwa district (101.7) has highest coverage than other districts. All children of Rasuwa received all vaccines as per schedule. Kathmandu has the lowest coverage. Under reporting from private health institutions might be reason of lower coverage in the district.

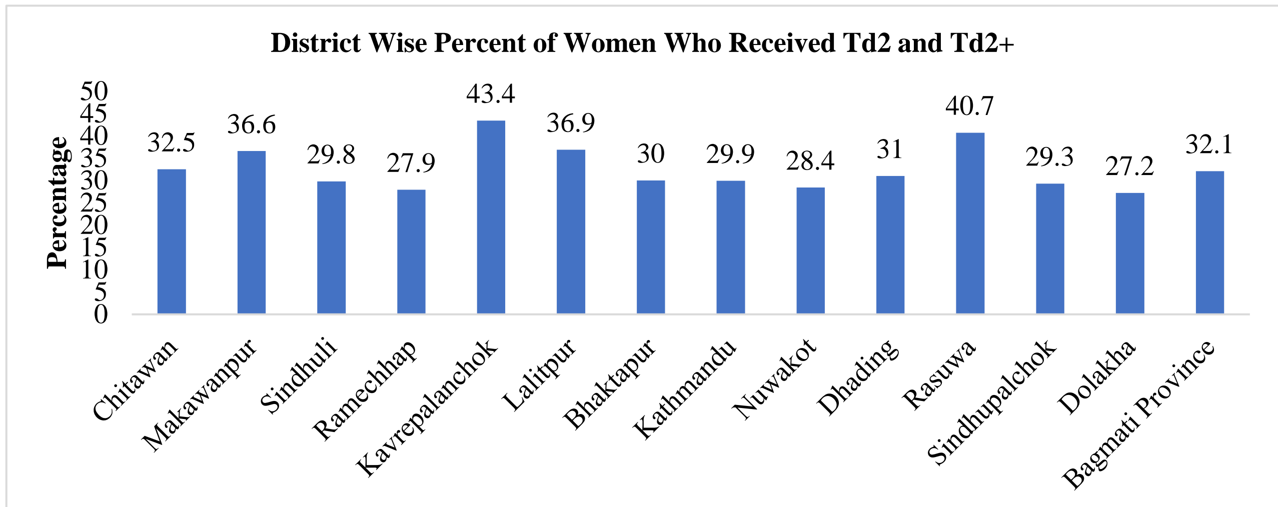


Figure 9. District wise coverage (%) of women who received Td2 and Td2+ in FY 2077/78

Figure 9 shows the district wise percentage of women who received Td2 and Td2+ vaccine.

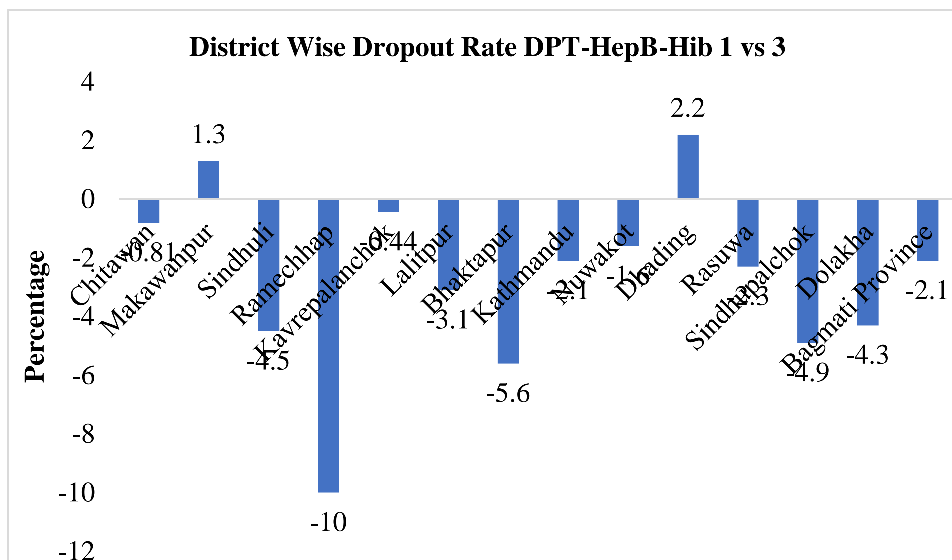


Figure 10. Vaccine dropout rate by district in FY 2077/78

Kavrepalanchock has highest coverage where 43.4% among targeted women received Td2 and Td2+ vaccine. All district has low coverage below 50%. In Bagmati province in FY 2077/78.

Immunization coverage

Table 2.1.3: Immunization coverage by antigens doses FY 2077/78

SN	Antigens	Target Population	Target	Achievement	Percent Achieved
1	BCG	under 1 year	129429	101394	78.3
2	Rota1	under 1 year	129429	85644	66.2
3	Rota2	under 1 year	129429	77837	60.1
4	DPT-Hep B HIB1	under 1 year	129429	90337	69.8
5	DPT-Hep B HIB2	under 1 year	129429	89758	69.3
6	DPT-Hep B HIB3	under 1 year	129429	92228	71.3
7	OPV 1	under 1 year	129429	89336	69
8	OPV 2	under 1 year	129429	89116	68.9
9	OPV 3	under 1 year	129429	90920	70.2
10	PCV1	under 1 year	129429	91742	70.9
11	PCV2	under 1 year	129429	89071	68.8
12	PCV3	under 1 year	129429	90209	69.7
13	fIPV1	under 1 year	129429	89345	69
14	fIPV2	under 1 year	129429	89983	69.5
15	Measles/Rubella 1st Dose	under 1 year	129429	90898	70.2
16	Measles/Rubella 2nd Dose	12-23 months	129532	85906	66.3
17	Japanese Encephalitis	12-23 months	129532	92492	71.4
18	Td2 and 2+	Expected live birth	132633	15191	41.8

One of the strategies of the comprehensive multi-year plan of action under the first strategic objective is to increase immunization coverage to reach 100% children. Table 3 shows the progressmade toward this strategy and objective of the cMYP.

Integration of Hygiene Promotion through Routine Immunization Program

Hygiene Promotion through Routine Immunization project is being led by the Ministry of Health and Population, Family Welfare Division with the technical support of Water Aid. The project is built on Water Aid`s hygiene behavior changes approach i.e., Behavior Centered Design – BCD. At the time of integrating hygiene promotion into routine immunization on a national scale, the COVID-19 pandemic was at its peak, thus it was decidedto incorporate COVID preventive measures into the current hygiene promotion package as well. WaterAid has been designing and delivering innovative hygiene intervention

packages (flip chart and sticker) in collaboration with the Lead of Family Welfare Division to lead to improved essential hygiene behaviors and contribute to the reduction of COVID-19 spread. WaterAid incorporated COVID prevention measures with a hygiene promotion campaign as part of its COVID response, and trained health workers and mothers at EPI clinics.

Because the intervention focuses on behavior change, this form of intervention will help to modify the behavior of the mothers in the community. In the first year of a child's life, mothers/guardians take their child to an immunization clinic at least five times. As a result, this is an excellent point of contact for health workers, including Female Community Health Volunteers (FCHVs), to promote good hygiene behaviors (exclusive breast feeding, food hygiene, water and milk treatment, handwashing with soap, and toilet use/disposal of child feces into the toilet) that will improve the health of children and families. The hygiene promotion package is an innovative and motivating approach that encourages mothers to learn and practice good hygiene behavior.

Status of the Hygiene Promotion Session in EPI Clinics

According to the assessment report, 70 percent of EPI clinics in Bagmati province held hygienepromotion sessions. The fear of COVID transmission and a lack of trained human resources were the main reasons for the rest of the clinics not performing hygiene promotion sessions. The assessment was carried out using Water checklist by a Quality Monitoring Officer deputedat the Health Directorate in Hetauda.

Table 2.1.4: Status of the Hygiene Promotion Session in EPI Clinics

Districts	Orientation events	EPI clinic monitoring	HF visit	Visit Palika	Support HO	Data collection from water tool	support on Microplanning of immunization (Events)	support of FID program (Event)	Support Covid -19 response
Dolakha	Complete	40	40	9	1	7	1	0	PPE
Sindhupalchok	Complete	57	57	12	1	9	2	0	PPE
Rasuwa	Complete	20	20	5	1	8	3	0	PPE
Dhading	Complete	29	29	13	1	12	2	0	PPE
Nuwakot	Complete	30	30	12	1	6	1	0	PPE
Kathmandu	Complete	56	56	11	1	6	3	0	PPE
Bhaktapur	Complete	30	30	4	1	6	2	0	PPE
Lalitpur	Complete	27	27	6	1	8	1	0	PPE
Kavre	Complete	40	40	13	1	17	2	0	PPE
Ramechhap	Complete	32	32	8	1	4	3	0	PPE
Sindhuli	Complete	33	33	9	1	8	2	0	PPE
Makwanpur	Complete	41	41	10	1	4	2	0	PPE
Chitwan	Complete	40	40	7	1	6	1	0	PPE
Total		190	190	119	13	101	25	0	

Table 2.1.5: Logistic supply for Immunization and Hygiene Promotion program, COVID-19 Response program at Palika, District and Province.

Hygiene Promotion through Routine Immunization (HPTRI)				Support on Covid -19 response					
District	**Mirror (pcs)**	**Dangler (pcs)**	**Hygiene promotional package (pcs)**	**Support sanitizer atpalika level (ltr)**	**Sanitizer HO/PHD**	**Soap (pcs)**	**Flip chart (pcs)**	**Sticker at Palika (pcs)**	**Contactless handwashing facilities**
Dolakha	4284	4284	204	510	24	1290	137	4150	29
Sindhupalchowk	6465	6465	276	720	24	1940	185	6250	0
Rasuwa	974	974	69	180	24	460	47	1100	0
Dhading	7955	7955	195	490	24	1730	131	7950	0
Nuwakot	6326	6326	234	620	24	1680	157	6350	0
Kathmandu	43006	43006	408	700	24	1690	273	42050	40
Bhaktapur	7291	7291	87	210	24	1050	59	7200	0
Lalitpur	11304	11304	147	420	24	1230	99	11350	30
Kavrepalanchowk	8751	8751	327	860	24	2750	207	8700	50
Ramechhap	4738	4738	213	510	24	1430	143	4700	0
Sindhuli	6831	6831	192	510	24	1610	129	6700	0
Makwanpur	9810	9810	165	410	24	1720	111	9850	0
Chitwan	14926	14926	177	380	24	1630	119	15050	0
HD, Bagmati Province	0	0	0	0	24	0	3	100	0
Total	132661	132661	2694	6520	336	20210	1800	131500	149

Issues, recommendations and responsibilities

Table 2.1.6: Issues, recommendations and responsibilities

Issues	Recommendations	Responsibilities
Infrastructure for routine immunization sessions	Need to arrange infrastructure from local level	Palika, Health Office, Provincial Government
Congested warehouse building for the storage at province level	Need to establish/build vaccine storage& warehouse at provincial level as per EVM standard.	Provincial Government MoH, PHLMC, MoHP
Sustaining full Immunization in Low coverage districts/Municipalities	Yearly verification and validation of fully immunized children and routine immunization Coverage monitoring system should bein place	Health Office, Health Section, Palika

Replacement of CC equipment of over 10 years	Replacing of ageing cold-chain equipment	PHLMC, MoH/Management Division
No clear central level's policy to expand sub-center and its management in ongoing this federal structure	Guidelines for the local level's cold chain strengthen and expansion for the strategic location based on the EVM standard.	MoH, FWD, MoHP
No dedicated human resources for cold chain /Immunization supply chainat vaccine district store	Provision for dedicated HR required for immunization section of district/vaccine sub-center Provision of refrigerator technician at province (PHLMC)	Provincial Government (Health Directorate/MoH)), MoHP
Problem in regular reporting on e-LMIS and other real consumption	Timely reporting of vaccine stock shouldbe implemented from district level Need to arrange information reporting of cold-chain equipment in e-LMIS system	Palika Health Office

2.2 Integrated Management of Neonatal and Childhood Illnesses

Background

Integrated Management of Neonatal and Childhood Illness (CBIMNCI) is integrated program of Integrated Management of Childhood Illness (CB-IMCI) and New-born Care Package (CBNCP). The goal of this program is to improve neonatal and child health as well as contribute in their health improvement and reduce illness and mortality among under five children. IMNCI Program is the integration package of child-survival addressing five major killer diseases namely diarrhea, pneumonia, malnutrition, measles, and malaria at communityand health facility level focusing on under-five children throughout the country which is focused to reduce mortality and morbidity of newborn, addresses the main causes of neonatal mortality - infection, low birth weight, prematurity, hypothermia, and asphyxia.

Goals, objectives, strategies, and major interventions of the IMNCI Program

Goal: Improved newborn and child survival and healthy growth and development.

Objectives

- To reduce neonatal morbidity and mortality by promoting essential newborn services.
- To reduce neonatal morbidity and mortality by managing major causes of illness.
- To reduce morbidity and mortality by managing major causes of illness under 5 year children.

Strategies

- Quality of care through system strengthening and referral services for specialized care
- Ensure universal access to health care services for new-born and young infant
- Capacity building of frontline health workers and volunteers
- Increase service utilization demand generation activities
- Promote decentralized and evidence—based panning and programming

Major Interventions

- **New-born Specific Interventions**: Promotion of birth preparedness plan, promotion of essential new-born care practices and postnatal care to mothers and new-born; identification and management of non-breathing babies at birth; identification and management of preterm and low birth weight babies); and management of sepsis among young infants (0-59 days) including diarrhea.

- **Child Specific Interventions:** Case management of children aged between 2-59 months for 5 major childhood killer diseases (Pneumonia, Diarrhea, Malnutrition, Measles and Malaria).
- **Cross-cutting Interventions:** Behavior Change Communication for healthy pregnancy, safe delivery and promotion of personal hygiene and sanitation; improve knowledge related to immunization, nutrition, and care of sick children; and improve interpersonal communication skills of HWs and FCHVs).

Major Achievements

CB-IMNCI Program Monitoring Indicators

Table 2.2.1: CB-IMNCI program monitoring indicators by district (FY 2077/78)

District	Percentage of institutional deliveries	% Of newborns applied chlorhexidine(CHX) gel	% Of PSBI cases received complete dose of Gentamicin	% Of pneumonia cases treated with antibiotics	% Of children under five years with diarrhea treated with zinc and ORS
Dolakha	51.1	93.6	18.75	156	86.4
Sindhupalchowk	32.1	85.3	26.47	114.8	103.9
Rasuwa	36.5	93.7	20	124.5	98.6
Dhading	44.7	97.6	31.03	95.5	96
Nuwakot	48.5	96.4	43.75	147.8	90.3
Kathmandu	72.7	42.2	0	99.9	93.1
Bhaktapur	26.8	54.7	0	105.6	92.6
Lalitpur	55.7	95	0	106.4	79.2
Kavrepalanchowk	69.6	87.8	23.53	113.5	101.7
Ramechhap	28.8	191.8	0	132.8	94.1
Sindhuli	45.1	46.5	21.88	125.4	107
Makwanpur	53.4	87.6	55.56	249.4	88.3
Chitwan	100.4	71.9	15.15	131.6	94.5
Bagmati	**61.7**	**71.3**	**25.2**	**126.1**	**94.4**

In fiscal year 2077/78, the provincial average for institutional deliveries was 61 percent with Bhaktapur district having the lowest rate (26.8) Among all expected live births, chlorhexidine was administered to 71.3 percent of newborn's umbilical cord (HF+FCHV). There was a substantialvariance in CHX use among districts, with Ramechhap district having the highest use (191 percent) and Kathmandu district having the lowest (42.2 percent). Similarly, at the provincial level, the utilization of inj. Gentamicin for PSBI cases in children under the age of two months was 25.2 percent.

Use of antibiotics for pneumonia treatment (excluding FCHVs) was at least 95 percent in all 13 districts, with provincial average of 126 percent, highest being observed in Makwanpur district (249 percent) and lowest in Dhading (95 percent). As per the CB-IMNCI treatment protocol, all diarrheal cases should be treatment with ORS and Zinc. Based on HMIS data, children suffering from diarrhea treated with ORS and Zinc at provincial level was 94.4 percent, whichwas highest in Sindhupalchowk (103 percent) and lowest in Lalitpur (79percent).

Key achievements for management of < 2month newborns

Table 2.2.2: Classification of treatment of <2-month newborn cases by district (FY 2077/78)

Indicators	Year	Dolakha	SIndhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchowk	Ramechhap	Sindhuli	Makwanpur	Chitwan	Total
Possible severe bacterial infections (PSBI)	FY 2075-76	12	69	9	63	23	14	5	15	50	28	67	13	61	429
	FY 2076/77	9	38	12	33	22	22	11	17	23	8	44	11	154	404
	FY 2077/78	16	34	5	58	16	1	1	5	17	7	32	9	33	234
Jaundice	FY 2075-76	16	23	12	62	29	30	11	17	20	6	19	67	35	347
	FY 2076/77	8	20	8	35	11	15	7	16	18	11	17	32	22	220
	FY 2077/78	1	19	1	65	6	15	1	6	11	5	10	10	12	162
Low Weight/Feeding Problem ≤28 days (HF only)	FY 2075-76	16	16	6	22	9	15	3	26	10	2	52	8	34	219
	FY 2076/77	24	13	7	15	11	12	3	7	15	1	11	5	29	153
	FY 2077/78	25	15	2	26	17	11	0	8	22	5	8	8	21	168
Referred	FY 2075-76	12	54	9	31	25	25	5	14	39	6	36	24	27	307
	FY 2076/77	11	17	2	19	13	27	3	7	28	16	21	15	44	223
	FY 2077/78	13	18	0	41	5	15	0	19	25	3	36	13	31	219
Deaths	FY 2075-76	2	4	0	0	0	0	0	0	0	0	2	4	0	12
	FY 2076/77	2	1	1	1	0	0	0	0	0	0	2	0	7	14
	FY 2077/78	1	2	0	7	3	2	0	0	0	0	0	2	0	17

In total, in the FY 2077/78, 234 cases were classified as Possible Severe Bacterial Infection (PSBI) at the provincial level which is less than that of previous year (404). In the FY 2077- 78, the number of PSBI cases was highest in Dhading and lowest in Kathmandu and Bhaktapur. Similarly, the total cases of Jaundice at provincial level declined from220 in FY 2076/77 to 162 in FY 2077/78. Also, cases were classified as low birth weightor breast-feeding problem with an increase from 153 to 168 between FY 2076/77 to FY 2077/78. Inthe FY 2077/78, 219 total cases were referred from both HF and PHC-ORC clinic, highest referral was done by Dhading.

Key achievements for management of 2-59 months children

Diarrhea

Classification of diarrhea cases by province

CB-IMNCI program has created enabling to health workers for better identification, classification and treatment of diarrheal diseases. As per CB-IMNCI national protocol, diarrhea has been classified into

three categories: ‘No Dehydration’, ‘Some Dehydration’, and‘Severe Dehydration’. The reported number and classification of total new diarrhea cases has presented in Table 2.2.3 below:

Table 2.2.3: Classification of diarrheal cases by district (FY 2077/78) (2-59 months children)

Indicator (Service unit)	Year	Dolakha	SIndhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchowk	Ramechhap	Sindhuli	Makwanpur	Chitwan
Total (HF+ORC+ FCHV)*	FY 2075-76	18745	22346	8476	18394	16219	32812	13604	19608	25550	22079	22739	30977	20778
	FY 2076/77	15668	19965	6763	16927	14566	30851	10704	17862	23815	18516	19999	30794	19827
	FY 2077/78	13948	20517	6470	15667	16068	28773	7427	18147	24432	18182	20092	31754	19377
Total (HF+ORC)	FY 2075-76	11410	13521	4991	11422	9664	18322	7728	11312	14978	12097	13504	17435	13089
	FY 2076/77	9294	12045	4020	10579	8557	16918	6307	10220	13618	10136	11600	17231	11804
	FY 2077/78	8391	12662	3831	9973	9200	15475	4084	10101	14055	9984	11938	17905	11595
No dehydration (HF+ORC)**	FY 2075-76	36937	3229	3731	1330	3328	2312	3218	1600	2475	3327	1792	2996	3102
	FY 2076/77	31336	2393	3378	1098	3317	1951	2474	1667	2179	2905	1419	2277	3011
	FY 2077/78	31028	2259	3946	1088	3305	1856	1865	704	1699	3029	1579	2799	3468
Some Dehydration (HF+ORC)**	FY 2075-76	527	468	90	559	279	205	66	222	375	155	568	387	508
	FY 2076/77	417	503	30	519	169	197	31	198	341	115	582	305	244
	FY 2077/78	54	6	2	2	7	8	0	1	5	2	0	8	5
Severe Dehydration (HF+ORC)**	FY 2075-76	0	6	7	29	3	3	0	0	9	2	10	3	28
	FY 2076/77	1	15	1	25	5	4	0	0	1	6	14	3	9
	FY 2077/78	6	2	2	7	8	0	1	5	2	0	8	5	8
Total Diarrhoea Cases (FCHV)***	FY 2075-76	7335	8825	3485	6972	6555	14490	5876	8296	10572	9982	9235	13542	7689
	FY 2076/77	6374	7920	2743	6348	6009	13933	4397	7642	10197	8380	8399	13563	8023
	FY 2077/78	5557	7855	2639	5694	6868	13298	3343	8046	10377	8198	8154	13849	7782

*Note: *Percentage calculated against province total; **Percentage calculated against total diarrheal cases (HF+ORC);*

****Percentage calculated against total diarrheal cases (HF+ORC+FCHV)*

A total of 240854 diarrheal cases were reported in FY 2077/78, with nearly a third 139194 coming from health facilities and PHC-ORC and the remaining two-thirds 101660 coming fromFCHVs. While diarrheal cases decreased in Rasuwa and Bhaktapur districts, they increased in Bhaktapur and Makwanpur districts.

Classification of diarrheal disease incidence

Table 2.2.3: Incidence of diarrhea among children under 5 years of age

District	Estimated <5 years population that are prone to diarrhea			Incidence of diarrhea/1000 <5 years population		
	FY 2075-76	FY 2076/77	FY 2077/78	FY 2075-76	FY 2076/77	FY 2077/78
Bagmati Province	641843	647368	652626	248.5	219.9	213.3
Dolakha	19023	18854	18678	599.8	492.9	449.2
Sindhupalchok	29910	29720	29515	452.1	405.3	429
Rasuwa	4569	4547	4525	1092.4	884.1	846.6
Dhading	35746	35643	35518	319.5	296.8	280.8
Nuwakot	29143	29002	28847	331.6	295	318.9
Kathamndu	220967	225212	229403	82.9	75.1	67.5
Bhaktapur	36750	37244	37719	210.3	169.3	108.3
Lalitpur	56890	57705	58495	198.8	177.1	172.7
Kavrepalanchok	40715	40605	40472	367.9	335.4	347.3
Ramechhap	21139	21024	20898	572.3	482.1	477.7
Sindhuli	31458	31356	31236	429.3	369.9	382.2
Makawanpur	46469	46562	46629	375.2	370.1	384
Chitwan	69064	69894	70691	189.5	168.9	164

As shown in the table 2.2.3, the incidence of diarrhea per thousand under 5 years children in Bagmati province was 213.3 in fiscal year 2077/78, being highest in Rasuwa followed by Dolakha. Similar trend was also seen in the previous two fiscal years. The lowest incidence was observed in 2077/78.The figure 11 presents the provincial status of IMNCI in last three fiscal years from 2075/76 to 2077/78. The data show that there was decrement in incidence of Pneumonia and Diarrhea in province over last three years.

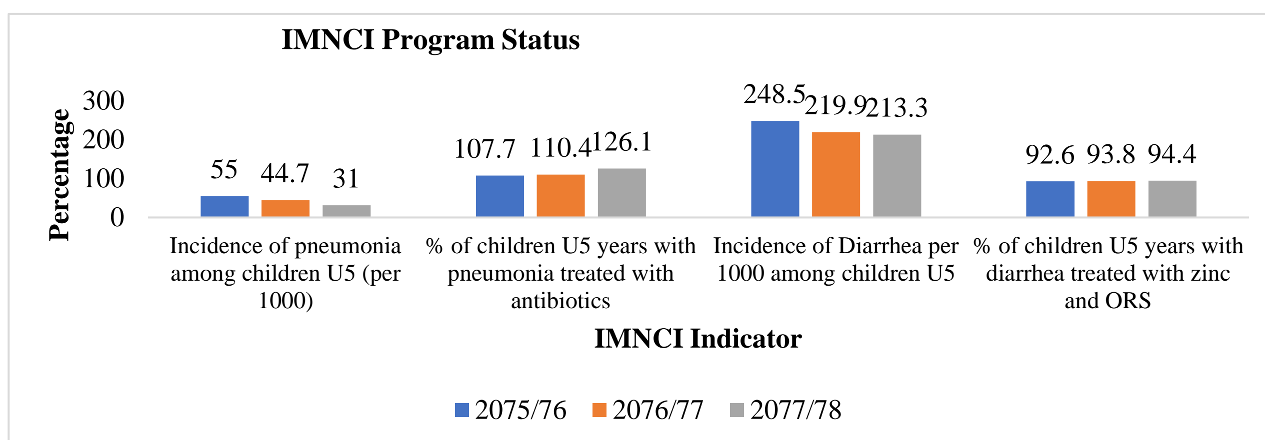


Figure 11: Program Status of IMNCI

The percentage of children U5 years with Pneumonia treated with antibiotics and percentage of children under 5 with Diarrhea treated with ORS and Zinc at province level went on increasing trend in last three fiscal years. The incidence of both Pneumonia and Diarrhea of Bagmati Province in fiscal year 2077/78 was much lower than that of national average which was a good progress. In contrast, percentage of U5

years children with Pneumonia and Diarrhea treated with antibiotics and ORS and Zinc respectively was found lower than national average which is a matter of concern for the province.

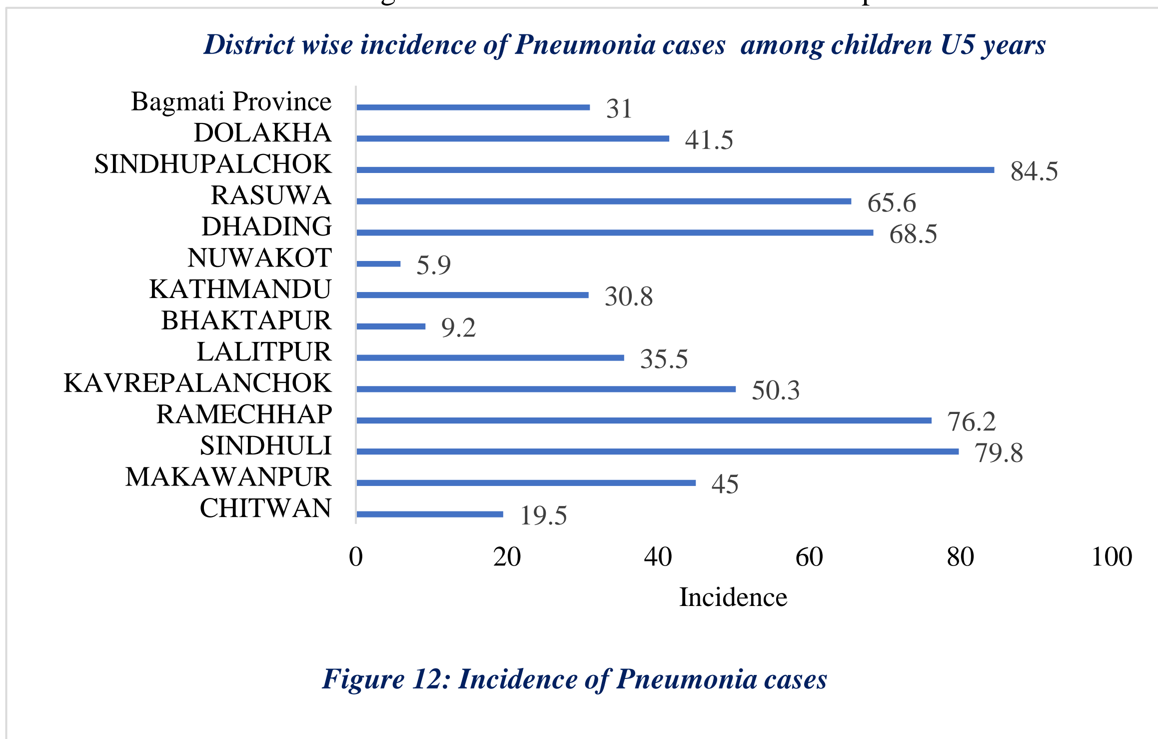


Figure 12: Incidence of Pneumonia cases

The below given figures 12 to 13 illustrate the district wise status of IMNCI program indicators of Bagmati Province in the fiscal year 2077/78. Accordingly, the highest incidence of Pneumonia was in Sindhupalchowk district (84.5) and the least incidence in Nuwakot district (5.9) in that fiscal year. Likewise, highest incidence of diarrhea was in Rasuwa district (886.6) and the least in Nuwakot district (67.5). The percentage of children U5 years with pneumonia treated with antibiotics was Highest in Makawanpur district (249.4) and the least in Dhading district (95.5). The district with highest coverage of percentage of U5 year children with Diarrhea treated with ORS and Zinc was Sindhuli (107) and that of least was Lalitpur (79.2).

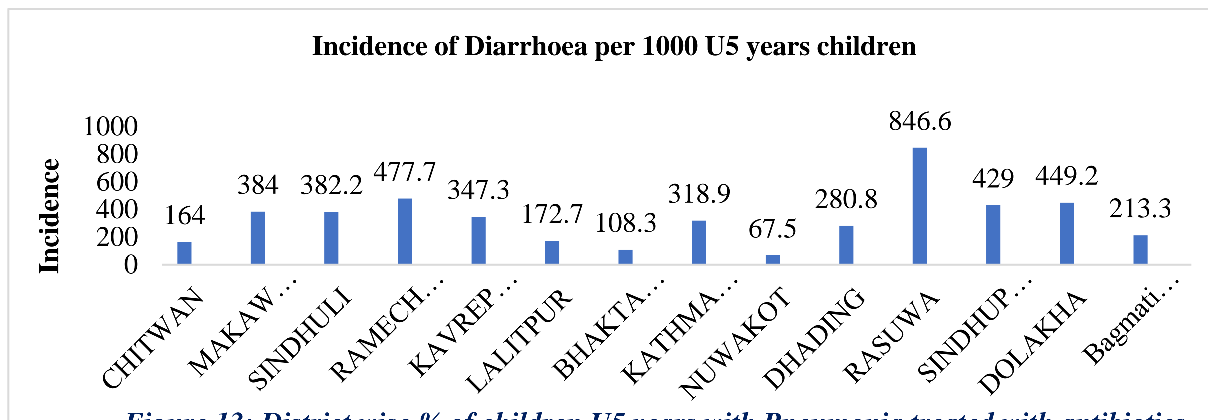


Figure 13: District wise % of children U5 years with Pneumonia treated with antibiotics

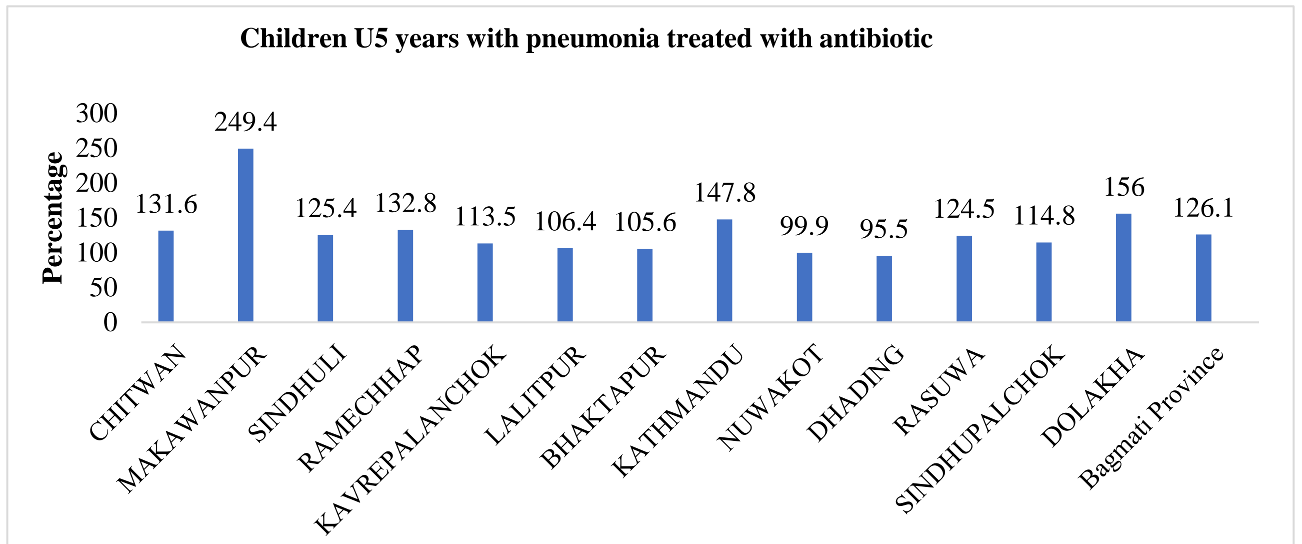


Figure 14. Incidence of diarrhea per 1000 U5 years children in FY 2077/78

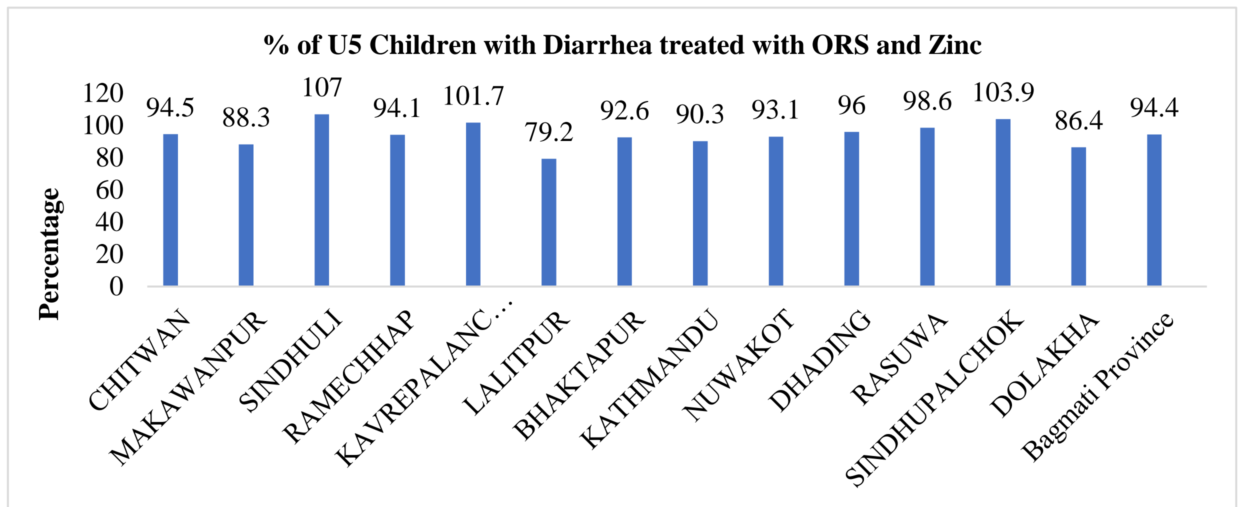


Figure 15. Incidence of diarrhea per 1000 U5 years children in FY 2077/78

2.3 Nutrition program

Nutrition is a foundation of survival, growth and development, a prerequisite of accelerated attainment of all the Sustainable Development Goals (SDGs) and can foster social andeconomic development. Good Nutrition is a key driver of development and economic growth whereas undernutrition incurs significant productivity losses for individuals and ultimately forthe nation. The problem of malnutrition continues to be a significant impediment to health, social and economic development. Nutrition is a priority for the government of Nepal. It aimsto achieve the nutritional well-being of all people so that they can maintain a healthy life and contribute to the country's socio-economic development. The Government of Nepal (GoN) iscommitted to ensuring that all its citizens have access to adequate nutritious food, healthcare and other social services that impact nutrition outcomes.

Nepal has made significant progress in reducing stunting among children under 5 years. Stunting decreased from 57 percent in 2001 to 35.8 percent in 2016 NDHS and according to the recent Multiple Indicator Cluster Survey (MICS 2019), stunting has reduced to 32 percent.Wasting among children under 5 years was 11 percent in 2001, 10 percent in 2016 according to NDHS data and the MICS 2019 shows wasting at 12 percent. In Bagmati province, stuntingwas 29% percent in the NDHS 2016, 22.9 percent in MICS 2019. Wasting among children under5 years has increased from …. Percent in NDHS 2016 to 4.7 percent in MISC 2019. Similarly, inthe province, the prevalence of Anemia among children under 5 years is at 43% per cent and women of reproductive age are at 44 percent (NDHS 2016) which is lower than the national prevalence.

The province government has a high-level commitment and has given top priority to nutritionprograms to improve the nutritional status of children, pregnant women, lactating mothers, andadolescents of Bagmati province. The Ministry of Health and Health Directorate is accountable to provide nutrition services in the province incoordination and collaboration with federal & local governments and supporting development partners. The province has been developing policies, strategies, and guidelines ofnutrition programs in the context of the province in alignment with National policies and strategies.

Key Policy documents

The National Nutrition Strategy, 2077- aims to address all forms of malnutrition by implementing nutrition-specific and sensitive interventions through the health sector and providing strategic and programmatic direction for nutrition interventions in Nepal through thehealth sector.

Multi-sector Nutrition Plan (MSNP-II 2018-2022) - which is a broader national policy framework for nutrition, within and beyond the health sector, coordinated by the NationalPlanning Commission (NPC), provides national policy guidance for nutrition-specific andnutrition-sensitive interventions as well as

creating an enabling environment for nutrition interventions throughout the country.

The National Health Policy, 2076- focuses on improving nutrition through the effective promotion of quality, nutritious foods produced locally.

Strategies

The major strategies for improving nutrition are i) promotion of dietary diversification, ii) foodfortification, iii) micronutrient supplementation and iv) public health measures. The first two are the Food-based Approach and the other two are Non-Food Based Approach. Nepal, being an early riser of the Scaling-up Nutrition (SUN) movement has initiated the multi-sector approach in nutrition interventions with formulation and effective implementation of Multi- sector Nutrition Plan (MSNP). It envisions the reduction of childhood stunting with the scaling-up of nutrition-sensitive and nutrition-specific intervention. Under the MSNP framework, the health sector is responsible for nutrition-specific interventions.

- Fortifying diets of young children aged 6-23 months with multiple micronutrient powder.
- Promoting iodized salt.
- Deworming of children aged 12-59 months.

Nutrition interventions

The Ministry of Health Population and Family Welfare has been implementing severalnutrition-specific interventions to address maternal, adolescent and child malnutrition. The key interventions are as follows:

- Growth Monitoring and Promotion activities
- Maternal Infant and Young Child Nutrition (MIYCN)
- Integrated Management of Acute Malnutrition (IMAM)
- Supplementing IFA for adolescent girls, pregnant women, and breastfeeding mothers
- Supplementing Vitamin A for children aged 6-59 months
- Deworming of children aged 12-59 months and school-going children
- School Health Nutrition program
- Nutrition education and counselling
- Comprehensive Nutrition Specific Intervention (CNSI)
- Nutrition Rehabilitation Home

Major achievements in Nutrition program

The figure 15 presents the provincial status of nutrition program indicators in last three fiscal years from 2075/76 to 2077/78. The data shows that there was improvement in nutritional status of children in

(underweight) however there was gradual reduction in nutritional program indicators like growth monitoring, iron & vitamin A coverage in province over last three years. The status of growth monitoring visits in Bagmati Province in fiscal year 2077/78 was much lower than that of national average. Malnutrition among children of Bagmati Province was less in comparison with national average. It was interesting to note that Iron tab and Vit A coverage in the province significantly lower than the national average in the fiscal year 2077/78.

The below given figures 16-17 illustrate district wise status of nutritional status indicators of Bagmati Province in the fiscal year 2077/78. Accordingly, the highest percentage of children aged 0-11 months registered for growth monitoring was in Rasuwa district (125) and the least in Kathmandu district (37.5) in that fiscal year. Likewise, highest percentage of underweight children among new GM visits (0 – 11 m) was in Lalitpur district (7.2) and the least in Rasuwa district (0.2). The percentage of 12 – 23 months registered for growth monitoring was highest in Rasuwa district (104.2) and the least in Kathmandu district (27.2). The district with highest percentage of underweight children among new GM visits (12 – 23 m) was Lalitpur (4.7) and that of least was Rasuwa (0.4). Similarly, the percentage of pregnant women who received 180 tablets of iron was the highest in Dolakha (51.9) and the least in Kathmandu district (9.1). The percentage of postpartum mothers who received Vitamin A supplementation was highest in Rasuwa (61.2) while the lowest in Kathmandu district (22.7).

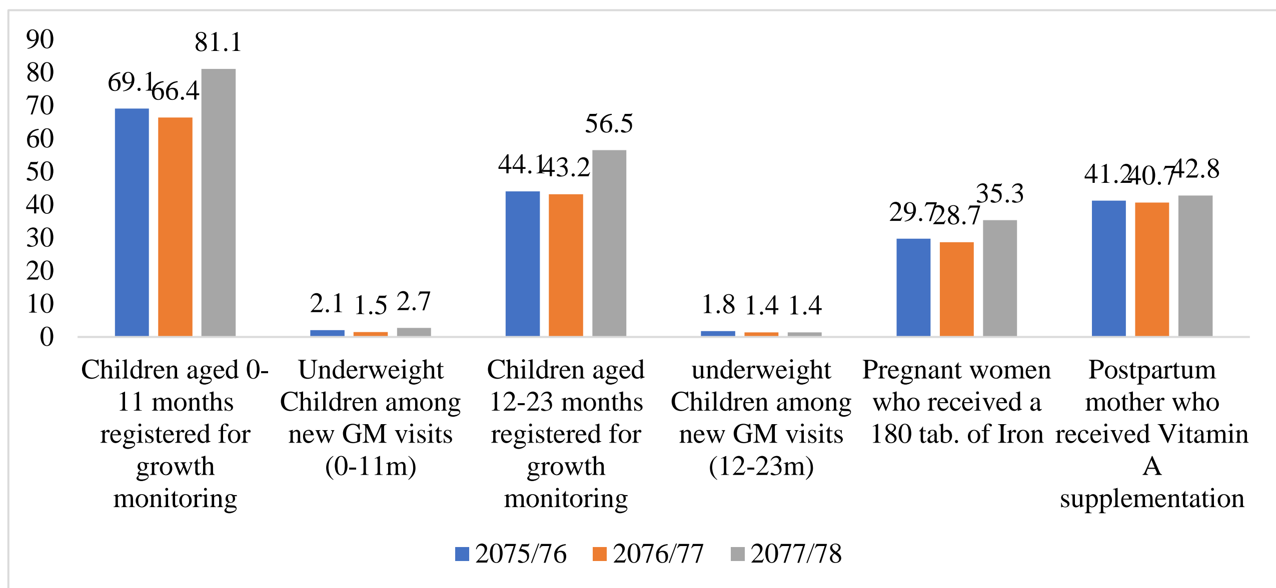


Figure 16: Nutrition Program Indicators Status

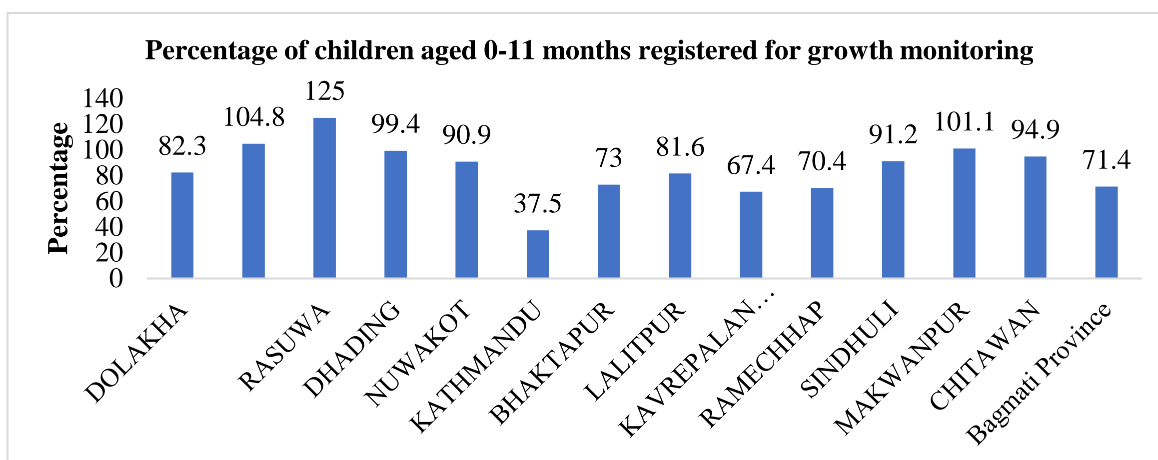


Figure 17: Percentage of children aged 0-11 months registered for growth monitoring

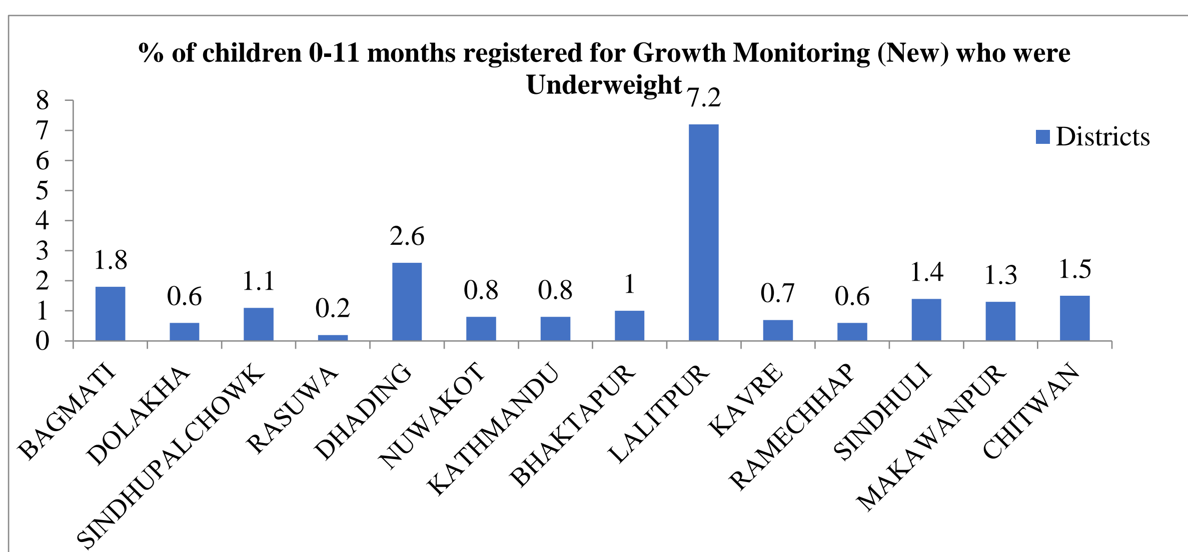


Figure 18: District wise underweight children among new GM visits (0-11m) (%)

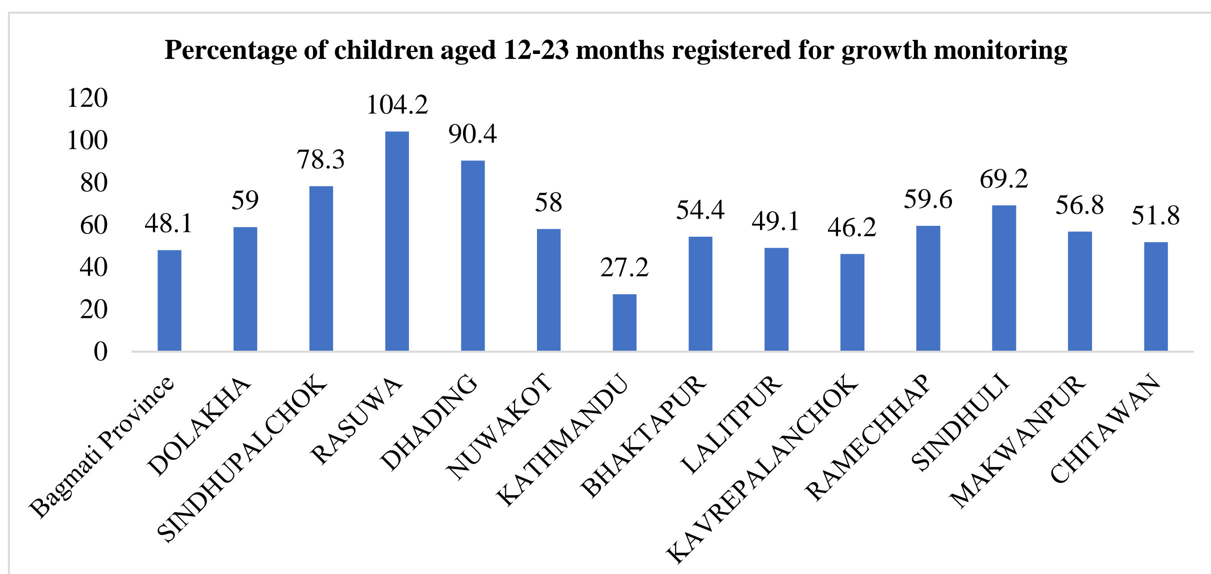


Figure 19: District wise children (12-23) months registered for growth monitoring

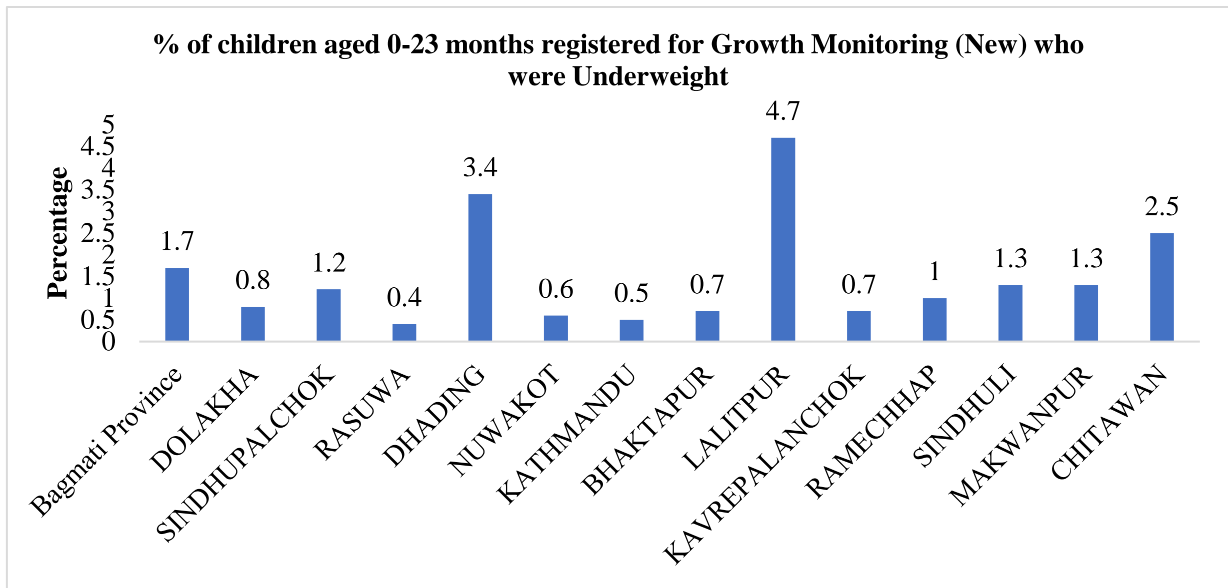


Figure 20:. District wise underweight children among new GM visits (12-23m)

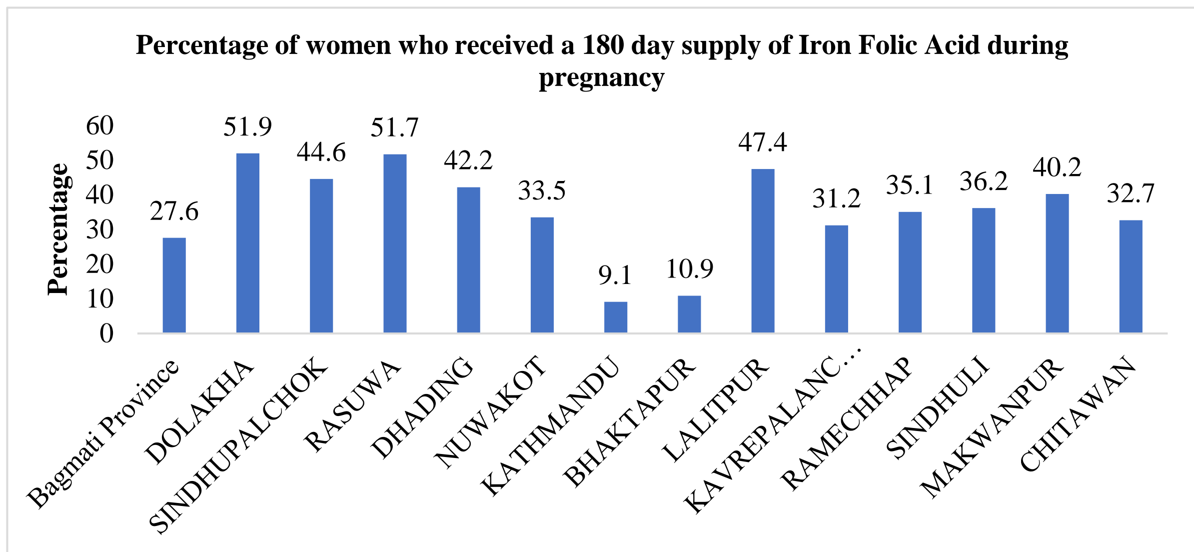


Figure 21: District wise pregnant women who received 180 tablets of Iron (%)

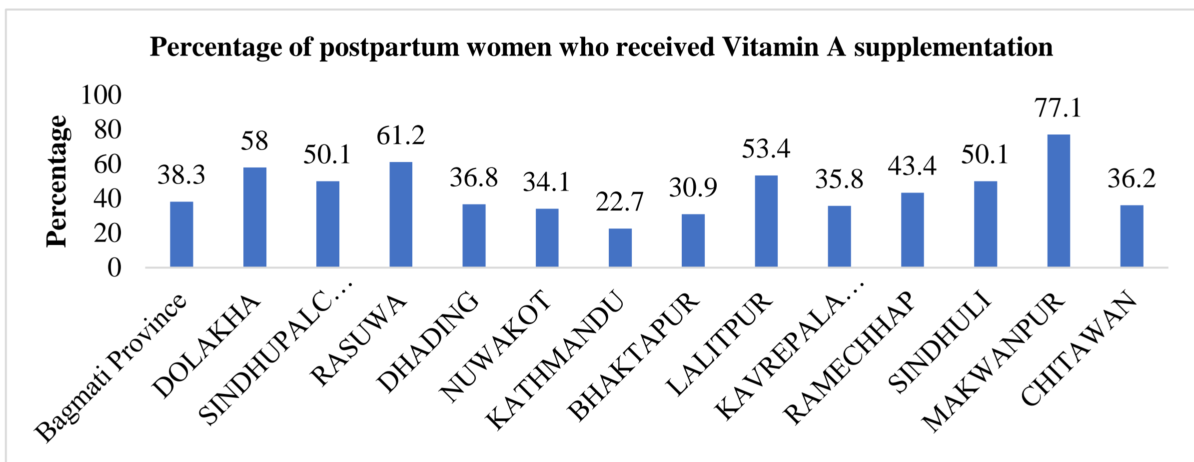


Figure 22: District wise postpartum women who received Vit A supplementation

Issues and Challenges:

- Indicators of growth monitoring and promotion have not improved. Mothers and caregivers of children under the age of two are unaware of where GMP sessions are accessible.
- There is a problem in the availability and regular of nutrition commodities (MNP, Vitamin A capsules, RUTF, Iron tablets).
- Active screening to identify children with severe and moderate acute malnutrition and defaulter tracking is ineffective.
- The Health Mothers' Groups are not functioning actively.
- At Outpatient Therapeutic Centers, turnover and transfer of skilled health workers has had an impact on services.
- Policy and focus shifts at donor agencies have had an impact on nutrition program.
- Despite the allocation of funds at the local level, there is a lack of technical ability for execution.
- Problems with recording and reporting resulting in data errors.
- Moderate Acute Malnutrition (MAM) cases are not prioritized because only Severe Acute Malnutrition (SAM) is treated at OTCs.

