

ANNUAL HEALTH REPORT

2077/78 (2020/21)



**Bharatpur Metropolitan City
Office of Municipal Executive
Public Health Promotion Section
Bharatpur, Chitwan**



Annual Health Report

2077/78 (2020/21)



**Bharatpur Metropolitan City
Office of Municipal Executive
Health and Social Development Division
Public Health Promotion Section
Bharatpur, Chitwan
Bagmati Province, Nepal**



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Bharatpur Metropolitan City
Office of Municipal Executive
Bharatpur, Chitwan
Bagmati Province, Nepal



MESSAGE

Bharatpur Metropolitan is committed to provide the basic health care service as a fundamental right of its citizen established by the constitution of Nepal. It has given high priority to the health sectors as one of the development agendas after the restructuring of the health system in line with the federal structure of the country. On behalf of the Bharatpur Metropolitan City, it is my immense pleasure to present the second annual health report of the fiscal year 2077/78. This report records the performance and accomplishments made throughout the year in achieving its strategic objectives set in the health sector.



With the motto of “Beautiful City of Central Nepal, Prosperous and Cultured Bharatpur Mahanagar” we are emphasizing infrastructure development, education, health, tourism, and agriculture. We are working in conformity with the federal and provincial governments to deliver affordable and accessible quality health care services to the people of metropolitan. This year, the COVID-19 pandemic has presented unprecedented challenges to every sector. But the collective efforts and dedication from my fellow officials and health workers have strengthened us and able to manage the emergency properly. Despite several challenges, I am pleased to announce that several initiatives have been made and succeed in the health sector in the last four years.

I am grateful to the Deputy Mayor, Ward Chairpersons, executives’ members, wards members, chief administrative officers, division chiefs, section chiefs, and all the staff of Bharatpur Metropolitan City. I would like to thank Mr. Dipak Subedi, Public health section chief, and his team members for their enormous effort to prepare and publish the annual health report. I extend my sincere gratitude to respective officials of the federal government, provincial government, and local level stakeholders for their valuable contribution to the health and other sectors.

Finally, yet importantly, I would like to express my sincere appreciation and respect to all the volunteers, health workers, front-line personnel engaged in the health sector, stakeholders, and partners for their diligent work, courage, and dedication in the battle against the COVID-19 pandemic. I am very grateful to have selfless people working at the frontlines for the prevention and control of COVID-19.

Kartik, 2078

Renu Dahal
Mayor



Bharatpur Metropolitan City
Office of Municipal Executive
Bharatpur, Chitwan
Bagmati Province, Nepal



MESSAGE

Bharatpur Metropolitan City ensures that all the people especially women, children, adolescents, senior citizens, vulnerable groups, underprivileged, indigenous, and marginalized populations, residing both in rural and urban areas of the metropolitan, have access to quality health care through improving and expanding services.

It is a matter of great pleasure to present the Annual Health Report 2077/78 of Bharatpur Metropolitan City. I am confident that this report provides stakeholders the insights into