Recommendations

- Prioritize community-based programs for active case finding and defaulter case tracking.
- Expand outpatient therapeutic centers in remaining districts.
- Appointed of nutrition focal point (person) at the provincial and municipal levels.
- Ensure consistent supply of nutrition commodities.
- Ensure regular monitoring and supervision of nutrition programs and activities at provincial and municipal levels.

2.4 Safe Motherhood and Newborn Health

Introduction

The goal of the National Safe Motherhood Program is to reduce maternal and neonatal morbidity and mortality and improve maternal and neonatal health through preventive and promotive activities and by addressing avoidable factors that cause death during pregnancy, childbirth, and the postpartum period. Evidence suggests that three delays are important factors for maternal and newborn morbidity and mortality in Nepal (delays in seeking care, reaching care, and receiving care). The following major strategies have been adopted to reduce risks during pregnancy and childbirth and address factors associated with mortality and morbidity:

- Promoting birth preparedness and complication readiness including awareness raising and improving preparedness for funds, transport, and blood transfusion.
- Expansion of 24 hours birthing facilities alongside Aama Suraksha Programme promotes antenatal check-ups and institutional delivery.
- The expansion of 24-hour emergency obstetric care services (basic and comprehensive) at selected health facilities in all districts.

The Safe Motherhood Program initiated in 1997 has made significant progress with formulation of safe motherhood policy in 1998. Service coverage has grown along with the development of policies, programmes, and protocols. The policy on skilled birth attendants (2006) highlights the importance of skilled birth attendance (SBA) at all births and embodies the government's commitment to train and deploy doctors, nurses and ANMs with the required skills across the country. Introduction of Aama programme to ensure free service and encourage women for institutional delivery has improved access to institutional deliveries and emergency obstetric care services. The endorsement of the revised National Blood Transfusion Policy (2006) was another significant step for ensuring the availability of safe blood supplies for emergency cases.

The Nepal Health Sector Strategy (NHSS) identifies equity and quality of care gaps as areas of concern for achieving the maternal health sustainable development goal (SDG) target, and gives guidance for improving quality of care, equitable distribution of health services and utilization and universal health coverage with better financing mechanism to reduce financial hardship and out of pocket expenditure for ill health.

Strategies of the Safe Motherhood Program

Promoting inter-sectoral coordination and collaboration at federal, provincial, districts and local levels to ensure commitment and action for promoting safe motherhood with a focus on poor and excluded groups.

1. Strengthening and expanding delivery by skilled birth attendants and providing basic and comprehensive obstetric care services at all levels. Interventions include:
   - Developing the infrastructure for delivery and emergency obstetric care.
   - Standardizing basic maternity care and emergency obstetric care at appropriate levels of the health care system.
   - Strengthening human resource management —training and deployment of advanced skilled birth attendant (ASBA), SBA, Anesthesia Assistant and contracting short-term human resources for expansion of services sites.
   - Establishing a functional referral system with airlifting for emergency referrals from remote areas, the provision of stretchers in Palika wards and emergency referral funds in all remote districts; and

2. Strengthening community-based awareness on birth preparedness and complication readiness through FCHVs and increasing access to maternal health information and services.

3. Supporting activities that raise the status of women in society.

4. Promoting research on safe motherhood to contribute to improved planning, higher quality services and more cost-effective interventions.

Nepal Safe Motherhood and Newborn Health Road Map 2030

Vision, Mission and Goal

The Road Map will ultimately contribute to delivering the National Planning Commission's 2030 vision of: *'Nepal as an enterprise-friendly middle-income country, peopled by a vibrant and youthful middle-class living in a healthy environment, with absolute poverty in the low single digits and decreasing'.* But more directly, the Road Map will help deliver the vision and mission of the 2019 Health Policy:

Vision: All Nepali citizens have the physical, mental, social, and spiritual health to lead productive and high-quality lives.

Mission: Ensure citizen's fundamental rights to stay healthy by optimally utilizing the available resources and fostering strategic cooperation between health service providers, service users and other stakeholders.

Goal: Ensuring healthy lives and promoting well-being for all mothers and newborns.

The Road Map adopts the SDG 3 2030 goal of 'Ensuring healthy lives and promoting wellbeing for all at all ages' with a focus on mothers and newborns. The Road Map also adopts the same targets at goal level as the SDG 3 targets, which include 'reducing, by 2030, the global maternal mortality ratio to less than 70 per 100,000 live births' and 'reducing, by 2030, the neonatal mortality to less than 12 per 1,000 live birth and will adopt a target from NeNAP of 'reducing by 2030, the stillbirth rate to 14 per 1,000 live births. The goal will be delivered through a series of five interconnected outcomes as illustrated below.

Outcome 1: The availability of high-quality MNH services increased, leaving no one behind.

Ensure the number and distribution of facilities and referral services are appropriate (public, private, health facility or outreach) and health workers have appropriate skills and provide people centered ethical care, with the focus on equity.

Outcome 2: The demand for and utilization of equitable MNH services increased.

Provide for the role and organization of community care, how community engages with its own health and as users of services understand their health needs, and improve knowledge to increase utilization, including building capacity for peoples' representatives to demand greater investment in MNH.

Outcome 3: The governance of MNH services improved, and accountability ensured.

Promote ownership and leadership of maternal health, ensure affordability, standards and appropriate financing for services are in place for public and private sectors; promote formal institutions and mechanism of accountability.

Outcome 4: M&E of MNH improved.

Ensure the tools are in place for systematic assessment across many dimensions, including monitoring inputs, utilization, readiness to periodically assess adherence to minimum standards and clinical protocols, and capture client voices and preferences.

Outcome 5: Emergency-preparedness and response for MNH strengthened.

Ensure timely action, continuity of services and user safety and protection.

Major Programmatic Achievements

Distribution of Facilities for Emergency Obstetric and Newborn Care (EONC) Services

For the delivery of life-saving interventions that treat major causes of maternal and newborn mortality and morbidity, timely access to emergency obstetric and newborn care services is required. On the basis of level of care, these services have been divided into basic and comprehensive emergency obstetric and newborn care services. BEONC services include seven signal functions, whereas CEONC includes two additional signal functions not providedby BEONC. The services they provide are as follows:

- Signal functions under BEONC include: 1) parenteral administration of antibiotics; 2) parenteral administration of oxytocin or other uterotonic; 3) parenteral administration of anticonvulsant for hypertensive disorders of pregnancy; 4) assisted vaginal delivery; 5) manual removal of retained placenta; 6) removal of retained products of conception; 7) neonatal resuscitation.
- CEONC signal functions, in addition to all seven of the above, include: 8) bloodtransfusion; and 9) CS.
- BCs can only perform normal deliveries and provide obstetric first aid, including parenteral oxytocin, antibiotics and anticonvulsants; they do not qualify as BEONC facilities.

Table 2.4.1 Distribution of Emergency Obstetric and Neonatal Care (EONC) facilities

District	Birthing Center	BEONC	CEONC
Chitwan	34	4	10
Makwanpur	45	4	1
Sindhuli	27	4	1
Ramechhap	35	2	1
Kavrepalanchowk	36	0	2
Lalitpur	22	6	2
Bhaktapur	2	2	4
Kathmandu	13	9	11
Nuwakot	43	2	1
Dhading	51	2	1
Rasuwa	15	2	0
Sindhupalchowk	45	3	1
Dolakha	46	2	2
Bagmati	**414**	**42**	**37**

As shown in table 2.4.1, In Bagmati province, 37 hospitals have been providing CEONC services. Similarly, there are 42 BEONC sites and 414 Birthing centers at Bagmati province. Kathmandu has most (11) of the CEONC sites followed by Chitwan (10). However, Rasuwa has no CEONC sites. Dhading has most (51) number of Birthing center. Kavrepalanchock has no BEONC sites.

The figure 23 presents the provincial status of safe motherhood and newborn health indicators in last three fiscal years from 2075/76 to 2077/78. The data show that there was slight increment of all indicators of safe motherhood and newborn health program in FY 2076/77 however these indicators except pregnant women who had four ANC check up and mother who had 3 PNC check-ups as per protocol was slightly decreased in FY 2077/78 in province over last three years.

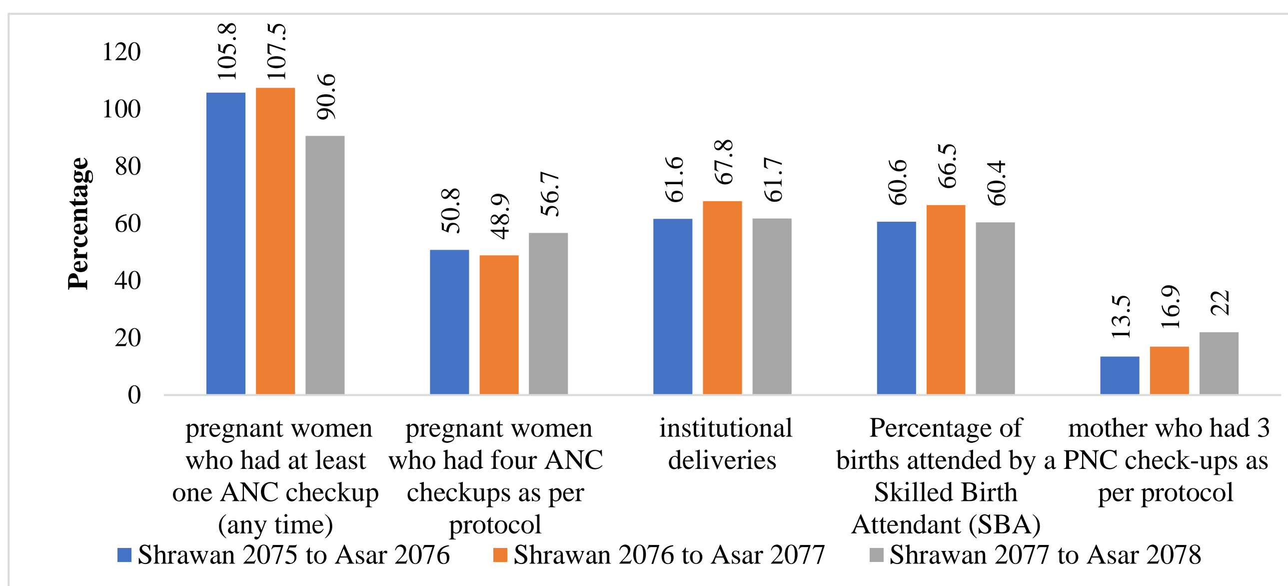


Figure 23 Safe motherhood and newborn health

Antenatal Care

According to national protocols, pregnant women should have at least four antenatal check- ups, give birth in a health facility, and have three post-natal check-ups. All pregnant women should have a minimum of four antenatal check-ups during the fourth, sixth, eighth, and ninthmonths of their pregnancy. Women

should receive the following services and general health check-ups during these visits:

- Monitoring of blood pressure, weight, and fetal heart rate
- IEC and BCC on pregnancy, childbirth, and early newborn care, as well as family planning
- Information on danger signs during pregnancy, childbirth, and the postpartum period, as well as prompt referral to appropriate health facilities.
- Early detection and management of pregnancy complications.
- All pregnant women receive tetanus toxoid and diphtheria (Td) immunization, iron folic acid tablets, and deworming tablets, as well as malaria prophylaxis as needed.

As given figure 24, the proportion of pregnant women who received their first antenatal care according to protocol increased slightly from 61.7% in FY 2076/77 to 64.2% in FY 2077/78 in Bagmati Province. Chitwan had the highest coverage in the protocol-based first ANC visit (98.1%), followed by Kathmandu in FY 2077/78. In Dhading, Bhaktapur and Makwanpur, the proportion of women attending their first ANC appointment was found in decreasing trend FY 2075-76 to FY 2077/78.

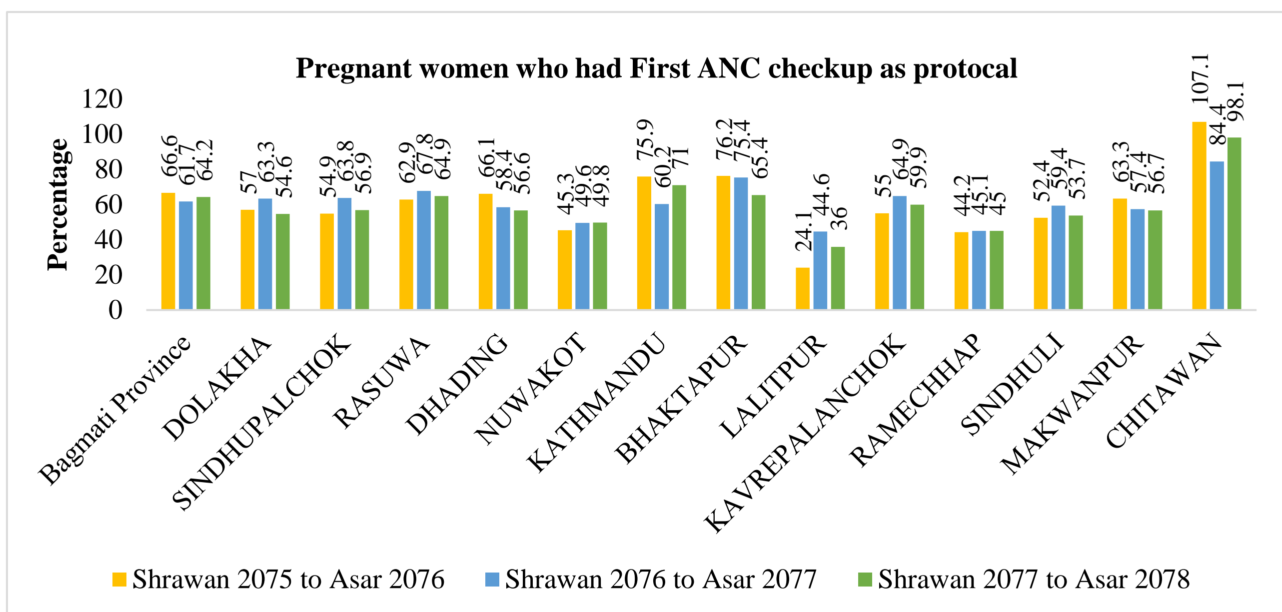


Figure 24: District and provincial trends in percentage of pregnant women with first ANC

The given figure 25 & 26 shows that between FY 2076/77 and FY 2077/78, there was slightly increased in the number of women receiving complete ANC checkups as per protocol in Bagmati province. Kathmandu had the highest coverage (85.3%) of four ANC visits in FY 2077/78, while Nuwakot had the lowest (36.2%). Lalitpur's percentage of four ANC check-ups dropped remarkably from 99.6% in FY 2075-76 to 58.1% in FY 2077/78. Kathmandu, on the other hand, reported a remarkable increment over the same time.

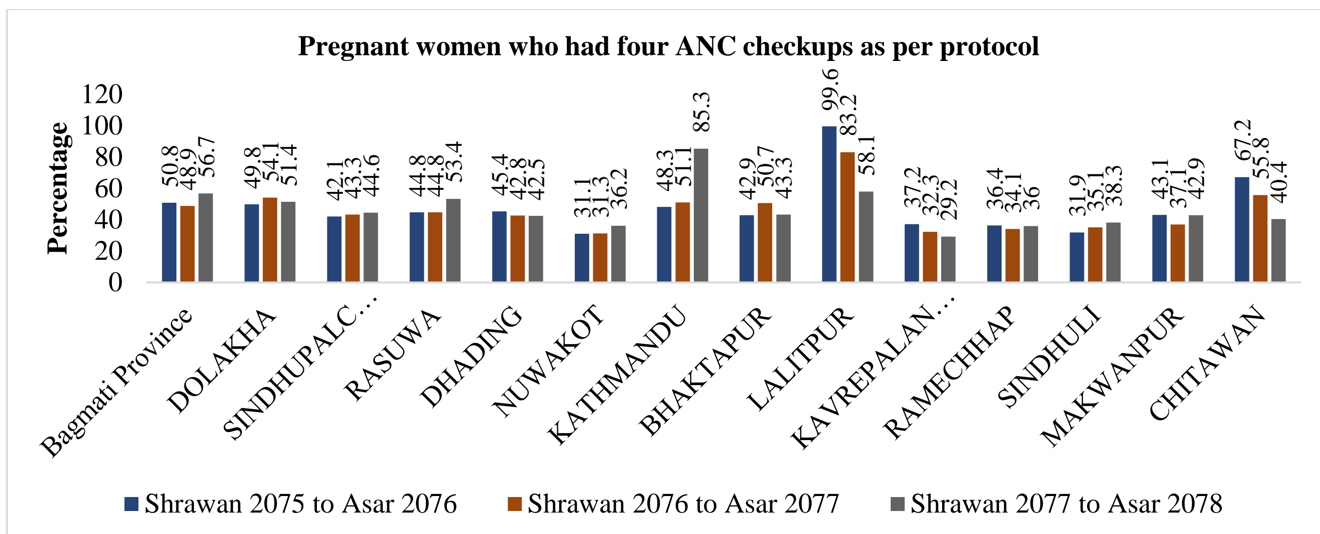


Figure 25: District and provincial trends in % of pregnant women with four ANC visits as per protocol

Comparison between first and four ANC visits

In Bagmati Province, the percentage of women who have their first ANC visit is higher than the percentage of women who have four ANC visits, which is consistent with the national trend. In addition, the majority of districts, a significant gap was observed between the first and fourth ANC visits. Chitwan had the largest absolute gap of 57.7 percent points between the first and final four visits. Kathmandu and Lalitpur, on the other hand, reported a remarkable increment in four ANC visit than first ANC visit in FY 2077/78.

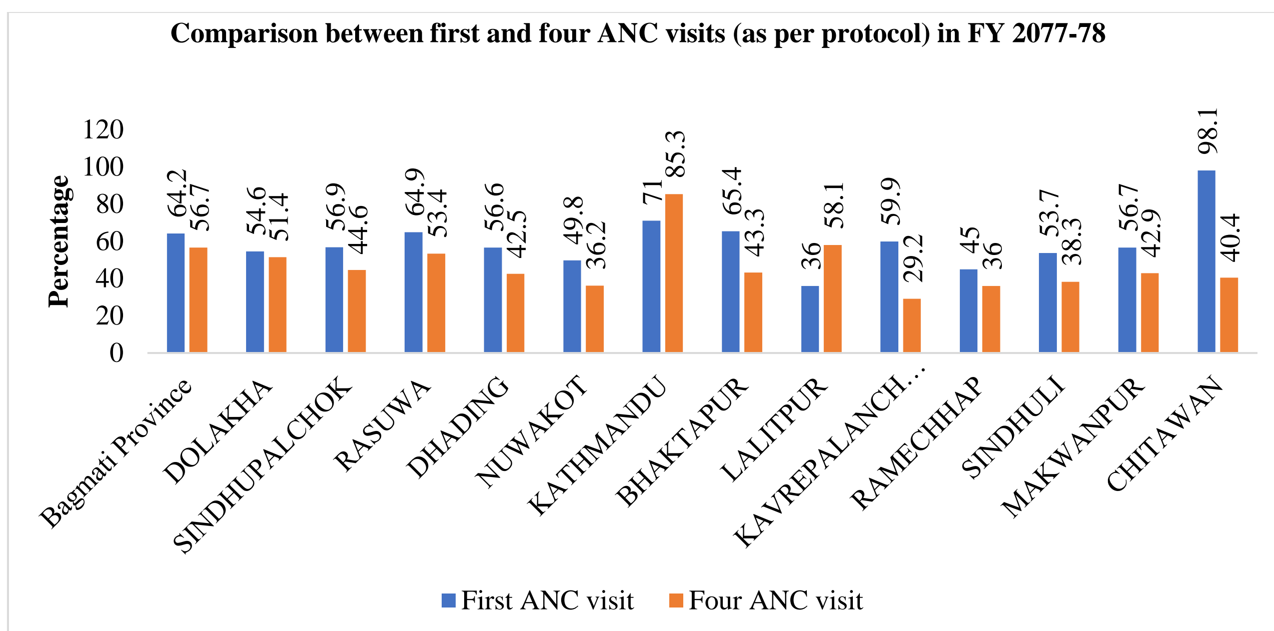


Figure 26: Comparison between first and four ANC Visits

Safe Delivery

A safe delivery care includes skilled birth attendance at home and institutional deliveries; earlydetection of complicated cases and management or referral (after providing obstetric first aid) to an appropriate health facility with 24-hour emergency obstetric services, and registration of births and maternal and neonatal deaths. Although women are encouraged to give birth in a facility, home delivery with clean delivery kits, misoprostol to prevent post-partum hemorrhage, and early detection of danger signs and complications are important componentsof delivery care in settings where institutional delivery services are not available or are not used by the women.

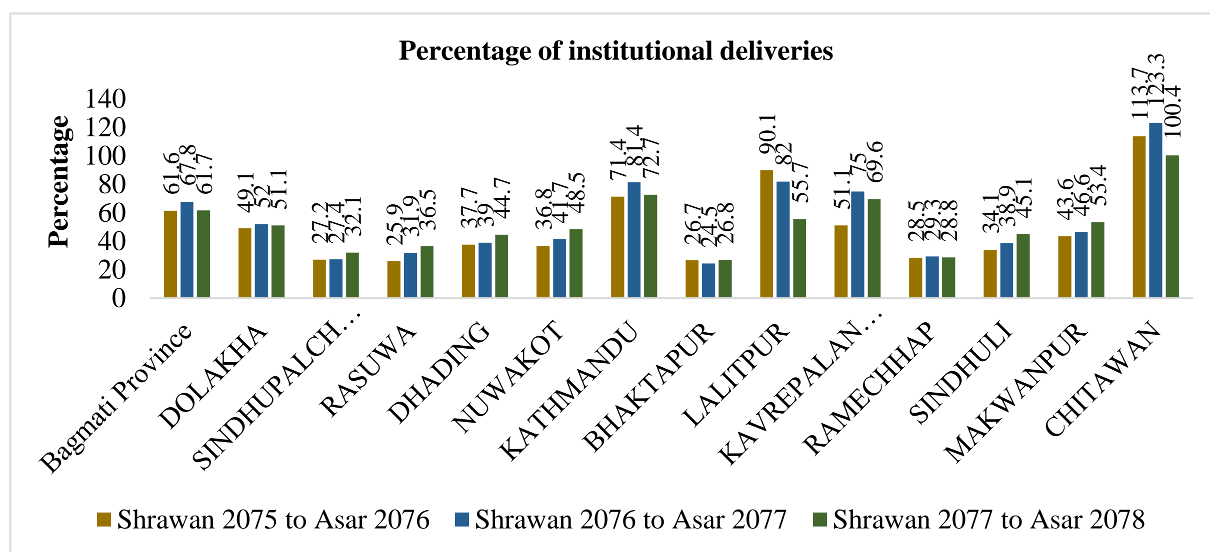


Figure 27: Coverage of institutional deliveries

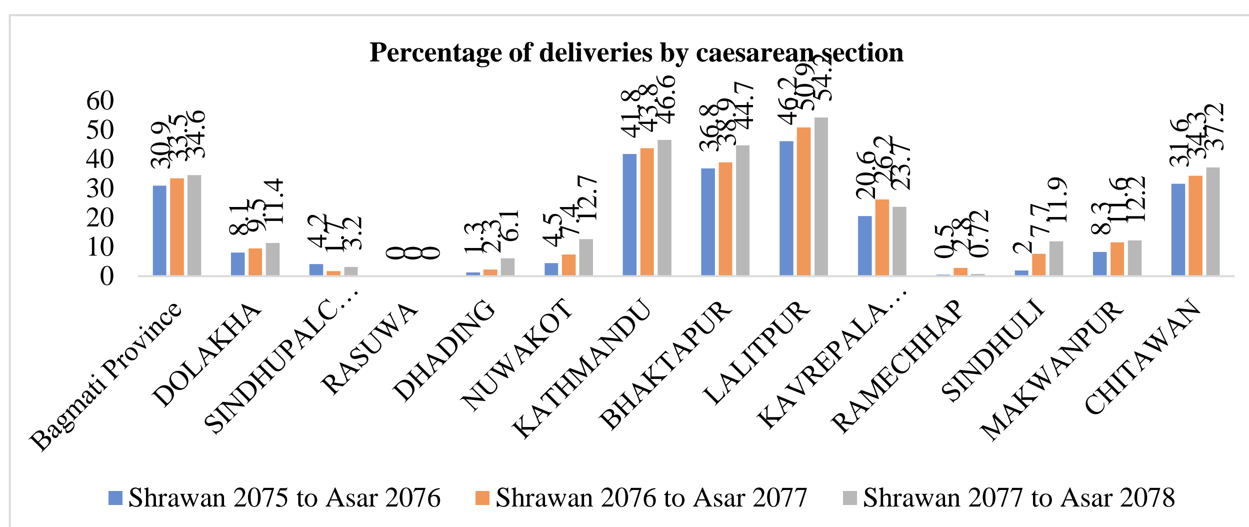


Figure 28: Percentage of deliveries by CS

Nepal has committed to achieving 74 percent of all deliveries in health facilities by 2022 (FY 2077/78) in order to meet the SDG target of 90 percent by 2030. But above figure 24 shows only 61.7 percent deliveries in Bagmati province this year which below than target. The highest 100.4 percent institutional deliveries

were in Chitwan. The lowest only 26.8 percent institutional deliveries reported in Bhaktapur in FY 2077/78. Although the percentage of institutional deliveries in Bagmati province in FY 2077/78 (i.e., 79.6 percent) was higher than the SDG target of 2022, there was a slight decline in institutional deliveries between FY 2076/77 and FY 2077/78, from 67.8 percent to 61.7 percent. Institutional deliveries were reported to be less than 50% in Sindhupalchowk, Rasuwa, Dhading, Nuwakot, Bhaktapur, Ramechhap and Sindhuli.

Figure 28 shows caesarean section use continues to gradually rise in Bagmati Province. In FY 2077/78, 34.6% percent of institutional deliveries in the province were conducted by caesarean section. The highest rates of CS delivery were reported in Lalitpur (54.2%) followed by Kathmandu and Bhaktapur. Rasuwa had reported zero delivery by CS method in last 3 FY. Most of the district in Bagmati province, deliveries by CS method are increasing trend then previous years.

Postnatal Care (PNC)

The postnatal period is a critical time in the lives of both mothers and their newborn children. Most maternal and neonatal deaths occur during this time. Yet, this is the most neglected periodfor the provision of quality care. As per the national protocol, at least three postnatal checkupsare recommended for all mothers and newborns: first as early as possible within 24 hours of birth, second on the third day and the third on the seventh day after delivery. The postnatal careservices include the following:

- Identifying and managing complications in mothers and newborns, as well as referring them to appropriate health facilities.
- Promotion of exclusive breastfeeding.
- Postnatal vitamin A and iron supplementation for mothers, as well as personal hygiene and nutrition education.
- Immunization of newborns.
- Counseling and services for postnatal family planning

As per figure number 29, the number of mothers who received their first postnatal care at a health facility within 24 hours of delivery is almost similar to the number of institutional deliveries in Bagmati Province. Most health workers reported to have provided post-natal care to both mothers and babies on discharge.

Figure 30 shows that the proportion of mothers attending three PNC visits as per protocol increased in Bagmati province from 13.5 percent in FY 2075-76 to 22 percent in FY 2077/78. This indicator is decreasing trend only in two districts, Lalitpur and Kavrepalanchock. However, while comparing with PNC visit within 24 hours, decreased by 32% in third ANC visit. The coverage was reported to be lower than 50% in all districts.

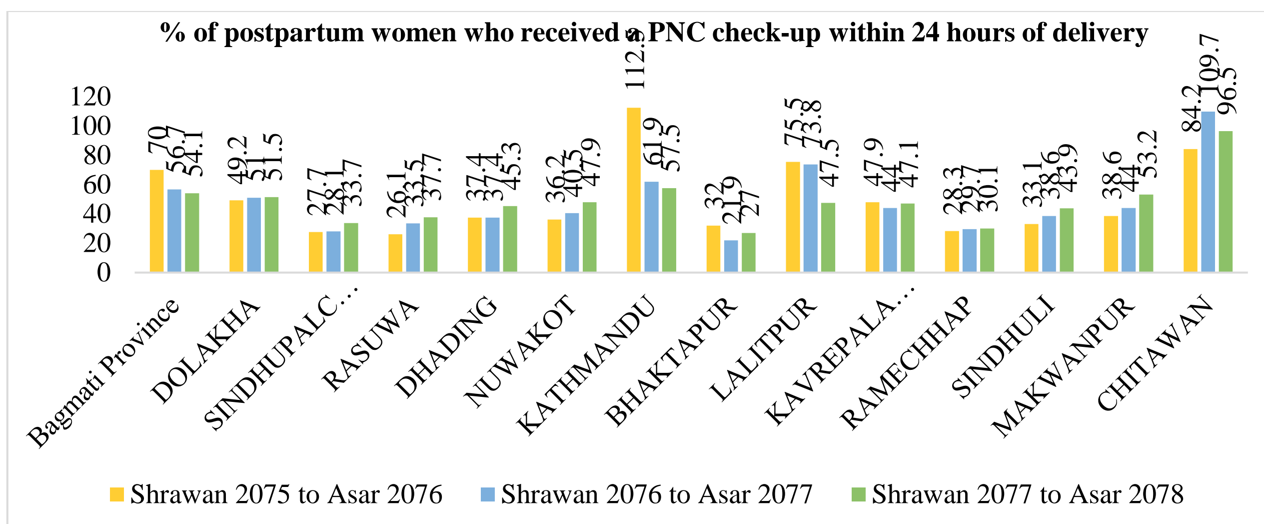


Figure 29: Coverage of PNC check -up within 24 hours of delivery

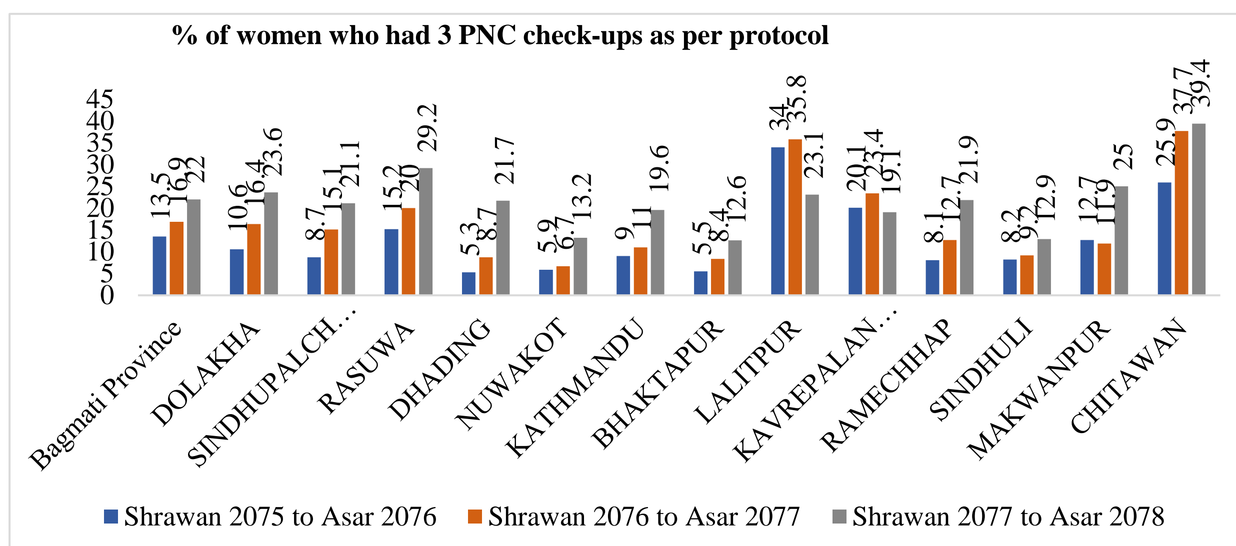


Figure 30: Percentage of women who had 3 PNC check -ups

Maternal & Neonatal Deaths and Stillbirths

In Bagmati province, 27 maternal deaths, 236 neonatal deaths, and 139 stillbirths were reported in fiscal year 2077/78. The number of neonatal deaths in FY 2077/78 was significantlyhigher in FY 2076/77(492 neonatal deaths). In FY 2077/78, FCHVs reported 30 maternal deaths, 76 neonatal deaths, and 69 stillbirths from the community.

Table 2.4.2: District wise Maternal, Neonatal Deaths and Stillbirths

District	Maternal Death			Neonatal Death			Stillbirth		
	2075-76	2076/77	2077/78	2075-76	2076/77	2077/78	2075-76	2076/77	2077/78
Dolakha	0	0	0	14	15	6	5	2	9
Sindhupalchowk	0	0	1	42	23	32	23	33	29
Rasuwa	0	0	0	11	7	7	3	3	0
Dhading	1	0	0	21	17	23	11	10	6

Nuwakot	0	1	0	6	22	18	14	15	15
Kathmandu	7	1	7	13	27	72	5	2	3
Bhaktapur	0	1	0	2	5	10	0	0	0
Lalitpur	2	1	4	24	15	16	2	1	9
Kavrepalanchock	0	2	1	12	8	16	53	0	9
Ramechhap	0	0	2	17	21	22	15	13	15
Sindhuli	0	0	0	12	13	13	44	22	21
Makwanpur	1	0	1	26	21	26	24	47	18
Chitwan	5	10	11	51	42	41	14	18	5
Baagmati			**27**		**236**				**139**

Issues, recommendation and responsibilities of Safe Motherhood program

Provincial Annual Review 2077/78 identified following issues and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 2.4.3: Issues, challenges, and recommendations of Safe Motherhood program

Issues /Challenges	Recommendation	Responsibilities
High maternal mortality in Chitwan, Kathmandu and Lalitpur district	• Implement safe motherhood roadmap strategies • Activate MPDSR committees at the province, hospital, and health offices • Effective MPDSR review of maternal deaths, as • well as action point implementation and follow-up	HD, Health Office and local level
Decreased four ANC visits and t first ANC visits; gaps between 1st ANC and four ANC visits as well as very low PNC coverage	• Improve the quality of ANC counseling services by emphasizing on the continuum of care • Introduce m-health technologies, where possible to register and track all pregnant women in communities • Continue/initiate PNC home visitation in hard-to- reach communities	FWD, MOH, HD, Local Level
No CEONC service in Rasuwa	• Establish and continue CEONC services	MoH and PHD
Wrong placement of trained staffs (SBAs, Anesthesia Assistants)	• Initiate discussions with local levels to ensure righthealth workers in the right place.	Local Level
Poor referral practice	• Develop a referral guideline that includes • provisions for referral forms, as well as communication and feedback mechanisms.	

2.5 Family Planning and Reproductive Health

Introduction

Modern Family planning (FP) refers to a conscious effort by a couple to limit or space the number of children through the use of contraceptive methods. Modern methods include female sterilization (e.g., minilap), male sterilization (e.g., no-scalpel vasectomy), intrauterine contraceptive device (IUCD), implants (e.g., Jadelle), injectables (e.g., Depo Provera), the pill (combined oral pills), condoms (male condom), lactational amenorrhea method (LAM) and standard day's method (SDM).

Family Planning is one of the priority programs of Government of Nepal. It is also consideredas a component of reproductive health package and essential health care services of Nepal Health Sector Program II (2010-2015), National Family Planning Costed Implementation Plan 2015-2021, Nepal Health Sector Strategy 2015-2020 (NHSS) and the Government of Nepal'scommitments to FP2020. The Right to Safe Motherhood and Reproductive Health Act of 2018 and its Regulations of 2020 have articulated quality Family Planning (FP) information and services with a broader method mix, including emergency contraception, as a women's right. The 15th national periodic plan as well as safe motherhood and newborn health roadmap 2030 also emphasizes the availability and accessibility of right-based FP services. Male condoms, oral contraceptive pills, injectables, implants, and IUCD are the five modern temporary family methods that have been an important component of the Basic Health Service.

The main aim of the National Family Planning Program is to ensure that individuals and couples can fulfil their reproductive needs by using appropriate FP methods voluntarily based on informed choices. To achieve this, the Government of Nepal (GoN) is committed to equitable and right based access to voluntary, quality FP services based on informed choice for all individuals and couples, including adolescents and youth, those living in rural areas, migrants and other vulnerable or marginalized groups ensuring no one is left behind.

Bagmati Province also commits to strengthen policies and strategies related FP within the new federal context, mobilize resources, improve enabling environment to engage effectively with external development partners and supporting partners, promote public-private partnerships, and involve non-health sectors. National and international commitments will be respected and implemented (such as NHSSIP 2015- 2020, Costed Implementation Plan 2015-2020 and FP2020 etc.).

FP information and services are available in Bagmati province through the government, socialmarketing, non-governmental organizations, private sectors, commercial outlets, private clinicsand pharmacies, and medical colleges and academies. Short acting reversible contraceptive methods (SARCs: male condoms, oral pills, and injectable) are currently provided free of charge on a regular basis in public health facilities via primary health care centers (PHCC), health posts (HP), and primary health care outreach clinics

(PHC/ORC). Female Community Health Volunteers (FCHVs) provide community members with information and education, aswell as condoms and resupply of oral contraceptive pills. Long-acting reversible contraceptive(LARC) services like IUCD and implants are only available in a few hospitals, PHCCs, and HPs with trained health care providers. Satellite clinics, visiting service providers (in selected districts), and mobile camps provide access to LARC services in remote areas. Sterilization services are mostly provided through seasonal and mobile outreach services as static sites are limited in the Bagmati Province.

Objectives, policies and strategic areas for FP

The overall objective of Nepal's FP program is to improve the health status of all people through informed choice on accessing and using voluntary FP. The specific objectives are as follows:

- To increase access to and the use of quality FP services that is safe, effective and acceptable to individuals and couples. A special focus is on increasing access in rural and remote places and to poor, Dalit and other marginalized people with high unmet needs and to postpartum and postabortion women, the wives of labor migrants and adolescents.
- To increase and sustain contraceptive use, and reduce unmet need for FP, unintended pregnancies and contraception discontinuation.
- To create an enabling environment for increasing access to quality FP services to men and women including adolescents.
- To increase the demand for FP services by implementing strategic behavior change communication activities.

The five policies and strategic areas to achieve the above objectives of family planning program are presented as follows.

1. *Enabling environment*: Strengthen the enabling environment for FP
2. *Demand generation*: Increase health care seeking behavior among populations with high unmet need for modern contraception
3. *Service delivery*: Enhance FP service delivery including commodities to respond to the needs of marginalized people, rural people, migrants, adolescents and other special groups
4. *Capacity building*: Strengthen the capacity of service providers to expand FP service delivery
5. *Research and innovation*: Strengthen the evidence based program implementation with research

Major Achievements in the Family Planning Program

Current Users

The below given figure 31 shows that Implant (32%) occupies the largest proportion of contraceptive method mix among all current users followed by Sterilization (24%) and Depo (20%). while IUCD (12%), Pills (7%) and Condom (5%), occupies the lowest part.

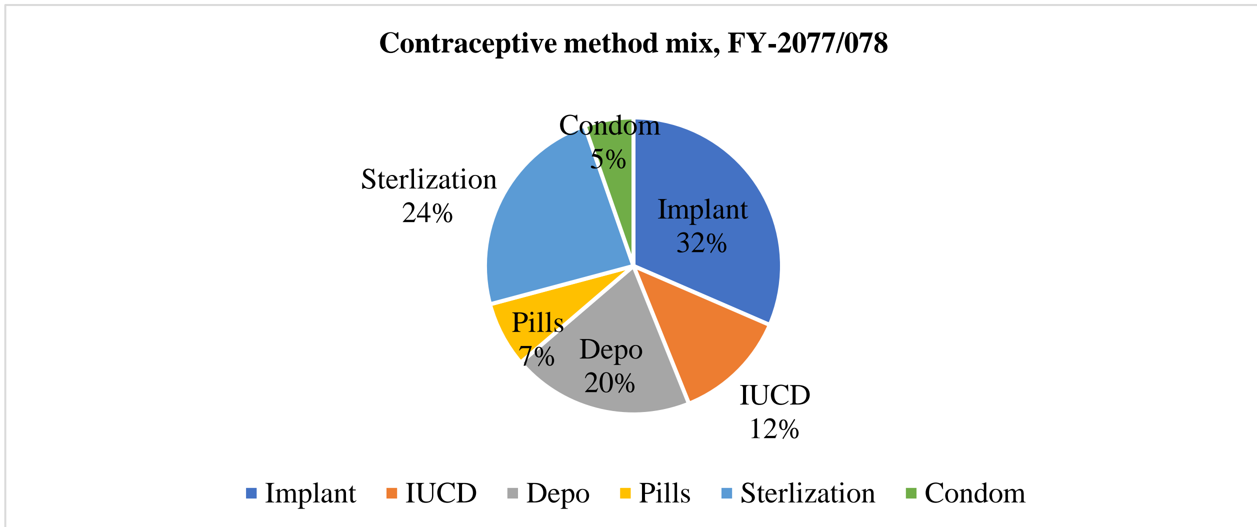


Figure 31:Proportion of FP Current Users- Method Mix (FY 2077/78)

Contraceptive Prevalence Rate

The figure 32 presents the district status of contraceptive prevalence rate in last two fiscal years from 2076/77 to 2077/78. The data show that there was gradual decrement in situation of contraceptive prevalence rate in province over last three years. The status of contraceptive prevalence rate of Bagmati Province in fiscal year 2077/78 was much lower than that of national average.

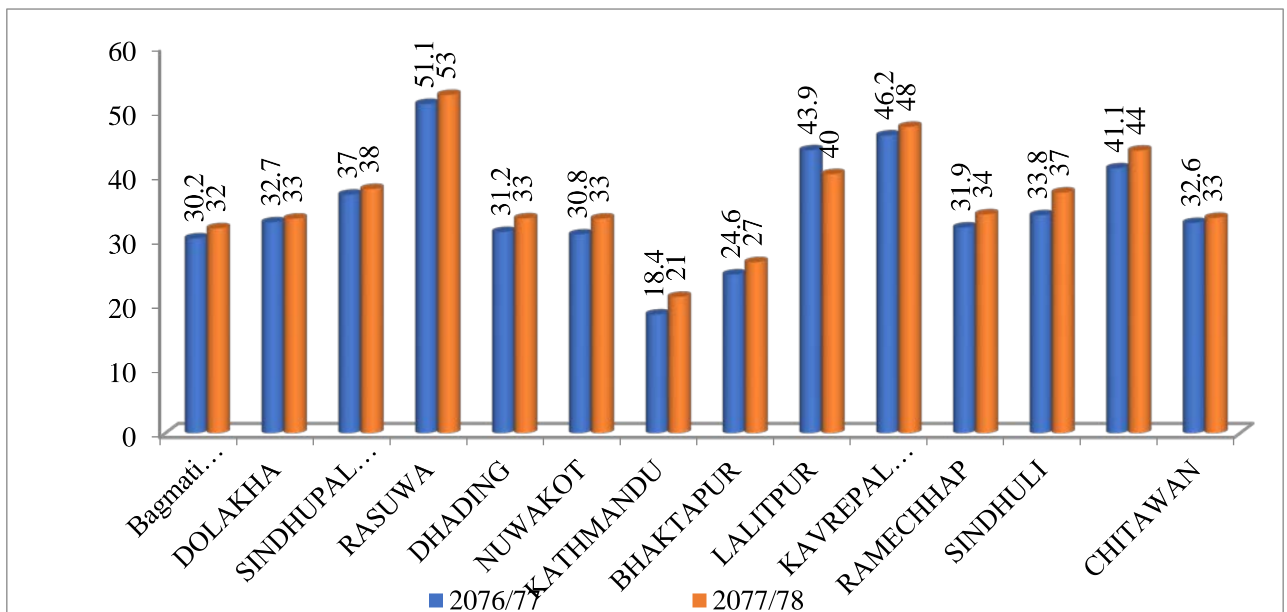


Figure 32: District wise CPR in Bagmati Province in FY 2076/77 and 2077/78

The below given figures 33 illustrate the district wise status of contraceptive prevalence rate of Bagmati Province in the fiscal year 2077/78. Accordingly, the highest percentage of contraceptive prevalence rate was in Rasuwa district (53) and the least in Kathmandu district (21) in that fiscal year.

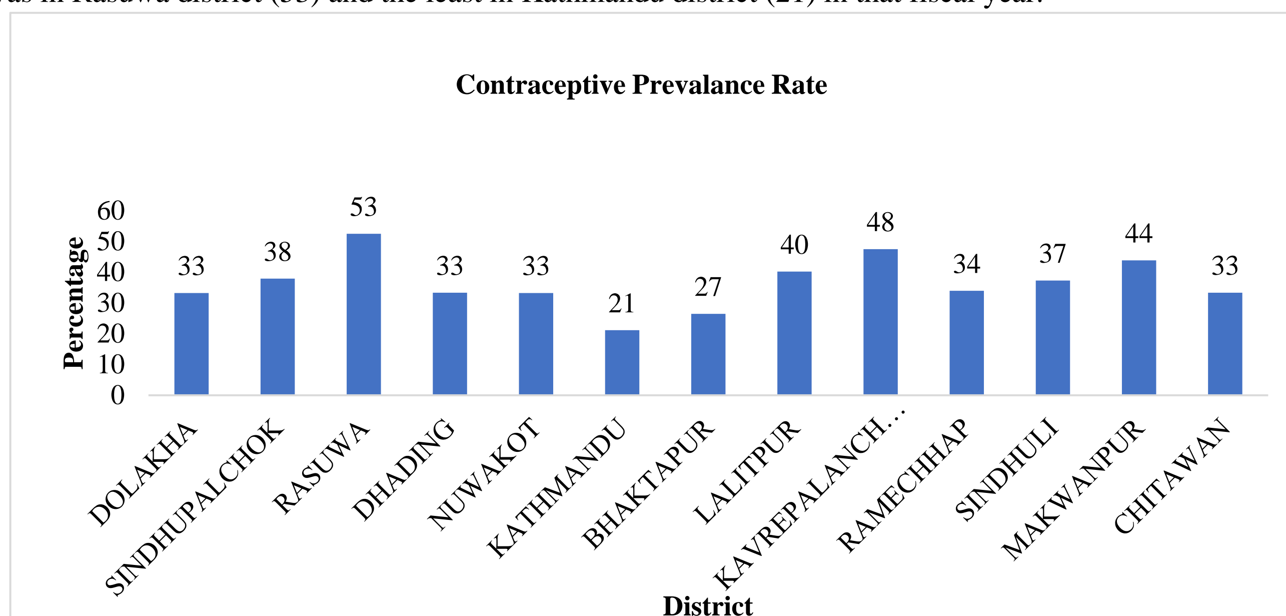


Figure 33: District wise contraceptive prevalence rate in FY 2077/78

Issues recommendation and responsibilities of family planning program

Provincial Annual Review 2077/78 identified following issues and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 2.5.1: Issues, challenges, and recommendations of family planning program

Issues /Challenges	Recommendation	Responsibility
Limited HFs providingall 5 temporary methods; poor uptake of LARCs in HFs where services are available	• Launch innovative local campaigns toensure that all HFs have 5 methods. • Map HFs and identify training, coaching, or equipment/commodity support needs • Strengthen the capacity of FP service providers through training/onsite coaching • Ensure that LARCs are available andsupplied on a regular basis in healthfacilities.	HD, Health Office and Local level
Stagnant or declining mCPR in districts	• Implementation of FP micro-planning in lowmCPR districts • Innovate targeted approaches for reaching the unreached populations (adolescents, urban poor, persons with disabilities, ethnic and religious minorities). • Scale up evidence-based good practices such as “Khusahal Parivar” initiatives. • Harness the private and sectors to	FWD, MOH, HD, Local Level

	contribute to access to quality FP services with attention to client rights.	
High contraceptive discontinuation	• Develop or improve systems to track clients for continuation or switching methods. • Ensure continuous availability of services including all methods of contraception to meet the changing needs of clients, depending on their ages and reproductive stages (newly married, postpartum, completed family, perimenopause) • Ensure continuous availability of contraceptives in all health facilities. • Strengthen FP counseling to address myths and misconceptions and concerns about side-effects. • Improve follow-up mechanisms- reminding women of appointments for resupply methods • Engage male partners for supporting continued use	PHTC PHD Local level
Underutilization of post-pregnancy familyplanning services	• Offier contraceptive counseling and servicesas part of postnatal care before discharge from the health facility • Integrate and promote FP counseling in ANC clinic and ward, postnatal ward, PNC,post-abortion as well as duringimmunization. • Strengthen the post-abortion FP strategy toensure early initiation of FP among women who had an abortion due to the risk of earlyreturn of fertility. • Promote post-partum FP counseling and services through FCHVs. • Orient and sensitize service providers including Obs/Gyn on PPFP/PAFP	Local Level

2.6 Safe Abortion Services

Background

Global and national evidence shows that many women face unwanted pregnancy including due to limited access to family planning information and services. Such women who cannot access safe abortion services in a timely way are at a high risk of developing complications due to unsafe abortions, or in the worst case, suicide due to social pressure. Thus, there was a need to make safe abortion services available, accessible, and affordable to all women with unwanted pregnancies. WHO has defined the four key components of comprehensive abortion care as:

- Pre and post counselling on safe abortion methods and post-abortion contraceptive methods.
- Termination of pregnancies as per the national law and protocol.
- Diagnosis and treatment of existing reproductive tract infections; and
- Provide contraceptive methods as per informed choice and follow-up for post-abortion complication management.

Nepal legalized abortion in 2002 to reduce maternal morbidity and mortality through unsafe abortion. The first ever Comprehensive Abortion Care (CAC) service was started at the Maternity Hospital, Kathmandu, in March 2004. First trimester surgical abortion was made available throughout the country in 2004. Second trimester abortion training began in 2007 and medical abortion were introduced in 2009.

According to Safe motherhood and Reproductive Health Right Act 2075, the law permits abortion with the consent of pregnant women for any indication up to 12 weeks gestation and up to 28 weeks of gestation in specialconditions like Rape, insist, fetus abnormalities, mental condition, immune suppression disease. Similarly, this Acts has adopted that only licensed health worker who has fulfilled the prescribed standards and qualification and is listed as safe abortion service provider shall have to providethe pregnant woman with safe abortion service pursuant to Section 15 in the licensed health institution which should also be listed as safe abortion service site. This law grants women the right to a legal abortion on the following grounds:

To perform safe abortion (Section 15): A pregnant woman shall have the right to get safe abortion performed in any of the following circumstances:

(a) Fetus (gestation) up to twelve weeks, with the consent of the pregnant woman,

(b) Fetus (gestation) up to twenty-eight weeks, as per the consent of such woman, after the opinion of the licensed doctor that there may be danger upon the life of the pregnant woman or her physical or mental health may deteriorate or disabled infant may be born in case the abortion is not performed

(c) Fetus (gestation) remained due to rape or incest, fetus (gestation) up to twenty-eight weeks with the consent of the pregnant woman,

(d) Fetus (gestation) up to twenty-eight weeks with the consent of the woman who is suffering from H.I.V.

or other incurable disease of such nature,

(e) Fetus (gestation) up to twenty eight weeks with the consent of the woman, as per the opinion of the health worker involved in the treatment that damage may occur in the womb due to defects occurred in the fetus (gestation), or that there is such defect in the fetus of the womb that it cannot live even after the birth, that there is condition of disability in the fetus (gestation) due to genetic defect or any other cause.

Not to get abortion conducted forcefully (Section 16):

(1) Except in the circumstance as referred to in Section 15, no one shall conduct or get abortion conducted with an intention to get the abortion conducted or knowingly or having reason to believe that the abortion can occur.

(2) No one shall get the abortion conducted by coercing a pregnant woman, threatening, enticing or tempting her.

(3) If any of the following acts is committed, it shall be deemed to have got abortion performed:
(a) Getting abortion conducted pursuant to sub-section (2),

(b) Miscarriage that occurs while something is done to the pregnant woman with some enmity,
(c) Making assistance to commit acts referred to in clauses (a) and (b),

(4) While conducting abortion, in case the abortion does not occur instantly but a living infant is born, and if the infant, which is born as a result of such an act dies immediately, it shall be deemed to have got the abortion conducted for the purposes of this Section.

Not to commit abortion upon identifying sex (Section 17):

(1) No one shall commit or cause to be committed an act to identify the sex of the fetus in the womb.

(2) A pregnant woman shall not be pressurized or compelled or intimidated or coerced or enticed or entrapped in undue influence to identify the sex of the fetus.

(3) Conducting abortion or causing it to be conducted, by identifying the sex pursuant to sub-sections (1) and (2), is prohibited.

Safe abortion service (Section 18): :

(1) The licensed health worker who has fulfilled the prescribed standards and qualification shall have to provide the pregnant woman with safe abortion service pursuant to Section 15 in the licensed health institution.

(2) Appropriate technology and process of the service to be provided as referred to in sub-section (1) shall be as prescribed.

(3) The pregnant woman who wants to obtain the safe abortion service shall have to give consent in the prescribed format to the health institution which has obtained a license, or to the health worker who has obtained a license.

(4) Notwithstanding anything contained in sub-section (3), in the case of a woman who is an insane, who is not in a condition to give consent instantly or who has not completed the age of eighteen years, her

guardian or curator shall have to give consent.

(5) Notwithstanding anything contained in sub-section (4), in the case of a woman who is below the age of eighteen years, safe abortion service shall have to be provided by considering her best interests.

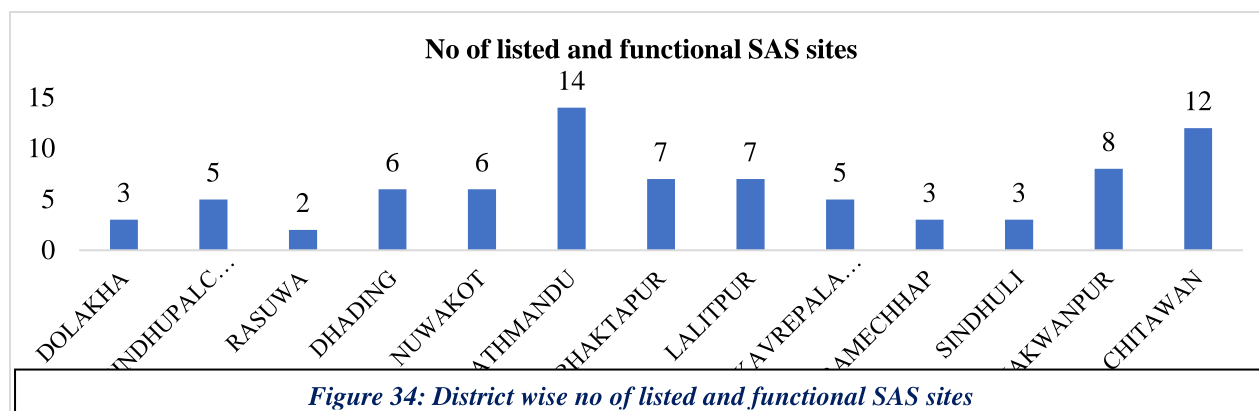


Figure 34: District wise no of listed and functional SAS sites

To maintain confidentiality (Section 19): :

(1) The licensed health institution or licensed health worker shall have to keep confidential all records, information, documents related to reproductive health of the pregnant woman and counseling and service provided to her.

(2) Notwithstanding anything contained in sub-section (1) the records relating to such information, document and counseling service may be made available on the following conditions:

(a) If information is demanded by the investigation authority or court in course of investigation and hearing of any lawsuit,

(b) If it is required to quote without revealing identity of the related woman for the purpose of study, research or monitoring relating to safe abortion.

Safe abortion service site

The figure 33 shows the number of safe abortion service facilities in each district of Bagmati Province. Only listed and functional safe abortion service sites, both public and private are included. In the FY 2077/78, 81 health facilities in Bagmati province provided safe abortion services. Kathmandu has the most number (14) of functional SAS sites and Rasuwa district has lowest (2) number of functional SAS site in Bagmati province.

Safe abortion services received

Safe abortion services decreased from 18535 in FY2076/77 to 14623 in 2077/78. Rasuwa district has low safe abortion service due to lack of listed service site and service providers. Kathmandu had highest safe abortion services out of 13 districts.

The table below displays the three-year trend in safe abortion services received by pregnant women at 13 districts of Bagmati province. Kathmandu had the largest number of safe abortionservice users followed by

Chitwan, while Rasuwa had the lowest number of safe abortion service users in last 3 each fiscal year. Safe abortion service users have been decreased in 2077/78. It might be caused due to Covid 19 pandemic situation in this year.

Table 2.6.1: **Safe abortion services by district in last 3 fiscal year**

District	2075/76	2076/77	2077/78
Dolakha	277	302	278
Sindhupalchowk	224	153	151
Rasuwa	17	29	52
Dhading	618	758	828
Nuwakot	169	252	218
Kathmandu	4658	4753	3972
Bhaktapur	455	526	464
Lalitpur	2877	2346	1661
Kavrepalanchowk	1802	1901	1261
Ramechhap	370	557	415
Sindhuli	297	235	288
Makwanpur	2105	1831	1193
Chitwan	4636	4891	3842
Bagmati Province	**18505**	**18534**	**14623**

Trends of post abortion contraceptive in three fiscal years

Figure 35 shows that use of post abortion contraceptives had declined from 68.7 in 2074/75 to 61.7 in 2076/77 in Bagmati Province. However, this year, only 2 districts i.e., Bhaktapur and Kavrepalanchock have slightly increased the use of contraceptives after safe abortion.

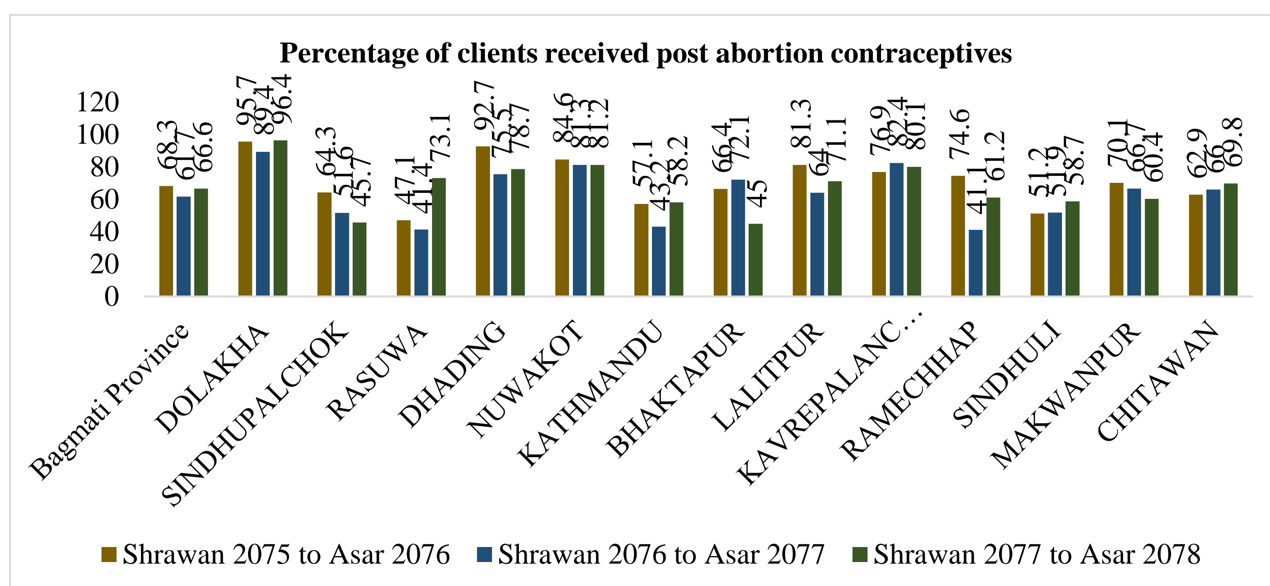


Figure 35: Use of post abortion contraceptives

From the figure 36, out of 13 districts, 7 districts had increased the use of LARC among post abortion contraceptive users. However, Bagmati province had slightly decreased the use of LARC among post abortion contraceptive user from 15.5 percent tin 2075/76 to 14.3 percent in 2077/78.

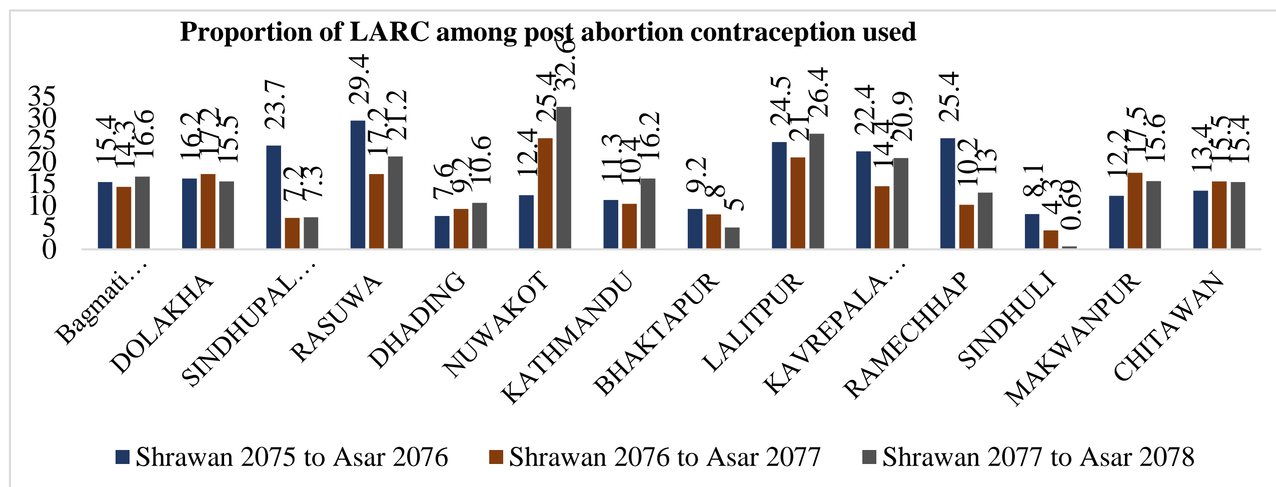


Figure 36: Proportion of LARC among post abortion contraception used

Table 2.6.2: RH related training sites in Bagmati Province

SN	Name of training sites	Types of training
1	Paropakar maternity hospital thapathali	MA, MVA and second trimester safe abortion training Implant, IUCD
2	CFWC, Chhetrapati Kathmandu	Implant, IUCD, Minilap, NSV
3	Bharatpur Hospital	MA, MVA and second trimester safe abortion training Implant, IUCD
4	Kathmandu Model Hospital	MA, MVA, 2nd trimester abortion care, CAC
5	Kathmandu Medical College	MA, MVA and second trimester safe abortion training Implant, IUCD
6	FPAN ,Pulchok, Lalitpur	MA/MVA, Implant, IUCD, Minilap, NSV
7	Marie Stops Nepal, Satdobato	Implant, IUCD, Minilap, NSV, CoFP Counseling, MA
8	FPAN, Chitwan	Implant, IUCD, CoFP Counseling, MA
9	Marie Stops , Chitwan	Implant, IUCD, Minilap, NSV, CoFP Counseling, MA

Issues, challenges, and recommendations of safe abortion program

Table 2.6.3: Issues, recommendations and responsibilities of safe abortion program

Issues	Recommendation	Responsibilities
Safe abortion service halted due to lack of trained service providers	Plan and implement the training event	MoH and PHTC

Practice of unsafe abortion from uncertified service sites and service provider	Community awareness on Safeabortion services	Local level, Development partner working on SAS.
Many safe abortion sites are non-functional due to not having listed service provider	Training to the new provider regarding Safe abortion services, Listing the trained service providers as per SAS Guideline	PHTC PHD Local level
Reported of short term stockout of Medical Abortiondrugs and MVA syringe	Provision of managing MedicalAbortion drug in Health facilitybefore it got stock out	Local Level
Lack of understanding at the local level about the process of listing safe abortion service sites and providers, as well as the provisions of the Right to Safe Motherhood and Reproductive Health Regulation 2077.	Orient local governments on thelisting process and other provisions of the Right to Safe Motherhood and Reproductive Health Act of 2075, its regulation 2077 and SAS programmatic guideline	FWD, PHD, Health Office and Local Levels and EDPs
MA drug self-medicated from private pharmacy, and arrive safe abortion center with mild to severe complication	need to conduct awareness (IEC/BCC) activities about availability free SAS service at hospital	PHD, Health Office and Local level

CHAPTER 3: EPIDEMIOLOGY AND DISEASE CONTROL

3.1 Malaria

Background

Malaria control has been a priority program of the Government of Nepal since decades ago. The first insect borne disease control program was started in 1954 under the financial support of the USAID (then known as USOM).

Since then, the program has undergone series of changes in structure and scope. Building on these decades of targeted intervention for malaria control, Nepal is committed to eliminate malaria and has introduced Nepal Malaria Strategic Plan (2014-2025) with the target of achieving malaria-free status by 2025. The strategic plan points out several interventions for malaria control, including Malaria disease surveillance, integrated vector-management and mass campaigns in high and moderate risk areas and improve early diagnosis and treatment of all suspected cases.

National Malaria Strategies Plan (2014-2025)

Current National Malaria Strategic Plan (NMSP) 2014-2025 was developed based on the epidemiology of malaria derived from 2012 micro-stratification, 2013 mid-term Malaria Program Review and the updated WHO guidelines, particularly for elimination in low endemic country. Nepal government seeks appraisal of external development partners, including the Global Fund, for possible external funding and technical assistance. The aim of NMSP is to attain “Malaria Free Nepal by 2025”.

Malaria transmission intensity has reached very low level of endemicity in most of the Tarai regions (plain lands) but malaria infection is increasingly being detected in upper hilly river valleys, which was traditionally classified as “No Malaria” risk. A relative incidence analysis of malaria infection in upper hilly river valleys suggest that malaria infection was endemic in the area, with adults developing immunity with repeated exposures as they grow older and children bearing the brunt of the infection due to immature immunity (incidence is significantly higher in children less than 14 years as compared to adolescents and adults 15+).

The strategic plan was divided into two phases: achieve Malaria Pre - Elimination by 2018 and attain Malaria Elimination by 2025. Malaria pre-elimination targets were set to achieve and sustain zero deaths due to malaria by 2015, reduce the incidence of indigenous malaria cases by 90%, and reduce the number of VDCs having indigenous malaria cases by 70% of current levels by 2018. The baseline year was taken as 2012.

Progression towards malaria-free status is a continuous process, and not a set of independent stages. As

intervention coverage is increased and malaria incidence is reduced, the heterogeneity in incidence and transmission rates is likely to further increase whereby malaria infection and disease are more likely to be concentrated in a small proportion of individuals, such as small groups of households, or hotspots that are at a substantially increased risk of malaria transmission. Hotspots maintain transmission and targeting hotspots is a highly effective and efficient way to reduce malaria transmission.

The goals of Bagmati Province as per National Malaria Strategic Plan 2014-2025 is to achieve Malaria elimination (zero indigenous cases) status by 2022; and sustain malaria -free status and prevent re-introduction of malaria.

Strategy

The strategy to achieve the targets was identified as follows:

- strengthen strategic information for decision making and implement surveillance as a core intervention towards malaria elimination
- further reduce malaria transmission and eliminate the foci wherever feasible
- improve quality, ensure and universal access to early diagnosis and effective treatment of malaria
- develop and sustain support through advocacy and communication for malaria elimination
- Strengthen programmatic technical and managerial capacities towards malaria elimination.

Achievement in FY 2077/78

The table given below presents the fiscal year wise status of Malaria program in Bagmati Province over the last four fiscal year starting from 2075/76 to 2077/78.

Table 3.1.1 Three years trend of malaria indicators

SN	Indicators	Fiscal Year wise status		
		2075/76	2076/77	2077/78
1	Annual blood Slide examination rate (ABER) Per 100	1.2	1.23	0.71
2	Annual Parasite Incidence (API) per 1000 population at risk	0.02	0.006	0.006
3	% of PF among Malaria Positive Case	30.8	31.57	70

Source: IHMIS/MDIS

Table 3.1.2 District wise distribution of malaria case in FY 2077/78

District	Sindhuli		Kathmandu		Kavre		Makwanpur		Chitwan	
	Pf	*Pv*	*Pf*	*Pv*	*Pf*	*Pv*	*Pf*	*Pv*	*Pf*	*Pv*
Imported	0	0	4	1	1	0	0	1	0	1
Indigenous	1*	0	0	0	1	0	0	0	0	0
Total	1	0	4	1	2	0	0	1	0	1

*** Introduced (indigenous)**

Source: IHMIS/MDIS

"Harness Innovation to Reduce the Malaria Disease Burden and Save the Lives- world malaria day 25 April 2022"

Issues, recommendation and responsibilities

Provincial Annual Review 2077/78 identified following problems and constraints, recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 3.1.3: Issues Recommendation and responsibilities

Problems/Constraints	Recommendation	Responsibilities
Service delivery related		
Low blood slide examination and Rapid testing for malaria elimination program	• It is estimated that 4% of the OPD visit should be tested for malaria. So, a circular from health directorate to all districts/local level for implementing the above provision is required • Managing adequate RDT to health facilities based on the target of testing • Strengthening the supply chain from province to district and district to palika	EDCD, MoH, PHD, Local level
Malaria cases increasing in non-endemic district due to mobile population	• Mobile population focused IACD approach in non-endemic districts • Initiation of community-based testing in selected palika and ward	EDCD, MoH, PHD, Local level
Information related		
Lack of reporting from private sectors	• Orientation to private sector on testing and reporting system of malaria • Quarterly review with private sector.	PHD and PHTC

3.2 Kala-azar elimination program

Introduction

Kala-azar is a vector-borne disease caused by the parasite Leishmania donovani, which is transmitted by the sand-fly Phlebotomus argentipes. The disease is characterized by fever for more than two weeks with splenomegaly, anemia, and progressive weight loss and sometimes darkening of the skin.

Kala-Azar is a slow progressing indigenous disease caused by a protozoan parasite of the genus Leishmania. The parasite primarily infects the reticulo-endothelial system and may be found in abundance in bone marrow, spleen, and liver.

In endemic areas, children and young adults are the principal victims. The disease is fatal if not treated on time. Kala-azar and HIV/TB co-infections have emerged in recent years. The government of Nepal is committed to the regional strategy to eliminate Kala-azar and signed the memorandum of understanding that was formalized at the World Health Assembly in 2005, with the target of achieving elimination by 2015. In 2005, the EDCD formulated a National Plan for Eliminating Kala-azar across preparatory (2005-2008), attack (2008–2015) and consolidation (2015 onwards) phases.

Vision, Mission, Goal & Objectives of Kala-azar elimination program

Goal

The goal of Kala-azar elimination program is to contribute to mitigation of Poverty in Kala azar endemic districts of Nepal by reducing the morbidity and mortality of the disease and assisting in the development of equitable health systems.

Target

- Reduce the incidence of Kala-azar to less than 1 case per 10,000 populations at district level.

Objectives

- Reduce the incidence of Kala-azar in endemic communities with special emphasis on poor, vulnerable and unreached populations.
- Reduce case fatality rates from Kala-azar to ZERO.
- Detect and treat post-Kala-azar dermal leishmaniasis (PKDL) to reduce the parasite reservoir.
- Prevent and manage Kala-azar HIV–TB co-infections.

Strategies

Based on the regional strategy proposed by the South East Asia Kala-azar Technical Advisory group (RTAG) and the adjustments proposed by the Nepal expert group, Government of Nepal, MoHP has adopted the following strategies for the elimination of Kala-azar.

- Early diagnosis and complete treatment
- Integrated vector management
- Effective disease and vector surveillance
- Social mobilization and partnerships
- Improve programmed management
- Clinical implementation and operational research.

Achievement in FY 2077/78

The table given below presents the number of new Kala-Azar cases in Baghmati Province over last four fiscal year starting from 2074/75 to 2077/78.

Table 3.2.1: Kala-azar elimination program indicators

SN	Indicators	Fiscal year wise status			
		2074/75	2075/76	2076/77	2077/78
1	Number of new Kala-azar cases	13	19	47	37

Issues, recommendation and responsibilities

Provincial Annual Review 2077/78 identified following problems and constraints and recommended

actions to be taken with clear responsibility at different level of authority and health entities.

Table 3.2.2: Issues, recommendation and responsibilities

S.N.	Problems/constraints	Recommendation	Responsibilities
Service delivery related			
1.	Early detection and case investigation	Case based surveillance Reporting with line listing of cases	PHD and local level
2.	Early case detection and complete treatment of kala-azar	Orientation/training to health workers, regular supply of kala-azar test kits and drugs active case detection in endemic districts	Local level
3.	Poor supervision and monitoring	Regular supervision is to be done	PHD, Local level

3.3 Lymphatic Filariasis

Introduction

Lymphatic filariasis, commonly known as elephantiasis, is a neglected tropical disease. Infection occurs when filarial parasites are transmitted to humans through mosquitoes. Lymphatic Filariasis (LF) is a public health problem in Nepal. Nepal conducted LF mapping in 2001 and 2005 and remapping in 2012 by using ICT (Immune chromatography Test), which revealed 13% average prevalence of LF infection in the country, ranging from <1% to 39%. Based on the ICT survey, morbidity reporting and geo-ecological comparability sixty-one (63) districts of the country were mapped as endemic for LF. The disease has been detected in different topographical areas ranging in altitude from 300 feet above sea level in the plain (Terai) ecological zone to 5,800 feet above sea level in high hill areas. Comparatively, more LF cases are seen in the plains than in the hills, but valleys and river basin areas of hilly districts also have high disease burden. The disease is more prevalent in the rural areas of the country, predominantly affecting the poorer sector of the community. *Wuchereria bancrofti* is the only recorded parasite in Nepal and the mosquito, *Culex.quinquefasciatus*, an efficient vector of the disease has been recorded in all the endemic areas of the country.

The division initiated mass drug administration (MDA) in Parsa district in 2003, which was scaled up to all endemic districts by 2069/70 (2013). As of 2074/75, MDA has been stopped (phased out) in 38 districts, post-MDA surveillance initiated in 39 districts and morbidity management partially initiated in all endemic districts. All endemic districts have completed the recommended six rounds of MDA by 2018. The elimination programme has indirectly contributed to strengthening the system through trainings and capacity building. Since 2003, surveys have been carried out including mapping, baseline, follow up, post MDA coverage and transmission assessment surveys. The transmission assessment survey in 38 districts in 2017 found that the prevalence of infection had significantly reduced. Since 2003 more than 110 million doses of lymphatic filariasis drugs have been administrated to at-risk population.

Vision, Mission, Goal & Objectives Goal

The people of Nepal no longer suffer from lymphatic filariasis:

Objectives:

- To eliminate lymphatic filariasis as a public health problem by 2020
- To interrupt the transmission of lymphatic filariasis
- To reduce and prevent morbidity
- To provide deworming through albendazole to endemic communities especially to children
- To reduce mosquito vectors by the application of suitable available vector control measures (integrated vector management).

Strategies:

- Interrupt transmission by yearly mass drug administration using two drug regimens (diethylcarbamazine citrate and albendazole) for six years
- Morbidity management by self-care and support using intensive simple, effective and local hygienic techniques.

Targets:

- To scale up MDA to all endemic districts by 2014
- Achieve <1% prevalence in endemic districts after six years of MDA by 2018.

Table 3.3.1: Districts wise LF chronic cases based on MMDP Mapping

District	Lymphedema cases	Hydrocele cases	Both cases	Total cases
Bhaktapur	464	2524	30	3018
Dhading	824	1342	28	2194
Kathmandu	653	281	10	944
Kavre	249	345	0	594
Lalitpur	256	115	6	377
Makwanpur	119	247	7	373
Nuwakot	697	1562	0	2259

DoHS, Annual Report 2077/78 (2020/21)

Issues, recommendation, and responsibilities

Provincial Annual Review 2077/78 identified following problems/constraints and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 3.3.2: Issues, recommendation and responsibilities

SN.	Issues	Recommendation	Responsibilities
Service delivery related			
1.	Poor compliance of MDA	Organize awareness campaign before the implementation of MDA	MoH, local government
Health workforce related			
1.	Lack of trained personnel	Provide trainings	MoH, local government
2.	Lack of manpower	Mobilize health workers for MDA campaign and drug dispensing.	MoH, local government

3.4 Dengue

Introduction

Dengue is a vector-borne disease that is transmitted by mosquitoes (*Aedes aegypti* and *Aedes albopictus*) and occurs in most of the districts of Nepal in the form of Dengue Fever (DF), Dengue Hemorrhagic Fever (DHF) and Dengue Shock Syndrome (DSS). The earliest cases were detected as early as 2005. The sporadic cases continued, and outbreaks occurred in 2006 and 2010. Initially most of the reported cases had travel history to neighboring country (India), however lately indigenous cases were also reported. The affected districts were Chitwan, Kanchanpur, Kailali, Banke, Bardiya, Dang, Kapilvastu, Parsa, Rupandehi, Rautahat, Sarlahi, Saptari and Jhapa, indicating spread throughout the country from west to east lying in the plain Terai region. During 2011, 79 confirmed cases were reported from 15 districts with the highest case incidence in Chitwan (n=55).

Aedes aegypti (mosquito-vector) has been identified in 5 peri-urban areas of Terai region (Kailali, Dang, Chitwan, Parsa and Jhapa) during entomological surveillance conducted by EDCD during the year 2006-2010, indicating local transmission of dengue.

Studies carried out in collaboration with the Walter Reed/AFRIMS Research Unit (WARUN) in 2006 by EDCD and the National Public Health Laboratory (NPHL) found that all four sub-types of the Dengue virus (DEN-1, DEN-2, DEN-3 and DEN-4) were circulating in Nepal.

Vision, Mission, Goal & Objectives

Goal

To reduce the morbidity and mortality due to dengue fever, dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS).

Objectives:

- To develop an integrated vector management (IVM) approach for prevention and control.

- To develop capacity on diagnosis and case management of dengue fever, DHF and DSS.
- To intensify health education and IEC activities.
- To strengthen the surveillance system for prediction, early detection, preparedness and early response to dengue outbreaks. Strategies:
- Early case detection, diagnosis, management and reporting of dengue fever, DHF and DSS.
- Regular monitoring of dengue fever, DHF and DSS cases and surveillance through the EWARS.
- Mosquito vector surveillance in municipalities.
- The integrated vector control approach where a combination of several approaches is directed towards containment and source reduction.

Major activities in FY 2077/78

- Conducted training for physicians, nurses, paramedics and laboratory technicians on dengue case detection, diagnosis, management and reporting as per the updated National Guidelines
- Prevention, management, and control of Dengue in Nepal-2019.
- Supplied rapid diagnostic test kits (IgM).
- Dengue case monitoring and vector surveillance
- Supportive supervision and monitoring at district and local level.
- Search and destruction of dengue vector larvae in districts in different local levels.

Issues, recommendation, and responsibilities

Provincial Annual Review 2077/78 identified following problems/constraints and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 3.4.1: Issues, recommendation, and responsibilities

SN	Issues	Recommendation	Responsibilities
1.	Inadequate awareness programmes	Increase awareness programmes	Aware the people
2.	Poor action plan	Effective action plan	Implementation of action plan
3.	Ignorance	Increase community-based programmes	Effective supervision /monitoring and feedback

3.5 Tuberculosis

Background

Tuberculosis (TB) is a communicable disease which is a major public health problem in Nepal. It is one of the top 10 causes of death worldwide and in Nepal, and the leading cause of death from a single infectious agent (ranking above HIV/AIDS). TB is caused by the bacillus Mycobacterium tuberculosis, which is spread when people who are sick with TB expel bacteria into the air, for example, by coughing. The disease typically affects the lungs (pulmonary TB) but can also affect other sites (extrapulmonary TB). About a quarter of the world's population is infected with M. tuberculosis which is similar for Nepal.

TB can affect anyone anywhere, but most people who develop the disease are adults, there are nearly twice as more cases among men than women, and 30 high TB burden countries account for almost 90% of those who fall sick with TB each year. TB is a disease of poverty, and economic distress, vulnerability, marginalization, stigma and discrimination are often faced by people affected by TB.

TB is curable with medicine (nearly 90% cure rates) and preventable. With access still falling short of universal health coverage (UHC) for all forms of TB, many still have also missed out (nearly 58% in Nepal) on diagnosis and care. Preventive treatment is scaling up among contact.

This report is to provide a comprehensive and up-to-date assessment of the status of the TB epidemic, and of progress in the response to the epidemic at country levels in terms of global and end TB commitments. The report is based primarily on data gathered by Bagmati Province through HMIS, NTPMIS, WHO country profile, National TB prevalence survey 2018-19 report and other surveillance data. In recognition of the enormous impacts of the COVID-19 pandemic, the report includes a provisional assessment of how the pandemic affected the TB epidemic in Bagmati Province.

Global and country commitments and strategy to end TB

In 2014 and 2015, all Member States of WHO and the UN committed to ending the TB epidemic, through their adoption of WHO's End TB Strategy and the UN Sustainable Development Goals (SDGs). The strategy and SDGs include milestones and targets for large reductions in TB incidence, TB deaths and costs faced by TB patients and their households. This was followed by the Moscow Declaration to End TB and then by the UN General Assembly held its first-ever high-level meeting on TB in 2018. The outcome was a political declaration in which commitments to the SDGs and End TB Strategy were reaffirmed and new ones added (Multisectoral accountability framework and meaningful engagement of civil society). Nepal also committed to these declarations and developed strategies in line with these commitments.

In Nepal, an estimated 69,000 fell ill with TB during FY 2077/78. National Tuberculosis Programme (NTP) registered 28,677 (nearly 58% missing vs the projection) all forms of TB cases (38% female and 62% male). Out of 28,677 all forms of TB cases, 28182 cases were incident TB cases. Out of 28,677 TB cases; 16258 (56.7%) were pulmonary bacteriologically confirmed (PBC) cases, 3960 (13.8%) were pulmonary clinically diagnosed (PCD) cases and 8459 (29.5%) were extrapulmonary TB cases. Geographically, most people who reported TB were from terai region (60%). At Bagmati Province (23.24%),

In Bagmati Province in FY 2077/78 total TB Cases all forms registered 6663 (nearly 58% missing vs the projection) all forms of TB cases (59% male and 41% female). Out of 6663 TB Case, 3349 (50%) were pulmonary bacteriologically confirmed (PBC) cases, 709 (11%) were pulmonary clinically diagnosed (PCD) cases and 2605 (39%) were extrapulmonary TB cases. Tuberculosis remains as a public health challenge in Nepal. It is preventable and curable, however large number of Tuberculosis patients are registered and large number of deaths due to Tuberculosis are reported every year. It is unfortune that

most of the TB cases are seen in young and productive age groups (15-54) years.) and +65 years. National Prevalence Survey (2018-2019) is the milestone in tuberculosis control history. Nepal has estimated that, each year 68000 fell ill with Tuberculosis 245/100000 incident per year. The implementation approach and modalities of Tuberculosis control program are guided by 5-year national strategy plan (2021/22-2025-26), prepared in line with WHO END TB strategyand Sustainable Development Goal (SDG 2030). National Prevalence Survey (2018-2019) is the milestone in tuberculosis control history.

Vision, Mission, Goal & Objectives

The vision of TB program is to make TB Free Nepal. Based on the following objectives with aim to reach the set targets, NTC developed its **National Strategic plan 2016-21** with vision of TB Free Nepal by 2050: "Ending TB" defined as less than 1 TB patient per 1,000,000 populations. The goals were to decrease the TB Incidence Rate by 20%, from 2015 to 2021 i.e., to identify additional 20,000 new TB cases by the next 5 years. The key objectives of the NSP are mentioned below:

Objective 1: To increase case notification through improved health facility-based diagnosis; increase diagnosis among children (from 6% at baseline to 10% of total cases by 2021); examination of household contacts and expanded diagnosis among vulnerable groups within the health service, such as PLHIV (from 179 cases at baseline to over 1,100 cases in 2020/21), and those with diabetes mellitus (DM).

Objective 2: To maintain the treatment success rate of 90% for all forms of TB (except drug resistant TB) by 2021

Objective 3: To provide DR TB diagnosis services to 50% of the presumptive MDR TB patients by 2018 and 100% by 2021 and to successfully treat at least 75% of those diagnosed.

Objective 4: To expand case finding by engaging providers for TB care from the public sector (beyond MoH), medical colleges, NGO sector, and private sector through results-based financing (PPM) schemes, with formal engagements (signed MoUs) to notify TB cases

Objective 5: To gradually scale up the Community System Strengthening Program (CSS) at 60% of the local administrative units by 2018 and to 100% of the administrative units by 2021. It will help in creating a patient-friendly ambiance in the health facilities, advocacy for TB patients regarding their rights which will, in turn, contribute to the diagnosis and management of TB cases

Objective 6: To contribute to health system strengthening through HR management and capacity development, financial management, infrastructure, procurement, and supply management in TB.

Table 3.5.1: Indicators, Milestones and Targets:

INDICATORS	**MILESTONES**		**TARGETS**	
	2020	**2025**	**SDG 2030**	**END TB 2035**
Reduction in number of TB deaths compared with 2015 (%)	35%	75%	90%	95%
Reduction in TB incidence rate compared with 2015 (%)	20% (<85/100 000)	50% (<55/100 000)	80% (<20/100 000)	90% (<10/100 000)
TB Affected Families facing catastrophic costs due to TB (%)	ZERO	ZERO	ZERO	ZERO

Bagmati Province Institutional Coverage

Nepal adopted the DOTS strategy in 1996 and achieved nationwide coverage in 2001. All DOTS centers are integrated into public health services or run through NTP partner organizations in the public and private sectors. In 2077/78, 1092 institutions were offering TB diagnosis and treatment DOTS-based TB control services in Bagmati Provinces. To increase access to treatment services, NTP has developed partnerships with different organizations including private nursing homes, polyclinics, I/NGO health clinics, prisons, refugee camps, police hospitals, medical colleges, and municipalities.

Table 3.5.2: Institutional coverage of TB in FY 2077/78

Name of centers/ Institutes	Total numbers
DOTS Center	1092
MDR Treatment Centers	2
MDR Treatment Sub-Centers	24
DR Homes	-
DR Hostel	1
Microscopy Centers	260
GeneXpert Facility	20
Culture Labs and DST	2
Line Probe Assay (LPA)	2

Major Achievement

The below given tables present the last three years' trend of Tuberculosis program indicators in Bagmati Province. There was slight decrease in the program indicators over last three years.

Table 3.5.3: TB Indicators

SN	Indicator	Fiscal year wise status		
		2075/76	2076/77	2077/78
1.	Case notification rate (all form of TB/100,000 Population	123	98	103
2.	Treatment success rate	89	85	92

The above table describes about the status of case notification rate and treatment success rate of three years. Case notification rate of all form of TB per 1 lakh population, the trends of three FY denotes the decreasing trends. As per prevalence survey 2018 cases need to be increasing trends but in Bagmati Provinces it shows decreasing trends. It means there is huge missing cases which need to be identified through Active Case finding. The three years trends of Case notification rate are as follows FY 75/76 123, FY 2076/77 98 and FY 2077/78 103. In case of Treatment success rate three trends shows that it is in

increasing trends which denotes in Bagmati Province DOTS is properly functioning status and proper care of TB patient.

Table 3.5.4: District wise data on TB

S. N	District	District wise status of TB Indicators in FY 2077/78		
		Case notification rate (all forms of TB)/100,000 pop	Treatment success rate (%)	Remarks
1.	Bhaktapur	121	90%	
2	Chitwan	126	90%	
3	Dhading	59	96%	
4	Dolakha	48	94%	
5	Kathmandu	131	91%	
6	Kavre	65	95%	
7	Lalitpur	95	93%	
8	Makawanpur	115	93%	
9	Nuwakot	66	93%	
10	Ramechhap	41	99%	
11	Rasuwa	69	100%	
12	Sindhuli	71	96%	
13	Sindhupalchok	57	98%	
14	**Bagmati Province Total**	**103**	**92%**	

The case notification rate and treatment success rate of district wise of FY 2077/78. In this table it is clearly shown that Case notification rate of Chitwan is better than other district and Ramechhap district case notification is very low which shows that we need to focus on all district to increase case notification as per Prevalence survey 2018. In cases of success rate of district wise all are above 90% which is as per the national target of sustaining the treatment success rate above 90%.

Impact of COVID in TB Program in Bagmati Province

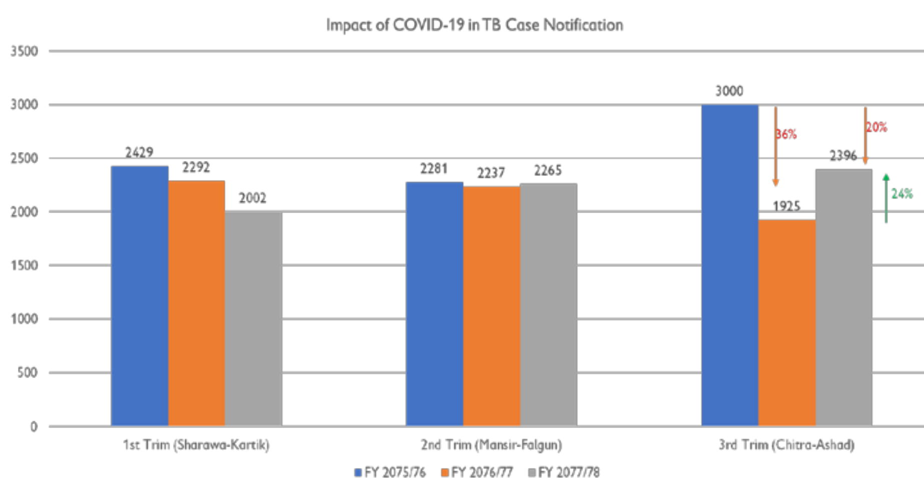


Figure 37: Impact of COVID in TB program in Bagmati Province in FY 2077/78

In Bagmati Province due to COVID-19 there had been decline in TB Cases which below figure clearly shows the differences of decline of TB Cases. The reason of decline of TB cases in COVID was due to Laboratory person busy in diagnosis of COVID and during that period most People did not visit Hospital, Health Facilities due to epidemics of COVID. Due to less diagnosis of TB cases at that period during COVID TB cases decline.

Gap in TB Program district wise in Bagmati Province

In Bagmati Province there is 58% case gaps which need to be meet by increasing Active case finding, OPD Presumptive, contact tracing and conducting different types of Active case finding camps. In all district there is gap but need to more focus in Kathmandu valley, Chitwan, Sindhuli, Makwanpur and all remaining to meet the Bagmati Province target. As per estimated TB cases we are unable to meet our target due to which there is huge gap and most of gap seen in non-Sub Recipients districts.

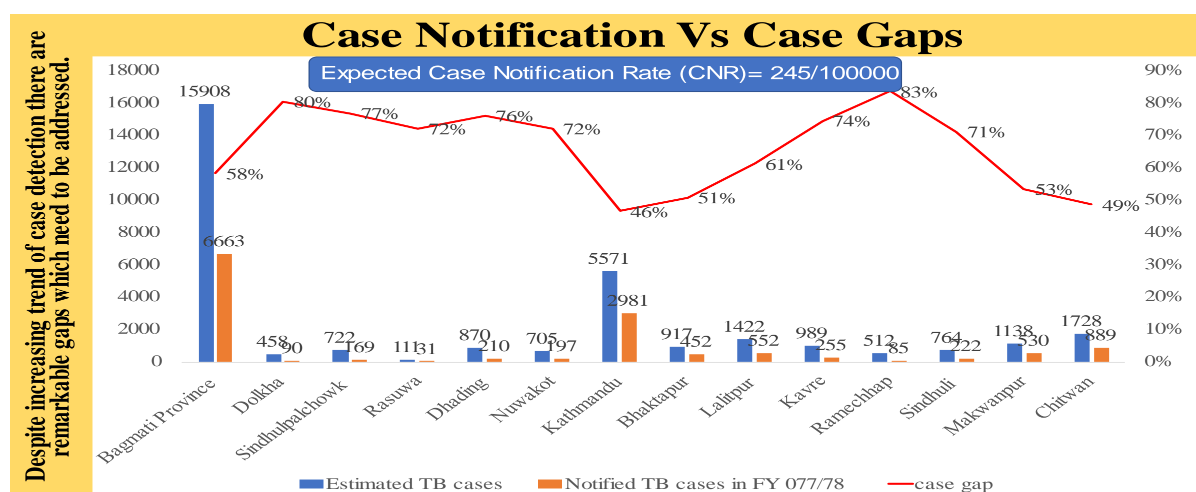


Figure 38: Gap in TB Program district wise in Bagmati Province

Issues, recommendation, and responsibilities

Provincial Annual Review 2077/78 identified following problems/constraints and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 3.5.5: Issues, recommendation, and responsibilities

S. N	Issues	Recommendation	Responsibilities
Service delivery related			
1.	High gap between estimated case and notified cases	• Active case detection in vulnerable population and hard to reach population with access to gene x-pert testing facilities • Initiation of screening of TB presumptive cases using x ray facilities • Increasing referral of TB presumptive from non-testing sites to testing sites	NTCC MoH PHD Local government

2.	Increased rifampicin resistant (RR) primary loss to follow up cases.	• Proper documentation of contacts of RR cases at diagnostic sites • Regular review and follow up of the cases to ensure enrollment status in support of gene xpert sites, DR centers and implementing partners • Case based quarterly review system in DR TB review	NTCC, MoH, PHD, Local Government,
3.	Decreasing trend of Pulmonary Clinically diagnosed cases	• Conducting adequate and regular CME program in private institutions • Review with private sectors on trimester basis	NTCC, MoSD PHD, Local Government
Information related			
1.	Error in internal consistency of data in DHIS 2	• Regular desk review on quality of data by implementing partners and PHD • Follow up to palika for increasing the quality and internal consistency of data • Onsite coaching and joint monitoring from PHD team	PHD/NTCC
Governance related			
1.	Lack of monitoring and evaluation from central and NTCC team	• Improve the monitoring visit as per need	MoHP, NTCC
2.	Lack of proper coordination between local government	• Capacity development of health office as technical expert for TB program • Increasing onsite coaching and technical support from health office to local government	PHD, Health Office, Local level

3.6 Leprosy

Introduction

The establishment of the Khokana Leprosarium in the nineteenth century was the beginning of organized leprosy services in Nepal. Key leprosy control milestones since 1960 and the goal, objectives and strategies of the national Leprosy Control Programmed are:

Evolution and milestones of leprosy control programme in Nepal

Year	Landmarks
1960	leprosy survey by Government of Nepal in collaboration with WHO
1966	Pilot project to control leprosy launched with Dapsone monotherapy
1982	Introduction of multi-drug therapy (MDT) in leprosy control programme
1987	Integration of vertical leprosy control programme into basic health services
1991	National leprosy elimination goal set
1995	Focal persons (TB and leprosy assistants=TLAS) appointed for districts and regions
1996	All 75 districts were brought into MDT programme
1999/2000-2001/02	Two rounds of National Leprosy Elimination Campaign (NLEC) implemented
2008	Intensive efforts made for achieving elimination at the national level

2009-2010	Leprosy elimination achieved and declared at the national level
2011	National Leprosy strategy (2011-2015)
2012-2013	Elimination sustained at national level and national guidelines, 2013(2070) revised
2013-2014	Mid-term evaluation of implementation of National leprosy strategy (2011-2015)
2014-2015	Ministry of Health designated LCD as the Disability focal Unit
2017	Policy, strategy and 10 years Action plan on Disability Management (Prevention, Treatment and Rehabilitation) 2073-2082 developed and disseminated
2018	National Leprosy strategy 2016-2020(2073-2077) develop and endorsed. Revised Leprosy guide line in line with national leprosy strategy and global leprosy strategy

Vision, Mission, Goal & objectives

Vision: leprosy free Nepal

Goal: End the consequences of leprosy including disability and stigma

Guiding principles

- Stewardship and system strengthening
- Expedite the elimination process in high prevalence districts
- Collaboration, coordination and partnership
- Community involvement
- Integration, equity and social inclusion
- Linkages with Universal Health Coverage and Sustainable Development Goals

Objectives:

- Achieve elimination status in all districts by 2020.
- Expand services for early detection of leprosy cases at health facility, especially in high
- prevalence districts through Enhancing selected diverse approaches (ISDT)
- Initiate Post-Exposure Leprosy Prophylaxis to family members and neighbors
- Achieve the surveillance performance indicator

Strategies:

- Expand and enhance early case detection through selected diverse approaches (ISDT)
- Strive to achieve the surveillance performance indicators
- Modernize and intensify the service delivery pathways for ensuring quality services
- Strengthen the collaboration and partnership for Leprosy-Free Nepal
- Enhance support mechanism for people infected and affected by leprosy.

Major Achievement

The below given tables presents the last three fiscal years status of Leprosy program indicators of Bagmati Province. Both the indicators have gradual progress in FY 077/78. There has been gradual decrease in the new case detection rate as well as the prevalence rate of leprosy. It is expected that the PR should always remain less than 1 per 10000 while the NCDR should remain less than 10. Similar scenario is observed though out the years in Bagmati province.

Table 3.6.1: Leprosy Indicators

SN	Indicator	Fiscal Year wise status		
		2075/76	2076/77	2077/78
1.	New case detection rate (NCDR) per 100,000 population	4.5	2.9	1.5
2.	Prevalence rate (PR) per 10,000	0.5	0.6	0.17

District Wise status of Leprosy indicators in FY 2077/78

Both PR and NCDR are below the national estimation which shows that leprosy is under control in Bagmati province. NCDR is highest for Chitwan district and lowest for Ramechhap, Nuwakot and Sindhupalchowk with zero new reported cases during the reporting period. Similarly, PR is highest for Chitwan with 1.93 and lowest for Rasuwa with 0. More than one PR of Chitwan shows the demand of active screening and testing of leprosy cases for early detection and treatment.

Table 3.6.2: District Wise status of Leprosy indicators in FY 2077/78

S. N	District	District wise status of leprosy Indicators in FY 2077/78		
		New case detection rate per 100,000 population	Prevalence rate per 10,000	Remarks
1.	Bhaktapur	1.6	0.48	
2	Chitwan	6.1	1.39	
3	Dhading	0.28	0.44	
4	Dolakha	0.53	0.14	
5	Kathmandu	0.4	0.49	
6	Kavre	0.99	0.03	
7	Lalitpur	2.1	0.19	
8	Makawanpur	3.2	0.28	
9	Nuwakot	0.69	0.02	
10	Ramechhap	0	0.10	
11	Rasuwa	0	0.00	
12	Sindhuli	1.6	0.11	
13	Sindhupalchowk	0	0.04	
14	Bagmati Province Total	1.5	0.17	

Strength, Weakness and Challenges under Leprosy Program

Strength

- Commitment from political level –government's commitment to Bangkok Declaration for Leprosy
- Accessible leprosy service
- Free MDT, transport allowance, free from treatment of cases
- Uninterrupted supply of MDT
- Good communication and collaboration among supporting partners
- Improved participation of leprosy affected people in national programme
- Steering, coordination and technical committees
- Contact examination/ surveillance of patient, family members and neighbors
- Leprosy Post-Exposure Prophylaxis

Weaknesses

- Low priority for leprosy programme
- Low motivation of health workers
- Very few rehabilitations activities
- Inadequate training and orientation for newly recruited health workers
- Poor institutional set-up and inadequate human resources
- Problem for reaction and complication management at periphery level
- Poor recording, reporting and contact examination activities
- Poor coverage and monitoring of LPEP in implementing districts
- Under and over reporting of leprosy data in HMIS
- Poor IEC activities

Challenges

- To sustain the elimination achieved at national level and achieve elimination at municipality level
- To maintain access and quality of services in low endemic mountain and hill districts
- To strengthen surveillance and logistics
- To further reduce stigma and discrimination against affected persons and their families
- Insufficient activities in low endemic districts for reducing the disease burden
- Strengthening of index case & contact surveillance, recording and reporting system.

3.7 HIV & AIDS and STI

Introduction

With the first case of HIV identification in 1988, Nepal started its policy response to the epidemic of HIV through its first National Policy on Acquired Immunity Deficiency Syndrome (AIDS) and Sexually Transmitted Diseases (STDs) Control, 1995 (2052 BS). Taking the dynamic nature of the epidemic of HIV into consideration, Nepal revisited its first national policy on 1995 and endorsed the latest version: National Policy on Human Immunodeficiency Virus (HIV) and Sexually Transmitted Infections (STIs), 2011. With the new national HIV strategic plan, Nepal has embarked on a **Fast-Track** approach towards ending the AIDS epidemic as a public health threat by 2030, through achieving the ambitious target of 95-95-95 by 2026. By 2026, 95% of all people living with HIV (PLHIV) will know their HIV status, 95% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART) and 95% of all people receiving antiretroviral therapy will have viral suppression.

Pursuant to its goal of achieving universal access to prevention, treatment care and support, HIV Testing Services (HTS) has been a strategic focus in the national response to HIV ever since Nepal started its response to HIV. The first ever HTS began in 1995 with the approach of voluntary Client- Initiated Testing

and Counseling (CITC). Moving further from its previous approach of voluntary CITC, the national HIV testing and counselling program has been later widened to include Provider-Initiated Testing and Counseling (PITC), as well as CITC as crucial components of the nation's fight against HIV. With the expansion of HIV Testing and Counseling (HTC) sites across the country, there has been parallel development. National Guidelines on HTC was formulated in 2003 and updated in 2007, 2009 and 2011 and later the separate guidelines is merged as a comprehensive guideline on treating and preventing HIV in 2014. The community-based testing approach has also been initiated in key population and as suggested by National HIV Testing and Treatment Guidelines, 2017 Nepal has also moved forward to implement the community-led testing and self-testing approach in order to maximize HIV testing among key populations of HIV. For this approach, National Guidelines on Community Led HIV Testing in Nepal 2017' is also endorsed and currently CLT services is implemented in 20 districts targeting MSM and TG, 27 districts targeting PWID and 17 districts targeting FSW.

Human resources for HTC have been trained for public health facilities as well as NGOs-run HTS sites. Along with HTS, detection and management of Sexually Transmitted Infections (STIs) have also been a strategic focus and integral part of the national response to HIV ever since Nepal started its response to HIV. Over the years, STI clinics have been operating across the country maintaining their linkage to Kason the basis of the National STI Case Management guideline which was developed in 1995 and also revised in 2009 and 2014.

Vision, Mission, Goal & Objectives

Based on the NATIONAL HIV STRATEGIC PLAN, a global vision, a global goal and a set of global targets, all of which are fully aligned with the vision, goal and targets of the multi-sectoral UNAIDS strategy and the Sustainable Development Goals.

Vision

Ending AIDS epidemic in Nepal by 2030.

Mission

To provide inclusive, equitable and accessible services throughout the HIV care continuum.

Goals

- To prevent new HIV infections
- To improve HIV related health outcomes of PLHIV
- To reduce HIV related inequalities among PLHIV and KPs

Targets by 2026

1. Identify 95% of the estimated PLHIV

2. Treat 95 % of people diagnosed with HIV

3. Attain viral load suppression for 95 % of PLHIV on ART

4. Reduce 90% of new HIV infections (baseline as of 2010)

5. Eliminate vertical transmission of HIV

6. Achieve case rate of congenital syphilis of ≤50 per 100 000 live births.

Priorities

1. Accelerating HIV prevention services among key populations.

2. Expanding innovative and effective testing approaches with universal access to comprehensive treatment, care, support, VL testing and suppression services.

3. Elimination of vertical transmission and syphilis.

4. Scaling up of HIV-sensitive social protection services to key and vulnerable populations.

5. Addressing human rights and gender in HIV response.

6. Strengthening effective, inclusive and accountable HIV governance.

Table 3.7.1: ART sites in Bagmati Province

S. N	District	Municipality	City	Name of site in HMIS
1	Kathmandu	Kathmandu Metropolitan City	Teku	Sukraraj tropical Hospital Ktm
2	Lalitpur	Lalitpur Metropolitan City	Sanepa	Sparsha Nepal
3	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Kanti Children Hospital
4	Chitwan	Bharatpur Metropolitan	Chitwan	Bharatpur Hospital, Chitwan
5	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Maiti Nepal
6	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Bir Hospital, Kathmandu
7	Kavre	Dhulikhel Municipality	Kavre	Dhulikhel Hospital, Kavre
8	Kathmandu	Kathmandu Metropolitan City	Maharajgunj	Teaching Hospital, Maharajgunj
9	Nuwakot	Bidur Municipality	Trishuli	Trishuli Hospital, Nuwakot
10	Makwanpur	Heatuda Sub-Metropolitan	Makwanpur	Hetauda Hospital, Makwanpur
11	Bhaktapur	Bhaktapur Municipality	Bhaktapur	Bhaktapur Hospital, Bhaktapur
12	Dhading	Nilkantha Municipality	Dhadingbesi	Dhading Hospital
13	Sindhupalchowk	Chautara Municipality	Chautara	Sindhupalchock Hospital
14	Sindhuli	Kamalamai Municipality	Sindhulimadi	Sindhuli Hospital
15	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Maternity Hospital, Thapathali
16	Dolakha	Bhimeshwor Municipality	Charikot	Charikot Hospital

List of OST sites in Bagmati Province

- Tribhuvan University Teaching Hospital (TUTH), Kathmandu (Social Support Unit)
- Patan Hospital, Lalitpur (Social Support Unit)
- SPARSHA- Nirnay (Medical Unit), Chitwan
- Aavash Samuha, Bhaktapur
- SPARSHA Nepal, Lalitpur
- Saarathi Nepal, Kathmandu

List of Dispensing sites of OST

- SPARSHA- Nepal, Battisputali, Kathmandu
- SPARSHA- Nepal, Sankhamul, Lalitpur

Major Achievement

HIV testing and Counseling at HTC:

The table given below presents the three years trend of HIV testing and Positive cases found in HTC in Bagmati Province. Despite gradual decrease in the prevalence of HIV in Nepal, there has been continuous increase in the detection of HIV cases in Bagmati province. This is in line with the national strategy to know the status of at least 95% of the individuals living with HIV. The below table shows the number of HIV tests and positive cases detected in the last three years as per the reported data in DHIS 2.

Table 3.7.2: HIV and AIDS Indicators SN Indicator Fiscal year wise status

SN	Indicator	Fiscal Year		
		2075/76	2076/77	2077/78
1.	HIV testing in HTC	31427	25850	14416
2	HIV found positive in HTC	1066	1075	1211

District wise HIV testing and counselling at HCT center:

The below graph shows the status of HIV testing by district in FY 077/78. The highest number of testing is observed in in Kathmandu followed by Lalitpur, Sindhuli and Chitwan. The highest yield is in Nuwakot followed by Chitwan, Kathmandu and Makawanpur.

Prevention of Mother to child Transmission (PMTC):

With a target to meet zero vertical transmission of HIV, PMTCT program is being implemented from majority of the service delivery points of Bagmati province. There has been screening of all pregnant mothers with determine test kit for HIV during ANC visit and during delivery. The total ANC visit during the reporting period was in line with the previous year but has decreased in comparison to 075-76. This can be the impact of COVID in FY 076-77 and 077-78. The other reason associated with the decline is irregular supply of test kits at the service delivery points. The below graph shows the three years trend of HIV screening in pregnant women who visited for ANC check-up.

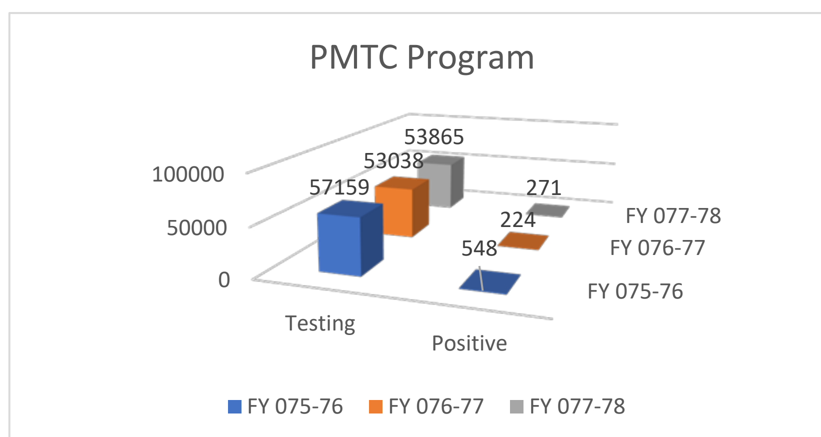


Figure 39: HIV testing and number of HIV ve+ in PMTC

PMTCT coverage by district: District- wise coverage of testing of HIV in pregnant mother is tabulated here below. The table shows maximum number of tests has been performed in Kathmandu district followed by Lalitpur and dhading. Against the number of tests, highest number of reactive cases has been identified in Lalitpur district

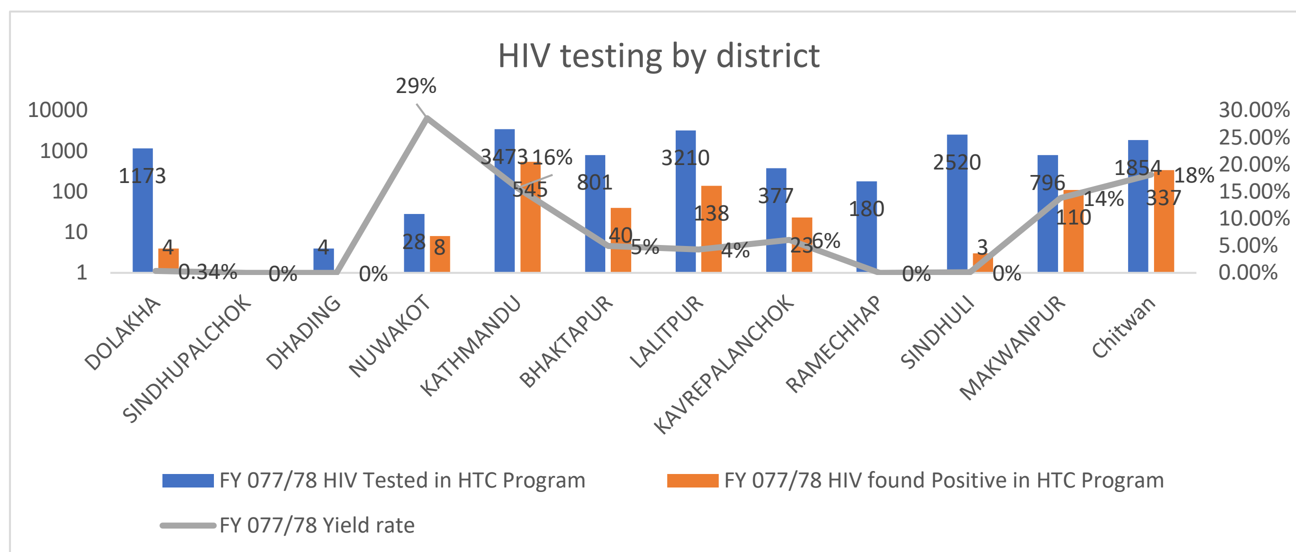


Figure 40: District wise HIV testing and counselling at HTC center

Table 3.7.3: District wise PMTCT coverage

District	HIV/AIDS-PMTCT-Counseling and Testing-Pregnancy-Tested	HIV/AIDS-PMTCT-Counseling and Testing-Pregnancy-Positive
Dolakha	512	0
Sindhupalchok	2020	4
Rasuwa	291	0
Dhading	4193	10
Nuwakot	2069	13
Kathmandu	24142	4
Bhaktapur	1602	1
Lalitpur	4592	185
Kavre	3798	9
Ramechhap	352	1
Sindhuli	2059	29
Makawanpur	2916	1
Chitwan	5319	14

Issues, recommendation, and responsibilities

Provincial Annual Review 2077/78 identified following problems/constraints and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 3.7.4: Issues, recommendation, and responsibilities

S. N	Problems/Constraints	Recommendation	Responsibilities
Service delivery related			
1.	Unable to reach the third 95 of the 95-95-95 target	• Expansion of viral load testing facilities (at least in the districts where there are more than one thousand clients under ART • Regular collection of blood samples for viral load sample testing • Managing storage facility at ART sites for viral load sample	PHD/MoH/NCASC
2	Inadequate intervention to deal with coinfection like hepatitis	• Develop guideline and protocol to deal with the hepatitis cases of PLHIV (linking with better service sites, transportation support to PHLIV to reach the sites)	NCASC
3	Limited and not functioning HIV testing and counseling sites	• Expansion of HTC site at PHC level with three tier testing kits availability.	MoH NCASC PHD
4	Inadequate coverage of PMTCT	• Ensure regular supply of determine test kits at PMTCT sites • Review of PMTCT program in the annual or semi-annual review of palika and district	NCASC, PHD and PHLMC
Information related			
1.	Majority of cases are being reporting under other category which is the issue of risk classification	• Onsite coaching to the ART sites for proper classification of the PLHIV • Including the risk groups like spouse of migrants and prison inmates in reporting system of HMIS	NCASC

CHAPTER 4: HOSPITAL SERVICES

Background

The provincial government of Bagmati Province is committed to improve the health status of people by delivering high quality health services. The core objective of the Provincial government is to provide quality curative services with specialized care to reduce morbidity and mortality by ensuring early diagnosis and prompt treatment from health facilities. In December 2006, government of Nepal began providing essential health care services both emergency and inpatients services free of charge to destitute, poor, disabled, senior citizens, FCHVs, victims of gender-based violence and others from provincial hospitals, PHCCs and for all citizens through health posts. The constitution of Nepal has guaranteed the basic health services as the fundamental right of the people. The provincial government has been running its own hospitals and also supporting tertiary and primary level hospitals.

There are 24 hospitals currently operated under government, of which 10 hospitals are under federal, 13 under provincial and 1 under local government. Of these, disaggregated by level, there are 10 Tertiary hospitals, 5 Secondary A hospitals and 9 Primary hospitals.

Table 4.1: Hospitals categorized by ownership and level

By Ownership		By Level
Federal level Public Hospitals (10)		
1	NAMS (Bir Hospital)	Tertiary
2	Mental Hospital, Lalitpur	Tertiary
3	National Trauma Center, Kathmandu	Tertiary
4	PAHS, Lalitpur	Tertiary
5	Paropkar Maternity and Women's Hospital	Tertiary
6	Kanti Children Hospital	Tertiary
7	Bharatpur Hospital, Chitwan	Tertiary
8	Civil Service Hospital, Kathmandu	Tertiary
9	Shahid Dharma bhakta National Human Organ Transplant Center	Tertiary
10	Sukraraj Tropical Hospital	Tertiary
Provincial level (13)		
1	Hetauda Hospital	Secondary A
2	District Hospital Dhading	Secondary A
3	District Hospital Sindhuli	Secondary A
4	Trishuli Hospital, Nuwakot	Secondary A
5	Bhaktapur Hospital, Bhaktapur	Secondary A
6	District Hospital Rasuwa	Primary
7	District Hospital Ramechhap	Primary
8	Methinkot Hospital, Kavrepalanchowk	Primary

9	Bakulahar Hospital, Chitwan	Primary
10	Bajrabarahi Chapagaun Hospital, Lalitpur	Primary
11	Tokha Chandeshori Hospital, Kathmandu	Primary
12	Chautara Hospital, Sindhupalchowk	Primary
13	Pashupati Chaulagain Smriti Hospital	Primary
Local level (3)		
1	Baghauda Hospital, Chitwan	Primary
2	Jiri Hospital	Primary
3	Badegaun Hospital	Primary

Infrastructure Availability

The Table 4.2 shows the availability of infrastructure status of 13 provincial hospitals. All of the hospitals own a land and is functional with 50 beds in Secondary A level hospitals. While there are 15 beds in remaining 8 hospitals. All the 9 hospitals have their own building constructed while there are 3 hospitals which are under construction and 1 hospital yet to be constructed in Rasuwa district.

Table 4.2: Infrastructure availability in provincial hospitals

SN	Hospitals	Total Beds	Land	Building
1	Hetauda Hospital		Available	Under construction
2	Bakulahar Hospital, Chitwan		Available	Available
3	Dhading District Hospital		Available	Available
4	Trishuli Hospital		Available	Available
5	Rasuwa Hospital		Available	Prefab material
6	Chautara Hospital		Available	Under construction
7	Methinkot Hospital, Kavre		Available	Available
8	Pasupathi Chaulagain Memorial Hospital, Dolakha		Available	Available
9	Ramechhap District Hospital		Available	Available
10	Sindhuli Hospital		Available	Under construction
11	Bajrabarahi Chapagaun Hospital		Available	Available but not adequate
12	Tokha Chandeshori Hospital		Available	Available
13	Bhaktapur Hospital		Available	Available

Availability of major equipment

The table below gives information about the availability of major equipment in provincial hospitals of Bagmati Province. All equipment namely; monitor, autoclave, USG, suction machine, analyzer, microscope, x-ray, ECG and oxygen concentrator in all provincial hospitals except CT scan machine.

Table 4.3: Availability of major equipment in provincial hospitals

Name of Equipment	Number of hospitals with equipment	Name of Hospitals
CT scan	0	Not available
Monitor	13	All provincial hospitals
Autoclave	13	All provincial hospitals
USG	13	All provincial hospitals
Suction Machine	13	All provincial hospitals
Analyzer	13	All provincial hospitals
Microscope	13	All provincial hospitals
X-Ray	13	All provincial hospitals
Endoscopy	5	Hetauda hospital, Trishuli hospital, Sindhuli hospital, Bhaktapur hospital, Bakulahar Ratnanagar hospital
Anesthesia Equipment	9	All provincial hospitals except Methinkot hospital, Bajrabarahi hospital, Tokha Chandeswori hospital, Rasuwa hospital
ECG	13	All provincial hospitals
Phototherapy Machine	10	All provincial hospitals except Tokha Chandeswori, Bajrabarahi hospital, Methinkot hospital
Oxygen concentrator	13	All provincial hospitals

Major highlights of achievements:

There is regular USG service, 24 hours laboratory service in all provincial hospitals. OT services from all provincial hospitals except Tokha Chandeswori, Bajrabarahi hospital and Rasuwa hospital. Physiotherapy department was established in 7 provincial hospitals MCH clinic was established to provide antenatal care, postnatal care, Familyplanning, Nutrition and Immunization from all province level hospitals.

4.1 Hospital Management Strengthening Program

Minimum Service Standards (MSS) Health Facilities is the service readiness and availability of tool for optimal requirement of the hospitals to provide minimum services that are expected from them. This tool entails for preparation of service provision and elements of service utilization that are deterministic towards functionality of hospital to enable working environment for providers and provide resources for quality health service provision. MSS for hospitals reflect the optimally needed minimum criteria for services to be provided but in itself is not an "ideal" list of the maximum standards. This checklist of MSS is different than a program specific quality improvement tool as it will outline the equipment, supplies, furniture, human resource required for carrying out service but not detail out the standards operating procedures of any service. Initially Ministry of Health and population (MoHP) in collaboration with, Nick Simons Institute (NSI), started Hospital Management Strengthening Program (HMSP) in district and district level hospitals (DH) of Nepal since FY 2071/72 (2014). This program is basically designed to

identify existing gaps on readiness towards the quality improvement of hospital services through self and joint assessment using Minimum service standards (MSS) tool and develop action plan scientifically, in addition to hospital strengthening grant by MoHP/ DoHS and NSI. This program was designed in phase wise expansion in all district level hospitals (15 to 50 bedded). District level MSS has covered all 83 hospitals by FY 2075-76.

After implementation of DH MSS for 4 years and its exiting achievements during this period, the district hospital MSS tool was revised as MSS for Primary hospital and new MSS tools for all level of hospital and health facility was developed. That include 4 categories of hospitals Primary, Secondary A, Secondary B and Tertiary Level Hospitals and Health Post as well. The eight sections of DH-MSS were framed under the three broad areas.

MSS is a comprehensive tool for optimal preparation of the hospitals for the minimum services that are needed to be provided by these health facilities and has potential to bring a positive change. The health sector needs are dynamic and revision of the services and standards in due course is anticipated. The revision of MSS for hospitals is planned to be done every 3-4 years (completion of cycle of MSS in all targeted government hospitals) to incorporate the learning and adapt the documents to the emerging context.

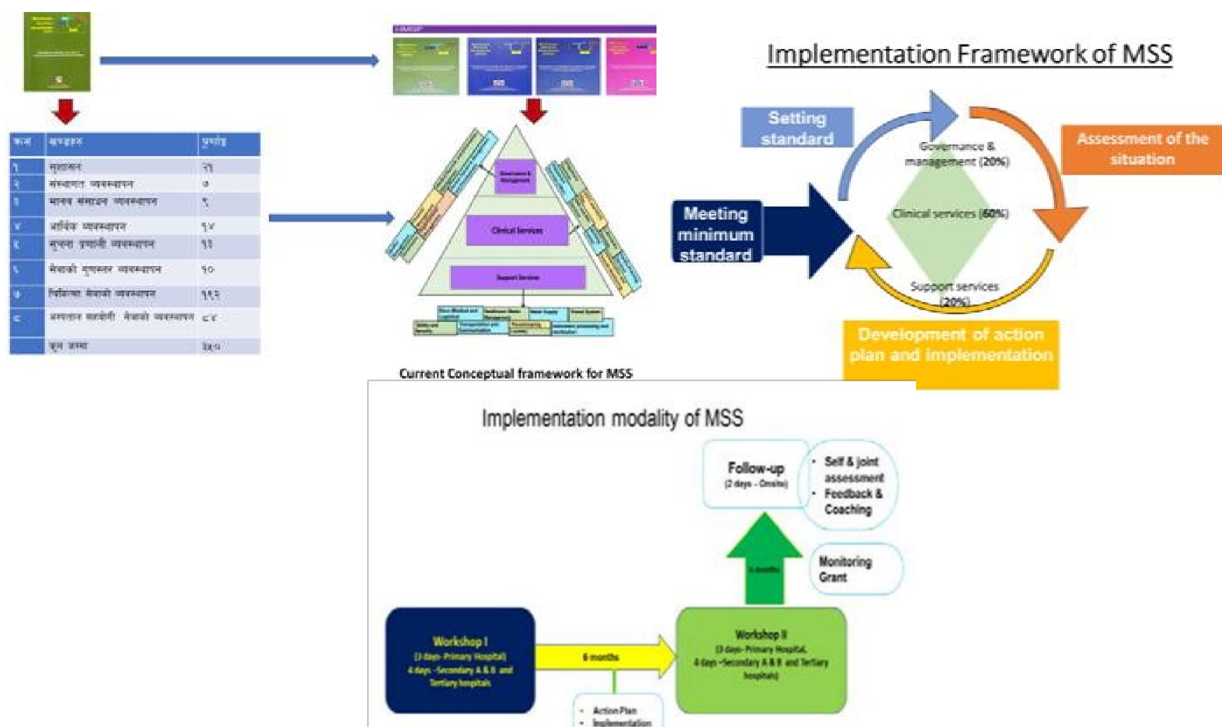
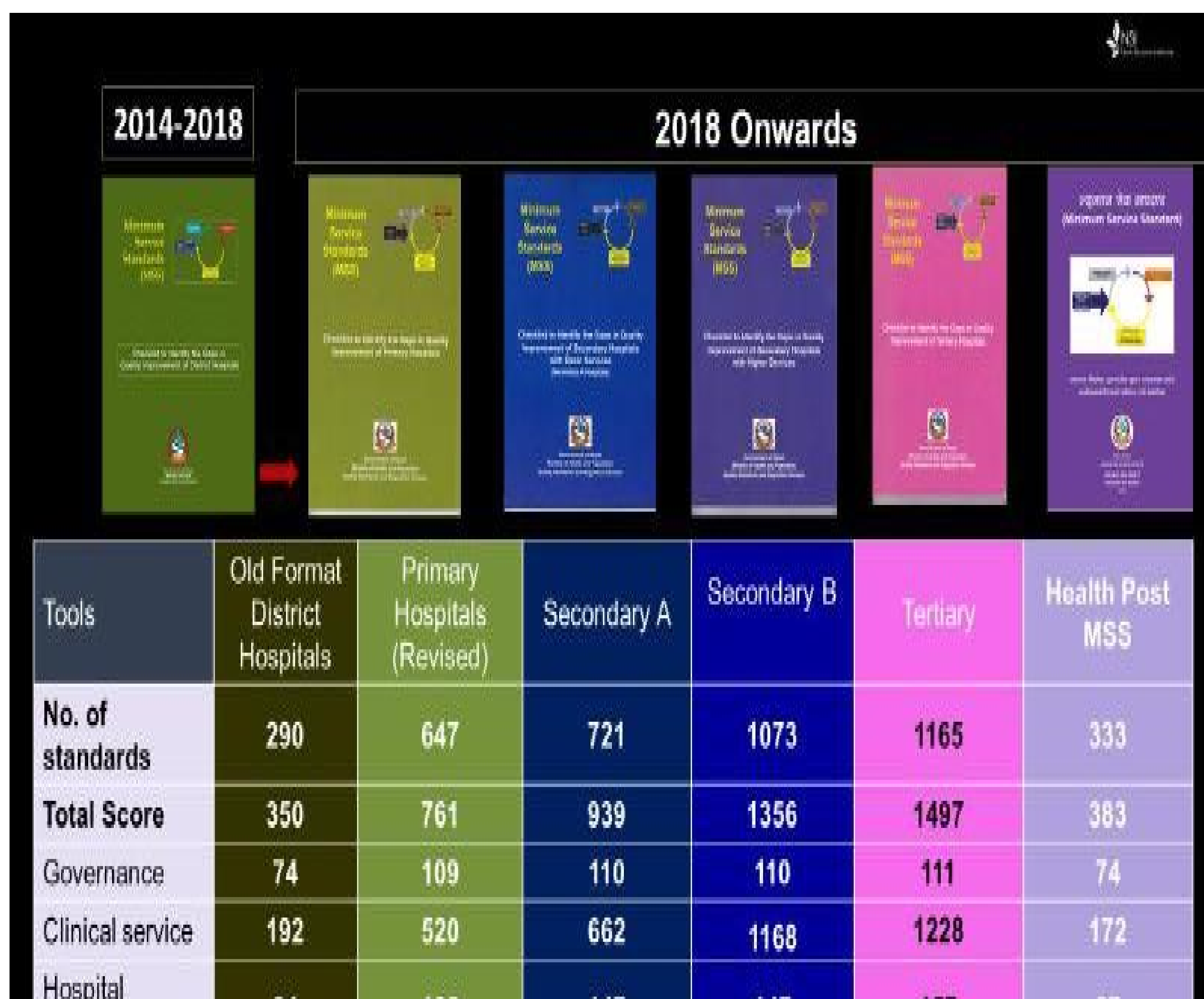


Figure 41: Framework of MSS

There are all together 5 sets of MSS Tools including Health Post MSS (Basic Health Care Centre), Primary Hospital MSS (5,10,15 Beds Hospital, Secondary A Level (25-50 Bed General Hospital), Secondary B Level (100-300 Bed General Hospital) and Tertiary Level (Specialized Hospital). Each MSS tool has three major sections: Governance and Management, Clinical Service Management and Hospital Support Service Management. The total standards and Score that is used to measure the Service Standard varies according to the respective tools.



Tools	Old Format District Hospitals	Primary Hospitals (Revised)	Secondary A	Secondary B	Tertiary	Health Post MSS
No. of standards	290	647	721	1073	1165	333
Total Score	350	761	939	1356	1497	383
Governance	74	109	110	110	111	74
Clinical service	192	520	662	1168	1228	172
Hospital	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Figure 42: MSS measuring tools

This MSS Score for hospitals measure the existing situation and enables to identify the gap areas that are to be addressed through the development of the actions plan that demands both technical and financial inputs and managerial commitments. The overall process is guided by its implementation guideline that describes on sequences of self-assessment and follow up workshops and gap identification for action plan development and striving for optimal MSS Score.

Ministry of Health and Population strives to implement MSS in Health Facilities for establishing enabling

environment at service delivery point through preparedness and availability for quality service provision to the users. Not being an exhaustive list of facilities and services, hospitals are encouraged to strive for betterment and go beyond the defined set of minimum standards whenever their resources support.

Minimum Service Standards (MSS) for hospitals and health facilities were previously led by Curative Service Division, Ministry of Health and Population. Now in changing context, as per ToR this Program is led by Quality Standard and Regulation Division, Ministry of Health and Population and the implementation is done by Curative Service Division, DoHS. Province-wise coverage of MSS implementation program in different level of Hospitals in Bagmati Province. MSS has implemented in 16 different level of hospitals in Bagmati province. Which include continuation of MSS Follow up in 12 hospitals and program was expanded in 4 additional hospitals.

Program impact in Hospital level

Governance and management- Hospital service quality is in high priority of Federal, Provincial and Local government, allocating budget linked with MSS gaps. HMC is taking ownership in overall service improvement and expansion of hospital services. Most of the HMC chairperson and Medical Superintendents considered MSS as a guiding document for quality health services.

Clinical Service Management: Considerable improvement in Diagnostic services- like Digital X-ray service, Improvement in laboratory services with Auto and semi auto analyzers and expansion of its range of test up to culture, T3, T4, TSH, HbA1c and others. Some hospitals have started surgeries with new setup of operation theatre, and few has upgraded its range of major surgeries.

Hospital Support Service Management: Establishment and upgrading of separate laundry, CSSD, housekeeping services, autoclaving of contaminated waste, are the novel achievements of primary and secondary A level hospital. Besides the routine services advocated by MSS, hospitals are motivated to establish additional services as reported by the managers of hospitals during assessments. Remarkable milestones have been reached with regards to additional services like, ICU with ventilator, special new-born care unit (SNCU), crisis management centers, extended hospital services (EHS) with specialized Doctors, EHR (Electronic Health Record) services at some of these hospitals. Following is the progress:

Table 4.1.1: data regarding Minimum Service Standards (MSS) score of hospitals of F/Y 2077/78

Bagmati	Name of Hospital	MSS Score on District level MSS										Revised & New MSS (FY 2076/77)	
		WS 1	WS 2	WS 3	FU 1	FU 2	FU 3	FU 4	FU 5	FU 6	FU 7	New MSS-1 Assessment	New MSS-2 Assessment
1	Hetauda Hospital	49%	70%	72%	60%	57%	53%	50%	63%				
2	Dhading Hospital	69%	87%	93%	89%	86%	81%	73%	93%				
3	Trishuli Hospital	72%	77%	79%	68%	74%	61%	63%	88%	94%			
4	Rasuwa Hospital	37%	54%	70%	68%	74%	42%	55%	56%	51%			
5	Bajrabarahi Chapagaun Hospital	31%											
6	Tokha Hospital	31%											
7	Methinkot Hospital	61%	63%	73%	61%	56%	57%	59%	52%	60%			
8	Chautara Hospital	45%	76%	82%	66%	69%	74%	75%	57%	61%			
9	Ramechhap Hospital	54%	69%	73%	66%	77%	71%	73%	60%	71%	68%	57%	
10	Bishnudevi Hospital, Kirtipur	14%	29%										
11	Jiri Hospital	75%	86%	90%	79%	88%	81%	84%	65%	69%	54%	51%	
12	Bakulahar Ratnanagar Hospital	52%	55%	71%	76%	80%	70%	77%					
13	Sindhuli Hospital	62%	81%	85%	80%	82%	96%	96%	59%	65%	77%		
14	Badegaun Hospital	14%											
15	Bagauda Hospital	41%	57%	65%	50%	53%	46%	57%	53%				
16	Charikot Hospital	56%											
17.	Bhaktapur Hospital	38%	82%										

4.2 MSS Score Reports of Bagmati Province

Trishuli Hospital (Nuwakot)

Trishuli Hospital is secondary A level hospital, located at Nuwakot District in Bagmati Province. It seems that the management and its service is standard as it was able to stand first in Bagmati Province in terms of MSS evaluation according to the report of fiscal year 2078/2079.

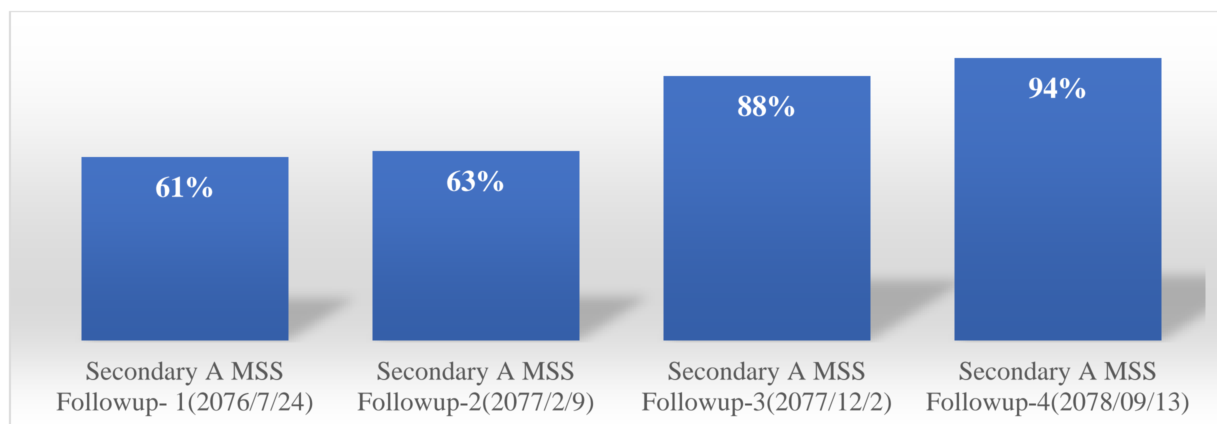


Figure 43: MSS score of Trishuli Hospital

Above bar diagram illustrates that the latest MSS score recorded was 94% which is significant improvement compared to previous evaluation. The human resource available in Trishuli Hospital is as follows: MO-10, MDGP-1, Lab assistant and Lab technician-7, Nurse- 36, Pharmacy-5, Anesthesia Assistant -1. **Equipment:** Defribilator-5, HDU bed-8, ICU bed-12, Ventilator bed-12 are available.

Methinkot Hospital

Methinkot Hospital is a primary level hospital, located at Kavrepalanchok District in Bagmati Province. The trend of MSS score is variable with latest 60%.

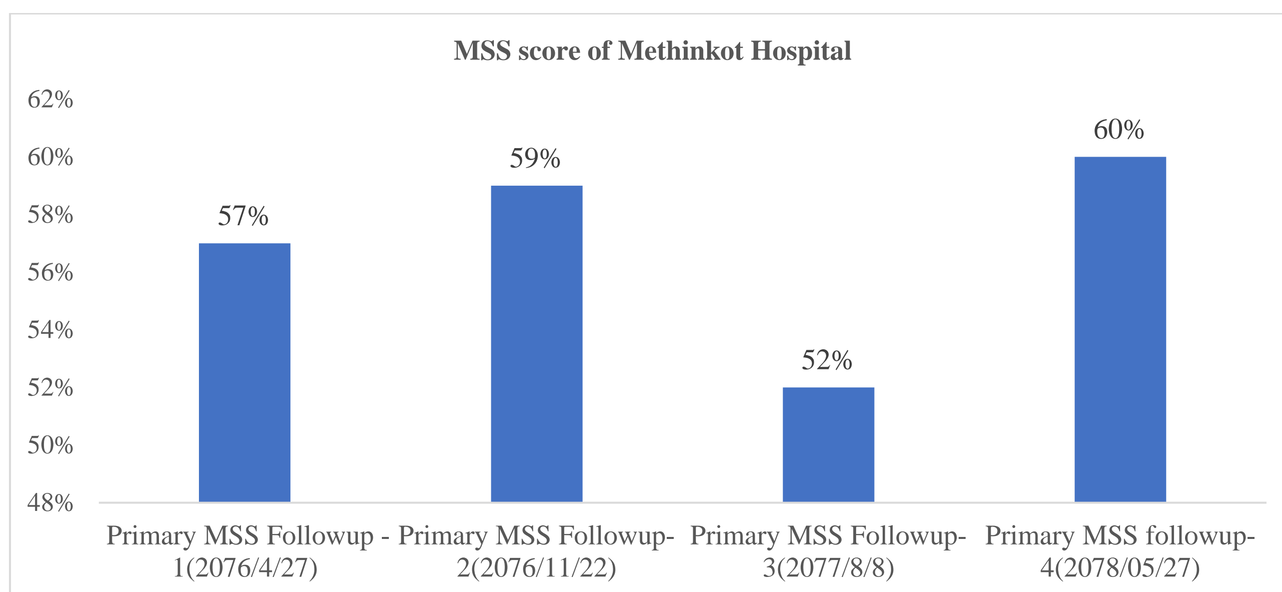


Figure 44: MSS score of Methinkot Hospital

The human resource available in Methinkot Hospital is as follows: MO-3, MDGP-1, Lab assistant and Lab technician-3. **Equipment**: Defribilator-1(only in ER Department). Operation theater services is not available there but it is planning to set up OT soon.

Sindhuli Hospital

Sindhuli Hospital is Secondary A level hospital located at Sindhuli District in Bagmati Province. The MSS score shows increasing trend and it received satisfactory score in the latest evaluation (77%).

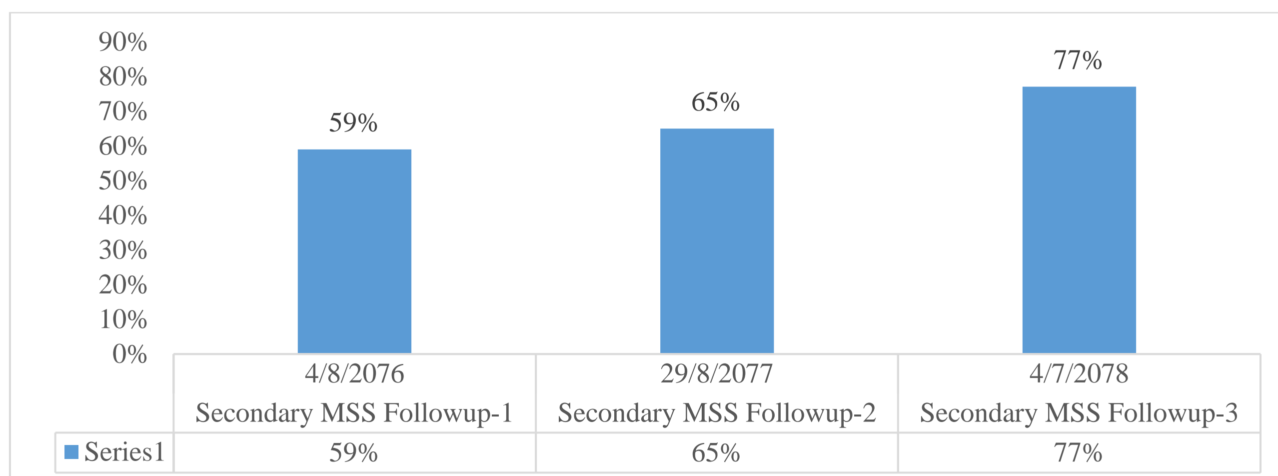


Figure 45: MSS score of Sindhuli Hospital

Above bar diagram illustrates that the MSS score recorded as on FY 2078/07/4 was 77%. The human resource available in Sindhuli Hospital is as follows: MO-6, MDGP-2, Lab assistant and Lab technician-6, Anesthesia Assistant-1. **Equipment:** Defribilator-2, ICU Bed-5. There are 25 HDU available in Sindhuli Hospital but they are not in use due to lack of human resources.

Rasuwa Hospital

Rasuwa Hospital is located at Rasuwa District in Bagmati Province. The record of MSS score seems variable, with the latest score of 51%.

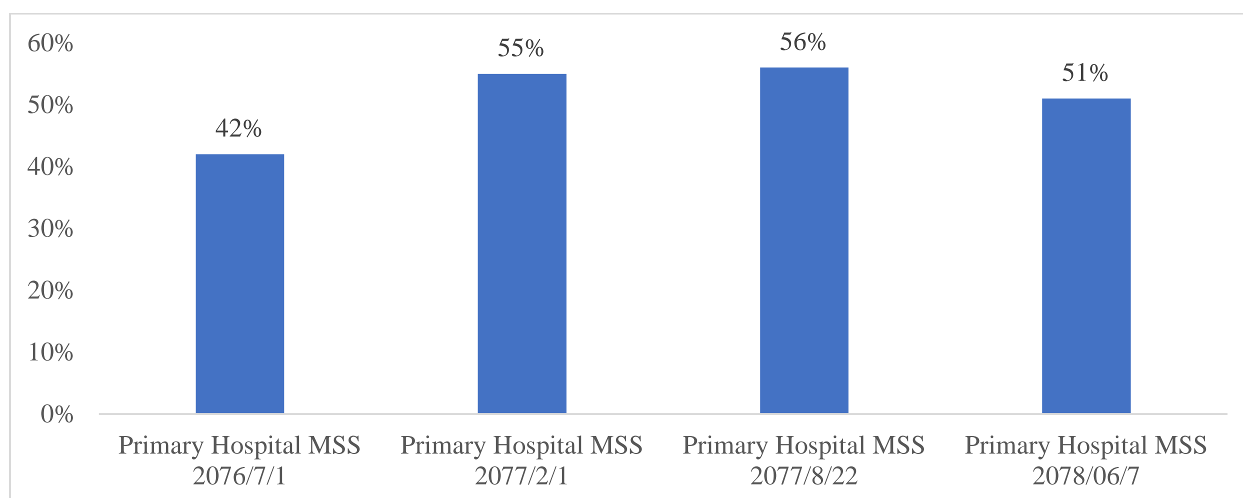


Figure 46: MSS score of Rasuwa District

The human resource available in Rasuwa Hospital is as follows: Mo-4, Lab assistant-2, Dental doctor-2.

Bagauda Hospital

Bagauda Hospital is located at Chitwan District in Bagmati Province. The record of MSS is variable with latest score of 53%. The human resource available in Bagauda Hospital is as follows. MDGP-1, Anesthesia Assistant-1, Radiographer-2, Dentist-1.

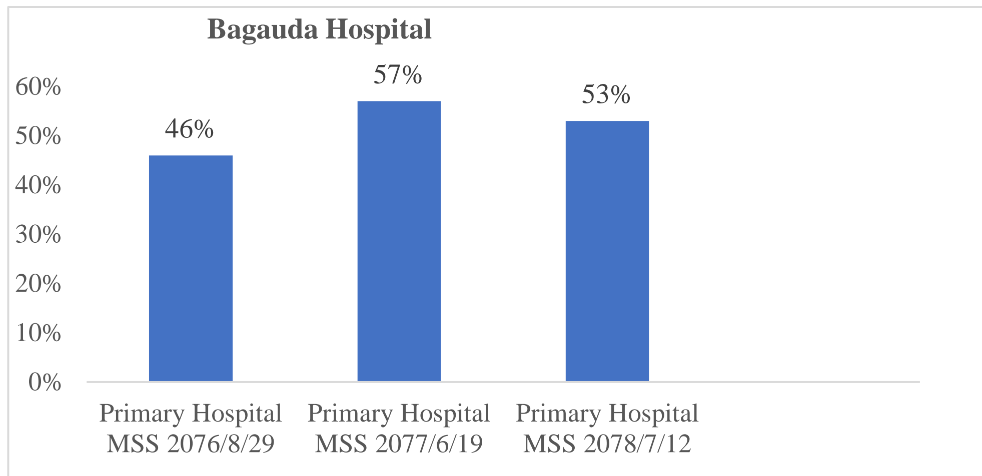


Figure 47: MSS Score of Bagauda Hospital

Dhading Hospital

Dhading Hospital is located at Dhading District in Bagmati Province. The trend of MSS shows increasing order. It was able to stand second in Bagmati Province in terms of MSS scoring according to the report of fiscal year 2078/2079.

The MSS Score of Dhading Hospital significantly increased from 73% to 93%. It is found that there was impressive team work and mutual understanding among them. The human resource available in Dhading Hospital are as follows. MDGP-1, Anesthesia Assistant (Trained Staff nurse)-2, Dental doctor-4, Lab technician and assistant-4, Gynae/obs Doctor-1, Advance SBA-1, ANM-3. Equipment: Defbribilator-4, ICU Bed-10, SNCU-4 Bed, HDU Bed-10.

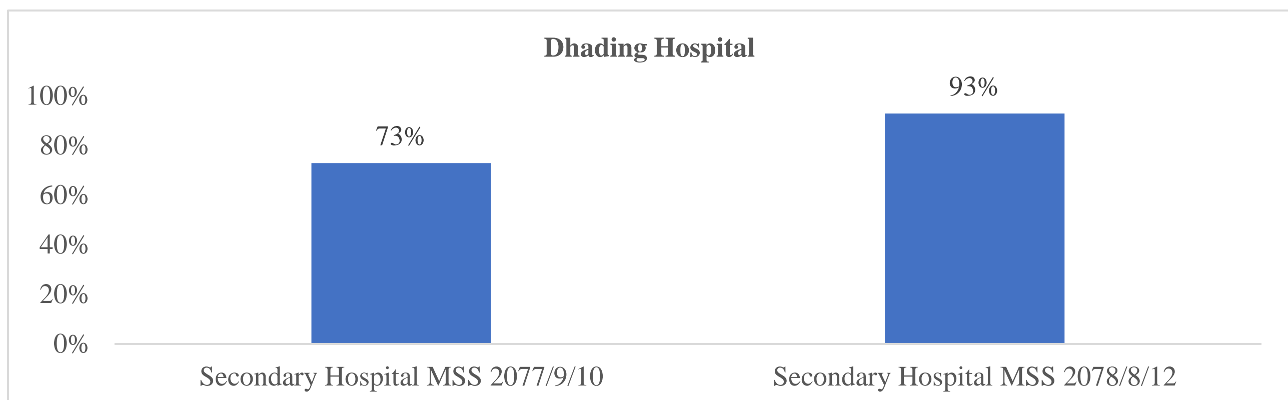


Figure 48: MSS score of Dhading Hospital

Hetauda Hospital

Hetauda Hospital is located at Makwanpur District in Bagmati Province. The MSS score is variable with ltest score of 63%. MSS score was 50% last time but, it increased to 63% now. The human resource available in Hetauda Hospital is as follows- MDGP-1, Anesthesia Assistant-3, Lab assistant and Technician-8, MO-17. **Equipment:** Ventilator-4 bed, ICU-17 Bed, HDU-20 Bed.

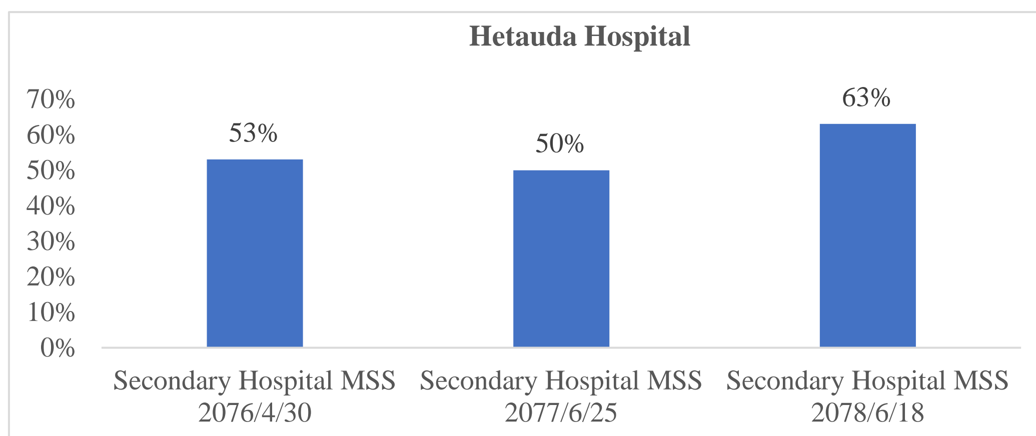


Figure 49: MSS score of Hetauda Hospital

Ramechhap Hospital

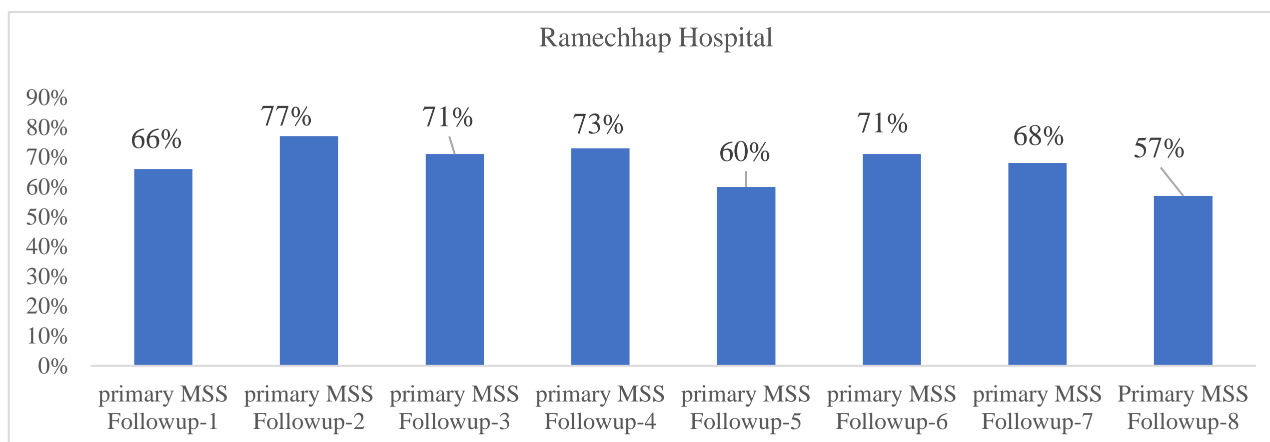


Figure 50: MSS score of Ramechhap Hospital

Ramechhap Hospital is located at Ramechhap District in Bagmati Province. The record of MSS score seems variable with latest score of 57%. Where MSS score was 68% last time but it decreased to 57% now mainly due to inadequate human resources. The human resource available in Ramechhap Hospital is as follows - MDGP-1, General surgen-1, Dentist doctor-1, Radiographer-2, pharmacist-1.
EQUIPMENTS: Defibrilletor-1 (In ER), GA mechine-1, X-ray one 300 MA, portable X-ray -2, Digital CR-Xray-1,0xygen Cylinder-115.

Chautara Hospital

Chautara Hospital is located at Sindhupalchowk District in Bagmati Province. The scores of MSS seems variable and 61% in the latest evaluation. The human resource available in Chautara Hospital is as follows: MDGP-1 Mo-7, Lab assistant-2, Nursing-5 Lab Technician-1 Dental doctor-1, AA-1. **Equipment:** Defibrilletor-3. Only caesarean section operation is available at the hospital at present.

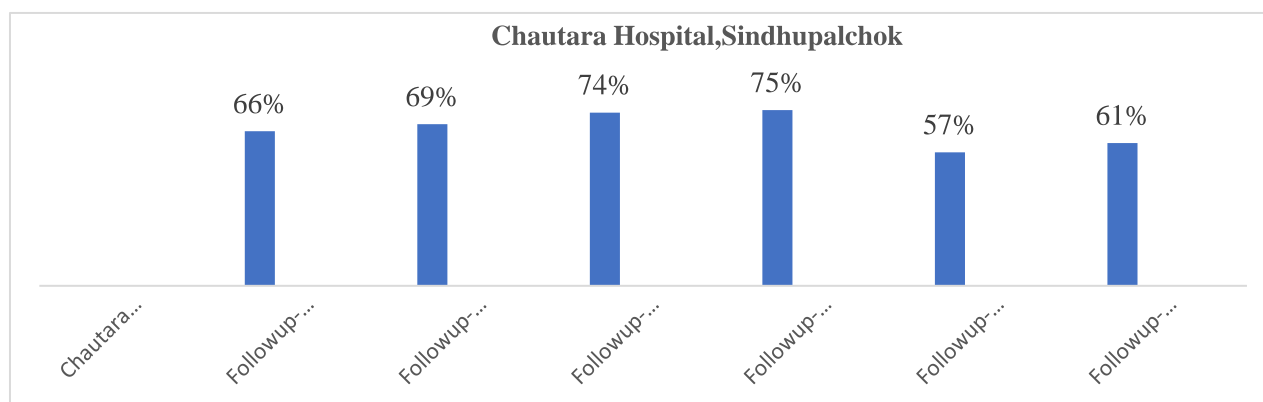


Figure 51: MSS score of Chautara Hospital, Sindhupalchowk

Bajrabarahi Chapagaun, Hospital

Bajrabarahi Chapagaun hospital is located at Lalitpur District in Bagmati province. The record of MSS was 31%.

Name of Hospital	Date	Score
Bajrabarahi Chapagaun hospital	2078/12/14-15	31%

The human resource available in Bajrabarahi Chapagaun Hospital is as Follows: MDGP-1, Gyne-1, Pharmasist-1, Other HR-3, MO-1, Dental Doctor-3, Other HR-3, and Other HR-3 in pharmacy department.

Tokha Chandeshori Hospital, Kathmandu

Tokha Chandeshori, Hospital is located at Kathmandu district in Bagmati Province. The record of MSS was 31%.

Name of Hospital	Date	Score
Tokha Chandeshori Hospital	2078/12/16-17	31%

The human resource available in Tokha Chandeshori Hospital is as Follows: MDGP-1, Gyne-1, Pharmasist-1, Other HR-3, MO-1, Dental Doctor-3, Other HR-3, and Other HR-3 in pharmacy department Defibrilletor-1.

Bishnudevi Hospital, Kritipur

Bishnudevi Hospital is located in Kathmandu, Kritipur. The record of MSS was 14% on 2078/1/8 and 29% on 2078/12/22.

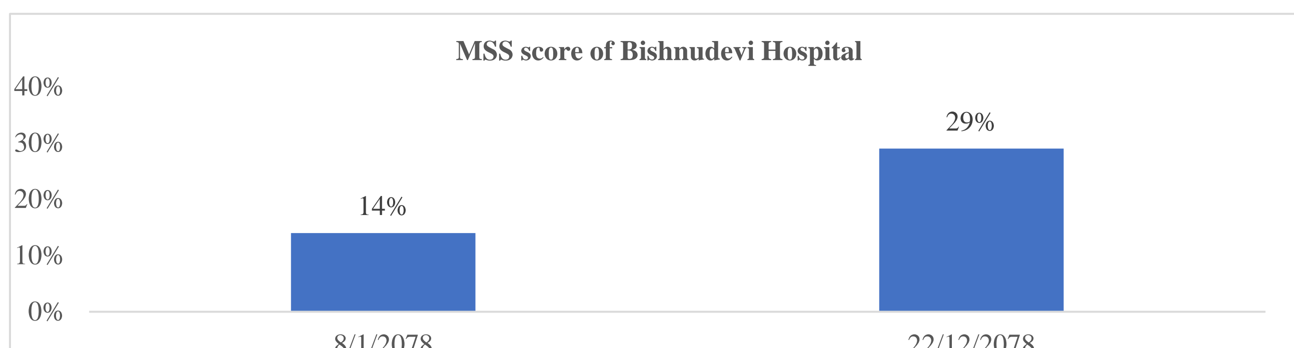


Figure 52: MSS score of Bishnudevi Hospital

Bhaktapur Hospital, Bhaktapur

Bhaktapur Hospital is located at Bhaktapur district. The MSS score shows significant improvement compared to previous score. The hospital has 28 Medical doctors, Staff nurse – 39, Lab Technician- 12, AHW- 8, Medical recorder – 2, administrative staffs – 47. The hospital has sufficient equipment except CT scan.

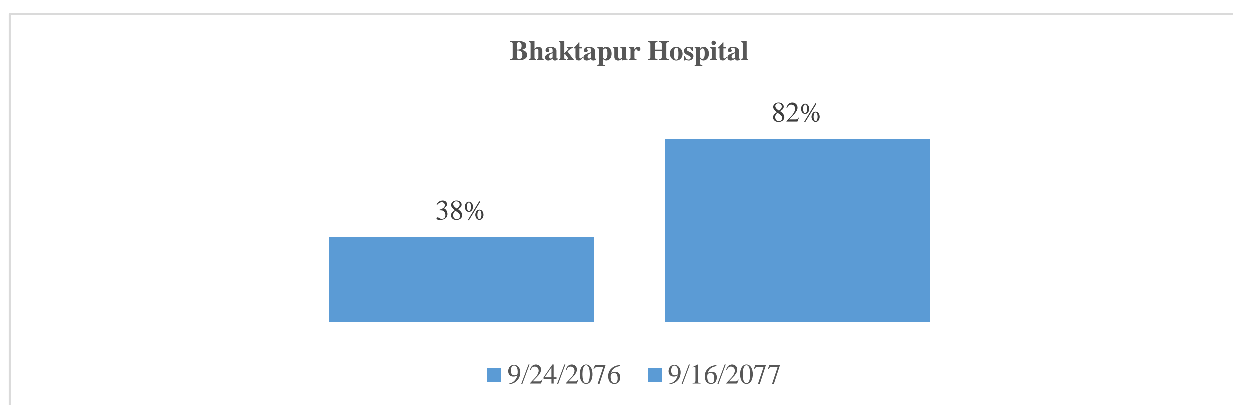


Figure 53: MSS score of Bhaktapur Hospital

Table 4.1.2: Difference between first and last MSS Score of Hospitals

S. N	Hospitals	Workshop 1	Latest MSS Score	Progress on score from Workshop 1
1.	Hetauda Hospital	49%	63%	14%
2.	Trishuli Hospital	72%	94%	22%
3.	Sindhuli Hospital	62%	77%	15%
4.	Chautara Hospital	45%	61%	16%
5.	Ramechhap Hospital	54%	57%	3%

6.	Dhading Hospital	69%	93%	24%
7.	Rasuwa Hospital	37%	51%	14%
8.	Bhagauda Hospital	41%	53%	12%
9.	Bakulahar Hospital	52%	77%	25%
10.	Methinkot Hospital	61%	60%	-1%
11.	Bhaktapur Hospital	38%	82%	44%

4.2 Outpatients and Inpatient Services

Table 4.1.3: Bed occupancy rate in last three year

Hospitals	2075-76	2076/77	2077/78
Hetauda Hospital	70.8	51	32.9
Bakulahar Hospital, Chitwan	17.9	35.9	38.2
Dhading District Hospital	30.5	18.5	32
Trishuli Hospital	46.5	31.9	32
Rasuwa Hospital	11.4	11.7	11.8
District Hospital Sindhupalchowk	41.1	20.6	25.9
Methinkot Hospital, Kavre	9	5.3	5.3
Charikot Hospital, Dolakha	43.5	24.3	20.9
Ramechhap District Hospital	44.7	39.4	37.4
Sindhuli Hospital	46.2	30	34.6
Bajrabarahi Chapagaun Hospital		11.7	3.5
Tokha Chandeshori Hospital	0	0	0
Bhaktapur Hospital	32.5	26	35.5

The above table 4.1.3 shows hospital wise bed occupancy rate in last three fiscal years. Bakulahar, Dhading, Bhaktapur, Rasuwa and Trishuli hospital bed occupancy rate has increased and decreased in other hospitals in FY 2077/78 as compared to FY2076/77. Bajrabarahi hospital has started reporting related to bed occupancy from last fiscal year. Tokha Chandeswori hospital has not reported bed occupancy till date.

The below figure 54 depicts altogether 124350 new OPD visit in FY 2077/78. Bakulahar hospital account the highest number of new OPD visit which is followed by Dhading hospital, Trishuli hospital and Sidhupalchowk district hospital. The lowest number of new OPD visit is reported in Bhaktapur hospital and Sindhuli district Hospital and no reporting from Hetauda hospital while a very low reporting was observed from Bhaktapur and Sindhuli hospitalshowing that there is need of data reviews on routine basis

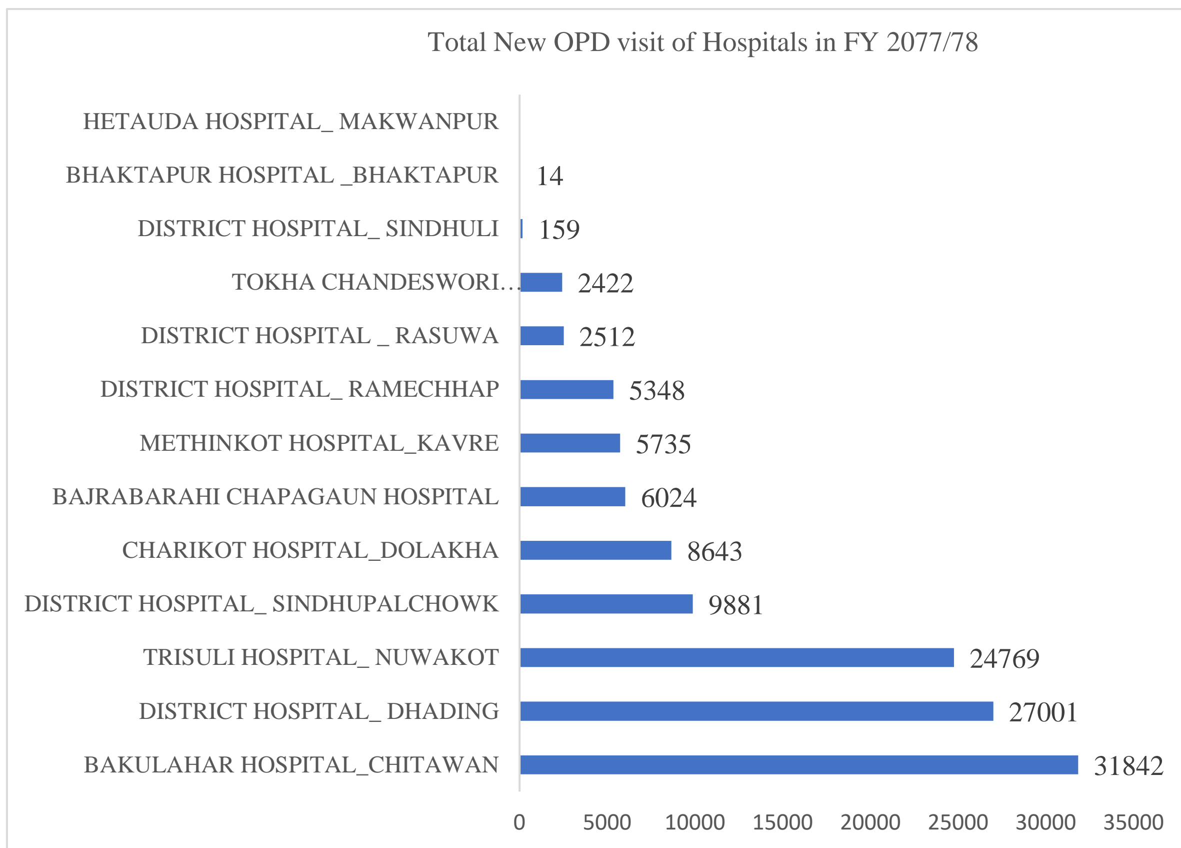


Figure 54: New OPD visit of hospitals in FY 2077/78

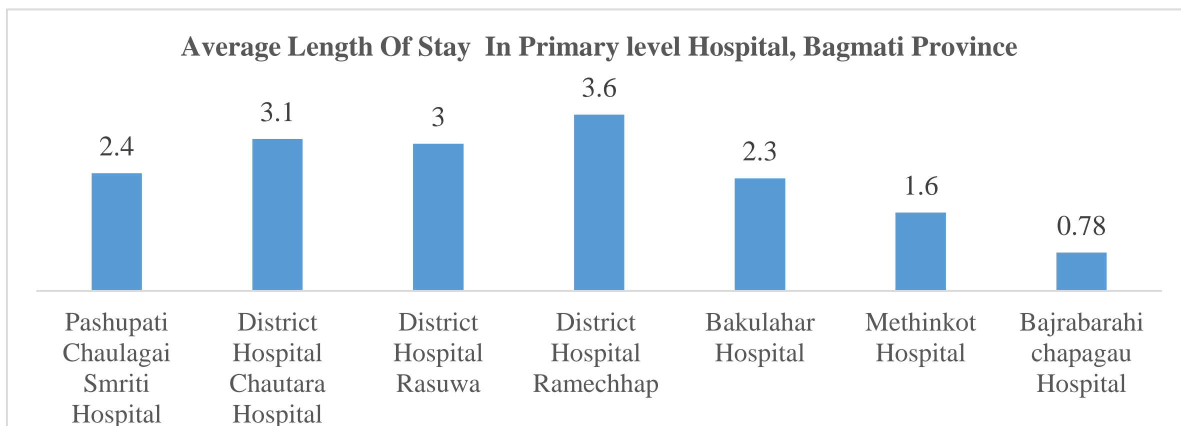


Figure 55: Average length of stay by inpatients in Primary Level Hospitals FY 2077/78

The above diagram 55 shows an average length of stay in hospital in fiscal year 2077/78. The average length of stay among primary level hospital is highest in Ramechhap district hospital (3.6), Chautara hospital (3.1), Rasuwa hospital (3.0) and Pasupathi Chaulagain Smriti hospital (2.4) and lowest in Bajrabarahi Chapagaun hospital (0.78) and Methinkot hospital (1.6) in this FY 2077/78. Highest average length of stay among Secondary A level hospital was recorded in Dhading district hospital (7.2) followed by Sindhuli hospital (2.9), Trishuli hospital (2.2) and Hetauda Hospital (1.7).

Emergency Services

The figure below shows the emergency services provided by hospital in Bagmati province in FY 2077/78. The Total emergency service provided was 120,225 in FY 2077/78. Majority of the emergency services is provided by Hetauda hospital is followed by Bhaktapur hospital, Trishuli hospital and Dhading hospital. Methinkot hospital account the lowest number of emergency services provided which is followed by Rasuwa district hospital. Currently all hospitals in Bagmati province are operating emergency services.

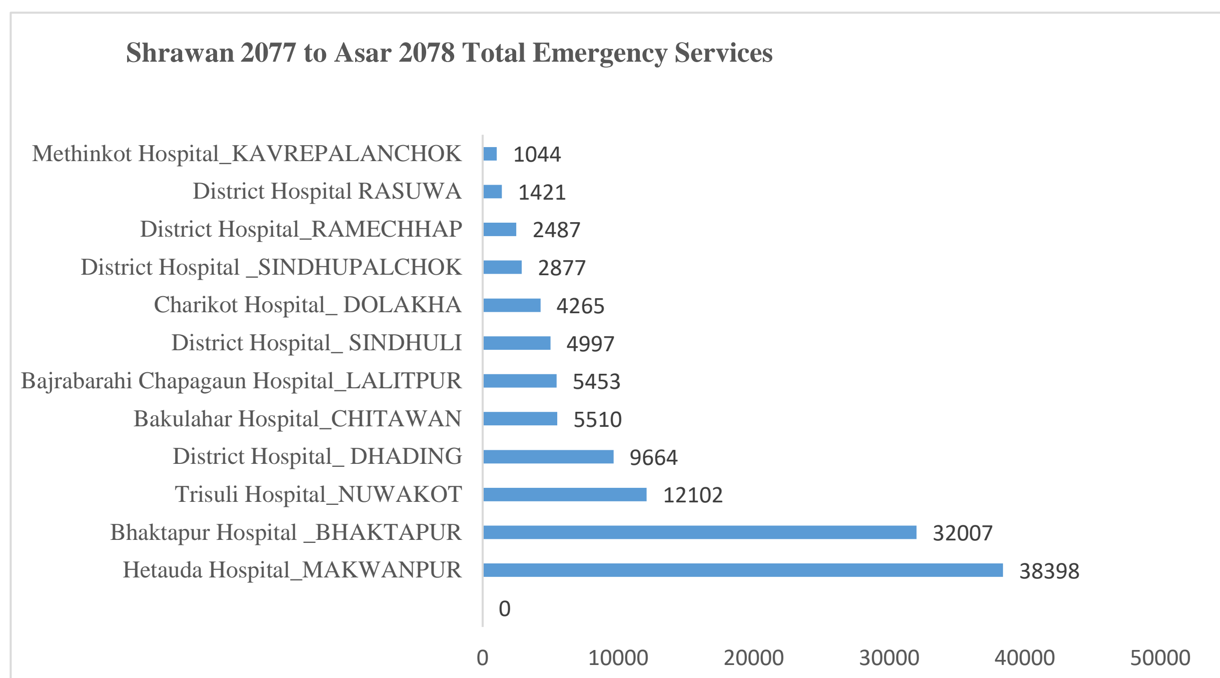


Figure 56: Emergency services provided by hospital in FY 2077/78

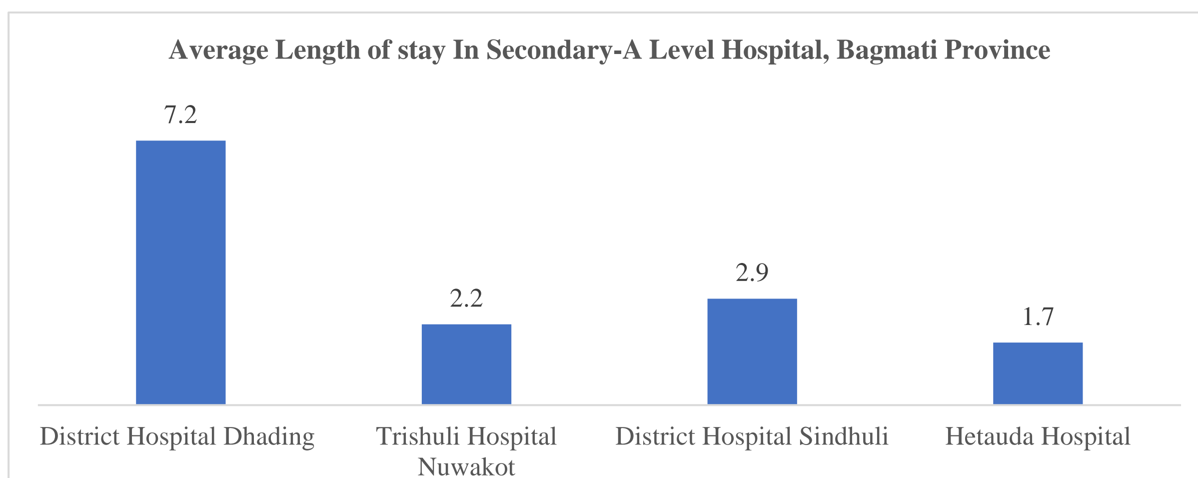


Figure 57: Length of stay by inpatients in Secondary A level hospital, Bagmati Province

Radiology Services

The table 4.1.4 depicts an average number of ultrasounds performed by hospitals in last three years. The highest average number of ultrasounds performed per day by hospital is reported by Bakulahar hospital (47.2) and lowest by Methinkot hospital (0.64) in FY 2077/78 while no services was provided from Tokha Chandeswori hospital. Besides, the significant increment in an average number of ultrasounds per day was observed from Dhading hospital, Sindhuli hospital and Bhaktapur hospital in FY 2077/78 in comparison to last FY 2076/77.

Table 4.1.4 : Average number of Ultrasound per day

Hospitals	2075-76	2076/77	2077/78
Hetauda Hospital	15.4	42.2	32.8
Bakulahar Hospital, Chitwan	15.2	26.7	47.2
Dhading District Hospital	6.8	9.2	15
Trishuli Hospital	11	18	19.8
Rasuwa Hospital	0	0.85	1.8
District Hospital Sindhupalchowk	8.7	5.3	3.7
Methinkot Hospital, Kavre	0	0	0.64
Charikot Hospital, Dolakha	1.2	2.3	0.73
Ramechhap District Hospital	0.43	0.94	1.4
Sindhuli Hospital	6.2	9	14.4
Bajrabarahi Chapagaun Hospital		2	3.5
Tokha Chandeshori Hospital	0	0	0
Bhaktapur Hospital	23.6	18.9	23.2

Table 4.1.9 shows the average number of X-ray per day performed by hospitals in last three fiscal years. In FY 2077/78, Bhaktapur hospital has performed highest average number of x-rays per day which is followed by Hetauda hospital, Bakulahar hospital and Dhading hospital and lowest by Methinkot hospital while no services was provided by Tokha Chandeswori hospital as of reporting status. Four hospitals namely Rasuwa district hospital, Sindhuli hospital, Dhading district hospital and Hetauda has a decrement in an average number of x-rays per day performed while remaining hospital showsan increment in this FY 2077/78 in comparison to FY 2076/77.

Table 4.1.9: Average number of X-ray per day

Hospital	2075-76	2076/77	2077/78
Charikot Hospital, Dolakha	0	8.2	10.3
District Hospital Sindhupalchowk	10.4	9	9.2
District Hospital Rasuwa	3	2.1	1.8
District Hospital Dhading	36	29.4	28.1

Trisuli Hospital, Nuwakot	18.2	14.8	25.6
Tokha Chandeswori Hospital, Kathmandu	0	0	0
Bhaktapur Hospital	50.4	40.7	54.1
Bajrabarahi Hospital		3.7	4.2
Methinkot Hospital, Kavre	1.8	1.4	1.6
Sindhuli Hospital	29.6	23.8	21.8
District Hospital Ramechhap	3.8	3	5.5
Bakulahar Hospital, Chitwan	27.1	29.3	39.4
Hetauda Hospital	34.9	54.1	48.9

Table 4.1.10 shows the average number of laboratory test performed per day in hospitals of Bagmati province in last three years. Majority of the test per day is performed in Bakulahar hospital followed by Trishuli hospital and Bhaktapur hospital and that of the lowest in Tokha Chandeswori hospital in FY 2077/78.

Table 4.1.10: Average number of laboratory test per day

Hospital	2075-76	2076/77	2077/78
Charikot Hospital, Dolakha	156.1	101.3	61.8
District Hospital Sindhupalchowk	145	43.8	58
District Hospital Rasuwa	21.9	18.4	19.1
District Hospital Dhading	470.1	132.5	219.6
Trishuli Hospital, Nuwakot	166.7	215.2	504.8
Tokha Chandeswori Hospital, Ktm	0.68	2.9	1.1
Bhaktapur Hospital	438.6	544	479.3
Bajrabarahi Chapagaun Hospital		21.9	43.2
Methinkot Hospital, Kavre	22.8	17.1	25.5
Sindhuli Hospital	430.5	419	436.1
District Hospital Ramechhap	52.4	47.4	62.9
Bakulahar Hospital, Chitwan	652	736.3	951.1
Hetauda Hospital	773.4	567	387.5

Major and Minor Surgeries conducted by hospitals

The table 4.1.11 shows that there are altogether 13,419 surgeries conducted by hospitals in Bagmati province in FY 2077/78 of which 26.1% is major surgeries conducted and 73.8% is minor surgeries. Of all minor surgeries, majority is from outpatients undergoing minor surgeries (40.7%) which is followed by inpatients (31.5%) and emergency (27.7%). No surgeries were performed by Tokha Chandeswori

hospital, Bajrabarahi hospital and Methinkot hospital as there was no reporting done by these hospitals. The highest number of major surgeries is reported from Hetauda hospital which is followed by Bhaktapur hospital, Dhading district hospital and Sindhuli hospital and minor surgeries is reported from Bhaktapur hospital followed by Dhading district hospital and Trishuli hospital. There is also a need to strengthen recording of minor surgical cases in where there is high case flow in emergency, outpatient and inpatient departments.

Table 4.1.11: Major and Minor surgeries conducted by hospitals

Hospitals	Major Surgeries	Minor surgeries	Emergency Patients: Minor Surgeries	Inpatients: Minor Surgeries	Outpatients: Minor Surgeries
Charikot Hospital, Dolakha	285	121		82	39
District Hospital Sindhupalchowk	60	418	227	0	191
District Hospital Rasuwa	0	1	1	0	0
District Hospital Dhading	531	3262	1056	1618	588
Trishuli Hospital, Nuwakot	240	654	199	391	64
Tokha Hospital,	0	0	0	0	0
Bhaktapur Hospital	707	4134	799	547	2788
Bajrabarahi Hospital	0	0	0	0	0
Methinkot Hospital, Kavre	0	0	0	0	0
Sindhuli Hospital	425	205	186	16	3
District Hospital Ramechhap	0	446	235	0	211
Bakulahar Hospital, Chitwan	281	336	48	140	148
Hetauda Hospital	984	329	0	329	0
Total	**3513**	**9906**	**2751**	**3123**	**4032**

Postmortem conducted in hospital

As of the below table, the total postmortem conducted in hospital was 359 in FY 2077/78 which is less than previous fiscal year. Irregular reporting was observed in Ramechhap hospital and Dhading district hospital as report was missed in FY 2077/78 while no postmortem cases was observed in Charikot hospital, Tokha Chandeswori hospital, Bajrabarahi hospital, Methinkot hospital and Bakulahar hospital.

Table 4.1.12 : Post mortem conducted in hospital

S. N	Hospitals	2075-76	2076/77	2077/78
1	Charikot Hospital, Dolakha	0	0	0
2	District Hospital Sindhupalchowk	23	58	54
3	District Hospital Rasuwa	4	6	14
4	District Hospital Dhading	50	16	
5	Trishuli Hospital, Nuwakot	60	100	138
6	Tokha Chandeswori Hospital, Ktm	0	0	0
7	Bhaktapur Hospital	40	113	28
8	Bajrabarahi Chapagaun Hospital	0	0	0
9	Methinkot Hospital, Kavre	0	0	0
10	Sindhuli Hospital	97	124	92
11	District Hospital Ramechhap	12	11	
12	Bakulahar Hospital, Chitwan	0	0	0
13	Hetauda Hospital	261	257	33
	Total	**547**	**685**	**359**

CHAPTER 5: SOCIAL SECURITY AND OTHER PUBLIC HEALTH PROGRAMS

5.1 One-Stop Crisis Management Center

Nepal has ratified many international accords and enacted national laws and regulations, in response to the issue of gender-based violence (GBV). The Ministry of Health and Population (MoHP) has created 44 one-stop crisis management centers (OCMCs) in 44 districts since 2011. These were established in response to Clause 3 of the 'National Action Plan 2010 against Gender Based Violence', which calls for the establishment of hospital based OCMCs to provide integrated care to survivors of GBV.
Hospital-based OCMC Operational Manual' (MoHP 2016) states that OCMCs shall provide the following seven kinds of services through multi-faceted coordination with other agencies:

- Health services - Immediate treatment of physical and mental health needs of GBV survivors with OCMCs having to stock the equipment and the free health service medicines to provide these services.
- Psycho-social counseling to survivors and perpetrators.
- Security - by working with the police and district administration offices to provide security to survivors in hospitals, safe houses, and in their communities.
- Safe homes services- for temporary stay of women and child survivors.
- Legal advice, counseling, and support to survivors through district attorney, paralegal and legal counselors.
- Rehabilitation-by providing further counselling, education, vocational skills training, andanother livelihood support
- Information, education and empowerment- through provision of information concerning the services provided by OCMC, measures to protect against GBV, legal aid and other support services for GBV survivors, and information on safety measures.

OCMCs are designed to provide GBV survivors with a comprehensive range of services, including health care, psychosocial counseling, access to safe homes, legal protection, personalsecurity, and rehabilitation support through education, vocational skills training, and other livelihood support, using a multi-sectoral and locally coordinated approach. GBV affects many women and children in Nepal, causing physical, sexual, and psychological harm. There are 8 hospital-based One-Stop Crisis Management Centers in operation in the Bagmati province.

Service utilization at OCMC by type of GBV

Table 5.1.1: Number of clients receiving services from the OCMC, disaggregated by type of GBV in FY 2077/78

	Rape	Sexual Assault	Physical Assault	Forced Marriage	Denial of Resources	Emotional Abuse	Others
Rasuwa District Hospital	2	2	7	0	0	0	0
Charikot Hospital	34	20	59	3	26	9	1
District Hospital Chautara	26	17	21	0	0	0	9
District Hospital	0	50	54	0	0	0	3
Trishuli Hospital	34	12	27	0	0	5	58
Bhaktapur Hospital	32	3	36	0	1	10	0
District Hospital	45	19	98	0	69	135	35
Hetauda Hospital	94	21	116	20	28	9	81
Total	**267**	**144**	**302**	**23**	**124**	**168**	**187**

In FY 2077/78, the most reported cases among the total clients served by the OCMCs were physical assault (302), rape (267), and emotional abuse (168). Hetauda hospital recorded the most cases of physical assaults, while Rasuwa Hospital reported the fewest. Similarly, Hetauda Hospital attended the most rape cases (94), whereas Dhading Hospital handled zero rape case in the fiscal year 2077-78.

Social Service Unit (SSU)

Poor people, senior citizens, helpless people, and people with disabilities have had difficulty getting health care for many years due to a lack of medicines, inability to pay for services through out-of-pocket, and other factors. In the spirit of the Interim Constitution and in recognition of the State's responsibility to provide health care services, the MoHP decided to operate a pilot program in eight hospitals for two years (fiscal years 2069/70-2070/71), to test the concept and collect experiences and learning. Following federalism, it is the province's responsibility to maintain and expand services in the remaining hospitals. In the Bagmati Province, 12 hospitals provide social service units. Rukum East Hospital has committed to launching the SSU during the current fiscal year.

SSU services utilized by ultra-poor/poor citizens

Table 5.1.2: Utilization of SSU services by the ultra-poor or poor citizens

Hospital/SSU	FY 2075-76	FY 2076/77	FY2077/78
Charikot Hospital, Dolakha	1056	934	12
District Hospital Sindhupalchowk	1506	513	381
District Hospital Rasuwa	0	0	0
District Hospital Dhading	837	11	364
Trishuli Hospital, Nuwakot	71	76	137
Tokha Chandeswori Hospital, Kathmandu	0	0	0

Bhaktapur Hospital	0	54	23
Bajrabarahi Chapagaun Hospital	0	0	0
Methinkot Hospital, Kavre	18	0	1
Sindhuli Hospital	0	83	75
District Hospital Ramechhap	159	139	5
Bakulahar Hospital, Chitwan	3030	1	90
Hetauda Hospital	820	794	495
Total	**7497**	**2605**	**1583**

Table 5.1.2 demonstrates that, in comparison to FY 2076/77, the use of SSU services by poor or ultra-poor citizens has increased in Dhading hospital, Bakulahar hospital and Trishuli hospital whereas decreased in all other hospitals FY 2077/78. SSU provided free services to 2605 ultra-poor and poor people in fiscal year 2076/77,which decreased to 1583 in fiscal year 2077/78.

SSU services utilized by helpless people

Table 5.1.3: Utilization of SSU services by the helpless people

Hospital/SSU	FY 2075-76	FY 2076/77	FY 2077/78
Charikot Hospital, Dolakha	0	0	1
District Hospital Sindhupalchowk	36	69	88
District Hospital Rasuwa	0	0	0
District Hospital Dhading	72	7	31
Trishuli Hospital, Nuwakot	6	4	22
Tokha Chandeswori Hospital, Kathmandu	0	0	0
Bhaktapur Hospital	0	32	16
Bajrabarahi Chapagaun Hospital	0	0	0
Methinkot Hospital, Kavre	0	0	0
Sindhuli Hospital	0	7	7
District Hospital Ramechhap	51	48	27
Bakulahar Hospital, Chitwan	35	0	7
Hetauda Hospital	127	148	93
Total	**327**	**315**	**292**

Table 5.1.3 shows the trends in the use of SSU by the helpless. In FY 2077/78, the number of helpless persons using services increased in all SSUs except Bhaktapur Hospital, Ramechhap hospital and Hetauda hospital when comparedto FY 2076/77. SSU provided free services to 292 helpless people from 9 hospitals. In Rasuwa hospital, Tokha Hospital, Bajrabarahi hospital and Methinkot hospitals, there has been a problem with the recording and reporting of SSU service utilization.

SSU services utilized by persons with disability

Table 5.1.4: Utilization of SSU services by persons with disability

Hospital/SSU	FY 2075-76	FY 2076/77	FY 2077/78
Charikot Hospital, Dolakha	0	0	0
District Hospital Sindhupalchowk	165	107	85
District Hospital Rasuwa	0	3	0
District Hospital Dhading	99	15	30
Trishuli Hospital, Nuwakot	27	17	51
Tokha Chandeswori Hospital, Kathmandu	0	0	0
Bhaktapur Hospital	0	21	10
Bajrabarahi Chapagaun Hospital	0	0	0
Methinkot Hospital, Kavre	5	3	0
Sindhuli Hospital	0	4	5
District Hospital Ramechhap	12	126	12
Bakulahar Hospital, Chitwan	14	0	3
Hetauda Hospital	56	52	40
Total	**373**	**348**	**236**

The above table shows that health service utilization by persons with disabilities via SSU increasedin four hospitals and decreased in six hospitals in FY 2077/78compared to FY 2076/77. However, the highest number of people with disabilities utilizing health care services via SSU was reported at Sindhupalchowk district hospital, while the lowest number was reported in Bakulahar hospital.

SSU services utilized by senior citizens

Table 5.1.5: Utilization of SSU services by senior citizens

Hospital/SSU	FY 2075-76	FY 2076/77	FY 2077/78
Charikot Hospital, Dolakha	444	308	185
District Hospital Sindhupalchowk	5224	3087	2038
District Hospital Rasuwa	0	305	284
District Hospital Dhading	685	312	151
Trishuli Hospital, Nuwakot	986	338	224
Tokha Chandeswori Hospital, Kathmandu	0	0	0
Bhaktapur Hospital	0	113	6
Bajrabarahi Chapagaun Hospital	0	0	0
Methinkot Hospital, Kavre	92	105	86

Sindhuli Hospital	0	23	9
District Hospital Ramechhap	1802	1247	617
Bakulahar Hospital, Chitwan	785	0	24
Hetauda Hospital	1921	1193	748
Total	**11939**	**7031**	**4372**

The table demonstrates that senior citizens' use of SSU services has decreased in all Provincial Hospitals, between FY 2076/77 and FY 2077/78. In the fiscal year 2077/78, 4372 elderly persons benefited from the social service units of Bagmati Province's 11 hospitals. Sindhupalchowk district hospital served the greatest number of senior citizens (2038) through its SSU.

Table 5.1.6 SSU services utilized by survivors of GBV, FCHVs and others

Name of Hospital	Gender Based Violence			FCHVs			Others		
	FY 2075-76	FY 2076/77	FY 2077/78	FY 2075-76	FY 2076/77	FY 2077/78	FY 2075-76	FY 2076/77	FY 2077/78
Charikot Hospital, Dolakha	0	0	0	0	10	92	2212	2004	615
District Hospital Sindhupalchowk	76	32	15	70	112	90	0	104	68
District Hospital Rasuwa	0	4	0	0	0	0	0	0	0
District Hospital Dhading	74	1	2	46	0	5	529	33	19
Trishuli Hospital, Nuwakot	1	0		64	5	4	7	1	1
Tokha Chandeswori Hospital, Kathmandu	0	0	0	0	0	0	0	0	0
Bhaktapur Hospital	0	1	2	0	1	0	0	0	2
Bajrabarahi Chapagaun Hospital	0	0	0	0	0	0	0	0	0
Methinkot Hospital, Kavre	0	0	0	2	1	0	0	0	0
Sindhuli Hospital	0	3	0	0	0	0	0	13	0
District Hospital Ramechhap	0	0	0	22	27	4	328	473	453
Bakulahar Hospital, Chitwan	4	0	0	70	0	0	74	0	32
Hetauda Hospital	225	203	164	2	2	11	15	86	84
Total	380	244	183	276	158	206	3165	2714	1274

In Bagmati province, 183 survivors of gender-based violence used the SSU service in fiscal year

2077/78, which was lower than the previous fiscal year. Similarly, in fiscal year 2077/ 78, 206 FCHVs received free SSU service. In addition, 1274 other people used SSU services in FY 2077/78 (Table 5.1.6).

Table 5.1.7: Utilization of SSU services by survivors of GBV, FCHVs and other.

Program Indicators	Province Level		FY 2077/078 by District													
	FY 2075/076	FY 2076/077	FY 2077/078	Rasuwa	Kavrepalanchowk	Sidhupalchowk	Sindhuli	Ramechhap	Bhaktapur	Dhading	Lalitpur	Chitwan	Kathmandu	Dolakha	Nuwakot	Makawanpur
Reporting Status																
Hospitals	28.9	40.4	29	100	62.8	52.8	50.4	46.9	46.4	44.2	40.3	36.7	22.7	22.4	22.2	10.2
PHCCs	96.9	100	99.3	100	100	100	100	87.5	100	100	100	100	100	100	100	100
HPs	99.3	100	100	100	99.2	100	100	98.9	100	100	99.8	99.5	99	100	99.5	100
EPI Clinic	96.9	90.8	93.2	91.1	97.1	96	94.1	97.7	78.3	96.5	94.3	86.3	88.7	96.4	92.2	90.3
FCHV	86.5	87.8	91	92.9	98	96.5	94.2	94.4	76.5	96.8	88.7	87.9	89.7	83.4	88.2	97.7
PHCORC	93	77.9	82	69.5	88.6	84.4	83.3	95.9	43.5	87.6	78.2	71.3	65.8	89.8	71.1	88

Curative Services																
% Of OPD new visit among total population	84.9	84.8	70	142.2	112.4	123.4	83.5	103.9	70.1	92.7	59.8	106.3	38.3	104.8	74.3	46.5
Percentage of population utilizing emergency services at hospitals	14.3	15.6	12.5	3.1	7.9	1.9	4	3.5	16.5	3.4	14.2	11.2	20.1	4.1	4.3	9.5
Bed occupancy rate	51.3	39	36	11.8	89.7	24	20.3	46.7	38.7	15.4	45.3	28.6	33.1	26.5	32	29.2
Average length of stay in hospital	4.1	3.9	3.9	3	2.1	1.5	2	2.6	3.9	6.6	6.7	2.9	4.2	3.4	2.2	1.4

5.2 Epidemiology and Disease Outbreak Management

Introduction

The Epidemiology and Outbreak Management Section in EDCD works in preparedness and response to outbreaks, epidemics, and other health emergencies occurring in various parts of the country. The section aligns with the organizational objective to reduce the burden of communicable diseases and unwanted health events through preparedness and responses during outbreak and epidemic situations by using the existing health care system.

Major Responsibilities of Epidemiology and Outbreak Management Section:

- Provide support to the Ministry of Health and Population for drafting national laws, policies, and strategies related to epidemiology and outbreak management.
- Provide support to the Ministry of Health and Population for drafting national laws, policies, and strategies related to preparedness and management of outbreaks/epidemics and other health emergencies.
- Prepare standards, protocols, and guidelines regarding epidemiology and outbreaks/epidemics management.
- Coordinate with provincial and local levels for epidemics and outbreak management.
- Provide support for the preparation and implementation of the annual work plan at the federal level related to epidemics and outbreak management.
- Coordinate and collaborate with concerned authorities at the federal level for epidemics and outbreak management.
- Coordinate and provide support in the conduction of information management training and other federal-level programs related to epidemiology, epidemics, and other emergency management.
- Coordinate with multi-sectorial authorities in minimizing the impact of natural disasters in the health sector, conduct response activities, and control epidemics.
- Facilitate and coordinate in providing preventive and curative services at the provincial and local levels to prevent the spread of diseases after natural disasters in displaced communities.
- Monitoring and supervision of disaster preparedness and management activities in coordination with the province and providing feedback to the concerned authorities accordingly.
- Carry out outbreak control and management by mobilization of Rapid Response Team (RRT) to control epidemic-prone diseases.
- Coordinate and facilitate the management of buffer stocks of essential medicines and other logistics required for the control of outbreaks/epidemics.

- Monitoring and supervision of disease epidemics, outbreak preparedness, prevention and control activities, and providing feedback accordingly.

Rapid Response Teams (RRTs)

The concept of the Rapid Response Team (RRT) was developed in the year 2057 B.S. for the development of an epidemic preparedness and response system throughout the country to strengthen the information management and surveillance of communicable diseases, preparedness and early identification of potential outbreaks and investigation and prompt response during the outbreaks. RRT had been formed at central, regional, district, and community levels, and their mobilization during outbreaks and epidemics was done accordingly. However, with the formation of various levels of governments, the structural arrangement and formation of RRT according to the new structure is in process.

The Roles and Responsibilities of RRTs are as follows:

- The team is usually trained to communicate and receive communication using SBAR (Situation, Background, and Assessment & Recommendation).
- All team members should respond in a professional & friendly manner providing non-judgmental, non-punitive feedback to the person that initiated the call.
- Conduct a rapid assessment of a possible outbreak (Epidemic-prone disease & other disasters).
- Preparedness for potential outbreaks.
- Investigation of outbreaks.
- Responding to outbreaks through awareness and IEC activities, case management, community mobilization, and the coordination of stakeholders.
- The monitoring of outbreak potential diseases (Malaria, Kala-azar, Dengue, Scrub Typhus, Acute gastroenteritis, Cholera, Severe acute respiratory infections, influenza, etc.) at sentinel sites.
- The active surveillance of potential diseases in outbreak situations.
- Media monitoring and countering rumors.
- Coordinate between the local authorities and local health institutions and the higher-level health authorities and health institutions for mobilizing additional support.
- Identify the risk factors leading to public health emergency events and recommend measures that would need to be put in place to prevent the recurrence of the disease/syndrome in future.

5.3 EWARS (Early Warning and Reporting System)

EWARS is designed to improve disease outbreak detection in emergency settings, such as in countries in conflict or following a natural disaster. It is a simple and cost-effective way to rapidly set up a disease surveillance system.

EWARS is a hospital-based sentinel surveillance system where the selected hospitals send immediate and weekly reports (including zero reports) on six priority diseases and outbreaks of any diseases. There are 37 sentinel sites of EWARS in Bagmati province.

The EWARS focuses on the weekly reporting of several cases and deaths (including "zero" reports) of six priority diseases: three vector-borne diseases Malaria, Kala-azar, and Dengue, and three outbreak potential diseases Acute Gastroenteritis (AGE), Cholera, and Severe Acute Respiratory Infection (SARI). It equally focuses on immediate reporting (to be reported within 24 hours of diagnosis) of one confirmed case of Cholera, severe and complicated Malaria, and one suspect/clinical case of Dengue as well as 5 or more than 5 cases of AGE and SARI from the same geographical locality in one week.

Based on the experiences of reported outbreaks of acute diarrheal diseases and influenza by several districts, these two diseases are included for reporting in EWARS from the year 2005. Likewise, Dengue and DHF case reporting will be required to be reported in EWARS due to its high potential of impending epidemics. Other communicable diseases besides these six prioritized diseases also need to be reported in EWARS.

Table 5.3.1 List of Sentinel Sites of Bagmati Province

SN	District	Health Facility
1	Kathmandu	Armed Police Force (APF) Hospital, Balambu Kathmandu
2	Kathmandu	Birendra Army Hospital, Chhauni Kathmandu
3	Chitwan	Chitwan Medical College, Bharatpur Chitwan
4	Kathmandu	Civil Service Hospital, Minbhawan Kathmandu
5	Kathmandu	CIWEC Hospital, Lazimpat Kathmandu
6	Chitwan	College of Medical Science, Bharatpur
7	Kathmandu	Grande International Hospital, Tokha Kathmandu
8	Kathmandu	HAMS Hospital, Dhumbharai, Kathmandu
9	Kathmandu	Kathmandu Medical College, Sinamangal Kathmandu
10	Kathmandu	Kathmandu Model Hospital, Bag bazar Kathmandu
11	Lalitpur	KIST Medical College, Lalitpur
12	Kathmandu	Manmohan Memorial Community Hospital, Thamel Kathmandu
13	Kathmandu	NAMS (Bir Hospital), Kathmandu
14	Lalitpur	Nepal Mediciti Hospital, Lalitpur
15	Kathmandu	Nepal Police Hospital, Maharajgunj Kathmandu
16	Kathmandu	Nepal Medical College, Jorpati Kathmandu
17	Kathmandu	Norvic International Hospital, Thapa thali Kathmandu
18	Kathmandu	Om Hospital and Research Centre, Chabahil Kathmandu
19	Lalitpur	Sumeru Hospital, Lalitpur
20	Kathmandu	Teaching Hospital (TUTH), Maharajgunj Kathmandu

21	Kathmandu	Vayodha Hospital, Balkhu Kathmandu
22	Makwanpur	District Hospital, Makwanpur
23	Chitwan	Bharatpur Hospital, Chitwan
24	Kathmandu	Kanti Children Hospital, Kathmandu
25	Kathmandu	STIDH Hospital, Teku
26	Rasuwa	District Hospital, Rasuwa
27	Sindhupalchowk	District Hospital, Chautara
28	Sindhuli	District Hospital, Sindhuli
29	Kavrepalanchok	Dhulikhel Hospital, Kavre
30	Dhading	District Hospital, Dhading
31	Ramechhap	District Hospital, Ramechhap
32	Bhaktapur	Bhaktapur Hospital, Bhaktapur
33	Lalitpur	PAHS, Lalitpur
34	Nuwakot	Trishuli Hospital, Nuwakot
35	Dolakha	Charikot PHC, Dolakha
36	Dolakha	Jiri Hospital, Dolakha

Objective of EWARS

- To strengthen the flow of information on outbreak prone infectious diseases and vector-borne diseases from the districts.
- To facilitate prompt outbreak response to be carried out by rapid response teams (RRTs) at the federal, provincial, and local levels.

Diseases and Syndromes under EWARS

- Vector-Borne Diseases
  - Malaria
  - Kala-azar
  - Dengue fever
- Epidemic Potential Diseases/Syndromes
  - Acute gastroenteritis (AGE)
  - Cholera
  - Severe Acute Respiratory Infection (SARI)
- Sites also need to report outbreaks of other diseases (E.g.: Scrub Typhus, Leptospirosis, Enteric Fever, and Covid-19).

CHAPTER 6: NON-COMMUNICABLE DISEASE & MENTAL HEALTH

6.1 Non-Communicable Disease

Non-communicable diseases (NCDs) are a global health and developmental emergency, causing premature deaths, exacerbate poverty and threaten national economies. For centuries, Communicable diseases were the main causes of death around the world. Social factors such as urbanization, rising incomes, changes in diet and lifestyle and improved life expectancy have all contributed to an increased incidence of NCDs. Cardio-vascular diseases (CVDs), Cancer, Diabetes, Chronic Pulmonary Diseases and Mental Diseases became a real burden for health system in all over the word including our country.

The Burden of NCDs has been progressively intensifying in the country as there is increase in life expectancy, demographic and epidemiological transition, rampant urbanization and increase in seeking unhealthy lifestyle behaviors. The premature mortality due to NCDs has risen from 51% in 2010 to 71% in 2019. The proportional mortality of NCDs is ever increasing. CVD is responsible for over 30% of deaths, cancer 9%, diabetes 4%, chronic respiratory disease 10% and other NCDs 13%. The increasing disease burden is associated with decreasing quality of life, increase in DALYs and catastrophic health expenditures. A four-year analysis of National Health Accounts reported highest healthcare spending was on NCDs at NPR 37.73 billion. Out of Pocket expenditure by disease and health conditions was highest for NCDs with 31% OOP (National Health Accounts 2012/13 – 2015/16).

NCDs are largely attributable to a few preventable risk factors, all of which are highly prevalent in our country Use of Tobacco products, Unhealthy diet, Lack of physical activity and use of alcohol.

Tackling NCDs called for a paradigm shift: from addressing each NCD separately to collectively addressing a cluster of diseases in an integrated manner, and from using a biomedical approach to a public health approach guided by the principles of universal access and social justice. High levels of commitment and multisectoral approaches were needed to reverse the growing burden of NCDs in Nepal. The costly and prolonged treatment of NCDs raises the equity problem between and within countries.

In this context, MoHP (Ministry of Health and Population) has previously developed NCD- Multi-Sectoral Action Plan (2014-2020) and recently Multisectoral Action Plan for NCDs (2021-2025) endorsed cabinet of ministry.

The World Health Organization (WHO) and the Government of Nepal have been working closely to improve the health of the people of Nepal for many years, together they provide a basis for all possible collaborations, including in-depth analysis of the strengths, opportunities, gaps and challenges, taking into account the strategic objectives of the Ministry of Health.

The PEN and HEARTS tool kit is a conceptual framework for strengthening equity and efficiency of primary health care in low-resource settings; it identifies core technologies, medicines and risk prediction tools; discusses protocols required for implementation of a set of essential NCD interventions; develops technical and operational outline for integration of essential NCD interventions into primary care and for evaluation of impact. In order to ensure that these interventions are delivered in an efficient and effective manner and have the desired impact especially in light of the prevailing economic difficulties, an integrated approach is necessary. Different approaches to integration can be used although integrating NCD interventions into the health system based on primary health care remain the best model. Primary Health Care Systems is strengthened for effective and productive NCDs early diagnosis, treatment and management.

The WHO Package of Essential Non-communicable Disease Interventions (WHO PEN) for primary care in low-resource settings is an innovative and action-oriented response to the above challenges. It is a prioritized set of cost-effective interventions that can be delivered to an acceptable quality of care, even in resource-poor settings. It will reinforce health system strengthening by contributing to the building blocks of the health system. Cost effectiveness of the selected interventions will help to make limited resources go further and the user-friendly nature of the tools that are been developed, will empower primary care.

Physicians as well as allied health workers to contribute to NCD care. It should not be considered as yet another package of basic services but, rather, an important first step for integration of
NCDs into PHC and for reforms that need to cut across the established boundaries of the building blocks of national health system. WHO PEN is the minimum standard for NCDs to strengthen national capacity to integrate and scale up care of heart disease, stroke, cardiovascular risk, diabetes, cancer, asthma and chronic obstructive pulmonary disease in primary health care in low-resource settings.

(***Source: * Reference: World Health Organization Package of essential non-communicable (PEN) disease interventions for primary health care in low-resource settings, World Health Organization, 2010).***

The PEN & HEARTS Tool Kit is implemented with the following visions and goals:

- To close the gap between what is needed and what is currently available to reduce the burden, health-care costs and human suffering due to major NCDs by achieving higher coverage of essential interventions.
- To achieve universal access to high-quality diagnosis and patient- centered treatment.
- To reduce the suffering and socioeconomic burden associated with major NCDs.

- To protect poor and vulnerable populations from heart disease, stroke, hypertension, cancer, diabetes, asthma and chronic respiratory disease.
- To provide effective and affordable prevention and treatment through primary health care.
- To support early detection, community engagement and self-care.

The growing burden of non-communicable diseases (NCDs) in our country required a multifaceted response involving health promotion and prevention interventions, as well as the delivery of treatment and care over long periods. It is increasingly being recognized that successful implementation and management of all these measures can be achieved only with well-functioning health systems.

In developing countries like Nepal, health systems are still generally fragile, with inadequate financial and human resources, poor governance, unsuitable service delivery models and weak information systems. Determining how these health systems can be better adapted or strengthened to cope with the rising burden of NCDs required an understanding of how the systems and NCDs interact.

Thus, Nepal introduced WHO PEN Protocol along with HEARTS Tool kit to counteract the existing burden in the country. The rise of non-communicable diseases and its impact in our country has gained increased attention in recent years. Chronic conditions kill people at economically and socially productive ages. Thus, PEN Implementation Plan (2016–2020) was developed in line with the Multi-Sectoral Action Plan (MSAP) for prevention and control of NCDs (2014-2020). The MSAP- II (2021-2025) in under process of development.

Multi-Sectoral Action Plan (MSAP) for the Prevention and Control of NCD (2014-2020 AD)

Vision: All people of Nepal enjoy the highest attainable status of health, well-being and quality of life at every age, free of preventable NCDs, avoidable disability and premature death.

Goal: The goal of the multisectoral action plan is to reduce preventable morbidity, avoidable disability and premature mortality due to NCDs in Nepal.

Strategic Approach for MSAP II (2021-2025AD)

Vision:

All people of Nepal enjoy the highest attainable status of health, well-being and quality of life at all age, free of preventable NCDs and associated risk factors, avoidable disability and premature death.

Goal:

Reduce the burden of NCDs in Nepal through “whole of government” and “whole of society” approach.

Specific objectives:

1. To raise priority accorded to the prevention and control of non-communicable diseases in the national agenda, policies and programs

2. To strengthen national capacity and governance to lead multisectoral action and partnership across sectors for the prevention and control of noncommunicable diseases
3. To reduce risk factors for noncommunicable diseases and address underlying social determinants across sectors
4. To strengthen health systems through provision of people-centric, comprehensive, integrated and equitable care for improved prevention and control of NCDs
5. To establish NCD surveillance, monitoring and evaluation system for evidence-based policies and programs.

Table 6.1: Outpatient morbidity of major non-communicable diseases in Bagmati Province

Diseases	Period	Dolakha	Sindhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchok	Ramechhap	Sindhuli	Makwanpur	Chitwan	Bagmati Province
COPD	2075/76	3808	4987	364	2825	2351	22328	4799	7488	14388	1131	1738	2158	9985	78350
	2076/77	3412	4974	571	2949	2907	20429	4276	7446	13619	1408	1775	2153	12801	78720
	2077/78	1943	4336	381	3493	3515	15122	5153	6720	10037	1687	2342	1658	10621	67008
Hypertension	2075/76	4455	4046	481	4272	3255	52872	14773	16674	17926	3855	6641	4712	28226	162188
	2076/77	5151	5583	727	6044	4740	53133	13053	16494	16877	4661	5586	5359	34898	172306
	2077/78	3965	4821	760	8210	4589	32579	16103	15161	14561	4245	7158	5623	36100	153875
Diabetes Mellitus (DM)	2075/76	1941	578	66	842	384	34203	10940	12180	6875	204	1337	2031	18838	90419
	2076/77	1607	1478	77	1035	780	33804	10967	10033	4776	695	1844	1654	24143	92893
	2077/78	777	1382	96	1909	1127	28462	11716	9754	2642	662	2241	2056	27619	90443
Breast Cancer	2075/76	2	2	1	0	0	238	390	715	1	3	1	0	194	1547
	2076/77	5	2	1	0	0	267	312	358	0	3	1	2	191	1142
	2077/78	0	2	0	0	0	60	380	533	1	0	0	1	226	1203
Cervical Cancer	2075/76	2	0	0	0	0	158	344	1538	0	0	27	0	79	2148
	2076/77	2	0	0	1	1	138	352	1065	13	0	0	0	122	1694
	2077/78	3	0	0	0	0	44	494	452	0	0	0	0	166	1159

Targets

The overarching target is to reduce premature death from major NCDs by 25% by 2025 and by one third by 2030.

Strategic objectives for MSAP 2014-2020 AD

- Raise the priority accorded to the prevention and control of non-communicable diseases in the national agendas and policies.
- Strengthen national capacity, leadership, governance, multispectral action and partnership to accelerate country response for the prevention and control of NCDs.
- Reduce modifiable risk factors for NCDs and underlying social determinants through creation of health-promoting environment.
- Strengthen and orient health systems to address the prevention and control of NCDs and underlying social determinants through people centered PHC and UHC.
- Promote and support national capacity for high quality research and development for the prevention and control of NCDs and mental health.
- Monitor the trends and determinants of NCDs and evaluate progress in their prevention and control.
- Improving basic minimum care of mental health services at the community and improving competency for case identification and initiating referral at primary care level.

Strength, weakness and challenges

Strength	Weakness	Challenges
Accessible at community level (PHCC and HP)	Inadequate recording, reporting and monitoring system	Staff turnover for trained professionals
Dedicated and functional National NCDs &Mental Health Unit	Complex RR tools & referral chain	Monitoring and Supervision of PEN and Other NCD services at all levels of facilities
Comprehensive health insurance & universal health coverage including for NCDs prevention and treatment services	Several policies to modify NCD Risk Factors are in different draft stages	Peer- coaching and Refresher trainings maybe required at health facility level
Framework & multi-sectoral approach Only focused on HF level		Community engagement for health promotion activities and people centered care
Mostly focused on treatment approach Focused on tip of ICEBERG.		

Issues and recommendations:

S.no.	Issues/Constraints	Recommendations
1.	Recording/ Reporting Issues	Complex recording tools are in the process of simplification and integration of PEN program recording and reporting through the DHIS and HMIS for NCDs Facilitate timely recording and reporting Facilitate reporting from non-reporting private hospitals Encourage consistency in data reporting. (Variance in HMIS reported Vs onsite available data)
2.	Staff turnover	Peer- coaching and Refresher trainings maybe required at health facility level, Formation of NCD teams/ focal units Skill based trainings for each level of healthcare staff Task sharing and Task shifting Enabling environment for retention of human resource
3.	Weak Referral and Counter referral mechanisms	Facilitate online communications/ tele communications on referrals and counter referrals from one health center to another Monitoring and supervision of referral and recall system to be established to manage follow up of NCD patients
4.	Disparities in Service delivery across the districts	Ensure establishment of NCD clinics at each center Facilitate regular supply of NCD equipment, laboratory testing, charts (PEN protocols, CVD risk prediction charts, risk factors, etc.) and medications Increase the amount of budget for NCDs Developing Skill Laboratory at Medical Institutions.
5.	Interruption in continuity of care and services for NCDS	Strengthen Monitoring and Supervision of the PEN program Implementing People Centered Care Model Implementing Community Intervention Framework Throughout Nepal Strengthening Telemedicine and Teleconsultation services

6.2 Mental Health

Mental health and substance abuse is recognised as one of health priorities and also addressed in Sustainable Development Goals (SDG). Within the health goal, two targets are directly related to mental health and substance abuse. Target 3.4 requests that countries: “By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.” Target 3.5 requests that countries: “Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.” Nepal has high burden of mental illness but there are limited interventions to address the epidemic of mental diseases. Non-Communicable Disease and Mental Health Section under EDCD, has been assigned as the focal unit for implementation of mental health program in Nepal and will implement mental health program from FY 2075/76.

Community Mental Health Program is implemented with capacity building of non-specialized health workers working in the community. Capacity building training was provided by the federal, provincial governments and some of the local governments. There were awareness raising activities conducted by federal, provincial and local governments on World Mental Health Day, World Suicide Prevention Day and World Alzheimer's Prevention Day.

Community Mental Health Care Package, Nepal, 2074

The package is developed for standardization and uniformity in capacity building of non-specialized mental health professionals ensuring the availability and accessibility of integrated mental health and psychosocial support services (MHPSS) within the primary health care system of the country. The package broadly defines the mental health care packages at the level of health facility and community along with the implementation mechanisms.

Aims and Objectives of Mental Health Care Package

The aim of the Mental Health Care Package is to facilitate implementation of National Mental Health Policy thereby ensuring the availability and accessibility of basic mental health and psychosocial support services for all the population of Nepal.

The general objective of this package is to facilitate integration of mental health services into the primary health care delivery system of the country.

The specific objectives include:

1. To define the mental health and psychosocial support service packages at different layers of primary health care system.
2. To define the minimum standard of the MHPSS services at different layers of primary health care system.
3. To set the standard of the training packages and manuals for training and supervision of health workers and community volunteer like FCHV.

Table 6.1.1: Trends of some Mental Health Disorders

Diseases	**Period**	Dolakha	Sindhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchok	Ramechhap	Sindhuli	Makwanpur	Chitwan	Bagmati Province
Depressive Disorders	2075/76	702	221	15	253	13	10160	2167	3000	1454	206	63	152	3358	21764
	2076/77	429	195	23	224	180	10182	331	3277	1193	311	122	93	3661	20221
	2077/78	367	203	30	571	124	8046	234	2754	325	256	188	50	3782	16930
Anxiety	2075/76	32	23	3	31	23	9189	483	338	172	17	80	18	241	1856

Disorders		6	6	1	1				5	6	3		0	9	2
	2076/77	166	236	41	197	248	8473	284	3467	2123	384	140	149	2412	18320
	2077/78	292	350	33	639	241	6151	491	3955	474	243	231	29	2441	15570
Psychosis	2075/76	236	11	5	13	2	1697	96	2599	240	42	44	155	1155	6295
	2076/77	195	0	2	15	63	1543	72	2978	337	114	17	90	1124	6550
	2077/78	146	2	5	61	80	1765	19	2634	151	99	0	5	1539	6506

Strength, weakness and challenges

Strength	Weakness	Challenges
• Community Mental Health Care Package, Nepal, 2074 developed	• Program coverage couldn't be achieved as targeted	• Recording and reporting
• Training modules for capacity building of every layer of health care delivery	• Training was not topped with availability of medicine	• Clinical supervision and mentoring
• Community mental health program	• Limited supervision, mentoring and monitoring	• Availability of psychotropic medicine around the calendar
• Drugs procurement and supply.	• Limited recording and reporting	• Limited budget allocation to cover the program district
		• Turnover of trained health professional

CHAPTER 7: SCHOOL HEALTH NURSE PROGRAM

Background

It is important to teach and bring awareness in the student from the school level about the overall health cleanliness, nutrition, mental health, sexual and reproductive health, communicable and non-communicable diseases to lead a healthy life. So Bagmati province in the fiscal year 2078/2076 had started a pilot programme as an initiative model health promotion program which is one school one nurse programme.

Initially this programme was conducted in 20 secondary level schools of Bagmati province. Taking consideration to the effectiveness of which the program is being expanded each year. Currently SHN program is running in all local level (119) of Bagmati province. In each local level, we have at least three secondary level school providing school health services. Currently there are total 459 school health nurses working under Bagmati province.

1. **The rationale for initiating SHN programme is:**
    - To prevent NCD by promoting health from early stage of life.
    - To raising awareness in the community level.
2. **Nurses are providing variety of services:**
    - First aid Treatment
    - Mental Health
    - Reproductive health
    - Prevention of Junk food
    - Menstrual Hygiene
    - Health education
    - Environmental sanitation
    - Holistic health care

3. **Scope of School Nurses:**

   Policy, planning and leadership:

- Help and be ready for organizing policies, planning and procedure regarding school health and also assist in planning of environmental safety and emergency services as well as in disaster management
- Assist in making plan regarding school food policies.

- Assist in mitigation of violence related activities.

Health promotional services:

- Conduct various program in school related to advocacy and promotion of children's physical, mental and social health.
- Take initiation on controlling of alcohol, tobacco use and other drugs.
- Conducting and organizing exhibition, drama and counseling program related to health
- Teach useful life skills.
- Play major role in prevention of junk food.
- Conduct program for the awareness of nutritious food and also organizing drama and exhibition regarding its importance.
- Provide knowledge and awareness on adolescence friendly reproductive and sexual health, sexual abuse and child abuse.
- Provide Knowledge on Personal hygiene, environmental sanitation and also assisting and coordinating in its management.
- Conduct program regarding menstrual hygiene management.
- Provide orientation to teachers and other staff of school about health-related issues.

Preventive health services:

- Provide related services and facilities to the students in terms of diseases prevention and also participating in vaccination programs.
- Detection of any communicable diseases in schools should be informed to local level committee and should play major role in its management.
- School nurse should assist in developing children friendly and healthy environment in schools in terms of physical and psychosocial aspects.
- Conduct Vitamin A supplementation, deworming, IFA (Iron and Folic Acid) for girls and WASH activities.

Health examination and first aid treatment:

- Regular monitoring of health status of students.
- Examinee height, weight (BMI), eyes, hearing and dental problems.
- Examine nutrition status of children through anthropometric measurement.
- Examine and identify eyes, nose, ear, throat, teeth and skin problems of students by coordinating with local health center and other health center.

- Identify and manage emergency health problems like common cold, diarrhea, vomiting and other injuries.
- Manage different problems related to menstruation.
- Make action plan for the care of chronically ill children by involving related teachers, staffs and families.

Counseling services:

- Provide counseling related to physical, mental, reproductive, sexual and menstrual health.
- Assist and encourage handicapped children in capacity building and also providing counseling to teachers, students and guardian regarding this.
- Identify children with chronic illness and providing counseling to guardian and teachers regarding his/her illness.
- Provide counseling related to healthy lifestyle, safe drinking water, personal hygiene, environmental sanitation and waste management.

Referral services:

- Coordinate with primary, secondary and tertiary health facilities in order to refer students, teachers and other staff if they need added treatment.
- School nurse should take consent from parents. In case of emergency situation where she should provide first aid treatment and immediately refer them to health center.
- After referral, school nurse should follow up and monitor about the health status of students and other staffs and write a report.

Health service programs related to contemporary issues:

- Prevention of adolescence pregnancy and awareness about family planning.
- Regular exercise and yoga, nutrition, dental health.
- Knowledge on sexually transmitted diseases and its prevention.
- Awareness on prevention of junk food, tobacco use, alcohol and drugs use.
- Menstrual hygiene management and other life skills.

Some barriers of this programme are:

- There is no sanction post for School health nurse by province government so, there is difficulty in retaining manpower.
- Some of the local levels and schools seem to have passive role in facilitating this service.

- School Health Nurse is a new concept in the context of Nepal so, it is difficult to make people realize about it.

Table No 7.1: List of Schools with School Health Nursing Program

FY 2075-76

क्र.सं .	जिल्ला	स्थानीय तह	विद्यालयको नाम
१	सिन्धुली	कमलामाई नगरपालिका	जनज्योति मा.वि. फोस्रेटार
२	रामेछाप	मन्थली नगरपालिका	मन्थली मामन्थली .वि.
३	दोलखा	वैतेश्वर गाउँपालिका	हनुमन्तश्वर मा.वि.
४	सिन्धुपाल्चोक	ईन्द्रावती गाउँपालिका	भिमेश्वरी मा.वि. भिमटार
५	सिन्धुपाल्चोक	चौतारा साँगाचोकगढी नगरपालिका	कृष्णरत्न मा.वि. चौतारा
६	काभ्रेपलान्चोक	बेथानचोक गाउँपालिका	पार्वती माढुंगखर्क.वि.
७	ललितपुर	ललितपुर महानगरपालिका	आदर्शसोल मा.वि.
८	ललितपुर	ललितपुर महानगरपालिका	त्रिपद्म विद्याश्रम मा.वि.
९	भक्तपुर	भक्तपुर नगरपालिका	वागेश्वरी मा.वि.
१०	काठमाण्डौ	काठमाण्डौं महानगरपालिका	पद्मकन्या मा.वि.
११	काठमाण्डौ	कीर्तिपुरनगरपालिका	जन सेवा मापाँगा .वि.
१२	नुवाकोट	विदुर नगरपालिका	त्रिभुवन मात्रिशुली .वि.
१३	नुवाकोट	म्यागङ्ग गाउँपालिका	विन्दुकेशर मा(मेघङ्ग) तुक्सार.वि.
१४	रसुवा	कालिका गाउँपालिका	कालिका हिमालय माकालिकास्थान.वि.
15	धादिङ	निलकण्ठ नगरपालिका	नीलकण्ठ माधादिङ्गवेशी .वि.
१६	धादिङ	बेनीघाट रोराङ्ग गाउँपालिका	चन्द्रोदय मावेनीघाट विशालटार.वि.
१७	मकवानपुर	हेटौडा उपमहानगरपालिका	आधुनिक माहेटौडा .वि.
१८	मकवानपुर	बकैया गाउँपालिका	महेन्द्र मापा.वकैया गा .वि.
१९	चितवन	भरतपुर महानगरपालिका	नारायणी माभरतपुर.वि.
२०	चितवन	भरतपुर महानगरपालिका	दुर्गाशेषकान्त अधिकारी माभरतपुर .वि.

FY 2076/77

क्रस.	जिल्ला	स्थानिय तह	विद्यालयको नाम
१	काठमाडौँ	कागेश्वोरी मनहरा न पा .	श्री तेज विनायक मा.वि.
२	काठमाडौँ	गोकर्णेश्वर नपा .	श्री अरुणोदय मा.वि.
३	काठमाडौँ	चन्द्रागिरी नपा.	श्री विष्णुदेवी शिक्षा सदन मावि.
४	काठमाडौँ	टोखा नपा.	तिलिङटार मा.वि.
५	काठमाडौँ	तार्केश्वर नपा.	श्री पृथ्वी नारायण मा.वि.
६	काठमाडौँ	दक्षिणकाली नपा .	श्री अरुणोदय मा.वि.
७	काठमाडौँ	नागार्जुन नपा .	श्री अमर ज्योति मावि.
८	काठमाडौँ	बुढानिलकण्ठ नपा .	श्री वालउद्वार मा.वि.
९	काठमाडौँ	शंखरापुर नपा .	श्री भगवती मा.वि.
१०	काभ्रे	चौरीदेराली गापा .	श्री जागृती मा.वि.
११	काभ्रे	तेमाल गापा.	श्री जनचेतना मावि.
१२	काभ्रे	धुलिखेल न. पा	श्री संजिवनी मा.वि.
१३	काभ्रे	नमोबुद्ध नपा .	श्री जनक मा.वि.
१४	काभ्रे	पनौती न. पा	श्री कुशादेवी मा.वि.
१५	काभ्रे	पाँचखाल नपा.	श्री सर्वमंगला मा.वि.
१६	काभ्रे	बनेपा न. पा	शिक्षा सदन मा.वि.
१७	काभ्रे	भुम्लु गापा.	श्री प्रकाश मावि.
१८	काभ्रे	मण्डन देउपुर नपा.	श्री महाकाली मा.वि.
१९	काभ्रे	महाभारत गापा.	गोकुले मा.वि.
२०	काभ्रे	रोशी गापा.	श्री गणेश मा.वि.
२१	काभ्रे	खानीखोला गापा.	श्री जनविकास मा.वि.
२२	चितवन	इच्छाकामना गापा.	श्री सर्बशान्ति उवि.मा.
२३	चितवन	कालिका न. पा	चतुर्मुखी माकालिका.वि.
२४	चितवन	खैरहनी न. पा	श्री कंकाली मावहेरी.वि.
२५	चितवन	माडी न. पा	श्री दिवाकर स्मृति विद्यालय
२६	चितवन	रत्ननगर नपा.	श्री भद्रकाली मा.वि.
२७	चितवन	राप्ती नपा.	श्री भण्डारा मावि.
२८	दोलखा	कालिन्चोक गापा.	श्री निकोभुमे मावि.
२९	दोलखा	गौरीशंकर गापा.	श्री हलेश्वर मासुरी .वि.
३०	दोलखा	जिरी नपा.	श्री जिरी मा.वि.
३१	दोलखा	तामाकोशी गापा.	श्री गोल्मेश्वर मा.वि.
३२	दोलखा	बिगु गापा.	श्री हिमालय माखोपाचाँगु.वि.

३३	दोलखा	भिमेश्वोर नपा.	श्री पशुपति कन्या मन्दिर मा.वि.
३४	दोलखा	मेलुंग गापा.	श्री सत्यश्वर मावि.
३५	दोलखा	शैलुंग गापा.	श्री सांगुते मा.वि.
३६	धादिङ	खानियाबास गापा.	श्री त्रिचेत मा.वि.
३७	धादिङ	गंगा जमुना गापा.	श्री मण्डली मावि., पुलखर्क
३८	धादिङ	गजुरी गापा.	श्री डिलभन्ज्याङ मा.वि.
३९	धादिङ	गल्छी गापा.	श्री जनकल्याण मा.वि.
४०	धादिङ	ज्वालामुखी गापा.	श्री समिभञ्जाङ्ग मा.वि.
४१	धादिङ	त्रिपुरासुन्दरी गापा.	श्री कार्कीगाँउ मा.वि.
४२	धादिङ	थाक्रे गापा.	श्री लिति माहाङ्गकाल मा.वि.
४३	धादिङ	धुनिबेसी नपा.	श्री भुवनेश्वरी मावि.
४४	धादिङ	नेत्रावती गापा.	श्री निरन्जना मा.वि.
४५	धादिङ	रुबी भ्याली गापा.	श्री मुक्रव देवी मा.वि.
४६	धादिंग	सिद्लेक गापा.	श्री महाकाली मा.वि.
४७	नुवाकोट	ककनी गापा.	श्री भवानी मा.वि.
४८	नुवाकोट	किस्पांग गापा.	श्री ऐशेलुभुमे मा.वि.
४९	नुवाकोट	तादी गापा.	श्री विज्ञान उच्च मा.वि.
५०	नुवाकोट	तार्केश्वर गापा.	श्री कृष्ण मा.वि.
५१	नुवाकोट	दुप्चेश्वर गापा.	श्री दुप्चेश्वर मा.वि.
५२	नुवाकोट	पन्चकन्या गापा.	पञ्चकन्या मा.वि.
५३	नुवाकोट	बेलकोटगडी नपा.	श्री लक्ष्मेश्वर मा.वि.
५४	नुवाकोट	लिखु गापा.	श्री नारायणी देवी मा.वि.
५५	नुवाकोट	सुर्यगडी गापा.	श्री वागेश्वरी मा.वि.
५६	नुवाकोट	शिवपुरी	श्री सामुन्द्रा मा.वि.
५७	भक्तपुर	चाँगुनारायण नपा.	श्री चागुनारायण मावि.
५८	भक्तपुर	मध्यपुर थिमी नपा.	श्री आदर्श मावि.
५९	भक्तपुर	सूर्यविनायक नपा.	श्री अरनिको मावि.
६०	मकवानपुर	ईन्द्रसरोवर गापा.	श्री पञ्चकन्या मा.वि.
६१	मकवानपुर	कैलाश गापा.	श्री कालिका मा.वि.
६२	मकवानपुर	थाहा नपा.	श्री जनकल्याण मा.वि.
६३	मकवानपुर	बाग्मती गापा.	श्री जनता मा.वि.
६४	मकवानपुर	भिमफेदी गापा.	श्री लेकाली बसिफाँट मा.वि.
६७	मकवानपुर	राक्सिराङ्ग गापा.	सुर्योदय मा.वि.
६८	रसुवा	उत्तरगया गापा.	श्री नीलकण्ठ मा.वि.

६९	रसुवा	गोसाईकुण्ड गापा.	श्री कोमिन श्यामेयोङफेल मावि.
७०	रसुवा	आमाछोदिङ्ग गापा.	श्री पार्वतीकुण्ड मा.वि.
७१	रसुवा	नौकुंड गापा.	श्री निर्कुभुमे मा.वि.
७२	रामेछाप	उमाकुण्ड गापा.	श्री चण्डेश्वरी मा.वि.
७३	रामेछाप	खाँडादेवी गापा.	श्री भिमेश्वर प्रसुन मा.वि.
७४	रामेछाप	गोकुलगङ्गा गापा.	श्री जनजागृत मा.वि.
७५	रामेछाप	दोरम्बा गापा.	श्री सुर्के धौराली मा.वि.
७६	रामेछाप	रामेछाप नपा.	श्री चण्डेवश्वरी मावि.
७७	रामेछाप	सुनापती गापा.	श्री शतलिङ्गेश्वर मा.वि.
७८	रामेछाप	लिखु गापा.	श्री झत्तेश्वर उ.वि.मा.
७९	ललितपुर	कोन्ज्योसोम गापा.	श्री बालश्वरी मा.वि.
८०	ललितपुर	गोदावरी नपा.	श्री फुलचोकी मावि.
८१	ललितपुर	महालक्ष्मी नपा.	श्री सिद्दिमंगल मा.वि.
८२	ललितपुर	बागमती गापा.	श्री कालिदेवी मा.वि.
८३	ललितपुर	महाङ्काल गापा.	श्री बुद्ध भगवान मा.वि.
८४	सिन्धुपाल्चोक	जुगल गापा.	श्री रामेश्वर मा.वि.
८५	सिन्धुपाल्चोक	त्रिपुरासुन्दरी गापा.	श्री मंगलामाई मा.वि.
८६	सिन्धुपाल्चोक	पाँचपोखरी थाडपाल गापा.	भौटनाम्लाङ्ग मा.वि.
८७	सिन्धुपाल्चोक	बलेफी गापा.	श्री वाल शिक्षा मा.वि.
८८	सिन्धुपाल्चोक	बाहबिसे नपा.	श्री शारदा मा.वि.
८९	सिन्धुपाल्चोक	भोटेकोशी गापा.	श्री झिर्पु मा.वि.
९०	सिन्धुपाल्चोक	मेलम्ची नपा.	श्री सिन्धु पुरानोगाँऊ मा.वि.
९१	सिन्धुपाल्चोक	लिसंखु पाखर गापा.	श्री देवी मा.वि.
९२	सिन्धुपाल्चोक	सुनकोशी गापा.	श्री बाघ भैरव मा.वि.
९३	सिन्धुपाल्चोक	हेलम्बु गापा.	श्री भुमेश्वर मा.वि.
९४	सिन्धुली	गोलन्जोर गापा.	श्री शारदा मा.वि.
९५	सिन्धुली	घ्याङलेख गापा.	श्री नेत्रकाली मा.वि.
९६	सिन्धुली	तीनपाटन गापा.	श्री माध्यामिक विद्यालय
९७	सिन्धुली	दुधौली नपा.	श्री जनजागरण मा.वि.
९८	सिन्धुली	फिक्कल गापा.	श्री जनजागृती मा.वि.
९९	सिन्धुली	मरिण गा.पा.	श्री कपिलाकोट मा.वि.
१००	सिन्धुली	सुनकोशी गापा.	श्री गणेश मा.वि.
१०१	सिन्धुली	हरिहरपुरगढी गापा.	श्री जनता मा.वि.

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क्रस.	जिल्ला	स्थानिय तह	विद्यालयको नाम
१	काठमाडौँ	कागेश्वोरी मनहरा न पा .	श्री गान्धी मावि.
२	काठमाडौँ	कागेश्वोरी मनहरा न पा .	श्री कान्ति भैरब मावि.
३	काठमाडौँ	काठमाडौँ महानपा .	श्री विश्वनिकेतन मा. वि
४	काठमाडौँ	काठमाडौँ महानपा .	श्री शिवपुरी मा. वि
५	काठमाडौँ	कीर्तिपुर नपा.	श्री क्रितिपुर मावि.
६	काठमाडौँ	कीर्तिपुर नपा.	श्री टौदह राष्ट्रियमावि.
७	काठमाडौँ	गोकर्णेश्वर नपा.	श्री ओखे्रली मावि.
८	काठमाडौँ	गोकर्णेश्वर नपा.	श्री चामुण्ड मावि.
९	काठमाडौँ	चन्द्रागिरी नपा.	श्री प्रभात मावि .
१०	काठमाडौँ	चन्द्रागिरी नपा.	श्री भिम मा वि.
११	काठमाडौँ	टोखा नपा.	श्री मनोहर मावि.
१२	काठमाडौँ	टोखा नपा.	श्री सरस्वति मावि.
१३	काठमाडौँ	तार्केश्वर नपा.	श्री काली द्वी मावि.
१४	काठमाडौँ	तार्केश्वर नपा.	श्री मानसिंह धर्म मावि.
१५	काठमाडौँ	दक्षिणकाली नपा .	श्री पंचकन्यामावि.
१६	काठमाडौँ	दक्षिणकाली नपा .	श्री चम्पादेवी मावि.
१७	काठमाडौँ	नागार्जुन नपा .	श्री सिताराम मावि.
१८	काठमाडौँ	नागार्जुन नपा .	श्री युवा सहभागिता
१९	काठमाडौँ	बुढानिलकण्ठ नपा .	श्री गणेश मावि.
२०	काठमाडौँ	बुढानिलकण्ठ नपा .	श्री ग्राम शिक्षा मावि.
२१	काठमाडौँ	शंखरापुर नपा .	श्री भाग्योदय मावि.
२२	काठमाडौँ	शंखरापुर नपा .	श्री कालिका सरन मावि.
२३	काभ्रे	चौरीदेराली गापा .	श्री खाडादेवी मावि.
२४	काभ्रे	चौरीदेराली गापा .	श्री सरस्वती मावि.
२५	काभ्रे	तेमाल गापा.	श्री भूमे मावि.
२६	काभ्रे	तेमाल गापा.	श्री पन्चकन्या मावि.
२७	काभ्रे	धुलिखेल न. पा	श्री हनुमान मावि.
२८	काभ्रे	धुलिखेल न. पा	श्री सेती देवी मावि.
२९	काभ्रे	नमोबुद्ध नपा .	श्री बालउज्ज्वल मा .वि
३०	काभ्रे	नमोबुद्ध न .पा	श्री जनकल्याण मावि.

३१	काभ्रे	पनौती न. पा	श्री भालेस्वर मावि.
३२	काभ्रे	पनौती न. पा	श्री इन्द्रेश्वोर मावि.
३३	काभ्रे	पाँचखाल नपा.	श्री महांकालमावि.
३४	काभ्रे	पाँचखाल नपा.	श्री श्रीराम मावि.
३५	काभ्रे	बनेपा न. पा	श्री श्वेत वराहमावि.
३६	काभ्रे	बनेपा न. पा	श्री चंडेश्वरी मा. वि
३७	काभ्रे	बेथानचोक	श्री आत्म विकास मावि.
३८	काभ्रे	बेथानचोक	श्री प्रतेश्वोर मावि.
३९	काभ्रे	भुम्लु गापा.	श्री जनता मावि.
४०	काभ्रे	भुम्लु गापा.	श्री सेतीदेवी मावि.
४१	काभ्रे	मण्डन देउपुर नपा.	श्री ब्रमायानी मावि.
४२	काभ्रे	मण्डन देउपुर नपा.	श्री डडी थुम्का मावि.
४३	काभ्रे	महाभारत गापा.	श्री जनकल्याण मा.वि.
४४	काभ्रे	महाभारत गापा.	श्री ग्रामोन्नति मावि.
४५	काभ्रे	रोशी गापा.	श्री पन्चकन्या मावि.
४६	काभ्रे	रोशी गापा.	श्री पोक्रा मावि.
४७	काभ्रे	खानीखोला गापा.	श्री धार्ने ज्योती मावि.
४८	काभ्रे	खानीखोला गापा.	श्री शारदा मा.वि.
४९	चितवन	इच्छाकामना गापा.	श्री जनप्रिय मावि.
५०	चितवन	इच्छाकामना गापा.	श्री माझीगाउँ मावि.
५१	चितवन	कालिका न. पा	श्री राष्ट्रिय मावि.
५२	चितवन	कालिका न. पा	श्री माध्यमिक मावि.
५३	चितवन	खैरहनी न. पा	श्री खैरहनी मावि.
५४	चितवन	खैरहनी न. पा	श्री कथर मावि.
५५	चितवन	भरतपुर महान पा.	श्री आदिकवि भानुभक्त मावि.
५६	चितवन	भरतपुर महान पा.	श्री लक्ष्मी माध्यमिक मावि.
५७	चितवन	माडी न. पा	श्री सोमेश्वोर मावि.
५८	चितवन	माडी न. पा	श्री माडी मावि.
५९	चितवन	रत्ननगर नपा.	श्री नेपाल मावि.
६०	चितवन	रत्ननगर नपा.	श्री जनजागृति मावि.
६१	चितवन	राप्ती नपा.	श्री भण्डारा मावि.

६२	चितवन	राप्ती नपा.	श्री बिरेन्द्र आदर्शमावि.
६३	दोलखा	कालिन्चोक गापा.	श्री बालउदय मावि.
६४	दोलखा	कालिन्चोक गापा.	श्री लपिलंग मावि.
६५	दोलखा	गौरीशंकर गापा.	श्री निल्कंठेश्वोर मावि.
६६	दोलखा	गौरीशंकर गापा.	श्री महेन्द्र मावि.
६७	दोलखा	जिरी नपा.	श्री कालिका मावि.
६८	दोलखा	जिरी नपा.	श्री बौद भुवनेश्वोरी मावि.
६९	दोलखा	तामाकोशी गापा.	श्री नारायणी मावि.
७०	दोलखा	तामाकोशी गापा.	श्री सितापाईला मावि.
७१	दोलखा	बिगु गापा.	श्री गौरीशंकर मावि.
७२	दोलखा	बिगु गापा.	श्री तित्रे मावि.
७३	दोलखा	बैतेधर गापा.	श्री कालीढुंगा मावि.
७४	दोलखा	बैतेधर गापा.	श्री क्षत्रवती मावि.
७५	दोलखा	भिमेश्वोर नपा.	श्री सुर्के मावि.
७६	दोलखा	भिमेश्वोर नपा.	श्री क्षमावती मावि.
७७	दोलखा	मेलुंग गापा.	श्री त्रिभुवन मावि.
७८	दोलखा	मेलुंग गापा.	श्री डाडाखर्क मावि.
७९	दोलखा	शैलुंग गापा.	श्री शारदा मा.वि.
८०	दोलखा	शैलुंग गापा.	श्री विरेन्द्र मावि.
८१	धादिंग	खानियाबास गापा.	श्री बच्छलादेवी मावि.
८२	धादिंग	खानियाबास गापा.	श्री शिङगाला देवी मावि.
८३	धादिंग	गंगा जमुना गापा.	श्री रिगाँउ मावि.
८४	धादिंग	गंगा जमुना गापा.	श्री तामांग खर्क मावि.
८५	धादिंग	गजुरी गापा.	श्री आदर्श मावि.
८६	धादिंग	गजुरी गापा.	श्री महेंद्रदोयेमावि.
८७	धादिंग	गल्छी गापा.	श्री बागेश्वरी मावि.
८८	धादिंग	गल्छी गापा.	श्री सरस्वति मावि.
८९	धादिंग	ज्वालामुखी गापा.	श्री संस्कृति मावि.
९०	धादिंग	ज्वालामुखी गापा.	श्री सालवास मावि.
९१	धादिंग	त्रिपुरासुन्दरी गापा.	श्री सल्यानटार मावि.
९२	धादिंग	त्रिपुरासुन्दरी गापा.	श्री अचने मावि.
९३	धादिंग	थाक्रे गापा.	श्री संस्कृति मावि.

९४	धादिंग	थाक्रे गापा.	श्री सालवास मावि.
९५	धादिंग	धुनिबेसी नपा.	श्री मछेन्द्र मावि.
९६	धादिंग	धुनिबेसी नपा.	श्री महादेवस्थान मावि.
९७	धादिंग	निलकण्ठ न. पा	श्री पशुपती मावि.
९८	धादिंग	निलकण्ठ न. पा	श्री महिन्द्रा मावि.
९९	धादिंग	नेत्रावती गापा.	श्री महिन्द्रा बाराही मावि.
१००	धादिंग	नेत्रावती गापा.	श्री चौतारा मावि.
१०१	धादिंग	बेनी घाट रोराँग गापा.	श्री शंखा देवी मावि.
१०२	धादिंग	बेनी घाट रोराँग गापा.	श्री बागेश्वरी मावि.
१०३	धादिंग	रुबी भ्याली गापा.	श्री लापा मावि.
१०४	धादिंग	रुबी भ्याली गापा.	श्री डोंगदेन मावि.
१०५	धादिंग	सिद्दलेक गापा.	श्री मिन्दुका मावि.
१०६	धादिंग	सिद्दलेक गापा.	श्री नालंग पात्लेमावि.
१०७	नुवाकोट	ककनी गापा.	श्री नवजीवन मावि.
१०८	नुवाकोट	ककनी गापा.	श्री शिवालय मावि.
१०९	नुवाकोट	किस्पांग गापा.	श्री ज्ञान ज्योती मावि.
११०	नुवाकोट	किस्पांग गापा.	श्री साल्मे मावि.
१११	नुवाकोट	तादी गापा.	श्री अमरज्योती मावि.
११२	नुवाकोट	तादी गापा.	श्री सुन्दरा देवी मावि.
११३	नुवाकोट	तार्केश्वर गापा.	श्री शंखा देवी मावि.
११४	नुवाकोट	तार्केश्वर गापा.	श्री दांगसेन मा,वि
११५	नुवाकोट	दुप्चेश्वर गापा.	श्री गोल्फु भन्ज्यांग मावि.
११६	नुवाकोट	दुप्चेश्वर गापा.	श्री कौकेश्वोरी मावि.
११७	नुवाकोट	पन्चकन्या गापा.	श्री कालिका मावि.
११८	नुवाकोट	पन्चकन्या गापा.	श्री उदयजलपा मावि.
११९	नुवाकोट	बिदुर नपा.	श्री महेन्द्र मावि.
१२०	नुवाकोट	बिदुर नपा.	श्री चन्द्रज्योती मावि.
१२१	नुवाकोट	बेलकोटगडी नपा.	श्री निरन्जना मा.वि.
१२२	नुवाकोट	बेलकोटगडी नपा.	श्री शक्ति मावि.
१२३	नुवाकोट	मेघांग गापा.	श्री भुमिदेवी मावि.
१२४	नुवाकोट	मेघांग गापा.	श्री देउराली मावि.

१२५	नुवाकोट	लिखु गापा.	श्री महेन्द्र महेशदेव मावि.
१२६	नुवाकोट	लिखु गापा.	श्री क्षत्रपाल मावि.
१२७	नुवाकोट	सुर्यगडी गापा.	श्री कालिकामावि.
१२८	नुवाकोट	सुर्यगडी गापा.	श्री गणेश मावि.
१२९	नुवाकोट	शिवपुरी	श्री जनज्ञान मावि.
१३०	नुवाकोट	शिवपुरी	श्री भूमेदेवी मावि.
१३१	भक्तपुर	चाँगुनारायण नपा.	श्री गणेश मावि.
१३२	भक्तपुर	चाँगुनारायण नपा.	श्री देवी मावि.
१३३	भक्तपुर	भक्तपुर नपा.	श्री पद्दम मावि.
१३४	भक्तपुर	भक्तपुर नपा.	श्री बासु मावि.
१३५	भक्तपुर	मध्यपुर थिमी नपा.	श्री बोडे मावि.
१३६	भक्तपुर	मध्यपुर थिमी नपा.	श्री गणेश मावि.
१३७	भक्तपुर	सूर्यविनायक नपा.	श्री जोरपाटी मावि.
१३८	भक्तपुर	सूर्यविनायक नपा.	श्री ज्योती मावि.
१३९	मकवानपुर	ईन्द्रसरोवर गापा.	श्री माहचुनीमावि.
१४०	मकवानपुर	ईन्द्रसरोवर गापा.	श्री बत्स्लादेवी मावि.
१४१	मकवानपुर	कैलाश गापा.	श्री धुवांग मावि.
१४२	मकवानपुर	कैलाश गापा.	श्री भवानी मावि.
१४३	मकवानपुर	थाहा नपा.	श्री बागेश्वोरी मावि.
१४४	मकवानपुर	थाहा नपा.	श्री बज्रबाराही मावि.
१४५	मकवानपुर	बकैया गापा.	श्री कान्ति मावि.
१४६	मकवानपुर	बकैया गापा.	श्री बुद्ध मावि.
१४७	मकवानपुर	बाग्मती गापा.	श्री देवकी मावि.
१४८	मकवानपुर	बाग्मती गापा.	श्री बागमती मावि.
१४९	मकवानपुर	भिमफेदी गापा.	श्री राष्ट्रिय मावि.
१५०	मकवानपुर	भिमफेदी गापा.	श्री महालक्ष्मी मावि.
१५१	मकवानपुर	मकवानपुरगढी गापा.	श्री वंश गोपाल मावि.
१५२	मकवानपुर	मकवानपुरगढी गापा.	श्री भानु मावि.
१५३	मकवानपुर	मनहरी गापा.	श्री राष्ट्रिय मावि.
१५४	मकवानपुर	मनहरी गापा.	श्री पशुपतिनाथ मावि.
१५५	मकवानपुर	राक्सिराङ्ग गापा.	श्री कालिका मावि., खैरांग बटारे
१५६	मकवानपुर	राक्सिराङ्ग गापा.	श्री कालिका मावि.

१५७	मकवानपुर	हेटौडा उपमहानपा.	श्री बालज्योति मावि.
१५८	मकवानपुर	हेटौडा उपमहानपा.	श्री जनाप्रिये मा. वि
१५९	रसुवा	उत्तरगया गापा.	श्री डाडागाउँ मावि.
१६०	रसुवा	उत्तरगया गापा.	श्री नव विजय महेन्द्र मावि.
१६१	रसुवा	कालिका गापा.	श्री निलकण्ठ मावि.
१६२	रसुवा	कालिका गापा.	श्री सेती भूमे मा.वि.
१६३	रसुवा	गोसाईकुण्ड गापा.	श्री रसुवा मावि.
१६४	रसुवा	गोसाईकुण्ड गापा.	श्री नेपाल राष्ट्र मावि.
१६५	रसुवा	आमाछोदिङ्ग गापा.	श्री हाकु मावि.
१६६	रसुवा	आमाछोदिङ्ग गापा.	श्री नेपाल राष्ट्रिय मावि.
१६७	रसुवा	नौकुंड गापा.	श्री गोसाईकुण्ड मावि.
१६८	रसुवा	नौकुंड गापा.	श्री नारायण मावि.
१६९	रामेछाप	उमाकुण्ड गापा.	श्री कैलेश्वर मावि.
१७०	रामेछाप	उमाकुण्ड गापा.	श्री सिद्देश्वर मावि.
१७१	रामेछाप	खाँडादेवी गापा.	श्री प्रगतशिल मावि.
१७२	रामेछाप	खाँडादेवी गापा.	श्री मावि. राताथुम
१७३	रामेछाप	गोकुलगङ्गा गापा.	श्री शारदा मा.वि.
१७४	रामेछाप	गोकुलगङ्गा गापा.	श्री कमला देवी मावि.
१७५	रामेछाप	दोरम्बा गापा.	श्री कन्ठेश्वर मा. वि
१७६	रामेछाप	दोरम्बा गापा.	श्री कालिंग मावि.
१७७	रामेछाप	मन्थली नपा.	श्री निल्कंठेश्वोर मावि.
१७८	रामेछाप	मन्थली नपा.	श्री सेतीदेवी मावि.
१७९	रामेछाप	रामेछाप नपा.	श्री हिमगंगा मावि.
१८०	रामेछाप	रामेछाप नपा.	श्री गौरीशंकर मावि.
१८१	रामेछाप	सुनापती गापा.	श्री बाल मावि., भिरकोट
१८२	रामेछाप	सुनापती गापा.	श्री डहु मावि., बेथान
१८३	रामेछाप	लिखु गापा.	श्री नव दर्शन मावि.
१८४	रामेछाप	लिखु गापा.	श्री सहिद स्मृति मावि.
१८५	ललितपुर	कोन्ज्योसोम गापा.	श्री मगर गाउँ मावि.
१८६	ललितपुर	कोन्ज्योसोम गापा.	श्री गोटभनज्यांग मावि.
१८७	ललितपुर	गोदावरी नपा.	श्री सिसिनी मावि.

१८८	ललितपुर	गोदावरी नपा.	श्री बज्रवराही मा.वि.
१८९	ललितपुर	महालक्ष्मी नपा.	श्री बिश्वोमित्र गणेश मावि.
१९०	ललितपुर	महालक्ष्मी नपा.	श्री महेन्द्र आदर्श मावि.
१९१	ललितपुर	ललितपुर महानपा.	श्री श्रमिक शान्ति मावि.
१९२	ललितपुर	ललितपुर महानपा.	श्री प्रगती शिक्षाशदन मावि.
१९३	ललितपुर	बागमती गापा.	श्री कालिका मावि.
१९४	ललितपुर	बागमती गापा.	श्री विद्याधिश्वरी मावि.
१९५	ललितपुर	महाङ्काल गापा.	श्री ५ महेन्द्र मावि.
१९६	ललितपुर	महाङ्काल गापा.	श्री महांकाल मावि.
१९७	सिन्धुपाल्चोक	ईन्द्रावती गापा.	श्री एसेलु खर्क मावि.
१९८	सिन्धुपाल्चोक	ईन्द्रावती गापा.	श्री रेश्वोरी मावि.
१९९	सिन्धुपाल्चोक	चौतारा साँगाचोकगढी नपा.	श्री सेतीदेवी मावि., ठुलो सिरुवारी
२००	सिन्धुपाल्चोक	चौतारा साँगाचोकगढी नपा.	श्री सेतीदेवी मावि., कुविंडे
२०१	सिन्धुपाल्चोक	जुगल गापा.	श्री जलदेवी मावि.
२०२	सिन्धुपाल्चोक	जुगल गापा.	श्री रत्न राज्य मावि.
२०३	सिन्धुपाल्चोक	त्रिपुरासुन्दरी गापा.	श्री राम मावि.
२०४	सिन्धुपाल्चोक	त्रिपुरासुन्दरी गापा.	श्री महेन्द्र प्रताप मावि.
२०५	सिन्धुपाल्चोक	पाँचपोखरी थाडपाल गापा.	श्री चिलाउने मावि.
२०६	सिन्धुपाल्चोक	पाँचपोखरी थाडपाल गापा.	श्री भोतांग देवी मावि.
२०७	सिन्धुपाल्चोक	बलेफी गापा.	श्री आनन्द मावि.
२०८	सिन्धुपाल्चोक	बलेफी गापा.	श्री फुलपिंगकोट मावि.
२०९	सिन्धुपाल्चोक	बाह्रबिसे नपा.	श्री कालीदेवी मावि.
२१०	सिन्धुपाल्चोक	बाह्रबिसे नपा.	श्री भद्रकाली मावि.
२११	सिन्धुपाल्चोक	भोटेकोशी गापा.	श्री कोदारी मावि.
२१२	सिन्धुपाल्चोक	भोटेकोशी गापा.	श्री मार्मिंग मावि.
२१३	सिन्धुपाल्चोक	मेलम्ची नपा.	श्री जनता मावि.
२१४	सिन्धुपाल्चोक	मेलम्ची नपा.	श्री तेर्स मावि.
२१५	सिन्धुपाल्चोक	लिसंखु पाखर गापा.	श्री ककलिंग मावि.
२१६	सिन्धुपाल्चोक	लिसंखु पाखर गापा.	श्री बुद्धोदय मावि.
२१७	सिन्धुपाल्चोक	सुनकोशी गापा.	श्री महेन्द्रोदये मावि.

२१८	सिन्धुपाल्चोक	सुनकोशी गापा.	श्री सतिदेवी मावि.
२१९	सिन्धुपाल्चोक	हेलम्बु गापा.	श्री महेन्द्र मावि.
२२०	सिन्धुपाल्चोक	हेलम्बु गापा.	श्री सरस्वती मावि.
२२१	सिन्धुली	कमलामाई नपा.	श्री गौमती मावि.
२२२	सिन्धुली	कमलामाई नपा.	श्री जनजागृति मावि.
२२३	सिन्धुली	गोलन्जोर गापा.	श्री जनज्योती मावि.
२२४	सिन्धुली	गोलन्जोर गापा.	श्री कामदामावि.
२२५	सिन्धुली	घ्याङलेख गापा.	श्री मावि., मारिण, हायुटार
२२६	सिन्धुली	घ्याङलेख गापा.	श्री मा वि.अमले
२२७	सिन्धुली	तीनपाटन गापा.	श्री मावि मझुवा.
२२८	सिन्धुली	तीनपाटन गापा.	श्री भवानी मावि.
२२९	सिन्धुली	दुधौली नपा.	श्री जनाजागृति मावि.
२३०	सिन्धुली	दुधौली नपा.	श्री कमला मावि.
२३१	सिन्धुली	फिक्कल गापा.	श्री मावि रातामाटा.
२३२	सिन्धुली	फिक्कल गापा.	श्री मावि., सुम्नासुन्तले
२३३	सिन्धुली	मरिण गा.पा.	श्री खयर साल मावि.
२३४	सिन्धुली	मरिण गा.पा.	श्री कार्तिके मावि.
२३५	सिन्धुली	सुनकोशी गापा.	श्री कुसेशोरी मावि.
२३६	सिन्धुली	सुनकोशी गापा.	श्री दिर्घज्योती मावि.
२३७	सिन्धुली	हरिहरपुरगढी गापा.	श्री महेन्द्रझयाडी मावि.
२३८	सिन्धुली	हरिहरपुरगढी गापा.	श्री क्यानेश्वर मावि.

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क्रस.	जिल्ला	स्थानिय तह	विद्यालयको नाम
१	काठमाडौं	कागेश्वोरी मनहरा न . पा	श्री सिद्दीगणेश मा.वि.
२	काठमाडौं	काठमाडौं महानपा .	श्री तरुण मावि., बालाजु
३	काठमाडौं	काठमाडौं महान. पा	श्री जनकल्याण मावि., महांकाल
४	काठमाडौं	काठमाडौं महान. पा	श्री ज्ञानोदय मावि., बाफल
५	काठमाडौं	काठमाडौं महान. पा	श्री रत्नराज्य मावि., बानेश्वर
६	काठमाडौं	काठमाडौं महान. पा	श्री दरबार हाईस्कुल
७	काठमाडौं	कीर्तिपुर नपा .	श्री वालकुमारी मावि., भत्केपाटी
८	काठमाडौं	गोकर्णेश्वर नपा .	श्री गोकर्ण मा.वि.

९	काठमाडौँ	चन्द्रागिरी नपा.	श्री जनकल्याण मा.वि. किसिपिडि
१०	काठमाडौँ	टोखा नपा.	श्री बाडेश्वोर मावि. टोखा १ झोर
११	काठमाडौँ	टोखा नपा.	श्री जालुपा मा.वि. टोखा
१२	काठमाडौँ	तार्केश्वर नपा.	श्री नेपाल राष्ट्रिय मानेपालटार.वि.
१३	काठमाडौँ	दक्षिणकाली नपा .	श्री सेतीदेवी मा.वि.
१४	काठमाडौँ	नागार्जुन नपा .	श्री बाल विकास मावि.
१५	काठमाडौँ	बुढानिलकन्ठ नपा.	श्री बुढानिलकन्ठ मावि.
१६	काठमाडौँ	शंखरापुर नपा .	श्री राष्ट्रिय मा.वि. ईन्द्रयणी
१७	काभ्रेपलान्चोक	चौरीदेराली गापा .	श्री प्रभा मा.वि. कात्तिकेदेउराली
१८	काभ्रेपलान्चोक	तेमाल गापा.	श्री कुशेश्वर मा.वि. तेमाल
१९	काभ्रेपलान्चोक	धुलिखेल नपा .	श्री खण्डपुर मा.वि. श्रीखण्डपुर विद्यालय
२०	काभ्रेपलान्चोक	नमोबुद्ध नपा .	श्री कानपुर मावि.
२१	काभ्रेपलान्चोक	पनौती नपा .	श्री शारदा मावि.
२२	काभ्रेपलान्चोक	पाँचखाल नपा.	श्री आजाद मा.वि. पाँचखाल
२३	काभ्रेपलान्चोक	बनेपा नपा .	श्री हिमालय मा.वि.
२४	काभ्रेपलान्चोक	बेथानचोक गापा.	श्री सरस्वती माभुग्देउ.वि.
२५	काभ्रेपलान्चोक	भुम्लु गापा.	श्री दुलालेश्वर मादोलालघाट.वि.
२६	काभ्रेपलान्चोक	मण्डन देउपुर नपा.	श्री उमा सहशिक्षालय माचण्डेनी .वि.
२७	काभ्रेपलान्चोक	रोशी गापा.	श्री हिमालय मारोशी.वि.
२८	काभ्रेपलान्चोक	खानीखोला गापा.	श्री जनहित मा.वि.
२९	चितवन	इच्छाकामना गापा.	श्री गर्दवास मा.वि.
३०	चितवन	भरतपुर महान पा.	श्री प्रभात मावि. ,भरतपुर
३१	चितवन	भरतपुर महान पा.	श्री शरदा मावि. ,भरतपुर
३२	चितवन	भरतपुर महान पा.	श्री नारायणी बिद्या मन्दिर मावि.,भरतपुर
३३	चितवन	रत्ननगर नपा.	श्री वैरिया माध्यमिक विद्यालय
३४	चितवन	राप्ती नपा.	श्री थाकलटार मा.वि. थाकलटार
३५	दोलखा	कालिन्चोक गापा.	श्री जनज्योति मा.वि.
३६	दोलखा	तामाकोशी गापा.	श्री कालिका माध्यमिक विद्यालय
३७	दोलखा	बिगु गापा.	श्री थाम्पु माध्यमिक विद्यालय
३८	दोलखा	बैतेधर गापा.	श्री जनज्योति माध्यमिक
३९	दोलखा	भिमेश्वोर नपा.	श्री कालिञ्चोक मावि., चरिकोट
४०	दोलखा	मेलुंग गापा.	श्री आजाद मा.वि.
४१	धादिङ	गंगा जमुना गापा.	श्री बद्रि बिशाल मावि.

४२	धादिङ	ज्वालामुखी गापा.	श्री बराहकालिका मापुर्सु ढोला.वि.
४३	धादिङ	त्रिपुरासुन्दरी गापा.	श्री महेन्द्रोदय मामुलपानी .वि.
४४	धादिङ	थाक्रे गापा.	श्री आदर्श मा.वि. भेलुखेल
४५	धादिङ	थाक्रे गापा.	श्री ज्योति मावि.
४६	धादिङ	धुनिबेसी नपा.	श्री महेन्द्रोदय मामैदान .वि.
४७	धादिङ	निलकण्ठ नपा .	श्री बालमन्दिर मा३-वि.
४८	धादिङ	निलकण्ठ नपा .	श्री चन्देश्वरी मा९ निगालपानी -वि.
४९	धादिङ	बेनी घाट रोराँग गापा.	श्री पिपलभञ्ज्याङ माताल्ती विद्यालयमा .वि.
५०	धादिङ	सिद्लेक गापा.	श्री बागबच्छला माचेक्काङ विद्यालय.वि.
५१	नुवाकोट	ककनी गापा.	श्री मुकुन्देश्वरी माध्यमिक विद्यालय
५२	नुवाकोट	दुप्चेश्वर गापा.	श्री सरस्वती मा.वि.
५३	नुवाकोट	पन्चकन्या गापा.	श्री बच्छला मावि.,
५४	नुवाकोट	बिदुर नपा.	श्री विरेन्द्र मावि., विदुर १२
५५	नुवाकोट	बिदुर नपा.	चणडेशवरी मावि., विदुर ७
५६	नुवाकोट	बेलकोटगडी नपा.	श्री कल्याणीदेवी माजिलिङ्ग विद्यालय .वि.
५७	नुवाकोट	शिवपुरी गापा.	श्री जानकी मा.वि.
५८	भक्तपुर	चाँगुनारायण नपा.	श्री सरस्वती मा.वि. सुडाल
५९	भक्तपुर	भक्तपुर नपा.	श्री आदर्श मा.वि. भेलुखेल
६०	भक्तपुर	सूर्यविनायक नपा.	श्री गणेश मा.वि.
६१	मकवानपुर	थाहा नपा.	श्री इन्द्रायाणी मा८- वि थाहा.
६२	मकवानपुर	बकैया गापा.	श्री कर्मप्राप्ति माकर्मचुली.वि.
६३	मकवानपुर	बाग्मती गापा.	श्री सूर्य मा.वि.
६४	मकवानपुर	भिमफेदी गापा.	श्री कृष्ण माभैसे.वि.
६५	मकवानपुर	मकवानपुरगढी गापा.	श्री जनता मासुकौरा.वि.
६६	मकवानपुर	मनहरी गापा.	श्री महेन्द्र किरण मा८- वि मनहरी.
६७	मकवानपुर	हेटौडा उपमहानपा.	श्री निर्मल मा वि.,हेटौडा १९-
६८	मकवानपुर	हेटौडा उपमहानपा.	श्री सिदार्थ मा वि.,हेटौडा २-
६९	रामेछाप	खाँडादेवी गापा.	श्री बिष्णु ज्योति मा.वि.
७०	रामेछाप	दोरम्बा गापा.	श्री कालिका मा.वि.
७१	रामेछाप	मन्थली नपा.	श्री शारदा मा.वि. गेलु
७२	रामेछाप	रामेछाप नपा.	श्री रेनुका देवी मा.वि.
७३	रामेछाप	सुनापती गापा.	श्री कुशेश्वर मा.वि. बेथान
७४	रामेछाप	लिखु गापा.	श्री त्रिपुरेश्वर मा.वि.

७५	ललितपुर	गोदावरी नपा.	बुद्द मा.पा.वि गोदावरी न.
७६	ललितपुर	गोदावरी नपा.	श्री वाणी विलास मा.वि.
७७	ललितपुर	महालक्ष्मी नपा.	श्री गम्भिर समुन्द्र सेतु मा.वि.
७८	ललितपुर	ललितपुर महानपा.	श्री बालकुमारी मावि सुनाकोटी.
७९	ललितपुर	ललितपुर महानपा.	श्री पाटन मा.वि.,
८०	ललितपुर	ललितपुर महानपा.	श्री हरिसिध्दी मावि., हरिसिध्दी
८१	ललितपुर	बागमती गापा.	श्री नारायणी मावि.
८२	सिन्धुपाल्चोक	ईन्द्रावती गापा.	श्री चन्डेश्वरी मा.वि.
८३	सिन्धुपाल्चोक	चौतारा साँगाचोकगढी नपा.	श्री जन जागृति मासाँगाचोक.वि.
८४	सिन्धुपाल्चोक	जुगल गापा.	श्री कालि देवी मा.वि.
८५	सिन्धुपाल्चोक	पाँचपोखरी थाडपाल गापा.	श्री भिम विधा आश्रम
८६	सिन्धुपाल्चोक	बलेफी गापा.	श्री सरस्वती मा.वि. चिम्लिङ
८७	सिन्धुपाल्चोक	बाह्रबिसे नपा.	श्री बच्छलादेवी मानागबुचे.वि.
८८	सिन्धुपाल्चोक	मेलम्ची नपा.	श्री बालसुधार मावि.
८९	सिन्धुपाल्चोक	लिसंखु पाखर गापा.	श्री जनकल्याण मावि.
९०	सिन्धुपाल्चोक	सुनकोशी गापा.	श्री गणेश मायामुना डाँडा.वि.
९१	सिन्धुपाल्चोक	हेलम्बु गापा.	श्री पाल्चोक मा.वि.
९२	सिन्धुली	कमलामाई नपा.	श्री सिद्दबाबा मावि., पानीट्याङकी
९३	सिन्धुली	कमलामाई नपा.	श्री कमला जनज्योति मावि., सिलामे
९४	सिन्धुली	गोलन्जोर गापा.	श्री कौशिका मागोलन्जोर.वि.
९५	सिन्धुली	तीनपाटन गापा.	श्री बेङकटेश्वर मावहुनतिल्पुङ.वि.
९६	सिन्धुली	दुधौली नपा.	श्री सरस्वति मा.वि.,डकाह
९७	सिन्धुली	फिक्कल गापा.	श्री सुनकोशी माखाडसाड.वि.
९८	सिन्धुली	मरिण गा.पा.	श्री कुशेश्वर मानक्कली .वि.
९९	सिन्धुली	सुनकोशी गापा.	श्री गणेश मावि., मझुवा
१००	सिन्धुली	हरिहरपुरगढी गापा.	श्री हरिहरपुर माघन्टे.वि.

CHAPTER 8: COVID 19 EMERGENCY AND RESPONSE

Introduction

In the case of disaster, it has been proven that one of the most crucial factors in saving lives is command and coordination. To address this issue, the Ministry of Health and Population (MoHP), 2012, decided (Secretary level decision, dated 12 January 2012) to establish HEOC (Health Emergency Operation Center) within the MoHP premises. This has been proven true during the Gorkha earthquake of 2015. To replicate the program Provincial Health Emergency Operation Centers (PHEOC) were created.

Previously, PHEOC was established only in Gandaki, Karnali, and Sudurpaschim province, whereas now it is established in all provinces including Bagmati Province. Unlike other provinces, the building of PHEOC is built by the MOH of Bagmati Province itself. From the establishment period, technical and other logistic support is provided by WHE (WHO Health Emergencies) Nepal. In the manner of HEOC, PHEOC will also be a command center of the province in case of any health emergencies and/or disasters. It will host necessary resources and data for effective coordination within the province including local level, intra-province, and the federal level.

Roles and responsibilities of PHEOC

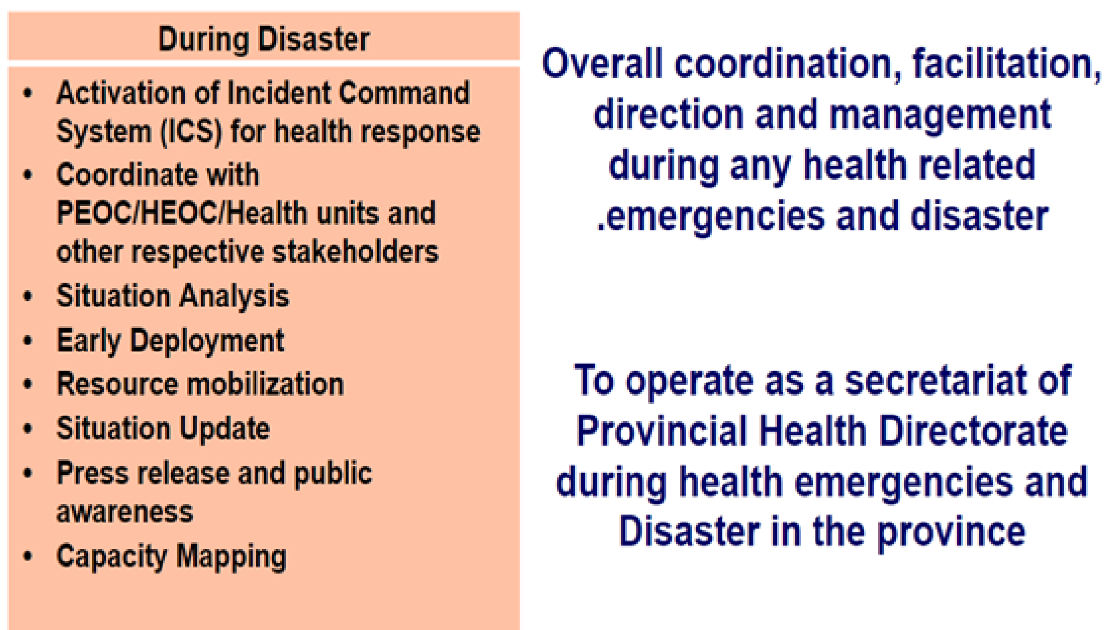


Figure 58: Roles and Responsibilities of PHEOC

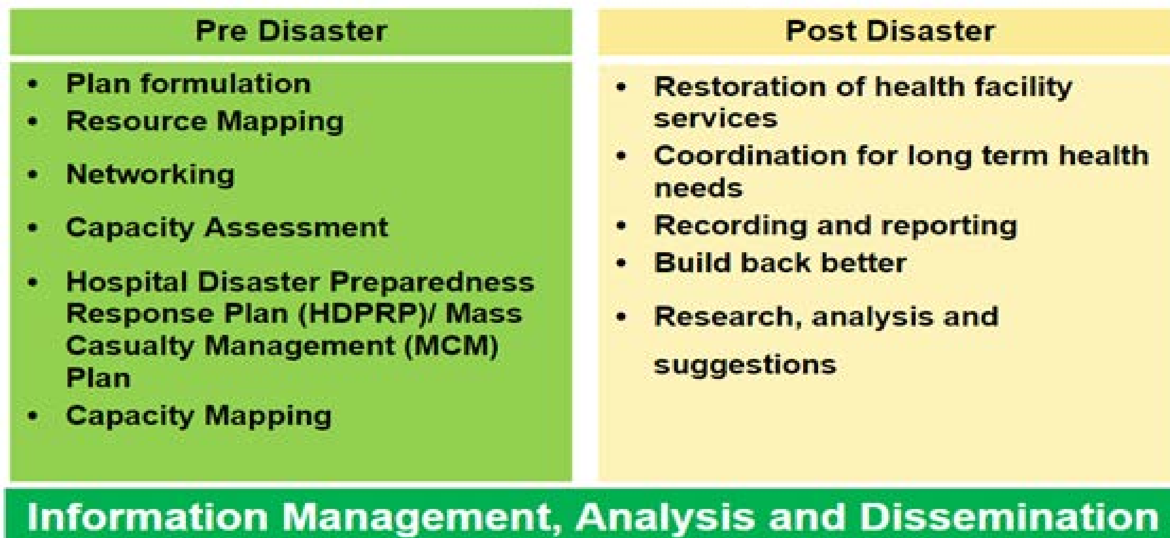


Figure 59: Information Management. Analysis and Dissemination

Objective of PHEOC

Specific objective

- Reciprocation of information and data related to health and natural disasters and rapid response to minimize the health-related problems at the provincial level.
- Communicate and coordinate with the DoHS, EDCD, HEOC, MoSD, PHD, Health Offices, Local Units, PEOCs, DEOCs Hospitals, MOIAL, DAOs, and other related authorities.

General objectives

- To work as a secretariat of the Health Directorate during health emergencies and disasters.
- During health emergencies and disasters; coordinate with the DoHS & Divisions/ Centers, MoSD, and HEOC for Emergency Medical Team and rapid response.
- To work as a communication body at the provincial and local levels during health emergencies and disasters.
- Operate necessary assistance by coordinating with the affiliated international bodies, non-governmental organizations, and organizations during emergencies and disasters.
- Necessary coordination with the Hub and satellite hospital networks to facilitate service during emergencies and disasters.
- Collect, consolidate and maintain databases or data relevant to health disasters.
- To coordinate with the HEOC, National Epidemiology and Disease Control Center/ DoHS, (NHTC) /NPHL for Standard /Criteria and capacity development.

Human resources: Available Human Resources dedicated to PHEOC Bagmati

Government

- COVID-19 Focal person of PHEOC: 1
- Office Assistant: 1

WHO

- Field Medical Officer (FMO)-1
- COVID-19 Surveillance Associate (CSA)-1
- Information Management Associate (IMA)-1
- Driver-1

8.1 Health Sector response to COVID –19 Pandemic

On 31st December 2019, the Novel coronavirus was first reported by China to the World Health Organization (WHO). Following the widespread of COVID-19 caused by a novel pathogen (SARS-CoV-2) around the world, on 30 January 2020, the World Health Organization (WHO) declared a Public Health Emergency of International Concern (PHEOC); and on 11 March 2020, a global pandemic. Unprecedented and unforeseen highly infectious Coronavirus Disease became a significant public health concern worldwide. Every nation has taken maximum initiative measures to break the transmission chain of the virus.

Epidemiology

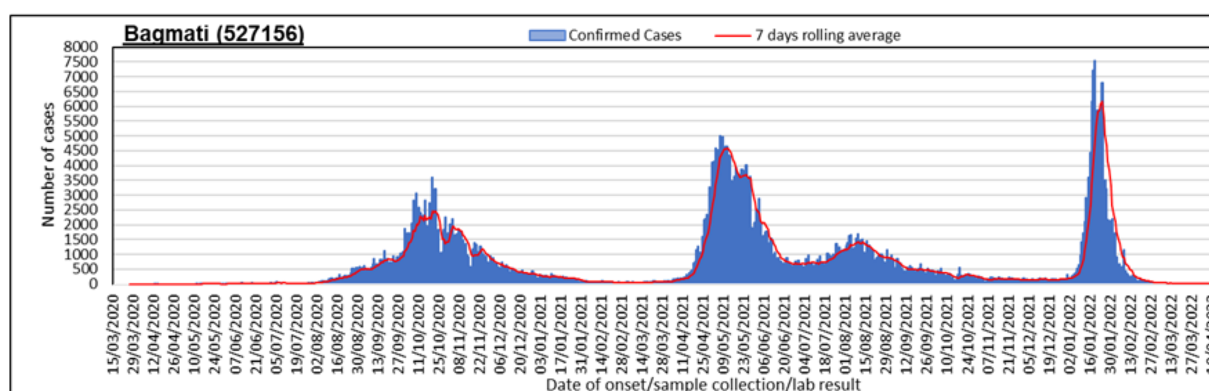


Figure 60: Epidemiology of Covid -19 cases

The first COVID-19 case in Nepal was detected on 23rd January 2020 in Kathmandu District. A 31-year-old man studying in Wuhan, China returned to Kathmandu and visited Shukraraj Tropical and Infectious Disease Hospital, Teku for respiratory problems. He was admitted on January 13 and discharged from the hospital on January 17 on improvement in his health condition, while his sample was sent to a WHO accredited laboratory in Hongkong for testing for COVID-19. On January 23, he was confirmed as Nepal's

first COVID-19 patient. Until now **570579** cases of COVID-19 have been reported in Bagmati Province. Bagmati Province contributed around 51% of the total caseload of COVID-19 in Nepal. The most affected districts are Kathmandu, Lalitpur and Bhaktapur followed by Chitwan and Makwanpur.

Table 8.1.1 COVID-19 Updates of Nepal and Bagmati Province (Till Chaitra 30 2078)

Details	Nepal	Bagmati Province
Total Tests	6732709	3927536
Total RT-PCR Positive cases	1118788 (16.62%)	570579 (14.53%)
Recovered Cases	966160 (98.70%)	565179 (99.05%)
Deaths	11,951 (1.20%)	5327 (0.93%)

The above table represents the comparison between the total COVID-19 updates of Nepal and the Bagmati province till the 30th of Chaitra 2078 from the beginning of the pandemic. With 570579 cases, Bagmati Province contributes over 50% (50.99%) of positive cases to the national total. Similarly, a total of 11,951 people died due to COVID-19 in Nepal, while 5327 deaths were from Bagmati Province.

In the context of recoveries, 98.70% of infected people had made full recoveries in Nepal while 99.05% of recoveries were recorded from Bagmati.

Table 8.1.2 District-wise distribution of COVID-19 tests and cases (Beginning of the Pandemic to Chaitra 30)

Districts	RT-PCR Tests		Antigen Tests		Total Tests	Total Positive Cases	Test Positivity Rate
	Total Swab Collected	Total Positives	Total Swab Collected	Total Positives			
Kathmandu	2345479	325158	60899	9126	240637	334284	%13.89
Lalitpur	883479	66391	19604	2795	903083	69186	7.66%
Bhaktapur	77149	38286	19007	2493	96156	40779	42.41%
Rasuwa	3688	1355	2734	957	6422	2312	36.00%
Nuwakot	28967	9654	6782	2076	35749	11730	32.81%
Dhading	7835	8014	13692	4268	21527	12282	57.05%
Chitwan	191863	30347	16348	5166	208211	35513	17.06%
Sindhuli	4674	3938	4368	1299	9042	5237	57.92%
Makwanpur	57762	15597	21337	5034	79099	20631	26.08%
Ramechhap	3461	3322	7323	2282	10784	5604	51.97%
Dolakha	7707	3983	5361	1821	13068	5804	44.41%
Kavrepalanchowk	116470	16180	10174	2732	126644	18912	14.93%
Sindhupalchowk	7585	7121	3788	1184	11373	8305	73.02%
Total	**3736119**	**529346**	**191417**	**41233**	**3927536**	**570579**	**14.53%**

Gender-wise Distribution of COVID-19 cases (RT-PCR Positives)

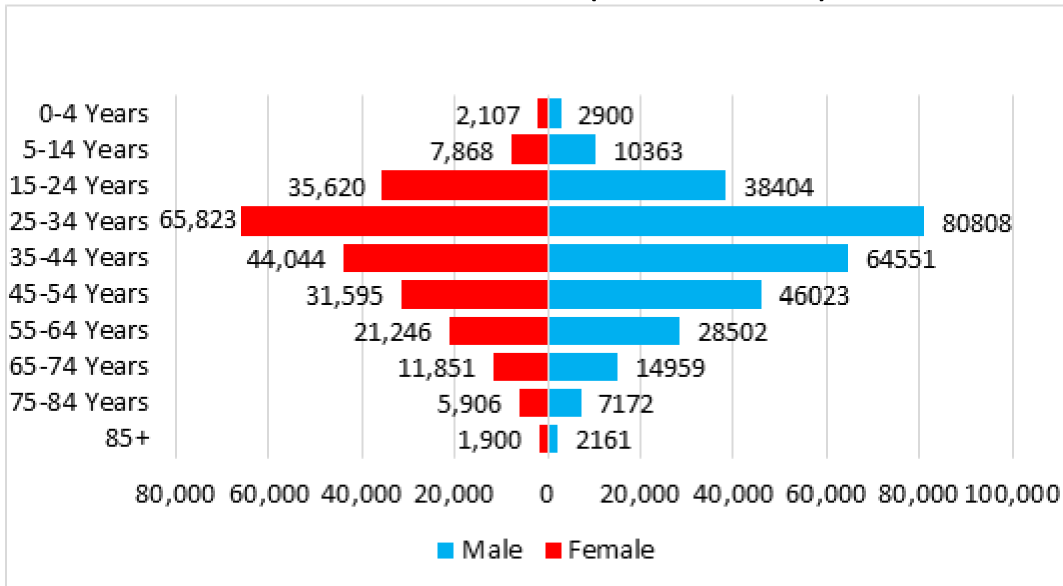
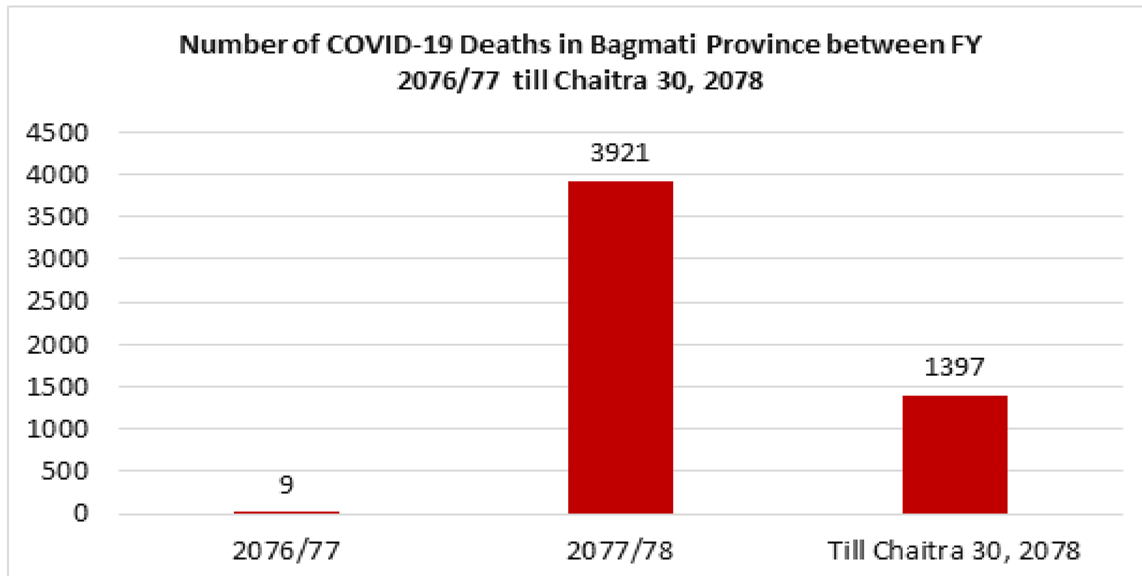


Figure 61: Covid 19 Test & Positive Cases

The above diagram 60 represents the Age-Sex wise distribution of COVID-19 cases (RT-PCR Positives) in Bagmati province (2078/12/30). The number of COVID-19 infected males (295843, 56.48%) was slightly greater than that of COVID-19 infected females (227960, 43.52%) by 12.96%.



Deaths due to COVID-19 in the past three fiscal years

Figure 62: Deaths due to Covid 19 in past three fiscal years

Most COVID-19 deaths were observed in FY 2077/78 i.e., 3921, which was followed by 1397 deaths in the Year 2078, and 9 deaths in FY 2076/77.

8.2 Response to COVID -19 Pandemic

Following the detection of the first case in Kathmandu, the province had a very minimal number of RT-PCR laboratories which was increased to 57(Public +Private) by the end of the year 2078. Currently, there are around 11 RT-PCR laboratories under PPHL Bagmati. The government of Nepal has declared 21 hospitals in Bagmati province (Federal+ Provincial) as COVID-19 care units functioning under MOHP.

Table 8.2.1 Plans, guidelines for prevention and management of the pandemic

Plans, Guidelines, SoPS, Directives formulated/Adopted by MOH Bagmati for prevention and management of the pandemic			
S. N	**Topic**	**Group**	**Published Date**
1.	Guidance on use of AstraZeneca and Covishield vaccine	COVID-19 Circular	2021-08-10
2.	Corona Epidemic Prevention Volunteer Operation Guidance, 2076	COVID-19 Circular	2020-05-20
3.	Case Investigation and Contact Tracing Investigation Team Deployment for COVID-19, I Interim Guideline 2077	COVID-19 Circular	2020-05-13
4.	Flow Diagram for testing returnees for COVID-19 (RDT or PCR)	COVID-19 Circular	2020-05-03
5.	Interim Guideline for the establishment and Operationalization of molecular Laboratory for COVID-19 testing in Nepal	COVID-19 Circular	2020-05-03
6.	Pocket Book of Clinical Management of COVID-19 in Healthcare Setting	COVID-19 Circular	2020-05-03
7.	Safety measures to be adopted at the PoEs during the epidemic of COVID-19.	COVID-19 Circular	2020-05-03
8.	Interim Guidelines for Covid-19 and other health care services in regards to Covid-19 epidemic	COVID-19 Circular	2020-05-03
9.	Interim Clinical Guidance for Care of Patients with COVID-19 in Health Care Settings	COVID-19 Circular	2020-05-03
10.	COVID-19 Clinical Management Guideline	COVID-19 Circular	2020-05-03
11.	Guidelines for use of PPE -COVID-19	COVID-19 Circular	2020-05-03
12.	COVID-19 Patient Transfer Team (PTT) Guidelines	COVID-19 Circular	2020-05-03

Table 8.2.2 COVID-19 Prevention and Control Action Plan (February 2076 onwards)

S.N.	Major Tasks	Implementing body
1	Instructions to the Hospital, Health Offices,and Ayurveda Centers under the Ministry to be in a state of readiness and manage according to the federal protocol.	Ministry of Health
2	Formation of various high level monitoring committees and working groups for prevention and control of COVID 19	Ministry of Health
3	On-Site Technical Assistance in Rasuwa and Sindhupalchok PoEs, Provincial Health Offices and Hospitals and Quarantine	Ministry of Health
4	Training of health workers on proper use of PPE and swab collection process	Public Health Laboratory
5	Training of health workers involved in the treatment and management of Covid 19	Health Training Center
6	Funding for construction of health desk in Rasuwa and construction of prefab building	Health Office Rasuwa
7	Purchase and distribution of PPE, Infrared Thermometer etc. required for management of Covid 19	Health Directorate, Province Health Logistic Management Center
8	To provide equipment and technology for ICU isolation and quarantine management and operation in the state	Province Health Logistic Management Center
9	Purchase of necessary equipment for setting up ICU in Bhaktapur and Sindhuli Hospitals	Bhaktapur and Sindhuli Hospital
10	To operate ICU and isolation effectively in the designated hospitals of the state	Hospitals, Health Offices, and Local Levels
11	To mobilize school nurses for isolation, ICU and quarantine operation	Local Levels, Ministry of Health
12	Management Assistance for Operation of Isolation in Corona Hospital, Bharatpur, Dhulikhel and Ratnanagar Hospital	Local Levels
13	Fever clinic operations and continuous monitoring of ARI and ILI	Hospital, Health Office
14	Selection and management of physical infrastructure for ICU, isolation and quarantine management	Hospital, Health Office, and Local Level
15	Release of additional budget for control and prevention of Covid 19	Ministry of Health
16	Preparation, publication, dissemination and distribution of health information against Covid 19	Health Directorate, Health Office
17	To mobilize all stakeholders for COVID prevention through multi-sectoral coordination	Health Office, Ministry of Health
18	Operating / Managing Ambulance for Coronavirus (COVID-19) Patients	Local Levels, Health Office
19	Additional staff management in Quarantine, Isolation Ward and ICU Room for Corona Virus (COVID-19)	Hospital

20	Establishment and operation of laboratory in Hetauda for lab testing	Public Health Laboratory
21	Start testing from RDT kit	Health Office, Local Levels
22	Contact tracing for confirmed cases	Health Office, Local Levels
23	Regular operations from PHEOC	Health Directorate
24	Regular reports	Health Office, Ministry of Health

Policy level Decisions

1) On 2077/01/12, a special situation in the health sector was declared in the Bagmati province due to the epidemic of COVID-19.

2) Decision dated 2077/02/28 regarding the provision to provide risk allowance and compensation, and hotel accommodation / meal / meal expenses to the workforce of health sector involved in the control, prevention, and treatment of COVID-19 within the province:

a. To provide risk allowance as determined by the Government of Nepal without any duplication to encourage the workforce deployed by the State Government or its subordinate bodies for the control, prevention, and treatment of Corona Virus (COVID-19).

b. Workforce to be deployed by the state government in government or non-government hospitals, or health institutions directly or indirectly involved in the control, prevention, and treatment of corona virus (COVID-19). A lump sum of Rs. 40 (forty) lakhs to be provided as compensation, in case of death due to corona disease in such assignments.

c. If the workforce directly deployed by the State Government / Ministry of Health and subordinate bodies in the dedicated hospitals and dedicated laboratories involved in the control, prevention, and treatment of Corona virus (COVID-19) or other places, and other workforce directly involved in the management are required to be quarantined in hotels, a maximum of Rs. 2250 / - (only two thousand two hundred and fifty) rate to be provided for hotel accommodation and lunch / meal amount to the concerned hotel through the concerned office based on duty roster.

d. To provide food at the rate of 200 / - (two hundred) to the government or non-government hospitals or health institutions involved in the control, prevention and treatment of Corona virus (Covid-19), for the workforce assigned by the State Government / Ministry of Health / Directorate of Health and subordinate bodies and other workforce directly involved in management (except for the workforce of Covid-19 Dedicated Hospital and Dedicated Laboratory).

Budget Management

a. In FY 2076/77, a total of twenty crore four lakh and twenty-six thousand (20,04,26,000 / -) budget has been released to the Ministry and its subordinate offices (Health Directorate, Health Supply

Management Center, Health Training Center, Public Health Laboratory, Hospital, Health Office, Ayurveda Health Centers) for the prevention, control, and treatment of COVID-19.

b. For FY 2077/78, a total of thirty-six crore, ninety-one lakhs, twenty-four thousand (36,91,24,000) was allocated as the regular budget of the Ministry and its subordinate offices for the prevention, control, and treatment of COVID-19.
c. Budget to be implemented in the coming fiscal year.

The committees formed in the province are as follows:

1. The committees formed by the Province Disaster Management Steering Committee's meeting chaired by Chief Minister:
   - Province Level Corona Control Committee,
   - Health Management Committee,
   - Market Monitoring High Level Committee,

2. Committees formed in the Ministry of Health for the response of COVID-19:
   - Corona Virus Prevention and Control High Level Monitoring Committee, convened by the Secretary,
   - Province Level Rapid Response Team (RRT), under the coordination of Director, Provincial Health Directorate,
   - Technical committee under the coordination of the Head of Hospital Development and Medical Services Division in the Ministry,
   - District level RRT in each health office,
   - District level Case Investigation and Contact Tracing Team (CICTT) in each health office, and
   - Local level Case Investigation and Contact Tracing Team (CICTT).

Major Work done by the Provincial COVID-19 Disaster Management Fund

1. Management of isolation beds / ICU beds (including necessary logistics), construction of isolation rooms at various locations, food / nutrition, medical treatment, workforce allowance, staff management and other expenses for the infected COVID-19 in isolation, HDU and ICU rooms A total of 40 million budget has been released in 8 hospitals.
2. A total budget of Rs. 15 crore 81 lakhs have been allocated for the operation of beds, tools, infrastructure construction, operation, and management (PPE and other management), ICU management, LAB management, distribution of medicines to isolated patients of COVID-19.

Other Key Tasks:

School nurses under the province have been assigned to the quarantine centers, construction of isolation buildings at Gauritar, the establishment of isolation centers at various places, operation of health desks, and usage to share IEC content for the prevention of COVID-19 infection. Several batches of critical care training are provided to health workers, working in coordination with the federal and local governments. Regular daily situation reports are being published by the Ministry of Health.

Key Learnings:

1. Although there was a lack of proper information about the nature of the disease, incomplete and limited information regarding established science and methods for prevention, control and treatment, detailed discussions and consensus made it easier to implement policy formulation.
2. The implementation aspect is easier when formulating the policy of the province along with the policy formulated by the center.
3. An additional 3 to 9 staff in the health offices under the province made it easier to respond at the district and local level and to facilitate cooperation and coordination at the local level.
4. Separate operation of the quarantine, isolation and HDU facilities related to COVID in hospitals allowed the non-COVID services to operate without interruptions.
5. The establishment of PCR lab, HDU, ICU and ventilator in response to COVID has upgraded institution's services. Moreover, these service expansions have been carried out by considering the future needs as well.
6. Re-operating the isolation center for COVID, which was earlier established but could not be operated later due to several reasons, seemed to be convenient and economical. For instance, an empty hostel in Gauritar, Hetauda, and a quarantine center in Kharipati, Bhaktapur, which was earlier in operation.
7. In the early days fever, swab collection, and quarantine centers were operated in collaboration with local non-government hospitals. This facilitated the response against COVID.
8. The active involvement of the Hospital Management Committees' Chairpersons made it easier to coordinate with the local level and mobilize public participation.
9. Interaction with the Chief Minister, Ministers and Secretaries of all the Ministries has facilitated the budgeting process and other activities.
10. The COVID Awareness Program conducted with the Hetauda Chamber of Commerce and Industry and trade union officials have reduced the differences in the factory and aided in the operation of the factory.

Some important decisions of the Provincial Task Force Meeting:

1. Inform the health office to keep the cold chain centers managed during the vaccination campaigns.
2. To request the Ministry of Health, Bagmati Pradesh for the necessary budget management to extend the term of the employees working in the contracted CICT team in the health offices till Ashar.
3. To ensure strict adherence to the following Public Health Safety Measures (PHSM):
   - Maintain physical distance (2 min)
   - Wash your hands thoroughly with soap and water
   - Do not go in crowds

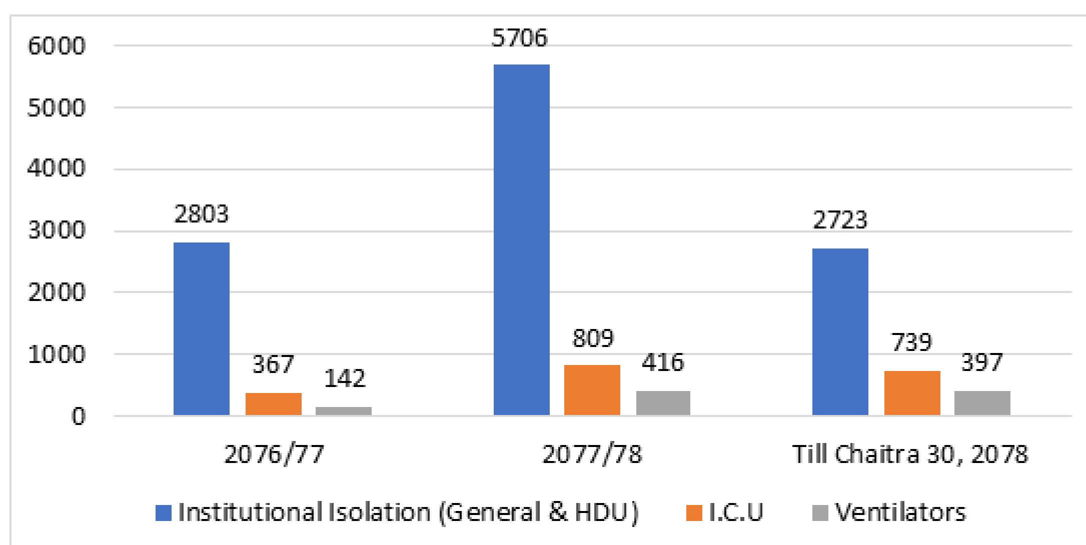


Figure 63: Covid 19 bed capacity in past three fiscal years

   - Use masks
4. Instruct the health offices to operate the CICT team effectively. Direct the CICT teams in the municipality to coordinate for effective operation.

8.3 COVID-19 bed capacity in the past three fiscal years

The maximum bed capacity for COVID-19 was available during FY 2077/78 with 5706 beds for Institutional Isolation (General & HDU), 809 beds for I.C.U, and 416 Beds for Ventilators. This was followed by 3859 total institutional beds in 2078 (Institutional isolations 2723, ICU 739, and Ventilators 397). Lastly, there were only 2803, 367, and 142 beds for Institutional Isolation (General & HDU), I.C.U, and Ventilators respectively during FY 2076/77. The maximum bed capacity was observed during the delta wave and gradually decreased following the decrease in the no. of cases. However, it shows that the capacity can be increased whenever required in the future.

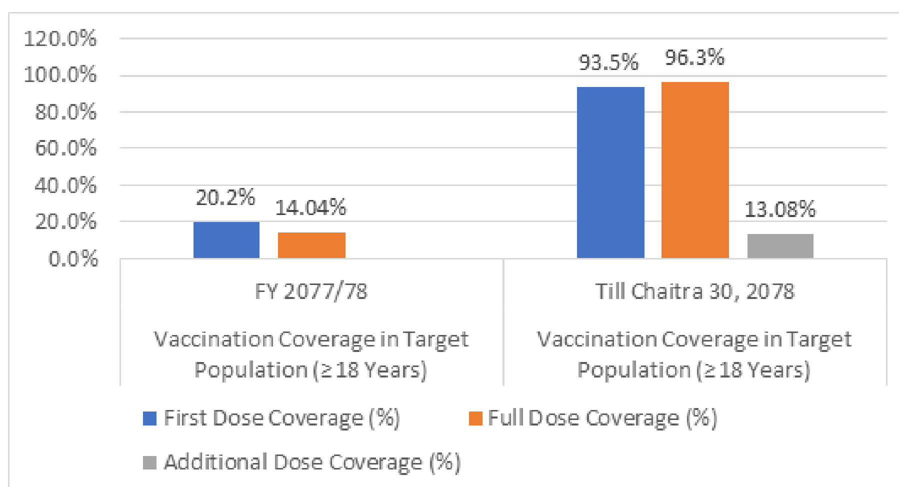


Figure 64: Vaccination Coverage (18 years and above)

COVID-19 Vaccination Coverage in Bagmati Province from FY 2077/78 Onwards

COVID-19 Vaccination Coverage among target population (18 Years and above)

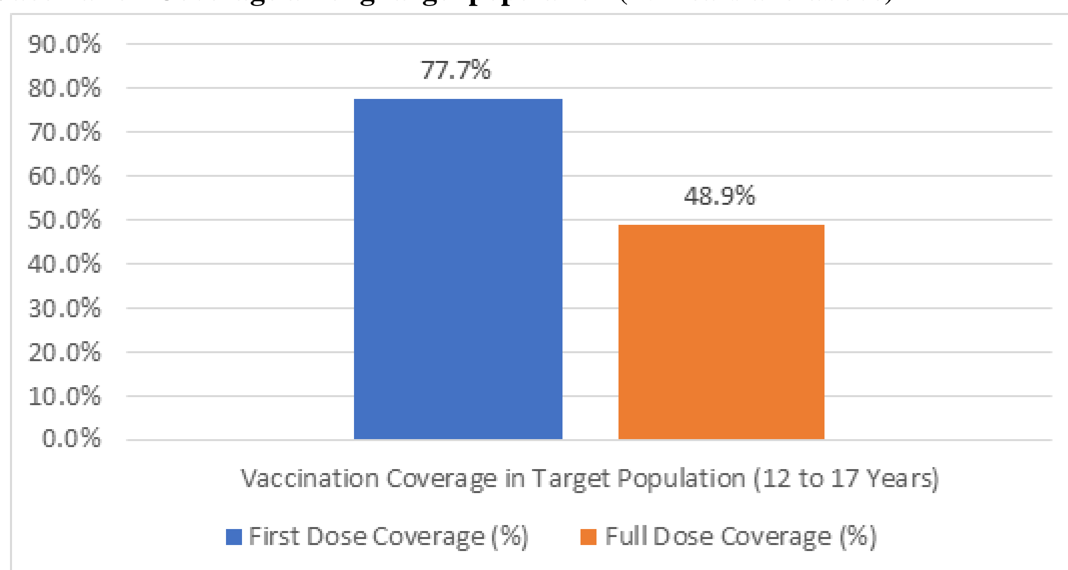


Figure 65: Vaccination Coverage (12 to 17 years)

COVID-19 vaccination coverage increased swiftly among the target population (≥ 18 years) between the FY 2077/78 and the end of 2078 and reached 93.5%, 96.3%, and 13.08% in the first dose, full dose, and additional dose coverage respectively.

COVID-19 Vaccination Coverage among target population (12 to 17 Years) till Chaitra 30, 2078

The vaccination campaign for the target population of 12 to 17 years old began in 2078 B.S. which reached coverage of 77.7% and 48.9% for the first dose and second dose respectively by the end of 2078.

CHAPTER 9: AYURVEDA

Introduction

Ayurveda is the oldest documented medical system of the world. Ayurveda focuses on the preventive medicine and promotion of health rather than the curative medicine. In modern Nepal, the official attempt to develop Ayurveda began during the reign of King Tribhuvan. Department of Ayurveda was established in 2010 BS with the aim to develop Ayurveda in Nepal. At present, the constitution of Nepal calls for the promotion of Ayurveda along with Naturopathy, Homeopathy, Unani, Amchi and other traditional medicines. The National Ayurveda Policy 1995, National Health Policy 2017 and National Urban Health Policy 2015 call for expanding Ayurveda services.

Ministry of Health of Bagmati Province is responsible for planning, management, supervision, monitoring and evaluation of Ayurveda and miscellaneous medicines throughout the province. The section works through its network facilities of 13 District Ayurveda Health Centers and 50 local level Ayurveda Aushdhalaya and 41 Citizen Ayurveda Health Centers. 36 out of 119 Local levels of Bagmati Province still lack the Ayurveda Health facilities. The provincial policies highlight the importance of Ayurveda services in primary healthcare and in the prevention of non-communicable diseases. Province government has upgraded the three province level Ayurveda Health facilities (Makwanpur, Dhading and Ramechhap) to provide the Ksharsutra, Lab and other health services.

9.1 Ayurveda and Miscellaneous Treatment Health Facilities in Bagmati Province

Ayurveda and related health facilities of Bagmati Province can be categorized into following 4 groups:

A. Regulatory bodies
   1. Ministry of Health and Population, Kathmandu
   2. Ministry of Health, Hetauda
   3. Department of Ayurveda and Alternative Medicine, Kathmandu
   4. Health Directorate, Hetauda
   5. Nepal Ayurveda Medical Council
   6. Department of Drug Administration, Kathmandu
   7. Nepal Health Research Council, Kathmandu

B. Government Ayurveda Health Facilities in Bagmati Province
   1. Nardevi Ayurveda Chikitshalaya, Kathmandu
   2. National Ayurveda Research and Training Center, Kathmandu
   3. Singh Darbar Vaidya Khana
   4. District Ayurveda Health Centers- 13

5. Ayurveda Aushdhalaya- 50
6. Nagarik Arogya Health Centers-41
7. Pasupathi Homeopathy Hospital
8. Unani Dispensary

C. Ayurveda Teaching Institution
    1. Bachelor and above-2
    2. Certificate level-2

D. Non-government Ayurveda Health Facilities in Bagmati Province
    1. Ayurveda Hospitals- 15
    2. Naturopathy Hospitals- 14
    3. Acupuncture Hospitals- 4
    4. Ayurveda Clinics- 103
    5. Homeopathy Clinics- 14
    6. Other Clinics- 22

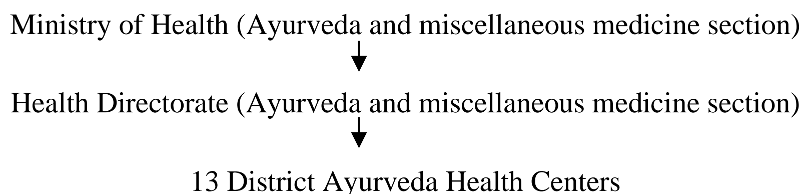
Vision, Mission, Goal and Objectives

1. To provide Ayurveda and miscellaneous health services throughout the province.
2. To expand and develop functional as well as physical Ayurveda health infrastructure in the province.
3. To upgrade provincial health status and supplement to attain sustainable development goal through Ayurveda and miscellaneous medicines.
4. To develop inter-sectorial coordination, collaboration and co-operation with the concerned bodies within and outside the province for the development of Ayurveda.
5. To cultivate, promote and conserve local herbs for the financial and health benefits
6. To use and mobilize local herbs, mines and animal resources as medicine to prevent, promote and treat the diseases in the province.
7. To procure, store and distribute Ayurveda medicines and other allied materials.
8. To improve the information system at the province level for the systematic planning, monitoring and evaluation of Ayurveda health services in the province.
9. To strengthen the monitoring and supervision activities for better qualities of Ayurveda health service in the province
10. To promote community participation in the management of the health facilities and utilization of local herbs.
11. To promote the healthy lifestyle in the province.

12. To deliver Panchakarma, Ksharsutra and other related specialized treatment in the province.
13. To develop Yoga, Naturopathy, Homeopathy, Unani, Acupuncture, Aamchi and other traditional medicines at Province.

Organizational structure of Ayurveda in Bagmati Province

a. Managed by Province Government



b. Managed by Local Governments: 50 Ayurveda Dispensaries

c. Collective Initiations (Tri-government): 41 Citizen Ayurveda Health Centers

Description of Ayurveda Human Resources under Province Government

There are 92 sanctioned posts under Province government but 134 human resources are engaged at present for the service delivery and development of Ayurveda. 11 of the DAHCs have 7 sanctioned posts each and 2 DAHCs (previous Anchal Ayurveda Aushdhalaya) have 6 posts each, Ministry of Health has 1 post and Health Directorate has 2 sanctioned posts.

Table 9.1.1 Ayurveda Human Resources under Bagmati Province Government

Post	Position			Contract		Remarks
	Sanctioned	Working	Vacant	From Province	Other sources	
Ayurveda Consultant Vigya (9th, 10th)	1	1	---	---	---	
Ayurveda Chikitshak (8th)	14	14	---	3	5	
Kaviraj (5th, 6th, 7th)	14	14	---	1	---	
Vaidya (4th, 5th, 6th)	24	23	1	---	---	Stay order-1
Sahayak Lekhapal	13	12	1	---	---	
Karyalaya Sahayogi	26	10	16	17	---	
Abhyangakarta	---	---	---	1	21	
Lab Assistant	---	---	---	--	8	
Physiotherapist	---	---	---	3	---	
Yoga Trainer	---	---	---	1	---	
	92	74	18	26	34	

Budget allocation and expenditure of Fiscal Year 2077/78

12 DAHCs were allocated 17,82,91,000/- current budget (including both federal and provincial) and from the budget the expenses were 15,09,02,900/- (with 84.64% financial progress). They received 1,22,90,000/- capital budget out of which 1,21,40,200/- was expended (with the financial progress of 98.77 %)

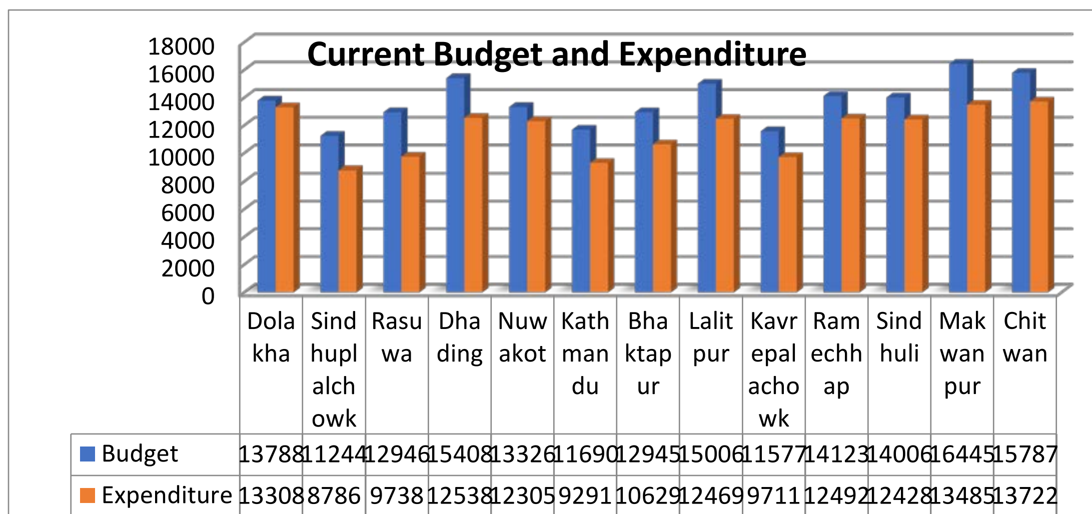


Figure 66: Current budget allocation and expenditure of fiscal years 2077/78 (both federal and provincial included) in Bagmati Province

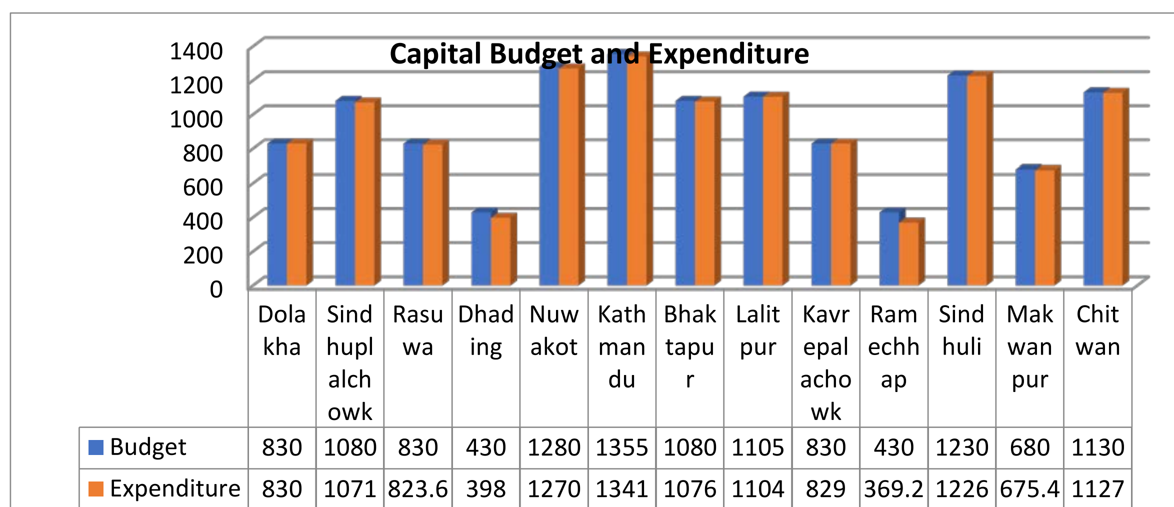


Figure 67: Capital budget allocation and expenditure of fiscal year 2077/78 (both federal & provincial), Bagmati Province

Present status of Ayurveda in Bagmati Province

The status of Ayurveda in Bagmati Province with 2 capital cities (1 National and other provincial) cannot be considered satisfactory. There is a province level health facility among 4,25,000 population, 1 local level health facility among 1,10,000 population and 1 tri-government initiated health facilities among 1,35,000 population. In the province a government Ayurveda Physician has to provide the health service to 4,25,000 population. 36 out of 119 (more than 30%) local level have no provision of Ayurveda and alternative medicine within their territories.

Statistics of Ayurveda Services in Bagmati Province

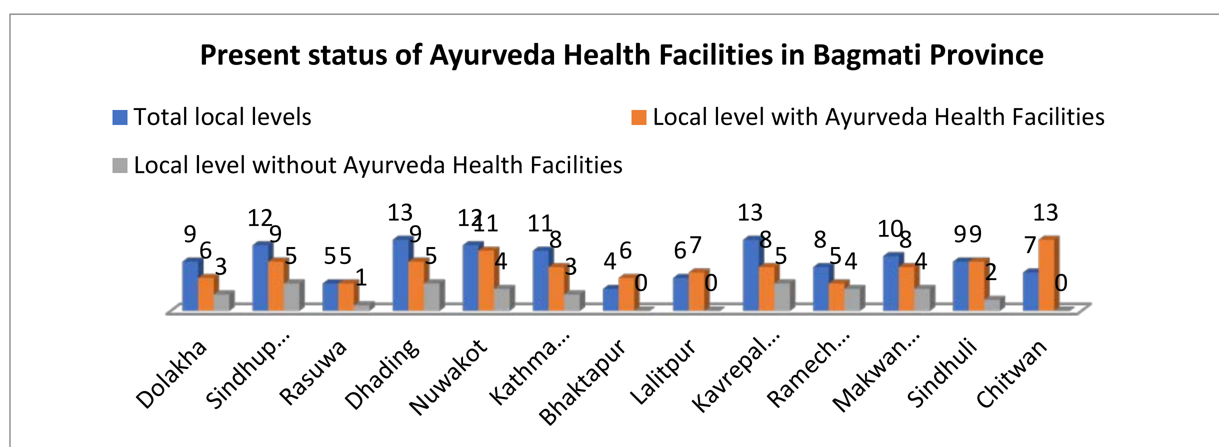
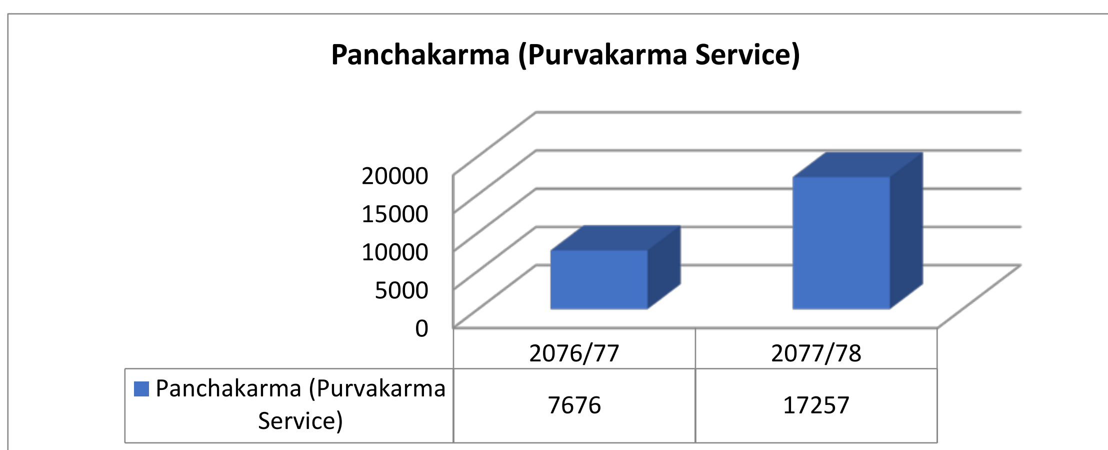


Figure 68: Status of Ayurveda Health Service at the end of fiscal year 2077/78 in Bagmati Province

a. Panchakarma (Purvakarma) Service

Panchakarma (Purvakarma) Service is also included in Basic Health Service Package. The service is provided from all the province level Ayurveda Health Facilities. 17257 patients/clients get the service in Fiscal Year 2077/78 which is 2.25 times more than the previous fiscal year.



	2076/77	2077/78
Panchakarma (Purvakarma Service)	7676	17257

Figure 69: Comparison of Panchakarma (Purvakarma) service of two consecutive FY

Table 9.1.2 District wise Panchakarma (Purvakarma) Service of Fiscal Year 2077/78 in Bagmati Province

Districts	Snehan		Swedan		Shirodhara	Others	Total
	External	Internal	Ekanga	Sarvanga			
Dolakha	323	0	323	2	32	4	681
Sindhupalchowk	1	0	65	0	0	14	80
Rasuwa	369	0	78	291	7	7	752
Dhading	2781	0	2648	133	51	5	5618
Nuwakot	581	0	55	526	0	0	581
Kathmandu	88	0	88	0	0	0	176
Bhaktapur	45	0	104	0	84	75	308
Lalitpur	59	0	278	137	26	54	554
Kavrepalanchowk	817	0	746	116	76	30	1785
Ramechhap	958	0	952	74	23	14	2021
Sindhuli	61	0	64	56	8	0	189
Makwanpur	38	0	134	213	174	319	875
Chitwan	1442	0	1130	336	661	68	3637
Total	7563	0	6665	1884	1142	590	17257

Yoga Service

Yoga Service is also included in Basic Health Service Package. The service should have been provided from all the province level Ayurveda Health Facilities. 2966 patients/clients get the service in Fiscal Year 2077/78 which is 1.64 times more than the previous fiscal year.

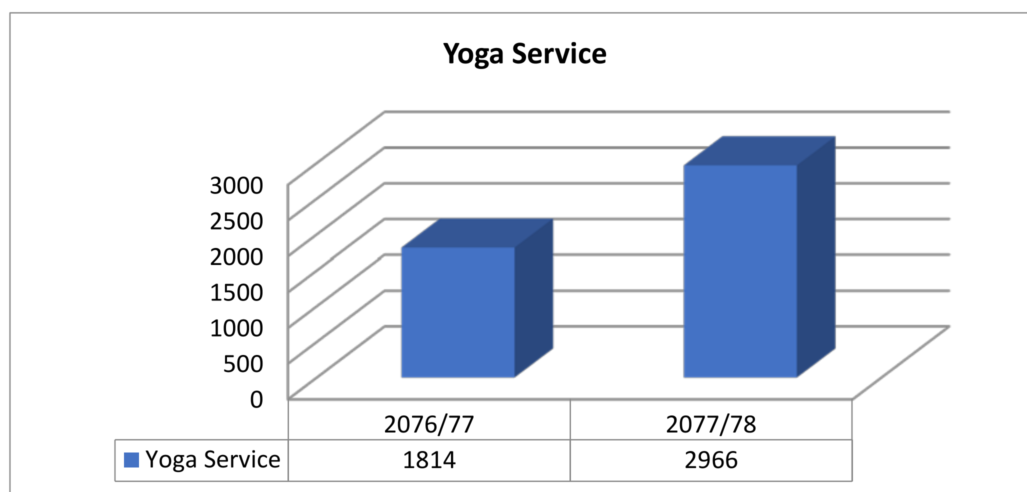


Figure 70: Comparison of Yoga Service of two consecutive fiscal years in Bagmati Province

Table 9.1.3. District wise Yoga Service of Fiscal Year 2077/78 in Bagmati Province

Districts	Therapeutic				Promotional		
	Initiated		Completed		Clients		
	Male	Female	Male	Female	Male	Female	Total
Dolakha	11	15	11	15	10	40	50
Sindhupalchowk	0	0	0	0	0	0	0
Rasuwa	225	189	225	189	225	189	414
Dhading	0	0	0	0	0	0	0
Nuwakot	0	0	0	0	0	0	0
Kathmandu	0	0	0	0	0	0	0
Bhaktapur	0	0	0	0	74	120	194
Lalitpur	190	316	94	207	115	169	284
Kavrepalanchowk	53	60	63	63	116	123	239
Ramechhap	-	-	-	-	116	90	206
Sindhuli	0	0	0	0	0	0	0
Makwanpur	24	76	15	70	15	79	94
Chitwan	67	105	43	67	76	78	154
Total	570	761	451	611	747	888	1635

Jestha Nagarik Service

Jestha Nagarik Service is provided to preserve and promote the health of senior citizens. The service is provided from all the province level Ayurveda Health Facilities. 15751 patients/clients get the service in Fiscal Year 2077/78 which is approximately 3 times more than the previous fiscal year.

Table 9.1.4. District wise Jestha Nagarik Service of Fiscal Year 2077/78 in Bagmati Province

Districts	Snehan		Swedana		Rasayan		Total		Grand Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Dolakha	14	18	14	18	57	53	85	89	174
Sindhupalchowk	---	---	---	---	---	---	---	---	---
Rasuwa	37	60	36	58	39	41	159	112	271
Dhading	201	307	201	307	230	225	632	839	1471
Nuwakot	-	-	-	-	153	112	153	112	265
Kathmandu	6	55	6	55	234	198	344	210	554
Bhaktapur		5			228	415	228	420	648
Lalitpur	49	69	50	65		333	319	468	786
Kavrepalanchowk	748	598	400	425	1052	1158	2050	2331	4381
Ramechhap	728	131	101	232	126	101	400	328	728
Sindhuli	33	31	31	29	85	73	149	133	282
Makwanpur	-	-	-	-	1805	1359	1805	1359	3164
Chitwan	606	525	606	525	298	334	1510	1384	2894
Total	2422	1799	1446	1715	4404	4436	7932	7819	15751

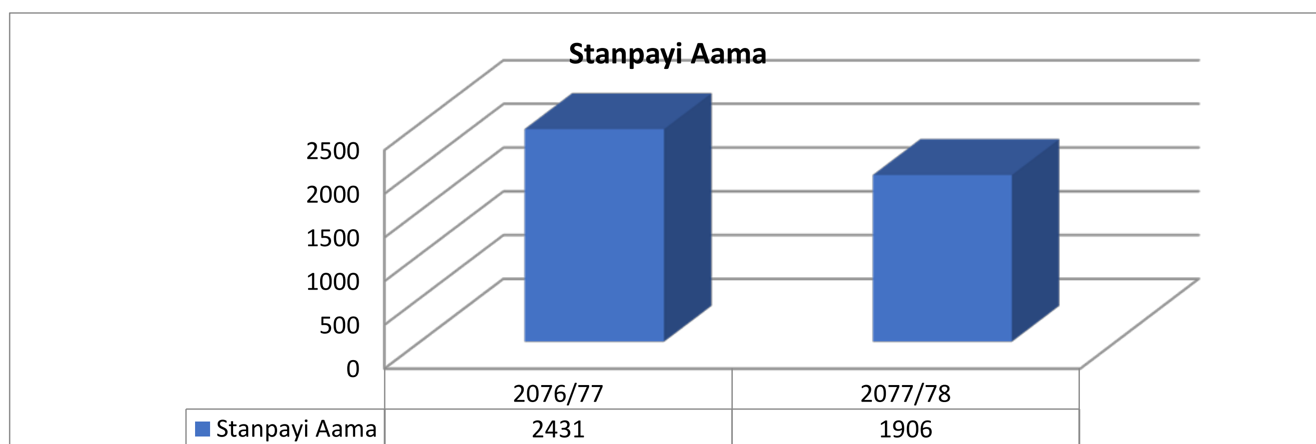


Figure71: Comparison of Jestha Nagarika Service of two consecutive fiscal years in Bagmati Province

b. Stanpayi Ama Service

Stanpayi Ama Service is also included in Basic Health Service Package. The service is provided from all the province level Ayurveda Health Facilities but the coverage of the program is very poor. The service was received by 1906 clients in the Fiscal Year 2077/78 which is only 0.78 times of the previous fiscal year.

Table 9.1.5 District wise Stanpayi Ama Service of Fiscal Year 2077/78 in Bagmati Province

Districts	< 1 month	1-2 months	2-3 months	3-4 months	4-5 months	> 5 months	Total
Dolakha	4	8	3	0	10	6	31
Sindhupalchowk	-	-	-	-	-	-	27
Rasuwa	3	5	0	4	8	11	31
Dhading	10	3	1	1	124	11	150
Nuwakot	-	-	-	-	-	-	161
Kathmandu	24	7	1	0	6	26	64
Bhaktapur	10			10	116	29	165
Lalitpur	25	13	30	58	249	25	400
Kavrepalanchowk	15	41	54	38	58	11	217
Ramechhap	5	20	90	0	0	0	115
Sindhuli	49	50	45	33	32	30	239
Makwanpur	-	-	-	-	-	-	94
Chitwan	39	34	28	24	58	29	212
Total	184	181	252	168	661	178	1906

Shalyakarma Service

Shalyakarma Service is the specialized program of Ayurveda. The service is officially provided by the 3 District Ayurveda Health Centers namely Dhading, Ramechhap and Makwanpur. The main service provided is Ksharsutra for anorectal disease. 83 patients received the Ksharsutra service which is 20.75 times more than that of previous fiscal year.

Table 9.1.6 District wise Shalyakarma Service of Fiscal Year 2077/78 in Bagmati Province

Procedure	Rasuwa		Dhading		Ramechhap		Makwanpur		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Ksharsutra	0	0	35	29	13	0	3	3	83
Agni karma	0	0	0	0	0	0	0	0	0
Others	1	4	0	0	0	0	0	0	5
Total	1	4	35	29	13	0	3	3	88

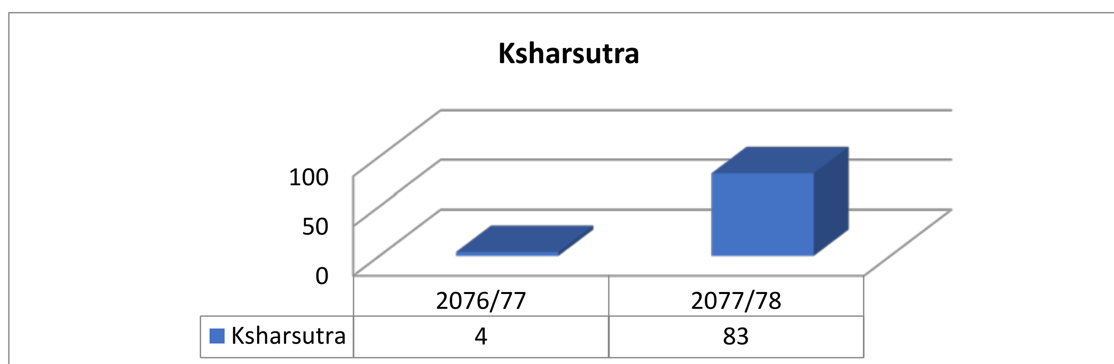


Figure72: Comparison of Ksharsutra service of two consecutive fiscal years in Bagmati Province

c. OPD Service

This is the regular Ayurveda Service provided from all the province level Ayurveda Health Facilities. 155788 patients get the OPD Service in the Fiscal Year 2077/78 which is 1.006 times greater than that of the previous fiscal year.

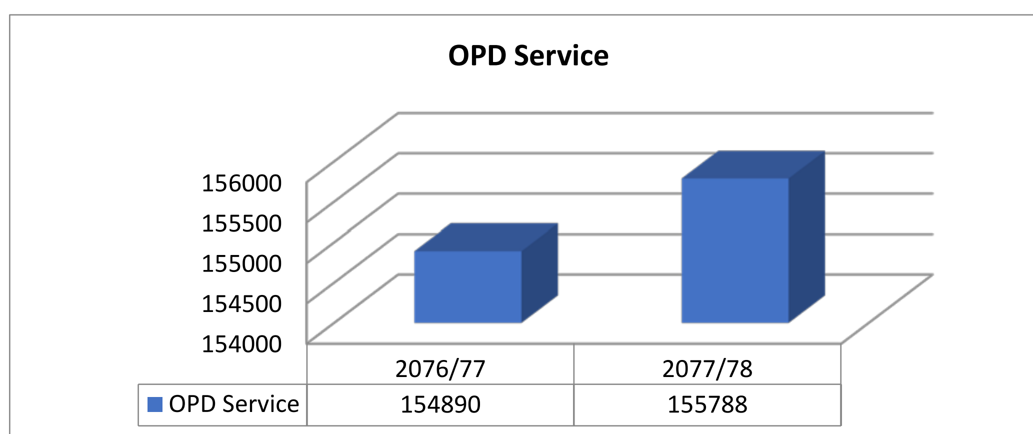


Figure 73: Comparison of OPD service of two consecutive fiscal years in Bagmati Province

Table 9.1.7 District wise OPD Service of Fiscal Year 2077/78 in Bagmati Province.

Districts	Districts Ayurveda Health Center				Nagarik Arogya Swasthya Kendra				Ayurveda Aushadhalaya			
	0-4	5-16	> 16	Total	0-4	5-16	> 16	Total	0-4	5-16	> 16	Total
Dolakha	7	75	3863	3945	22	83	4324	4429	45	38	2960	3043
Sindhupalchowk				3517				14397	475	1135	8532	10142
Rasuwa	46	32	1961	2039	90	125	860	1075	277	639	7231	8147
Dhading	54	92	9532	9678	45	39	4054	4138				15214
Nuwakot	57	249	4324	4630	89	57	3015	3161	802	1527	12633	14962
Kathmandu	45	65	3306	3416	61	33	1199	1293	78	85	11623	11786
Bhaktapur	20	55	7137	7212	12	39	2811	2862	37	98	5183	5318
Lalitpur	43	265	7895	8203	0	121	2186	2307	0	121	2186	2307
Kavrepalanchowk	431	2729	14511	17671	30	41	2866	2937				
Ramechhap	90	248	10436	10774	41	123	4502	4666	17	57	652	729
Sindhuli	173	1107	6306	7586	24	28	2178	2230	185	1217	9557	10959
Makwanpur	111	139	11530	11780	0	1032	781	1813	45	237	3634	3916
Chitwan	168	285	12212	12665	48	66	7250	7364	357	952	26875	28184
Total				103116				52672				

d. COVID 19 Ayurveda Service

COVID 19 strike our country very badly. Ayurveda provided its service during the pandemic.

Table 9.1.8 District wise COVID 19 Ayurveda Service of Fiscal Year 2077/78 in Bagmati Province

Districts	Positive cases	Promotional Service	Total
Dolakha	524	855	1379
Sindhupalchowk	161	10	171
Rasuwa	67	---	67
Dhading	---	858	858
Nuwakot	172	618	790
Kathmandu	641	36	677
Bhaktapur	613	353	966
Lalitpur	157	123	280
Kavrepalanchowk	861	417	1278
Ramechhap	472	905	1377
Sindhuli	123	503	626
Makwanpur	365	571	936
Chitwan	303	325	628
Total	4231	5927	10158

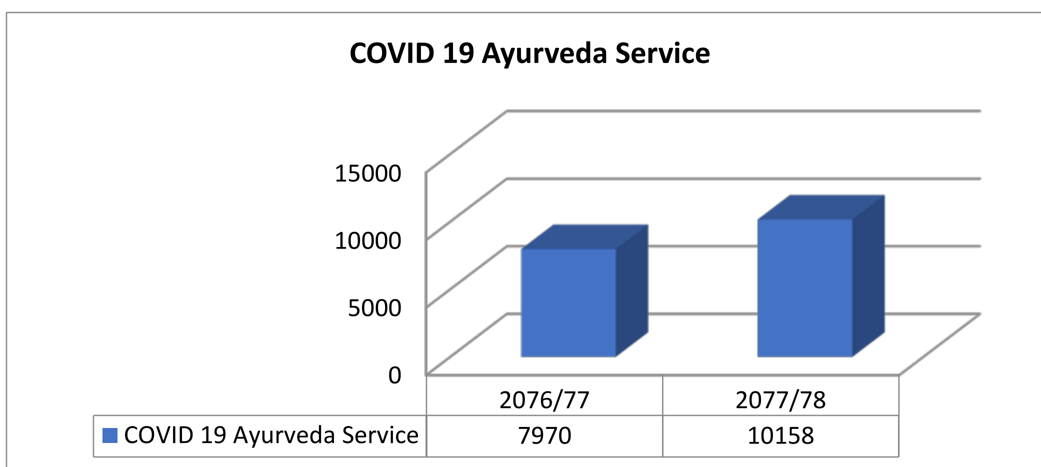


Figure 74: Comparison of COVID 19 Ayurveda service of two consecutive fiscal years

Top ten morbidity of fiscal year 2077/78

Ayurveda is providing its services in all the facets of health viz curative, promotive and preventive, rehabilitation. The table below shows the top ten morbidity during the Fiscal Year 2077/78.

Table 9.1.9 Top ten morbidity of Fiscal Year 2077/78 in Bagmati Province

S. No.		Among total OPD Visits	Rank
1	Gastritis	22118	1st
2	Vataj disease	15831	2nd
3	Abdominal disease	11329	3rd
4	Respitatory disease	7942	4th
5	Rheumatoid Arthritis	4732	5th
6	Hypertension	4432	6th
7	Gout	3580	7th
8	Diarrheal Disease	3372	8th
9	Gynecological disease	2824	9th
10	Anorectal Disease	2795	10th

1. Physical infrastructure of Province Level Ayurveda health facilities:

Physical infrastructure of province level Ayurveda Health Facilities is very poor. Despite the fact, Ayurveda is serving for the "Healthy Nepal". District Ayurveda Health Centers of Kathmandu valley have no land and building of their own. So, the Centers are run in the rented building. The other centers have their own land but not sufficient to upgrade to the hospitals. So, it's the dire need of time to acquire the land and upgrade the centers to Ayurveda Hospital.

Table 9.1.10 Physical Infrastructure of Ayurveda Health Facilities as of Fiscal Year 2077/78 in Bagmati Province.

Ayurveda Organization	Land	Unit	Building	Remarks
DAHC Dolakha	756	Meter^2	Own	
DAHC Sindhupalchowk	1-0-0-0	Ropani	Own	
DAHC Rasuwa	0-6-0-0	Ropani	Rent	
DAHC Dhading	1-2-3-2	Ropani	Own	
DAHC Nuwakot	1-4-0-0	Ropani	Rent	Own building damaged by Earthquake
DAHC Kathmandu	----	----	Rent	
DAHC Lalitpur	----	----	Rent	
DAHC Bhaktapur	----	----	Rent	
DAHC Kavrepalanchowk	0-15-0-0	Ropani	Own	
DAHC Ramechhap	2-0-0-0	Ropani	Own	
DAHC Sindhuli	0-5-0-0	Bigha	Own	
DAHC Makwanpur	0-5-0	Bigha	Own	
DAHC Chitwan	0-4-6	Bigha	Own	

2. Ayurveda Organization under construction in Bagmati Province

- Rural Pharmacy, Ratnanagar, Chitwan

3. Major Ayurveda service and programs

- OPD
- Panchakarma (Purvakarma) service
- Distribution of galactagogue medicine to lactating mother
- Geriatric health promotion program
- School Ayurveda health and yoga program
- Free Ayurveda health camp
- National, International Yoga Day and National Health Day (Dhanwantari Diwas)
- Lifestyle management program at PHC
- Production, publication and broadcasting of Ayurveda IEC materials
- Healthy life program
- Preparation of herbal powder medicine
- Nasyakarma program to minimize the pollution related health hazard of province traffic police.
- Ayurveda Life style management and health promotion program.

4. Major Achievement

- Approval of Design of Ayurveda Hospital
- Formation of DAHC Operation and Management Committee

- Zonal Ayurveda Aushadhalaya to District Ayurveda Health Center
- E attendance, CCTV installation in all DAHCs
- Installation of Digital Display Board (except Rasuwa, Bhaktapur, Sindhuli, Nuwakot)
- Construction of Dhanwantari Statue/Mandir in all DAHCs compound
- Extended Service: Makwanpur, Dhading, Ramechhap (with Ksharsutra service)
- COVID 19 Ayurveda Isolation Center, Chitwan
- Establishment of 42 Nagarik Arogya Sewa Kendras
- Establishment of "E" class Laboratory (except Nuwakot)
- Establishment of Paying Pharmacy: Chitwan, Lalitpur, Makwanpur
- Land acquisition (Nuwakot, Lalitpur, Makwanpur, Ramechhap, Chitwan)

5. Significant Initiatives

- Up gradation of DAHC to Ayurveda Hospital (Makwanpur, Chitwan, Lalitpur, Ramechhap, Nuwakot) with budget allocation for DPR.
- Feasibility study to establish the province level Ayurveda Medicine Production Center
- Feasibility study to establish Alternative Medicine Service Center/Hospital (especially Naturopathy and Homeopathy)
- Service extension in 4 DAHC and up gradation of all DAHC
- Building acquisition in Rasuwa
- Creation of 9th, 7th , 5th, 4th and no level temporary post for extended service (Dhading, Makwanpur, Ramechhap, Sindhuli)
- Orientation program about the available Ayurveda Health service to FCHV

6. Issues and opportunities of Ayurveda in Bagmati Province

Key Issues:

- Poor physical infrastructure, logistic management and advanced technology.
- Inadequate human resources- revise the old Organogram (ZAA-2034 & DAHC-2051) and DAHC-Makwanpur and Kathmandu have 1 vaidhya less than other districts.
- No any Ayurveda hospital in the province.
- Ayurveda Service Extension without the documentation of Minimum Service Standard
- No access to Ayurveda Aushdhalaya -Ayurveda health management information system.
- Renewal and monitoring authority of private Ayurveda and alternative health facilities.
- Lack of related manual, guideline and standard treatment protocol.
- No proper Health Care Waste Management System
- Unclear role and responsibility of DAHC operation and management committee leading conflict

- No training activities mainly for Ayurveda doctors.
- Limited Coordination/Linkage/communication with Hospitals, Health Office and Local level Health Facilities
- There is less Public Health intervention program in Ayurveda.

Opportunities

- Formation of DAHC Operation and Management Committee.
- Budget allocated for the DPR of 5 DAHCs (Lalitpur, Makwanpur, Chitwan, Nuwakot, Ramechhap)
- Feasibility study of Provincial Ayurveda Medicine Production Center.
- Profuse biodiversity of medicinal plants.
- Management of various NCDs.
- Ayurveda included in Basic Health Service Package.
- Possibility of Ayurveda Medical tourism.
- Positive attitude of Province towards Ayurveda.

7. Suggestions for the development of Ayurveda and miscellaneous medicine

- Inclusion of Ayurveda Health Service in each Local level
- Ayurveda Awareness program
- All three level governments should include Ayurveda Health Service in their planning as Basic Health Service
- Implementation of AHMIS in all Ayurveda Health Facilities
- Up gradation of all Province level Ayurveda Health Facilities to Ayurveda Chikitshalaya with necessary land acquisition and provision of necessary human resources.
- National health program should also be provided through Ayurveda Health Facilities, wherever and whatever possible.
- Establishment of 50 bedded Province Ayurveda Chikitshalaya.
- Management and handover of Rural pharmacy (under construction), Ratna nagar, Chitwan with necessary budget allocation and other legal provision.
- Delivery and establishment of other alternative medicine.
- Include Ayurveda service in both the communicable and non-communicable disease in the province.
- Initiation of Registration of traditional healers
- Initiation of half yearly Review
- Establishment of Yoga and Open Gym
- Announcement of Herbal pocket area
- Development of provincial Ayurveda health policy
- Ayurveda and Miscellaneous Division in Ministry of Health, Bagmati Province
- Organogram of Proposed Province level Ayurveda Hospital
- Maximum utilization of Ayurveda and others to tackle the health problem of the Province
- Focus on the Ayurveda Lifestyle Management

CHAPTER 10: HEALTH TRAINING CENTER

Introduction

Health Training Centre is one of the central entities of Ministry of Health (MoH), Bagmati Province for human resource development. It was established in 2019 AD to coordinate and manage all health-related training through one door under MoH. It caters to training needs of all directorate, centers, hospitals and local level health institutions, thus contributing through training and skill development to meet the targets envisioned in National Health Policy 2019 and Sustainable Development Goals (2030) AD. It plans and conducts health related training activities for provincial and local level health workers. Similarly, it coordinates with the provincial and local health related N/IGOS for quality and uniformity of health-related training in the province.

Vision, Goal and Objectives

Vision

Skilled, motivated and responsible health human resources in province

Goal

To develop the technical and managerial capacity of health service providers at provincial and local levels to deliver quality health care services to attain the optimum level of health status.

Objectives

- To Develop and strengthen health training system and coordination mechanism in province level
- To ensure the quality of health training activities by enhancing the capacity of different clinical training sites and skilled trainer
- To standardize the training Learning Resource Packages (LRP) i.e. Curriculum, Trainer's Guide, Participant's Handbook and Reference Manual
- To accredit health training and its clinical sites for quality health training
- To certify health related trainer and trainees for providing training and services
- To adopt and promote innovative training approaches and training
- To strengthen mechanism and capacity for post training follow up and support

Strategies

- Assessing, standardizing and accrediting training activities and training sites at province and local level
- Standardizing training packages for health workers for province and local level
- Strengthening institutional capacity of clinical training sites of province and local level
- Integrating and institutionalizing health training activities at province and local level
- Strengthening Training Information Management System (TIMS) for documentation of training

- Establishing and developing trainer's pool at provincial level
- Conducting health trainings as per provincial and local level requirements
- Coordinating and collaborating with partners and local level for health training planing and conduction

Scope of Work/Job Description

- To help formulate provincial health related training policy, legislation, strategies, plan, program, guideline, standard, working procedure and implement it at province and local level.
- To Conduct need assessment for health-related training for local and province level
- To develop, approve, produce and distribute training curriculum, trainer's guideline, participant handbook and reference materials for health training
- To conduct and manage all health-related training to address the training needs of the province and local level
- To support the quality of care by enhancing the service provider's competency through health training
- To help support clinical training site for their improvement and expansion in the hospital
- To coordinate with partners, local level and other government organization for effectiveness of health-related training
- To provide technical support to local level for health-related training planning and conduction
- To develop training information management system for province and local level
- To collect training information, document it, prepare and submit report to higher authority
- To monitor, follow up, coaching and evaluating health related training of province and local level

Human Resources Status (Sanctioned vs. Fulfilled)

A total of 14 posts have been sanctioned for health training center, in which 6 posts are fulfilled and 8 posts are vacant. Driver and office assistants are hired in contract for regular work.

Table 10.1: Human resources status (sanctioned vs fulfilled)

SN	Post	Sanction	Fulfilled	Vacant
1	Director	1	0	1
2	Public Health Administrator	1	1	0
3	Health Education Administrator	1	0	1
4	Health Education Officer	2	1	1
5	Public Health Officer	2	2	0
6	Community Nursing Officer	1	0	1
7	Section officer	1	1	0
8	Account Officer	1	1	0
9	Health Education Technician	1	1	0
10	Driver	1	1	0
11	Office Assistant	2	2	0
	Total	14	10	4

Activity carried out in FY 2077/78

In 2075/76, only one technical training activity was approved and conducted through health training center. It was the establishment year of health training center. Health Training Center was established in Kathmandu as Province Government decided. Initially, office was established in the health office building Teku with 3 rooms for health training center. Furniture, equipment and other office materials were procured in that year for office establishment. Primary trauma care training for health worker was conducted successfully.

Table 10.2: Achievement/Result in FY 2077/78

SN	Name of training	No of Event	Total No of Participants
1	Skill Birth Attendants (SBA)	5	64
2	Rural Ultrasound Training	2	10
3	HMIS Training	2	39
4	IUCD and IMPLANT	14	70
5	RUSG training (21 days)ASRH	2	30
6	Med Level Practicum (MLP) (60 days)	2	20
7	MNH Clinical Mentoring	1	10
8	CAC for Medical Officer	3	31
9	Mental Health Training (6 days)	2	40
10	CoFP training (8 days)	3	44
11	HIV/AIDS	2	40
12	Trauma Care (2 days)	3	60
13	Nursing Leadership Training (5 days)	1	15
14	Medico Legal	1	10
15	OTTM (42days)	1	8
16	School Health Nurse induction	7	150
17	Vasectomy	1	2
18	Clinical Skill Training (CTS)	1	15
	Total	**53**	**658**

Innovative work done F/Y 2077/78

- Approval given to Bhaktapur hospital as Skill Birth Attendant Training Site with technical support of NSI.
- Develop curriculum on school-based Adolescent and sexual health, Menstrual hygiene for adolescent girl and adolescent boy, develop 2 days package for school health teacher and develop 2 days training package for peer educators.

NHTC accredited Clinical training sites in Bagmati Province

Table 10.3: List of clinical training sites in Bagmati Province

SN	Name of training sites	Types of training
1	Paropakar Maternity Hospital, Thapathali	MA, MVA and second trimester safe abortion training Implant, IUCD
2	CFWC, Chhetrapati Kathmandu	Implant, IUCD, Minilap, NSV
3	Bharatpur Hospital	MA, MVA and second trimester safe abortion training Implant, IUCD
4	Kathmandu Model Hospital	MA, MVA, 2nd trimester abortion care, CAC
5	Kathmandu Medical College	MA, MVA and second trimester safe abortion training Implant, IUCD
6	FPAN ,Pulchowk, Lalitpur	MA/MVA, Implant, IUCD, Minilap, NSV
7	Marie Stops Nepal, Satdobato	Implant, IUCD, Minilap, NSV, CoFP Counseling, MA
8	FPAN, Chitwan	Implant, IUCD, CoFP Counseling, MA
9	Marie Stops, Chitwan	Implant, IUCD, Minilap, NSV, CoFP Counseling, MA

Lessons Learnt

- Health training helps to develop confidence of providing services
- Health training works better if it is supported by coaching on site frequently
- More health training in different subjects matters of health are needed

Issues

- Lack of own building for health training center of Bagmati Province
- Lack of public health and nursing related training officers in the center
- Lack of coordination of I/NGO working for health training with center
- Health training management guideline for province is not prepared yet
- Training expenditure standard not exist yet in province
- Inadequate clinical training sites for conducting clinical training in the province

CHAPTER 11: HEALTH LOGISTIC MANAGEMENT CENTER

Introduction

Effective management of health logistics is essential for the success of health program. Logistics management ensures quality and right quantity of medicines and health commodities at the time-of-service delivery. It includes proper procurement, storage, and transportation, delivery of quality medicines and commodities in right quantity to the service delivery points.

Health Logistics Management Center (HLMC) is established in FY 2075/76 as a key wing of Ministry of Health for the management of essential medicines, vaccines, health commodities and biomedical equipment in the province. It has big warehouse to store medicines, vaccines and health commodities and equipped with transportation vehicles and capable human resources to achieve the objectives of the HLMC.

Objectives

Health Logistics Management Center is responsible for all round availability of quality medicines, vaccines at the health facilities and equipped hospitals with required biomedical equipment in the province.

Following are the objectives of HLMC to contribute on health systems of the province:

- Procure essential medicines and health logistics for the health facilities
- Store and supply of medicines, vaccines and health commodities
- Avail quality medicines and commodities at health facilities round the year
- Supply of required biomedical equipment to hospitals and health facilities
- Coordinate federal units of health logistics and local levels for maintenance of biomedical equipment
- Build capacity of local levels on procurement and supply of essential medicines.

Table11.1: Human Resources Status (Sanctioned Vs Fulfilled)

SN	Post	Sanctioned	Fulfilled	Vacant	Remarks
1	Director	1	-	1	
2	Sr. Public Health Officer	1	1		
3	Account Officer	1	1		
4	Section Officer	1	-	1	
5	Bio Medical Engineer	1	1		Contract
6	Pharmacy Officer	1	1		Contract
7	Pharmacy Assistant	1	1		
8	Cold Chain Assistant	2	1	1	
9	Refrigerator Technician	1	1		
10	Computer Operator	1	1		Contract

11	Heavy Vehicle Driver	1	1		
12	Light Vehicle Driver	1	1		Contract
13	Office Assistant	2	2		Contract
14	Loader Packer	2	2		Contract

Activity carried out in FY 2077/78

- Essential Drugs received from Management Division and supplied throughout the districts of Bagmati Province and six districts of province 2 as well.
- Regular vaccines and syringes supplied in Chitwan, Makawanpur and Sindhuli district of Bagmati province and six districts of province 2.
- Anti-Rabies and Anti snake venom supplied to concerned Health Facilities according to distribution plan decided by EDCD Teku.
- Essential Drugs procured and supplied throughout the districts of Bagmati Province.
- Program related medicines like Iron procured and supplied.
- Procurement and distribution of B class Ambulances in Five provincial Hospitals.
- Procurement and installation of hospital equipment in provincial Hospital.
- Procurement and distribution of Essential Ayurveda Medicines.
- Procurement and distribution of Covid 19 related materials PPE, Mask, Sanitiser, Gloves, test kits.
- Procurement and distribution of HMIS, LMIS tools.
- Regular Supply of FP and MCH Commodities, TB Medicine and Other Program commodities.
- Procurement and distribution of Anti-Hemophilic factor.
- Established Oxygen Plant : 7 Provincial Hospital
- Established PCR Lab : Bhaktapur, Sindhuli, Hetauda, Province Lab

Issues, recommendations and responsibilities:

Provincial Annual Review meeting 2077/78 identified following problems/constraints and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Table 11.2: Issues, recommendation and responsibilities

Issues	Recommendations	Responsibilities
Duplication on procurement of medicine from different levels of governments	• Clear understanding of procurement of medicine from different levels • Develop distribution plan in time	MoH/HLMC
Poor LMIS reporting from Health facilities and Hospitals	• Capacity building on Logistics management of local levels • Hospitals to be reported LMIS regularly	HLMC Hospitals

No information systems of health logistics for Ayurvedic medicines	• Develop Ayurveda Information systems	MoH/PHD/HLMC
Capacity building of local level for storage and supply of medicines	• Plan on capacity building on logistics management	HLMC
Less storage capacity in provincial level for vaccines and medicines	• Rent for store space immediately • Develop Physical Infrastructure	HLMC
Maintenance Center for biomedical equipment	• Assessment of Hospital equipment's • Linked with Biomedical Maintenance of DoHS • Develop Provincial Biomedical maintenance workshop • Auctioning of non-repairable equipment	HLMC/Hospitals
Less technical HR in HLMC	• Organization and management survey • Immediate Deputation of HR for store management and capacity building	MoH

CHAPTER 12: PUBLIC HEALTH LABORATORY CENTRE

Introduction

Public Health Laboratory Centre is one of the central entities of Ministry of Health (MoH), Bagamati Province for quality laboratory services, disease surveillance and research. Public Health Laboratory has been functioning since 15th Shrawan 2076. The laboratory services of all the government and private laboratories have been established to ensure the quality of the public laboratory services by making them reliable. By providing training related to non-communicable diseases, infectious diseases, quality control as a part of skill development of laboratory manpower to provide quality service in complete diagnostic services and disease surveillance. This center has been able to diagnose the disease using modern laboratory technology over time. It is situated at Dhulikhel, Kavrepalanchowk and is rented at the hostel building of Shree Sanjivani Higher Secondary School.

Scope of work/job description

Regarding Scope of work, it is a referral laboratory of Bagamati Province and it look after the provincial hospital laboratory, Health office laboratory, Dristrict Ayurved Health Centre laboratory and other government laboratory network and tends to maintain quality laboratory result. Public Health Laboratory, Bagamati Province, have been now connected with 262 Microscopic Centres within 13 districts of Bagamati Province. For the fulfillment of its objectives, following departments are being functional.

A. Non-Communicable Diseases Laboratory

B. Infectious Disease Laboratory

C. Quality Control and Training

D. Administration and Finance

Human Resources Status (Sanctioned vs Fulfilled)

Table 12.1: Human resource status

SN	Designation	Level	Sanctioned	Fulfilled	vacant
1	Director	11	1	0	1
2	Consultant pathologist	9/10	1	1 (contract)	0
3	Consultant Microbiologist	9/10	1	0	1
4	Deputy/Joint Chief Med Lab Technologist	9/10	1	1	0
5.	Medical Lab Technologist	7/8	2	2(contract)	0
6	Lab Technician	5/6/7	2	2	0
7	Lab Assistant	4/5/6	1	1	0
8	Accountant		1	1	0
9	Nayeb Subba		1	0	1
10	Driver		1	1	0
11	Office Assistant		2	2	0
12	Cleaner		1	1	0
	Total		15	12	3

Activity carried out in FY 2077/78

- Technical Supervision of laboratory network within provinces.
- Established Covid-19 PCR laboratories in coordination with 10 provincial hospitals.
- Technical Supervision and support on Gene Xpert Sites.
- Laboratory logistic, Chemical and Reagent supply to TB Microscopic Centers.
- Monitoring, Registration and renewal of "C" categories Laboratory within province.
- Attended various health related seminar of this province
- Conducted 3 batches training on Advanced viral influenza/Covid-19 Diagnostic Training
- Conducted 3 batches training on Basic Fever Profile Diagnostic Training
- Conducted 3 batches training on Laboratory Waste Management.
- Conducted 1 batch training on Laboratory Quality Assurance.
- Conducted 2 batch training on Basic Bacteriology
- Conducted 3 batch training on Basic TB Microscopy and LQAS.
- Conducted 2 Quarterly Review of Laboratory Services.

Achievement/Result in FY 2077/78

- AFB reagent procurement, preparation of reagent and delivery to the Microscopic Centers within province.
- More microscopic centers are being enrolled in Quality Control Program.
- HIV1/2 proficiency testing in HIV testing Sites within province in coordination with NPHL.
- Supply of Malaria kit, Dengue kit, Chikungunya kit, Scrub typhus kit, Leptospira kit, Brucella kit to the Health Office on need basis.
- On site visit of Hospital and Health Office Laboratory.
- Coordination with Local/Province and Federal Government for Land and Building.
- Lab setup for Reference and Diagnostic Laboratory service is almost completed and to be starting soon.

Issues

- Insufficient human resource and high workload in certain district.
- Instrument uniformity and no calibration of instrument
- Poor documentation of quality control system and SOP.
- Lack of training for the lab staff
- Lack of own building and insufficient rental spaces.

Recommendation

- Resolve all the issues described above.

CHAPTER 13: DEVELOPMENT PARTNERS

The outcomes discussed in the previous chapters are the results of the combined efforts of the government and development partners. Ministry of Health, Health Directorate, Provincial Health Logistic Management Center, Provincial Health Training Center and Provincial Public Health Laboratory acknowledge its partnership with EDPs and their contribution in Provincial health sector. This chapter lists the major thematic area and scope of activities,geographical coverage and focus area of collaboration with the Ministry as well as major achievement of FY 2077/78.

Organization	Major Thematic Area	Geographic Coverage	Major activities in FY 2077/78	Contact Details
World Health Organization (WHO)	Health systems strengthening Immunization/ Covid Vaccination Disease control and surveillance Sexual, Reproductive Health and Right	Province and 13 districts	• Supported to develop TORs, HRH/HF mapping, health information management, strengthening supply chain management, outbreak responses: rumor verification, investigation, sample transportation, risk communication, report preparation. Monitoring, surveillance, and supportive supervision of labs, isolation centers, isolation hospitals, and vaccination centers. Successfully supported during the sero-surveillance. Monsoon preparedness. Facilitation of training sessions including onsite & virtual such as ECCT, IPC, CICT, IMU, Antigen testing. Supported in the development of the checklists for monitoring of the hospitals and isolation centers. Daily support in preparation and dissemination of provincial situation report, media briefing. Hospital resource mapping, Support in POE updates, reporting. Handover of the oxygen concentrators and other equipment to hub hospitals and PHLMC. • Supported to province in SRHR need assessment, to formulate Provincial SRHR TWC, Finalization of ToR of SRHR TWC, listing of safe abortion sites and service providers, supported on MPDSR program expansion.	Mr. Nil Prasad Dhital SRHR Officer dhitaln@who.int 9851145749 Dr Rupesh Timilsana SMO timilsinar@who.int 9855022765 Dr Sabita Poudel FMO spoudel@who.int 9851118788

Organization	Major Thematic Area	Geographic Coverage	Major activities in FY 2077/78	Contact Details
Fhi 360, EpiC Nepal	**Thematic Area:** HIV/ AIDS **Beneficiary groups:** Female sex workers (FSWs) Men who have sex with men (MSM), male sex workers (MSWs) and transgender people Clients of FSWs and other high-risk individuals People living with HIV (PLHIV) and their families	**7** districts • Kathmandu, • Lalitpur, • Bhaktapur, • Makwanpur, • Chitwan, • Dhading and • Kavrepalanchok	• HIV and sexually transmitted infection (STI) prevention education, referral and follow-up through offline and online platforms, condom and lubricants promotion and distribution • HIV testing and counseling (HTC) services • STI examination and treatment services • HIV pre-exposure prophylaxis (PrEP) • HIV case management and referral to and follow-up for antiretroviral therapy (ART) and viral load (VL) testing support services • Support and education for ART adherence and retention • Antiretroviral (ARV) drugs dispensing • HIV-related stigma and discrimination (S&D) reduction • Human resource and other support to ART sites	Mr. Madan Bhatta Sr. Family Planning Advisor madanbhatt@fhi360.org 9841553606
One Heart Worldwide	Maternal and Newborn Health (MNH)	5 districts • Dolakha, • Ramechhap, Kavrepalanchowk, Sindhupalchok • Nuwakot	• Birthing center renovation • Birthing center equipment support • Capacity enhancement of MNH service providers • Quality improvement of birthing center • Demand generation activities	Ms. Babita Bindu 9841515039 babita@oneheartworldwide.org

Organization	Major Thematic Area	Geographic Coverage	Major activities in FY 2077/78	Contact Details
PSI/Nepal	Family planning and Safe abortion	**5 districts** • Makwanpur, • Chitwan, • Sindhuli, • Kavre, • Kathmandu	• Training to service providers on IUCD, Implant and MA • Equipment and commodity support to health facilities • Awareness raising community level activities • Regular supportive supervision for quality service	Ms. Mona Giri monagiri@psi.org.np 9841646387
Plan International	Early Childhood Development	**2 districts** • Sindhuli, • Makawanpur	• Early Childhood Development • Child DREAM (Child Development through Responsive care, Early stimulation, Affection in family and Motivated parents • Support in COVID 19 prevention and response, medical items for COVID -19 Response	
AIDS HEALTHCARE FOUNDATION (**AHF NEPAL**)	HIV	All **13** districts	• Support to MoHP in scaling up and delivering quality HIV treatment and care services from ART clinics , Improve and expand prevention, testing and linkage services & Implementation of quality improvement & care service • Strengthen coordination, networking and advocacy for quality ART services. • HR support at ART Centre-22 staffs (counselor, nurse, lab staff, data staffs, PEs) • PLHIV Support Program, CME, QI/TWG Meeting, Capacity Building, PE Mobilization • Support for transportation of samples for viral load and commodities	

Organization	Major Thematic Area	GeographicCoverage	Major activities in FY 2077/78	Contact Details
Save The Children	HIV and TB	**HIV Program** **(10 districts)** Kathmandu, Lalitpur, Bhaktapur, Makwanpur, Chitwan, Dhading, Nuwakot, Sindhuli, Kavre and Sindhupalchok **TB Program** **(7 districts)** Kathmandu, Lalitpur, Bhaktapur, Makwanpur, Chitwan, Dhading and Kavre,	**Key Activities of HIV Program:** • Behavior Change Communication (BCC) • Distribution of Needle, Syringes, alcohol swab, Condom and IEC materials • Opioid Substitution Therapy (Methadone & Buprenorphine) • HIV Test and linkages to treatment, care and support • Residential support in Community Care Centre (CCC) and Home visit to the PLHIV clients by CHBC team • Cash Support for Income Generation *(priority to widow and ultra poor)* • Cash Transfer Program of NRs. 1,000/- per month until 18 years **Key Activities of TB Program:** • Sputum Courier Services and Contract Tracing of Index TB Cases • DR TB Management and Childhood TB Management • FAST Service in Hospital • Active Case Finding (ACF) • Public Private Mix (PPM)	Mr. Shambu Sah Shambhu.sah@savethechildren.org 9849096968

Organization	Major Thematic Area	Geographic Coverage	Major activities in FY 2077/78	Contact Details
WaterAids	Hygiene Promotion	13 districts	**Hygiene Promotion through Routine Immunization** • Hygiene promotion and COVID preventive measures in routine immunization program • Technical support To Nepal Government family welfare division, Province Health Directorate and below level. • This initiative has been scaled up across the nation, hence covers all the districts of Bagmati Province • Capacity building health workers in hygiene promotion. • Onsite coaching on hygiene promotion to new health workers. • Support province, districts and below level training of hygiene promotion and routine immunization.	Ms. Jonyta Baral jonytabaral@gmail.com 9843586731
UNICEF Nepal	HMIS/ DHIS-2/ IMU Strengthening	Bagmati Province	Support PHD to increase reporting coverage from health facilities and hospitals. Follow up data entry points for timely and complete data entry. Support to provincial health directorate in HMIS training as required. Support in data analysis, presentation and presentation of data.	Pratibha Shahi mepratibha@hotmail.com 9841144125

Organization	Major Area	GeographicCoverage	Major activities in FY 2077/78	Contact Details
USAID/SUAAHARA II	Nutrition MNCH & FP WASH	Bagmati Province 5 Districts: • Dhading • Dolakha • Nuwakot • Rasuwa, and Sindhupalchok 51 Municipalities 396 Wards	• Improved Household Nutrition, Health and WASH Behaviors • Increased utilization of Quality Nutrition and Health Services by Woman and Children [Maternal, Child Health, Family Planning – Integration with Nutrition) • Improved access to diverse Nutrient-rich foods for Women and Children) • Rollout of Multi-Sector Nutrition Plan (MSNP-II) through Strengthened Local Governance • Gender Equity and Social Inclusion, SBCC, Nutrition Governance, Monitoring and Evaluation and Research	Mr. Chiranjibi Dahal cdahal@hki.org 9840169680
NSI Nepal	Minimum Service Standards	Bagmati Province	People in rural Nepal receiving quality health care service within their own communities , Hospital Strengthening program(covers about all primary and secondary level hospital) • Minimum Service standard(MSS) Workshops • Hospital Grant • Hospital Follow-up • Curative service Support • Key Human resources support • Essential Equipment • Training/CME • Research Provincial Biomedical Workshop Support	Babita Regmi Babitaregmi90@gmail.com 9845200523

ANNEXURE

ANNEX I. Health Offices of Bagmati Province

SN	Name of Health Office	Phone Number	Chief of Health office	Mobile Number	Email ID
1	Health Office Bhaktapur	01-6616010	Krishna Bdr Mizar	9841884419	mijark04@gmail.com
2	Health Office Chitwan	056-520229	Ram Kumar Kc	9845055681	ramkcraj@gmail.com
3	Health Office Dhading	010-520126	Sagar Ghimire	984133649	sagarprasadghimire@gmail.com
4	Health Office Dolakha	049-421188	Arjun Poudel	9847266314	poudel.arjun28@gmail.com
5	Health Office-Ktm	01-4212620	Basanta Adhikari	9851173934	Basanta.adhi@gmail.com
6	Health Office-Kavre	011-490300	Dr. Pursottam Raj Sedhai	9841323924	shedainmr@gmail.com
7	Health Office Lalitpur	01-5547915	Satish Bista	9841750491	Sbista101@gmail.com
8	Health Office Makwanpur	057-524672	Bhim Sagar Guragain	9855068858	bhimsagarguragain@gmail.com
9	Health Office Nuwakot	010-56255	Mahendra Dhoj Adhikari	9841391468	mahendradhose@gmail.com
10	Health Office Ramechhap	048-400079	Jitendra. Kr Shah	9868315087	Jitushah22@gmail.com
11	Health Office Rasuwa	010-540188	Basanta Chalise	9841601213	chalisebt@gmail.com
12	Health Office Sindhuli	047-52188	Rajan Psd Pokharel	9842029205	Rajanpokharel@gmail.com
13	Health Office Sindhupalchowk	011-620092	Rajaram Karki	9854045249	Adhikarirajaram66@gmail.com

ANNEX II. Ayurveda Health Centers of Bagmati Pradesh

SN	District Ayurveda Health Center	Email ID	Phone Number	Chief of DAHC
1	Dolakha	p3mosd.dahcdolakha @gmail.com	049-421306	Dr Poonam Nepal
2	Sindhupalchok	p3mosd.dahcsindhupalchok @gmail.com		Dr Vasambada Kaundinnyayani
3	Rasuwa	p3mosd.dahcrasuwa @gmail.com	010-540214	Tarani P Chaudhary
4	Dhading	p3mosd.dahcdhading @gmail.com	010-520278	Dr Suira Joshi
5	Nuwakot	p3mosd.dahcnuwakot @gmail.com	010-680208	Dr Rojeena Tamrakar
6	Kathmandu	p3mosd.dahcbagmati @gmail.com	01-4478201	Dr Anju Karki
7	Lalitpur	p3mosd.dahclalitpur @gmail.com	01-5548099	Dr Srishti Shrestha
8	Bhaktapur	p3mosd.dahcbhaktapur @gmail.com	01-6612088	Dr Narendra Giri
9	Kavre	p3mosd.dahckavre @gmail.com	011-662134	Dr Manoj Chaudhary
10	Ramechhap	p3mosd.dahcramechhap @gmail.com	048-540143	Dr Nadan Kandel
11	Sindhuli	p3mosd.dahcsindhuli @gmail.com	047-520343	Dr Arjun Upadhyaya
12	Makwanpur	p3mosd.dahcnarayani @gmail.com	057-520681	Dr. Lalita Pandey
13	Chitwan	p3mosd.dahcchitawan @gmail.com	056-560470	Dr Kopila Adhikari

ANNEX III. Palikawise Health Coordinators

District: 1. Chitwan

S.N.	Municipality/rural Municipality	Coordinator	Contact Number
1.	Khairahani Municipality	Anup Adhikari	9855063677
2.	Ratnagar Municipality	Madhav Poudel	9855052551
3.	Rapti Municipality	Suresh Neupane	9846435000
4.	Madi Municipality	Bhojraj Khanal	9855066619
5.	Bharatpur MC	Dipak Subedi	9857622119
6.	Kalika Municipality	Dipak Bhandari	9855053478
7.	Icchyakamana VDC	Basudev Sapkota	9855046327

District: 2. Dolakha

S.N.	Municipality/rural Municipality	Coordinator	Contact Number
1.	Bhimeshwor Municipality	Shyam Bahadur Khadka	9854045146
2.	Jiri Municipality	Keshav Dahal	9851153348
3.	Gauri Shankar Rural Municipality	Basanta Regmi	9851006009
4.	Bigu Rural Municipality	Ishwar Kumar Khadka	9864011227
5.	Kalinchowk rural Municipality	Sushil Kumar Shrestha	9854045004
6.	Shailung Rural Municipality	Bishnu Karki	9854045615
7.	Tamakoshi Rural Municipality	Arun Kumar Mishra	9844427923
8.	Baiteshwor Rural Municipality	Babulal Lama	9864001271

District: 3. Dhading

S.no	Municipality/rural Municipality	Coordinator	Contact Number
1.	Nilkantha Sub- Metropolitan	Bishnu Prasad Rijal	9845131362
2.	Dhunibesi Sub-Metropolitan	Dhruba Kumar Adhikari	9841800569
3.	Rubi-Valley Rural Municipality	Tulaja K.C	9841244826
4.	Ganga Jamuna Rural Municipality	Dipak Adhikari	9851130112
5.	KhaniyaBas Rural Municipality	Aita Bahadur Tamang	9841940414
6.	NetraWati Rural Municipality	Krishna Bahadur Poudel	9841546964
7.	Tripura Sundari rural Municipality	Yam Bahadur Shrestha	9851212104
8.	Jwalamukhi rural Municipality	Sujan Shrestha	9851190946
9.	SiddhaLekh rural Municipality	Chetnath Bhatt	9849025280
10.	Benighat Rorang Rural Municipality	Shankar Babu Duwadi	9841572775
11.	Gajuri Rural Municipality	Ramhari Regmi	9841324245
12.	Galchi Rural Municipality	Ram Prasad Gyawali	9851035872
13.	Thakre Rural Municipality	Laxman Shah	9845162771

District: 4. Kavrepalanchowk

S.N.	Municipality/rural Municipality	Coordinator	Contact Number
1.	Dhulikhel Municipality	Sandip Kc	9841543990
2.	Banepa Municipality	Sambhu Kumar Mahato	9851140345
3.	Panchkhal Municipality	Ujjwal Adhikari	9841296040
4.	Panauti Municipality	Purusottam Timilsina	9841550710
5.	Bethan Chowk Rural Municipality	Sitaram Timilsina	9841515846

6.	Roshi Rural Municipality	Gangalal Shrestha	9851081791
7.	Namo Buddha Rural Municipality	Nawaraj Dahal	9841142057
8.	Temal Rural Municipality	Shiva Hari Pathak	9851113502
9.	Mandandeupur Municipality	Dipak Kumar Ghimire	9851037796
10.	Bhulmu Rural Municipality	Sudarshan Bhattarai	9841369030
11.	Chauri deurali Rural Municipality	Tej Bahadur Ghising	9841736261
12.	Mahabharat Rural Municipality	Hari Singh Bista	9863667680
13.	Khanikhola Rural Municipality	Rampukar Yadav	9841508472

District: 5 Kathmandu

S.no	Municipality/rural Municipality	Coordinator	Contact Number
1.	Kathmandu Sub- Metropolitan	Balaram Ram Tripathi	9851185869
2.	Budhanilkantha Municipality	Kumar Dahal	9841592308
3.	Gokarneshwor Municipality	Hari Upadhyaya	9841391000
4.	Chandragiri Municipality	Ram Mani Ghimire	9841524461
5.	Tokha Municipality	Ran Lal Kulal	9851016286
6.	Nagarjun Municipality	Sushila Kathyat	9851132672
7.	Takeshwor Municipality	Binod Shah	9849762596
8.	Dakshinkali Municipality	Bishnu Jaisi	9851158314
9.	Kritipur Municipality	Santaman Maharjan	9841329609
10.	Kageshwori Manohara Municipality	Kumar Dangi	9841715546
11.	Shankharapur Municipality	Bishnu Chapagain	9841425724

District: 6 Rasuwa

S.no	Municipality/rural Municipality	Coordinator	Contact Number
1.	Uttargaya Rural Municipality	Rabindra Thakuri	9841539790
2.	Naukund RM	Ann Poudel	9841418029
3.	Kalika Rm	Nabraj	9851186570
4.	Aamachhodingmo	Neema Tamang	9869223832
5.	Gosaikund	Bimal,	9849093295

District: 7 Ramechhap

S.no	Municipality/rural Municipality	Coordinator	Contact Number
1	Ramechhap Municipality	Bishnu Bahadur Karki	9854043401
2	Manthali Municipality	Keshab Raj Phuyal	9854040347
3	Khadadevi Rural Municipality	Om Prakash Shrestha	9844142075
4	Sunapati Rural Municipality	Arjun Shrestha	9845040792
5	Shailung Doramba Rural Municipality	Naresh Mahato	9844076417
6	Gokul Ganga Rural Municipality	Jagir Rai	9844000497
7	Umakund Rural Municipality	Abhijeet Sunuwar	9849890937
8	Koshi Rural Municipality	Kamala Khadka	9744016330

District: 8 Lalitpur

S.no	Municipality/rural Municipality	Coordinator	Contact Number
1	Godawari Municipality	Lal bahadur Thapa	9860554628
2	Lalitpur Metropolitan	Sarita Maharjan	9849549847
3	Bagmati Metropolitan	Rajkumar Sapkota	9843156053
4	Mahalaxmi	Himal Gyawali	9841507144
5	Mahankal	Tirtha Bohora	9848565770
6	Konjyosom	Jayaram Sanjel	9843802492

District: 9 Sindhuli

S.no	Municipality/rural Municipality	Coordinator	Contact Number
1	Kamalamai Municipality	Kem Thapa	9844042917
2	Dudhauli Municipality	Jagdish Mandal	9861406041
3	Marin Rural Municipality	Madhu Lakhe	9844042801/9800892540
4	Golanjor Rural Municipality	Birendra Sah	9844098371
5	Sunkoshi Rural Municipality	Om Prakash Jha	9844096136
6	Sunkoshi Rural Municipality	Om Kumar Lungeli	9844442268

District: 10 Sindhupalchowk

S.no	Municipality/rural Municipality	Coordinator	Contact number
1	Balefi Rural Municipality	Suresh Shah	9843188905
2	Barhabhise Rural Municipality	Raj Kumar Poudel	9851146538
3	Jugal Rural Municipality	Anil Saud	9843399319
4	Indrawati Rural Municipality	Saraswati Khanal	9849667401
5	Helambhu Rural Municipality	Gyanendra Sigdel	9846897212
6	Sunkoshi Rural Municipality	Govinda Hayu	9851169334
7	Panchpokhari Thangpal	Atmaram dhital	9843313202
8	Tripura Sundari Rural Municipality	Chandra Narayan Shah	9851191535
9	Bhotekoshi rural Municipality	Bhupendra Lal Shrestha	9851233074
10	Melamchi Municipality	Gyanendra Ghorasaini	9851157237
11	Li Rural Municipality	Raju Basnet	9843545746
12	Chautara Municipality	Shiva Bahadur Puri	9841538457

District: 11 Bhaktapur

SN	Municipality/rural Municipality	Coordinator	Contact number
1	Bhaktapur Municipality	Dr. Ratna Sundhr Lasiwa	9841514302
2	SuryaBinayak Municipality	Basanta Chapagain	9849156711
3	Changunarayan Municipality	Satya Kumar Dulal	9851000138
4	Madhyapur Thimi Municipality	Bhagirithi Adhikari	9841477595

District: 12 Nuwakot

SN	Municipality	Coordinator	Contact number
1	Bidur Municipality	Purnadwoj Shrestha	9851107450
2	Belkot Municipality	Satyendra Shah	9849804394
3	Kispang Rural Municipality	Chakra Bahadur Shahi	9841619169
4	Myagang Rural Municipality	Kumar Lal Shrestha	9862490915

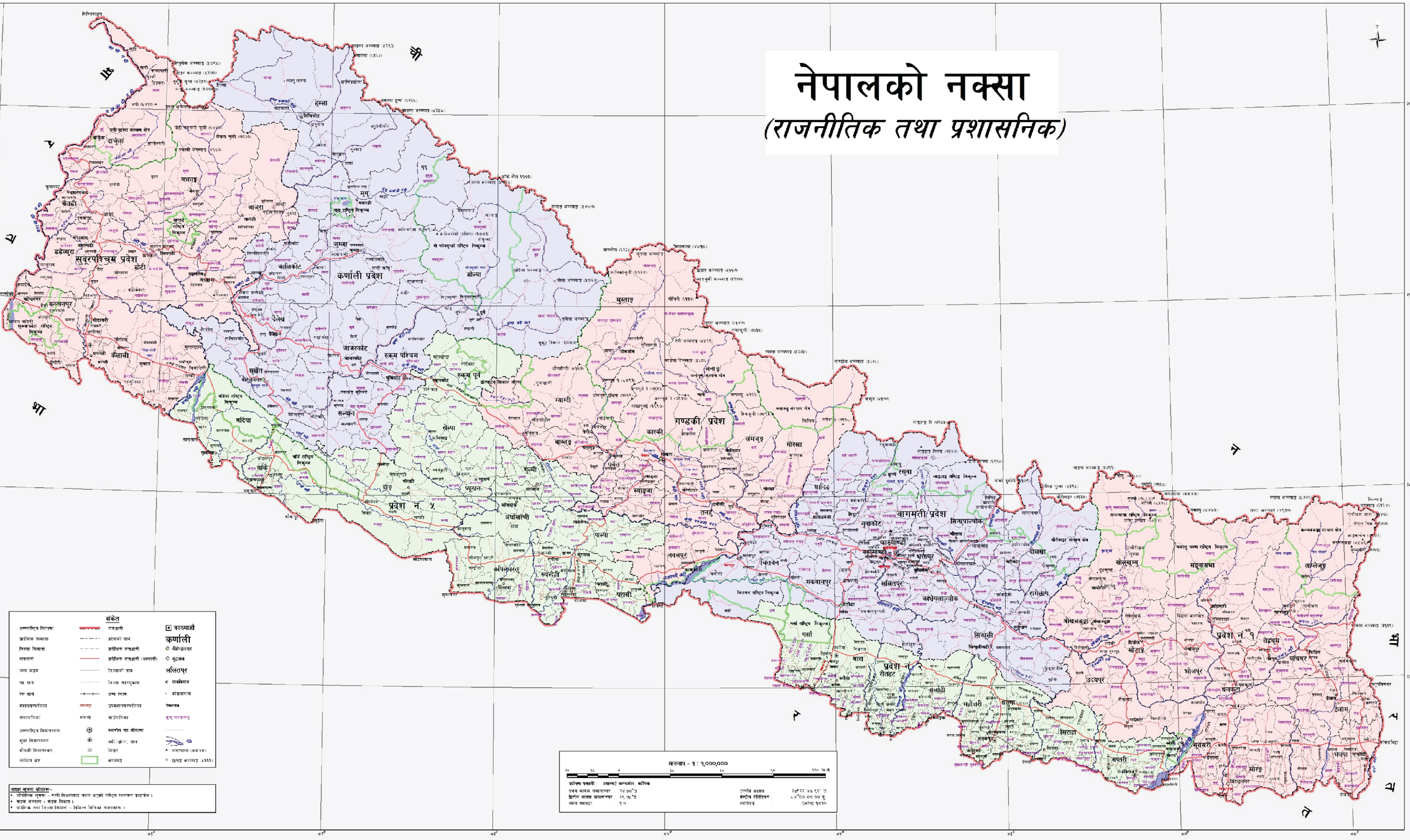
5	Tarkeshwor Rural Municipality	Kamal Adhikari	9851120510
6	Likhu Rural Municipality	Bhim Rokka	9751039677
7	Tadhi Rural Municipality	Binodraj Kharel	9841230239
8	Suryagadhi Rural Municipality	Narendra man Dongol	9841683222
9	Dupcheshwor Rural Municipality	Narendra man dongol	9844187484
10	Panchkanya Rural Municipality	Hem Narayan Mahato	9851156978
11	Shivapuri Rural Municipality	Uddhav Karki	9851141479
12	Kakani Rural Municipality	Jiwan Bhattarai	9741030870

District: 13 Makwanpur

SN	Municipality	Coordinator	Contact number
1	Hetauda sub- Municipality	Bhola Chaulagain	9855067540
2	Thaha Municipality	Meghraj Balami	9845072135
3	Indrasarowar Municipality	Munninath Adhikari	9855080312
4	Bhimphedi Municipality	Ramnam Thing	9845828167
5	Makwanpur gadhi Rural Municipality	Dhruba Lamichane	9855069129
6	Bakaiya Municipality	Phatikar Man Pyakurel	9855036440
7	Bagmati Municipality	Dinesh Gupta	9845098085
8	Manahari Municipality	Tikaram Adhikari	9855069703
9	Rakshirang	Bijaya Kapari	9844187484
10	Kailash Rural Municipality	Shyam Sundar Mahato	9854037169

ANNEX IIV. List of Provincial Hospital

SN	Name of hospital	Focal person	Contact number	Email address
1	Sindhupalchowk Hospital	Dr. Sweta Shrestha	9841802777	shrestha.sweta52@gmail.com
3	Ramechhap Hospital	Dr. Roshan Gwachha	9841848587	rojroshan2@gmail.com
4	Sindhuli Hospital	Dr. Laxman Khadka	9854042342	laxmankhadka19@gmail.com
5	Hetauda Hospital	Dr. Prabin Shreatha	9841240683	drprabin2000@gmail.com
6	Dhading Hospital	Dr. Deepa Bohora	9841899499	voradeepa1165@gmail
7	Bhaktapur Hospital	Dr. Sumitra Gautam	9858023047	sumitragautam@yahoo.com
8	Trisuli Hospital	Dr. Amit Shrestha	9843742415	amitkshrestha1@gmail.com
9	Rasuwa Hospital	Dr. Anil Kumar Kharel	9851255407	yours.dr.anil@gmail.com
10	Tokha Chandeshwori Hospital	Dr Arisa Poudel	9801007366	arisapoude12@gmail.com
11	Bajrabarahi Hospital	Dr.Nabin Darnal	9840094578	hirakarki29@gmail.com
12	Bokulahar Hospital	Dr. Biswa Bandhu Bagale	9851093648	drbbandhhu@gmail.com
13	Methinkot Hospital	Dr. Sagar Jargha Magar	9843096230	idossujal@gmail.com


नेपालको नक्सा
(राजनीतिक तथा प्रशासनिक)
सुदूरपश्चिम प्रदेश
कर्णाली प्रदेश
गण्डकी प्रदेश
बागमती प्रदेश
प्रदेश नं. १
प्रदेश नं. २
प्रदेश नं. ५
संकेत
मानमाप - १ : १,०००,०००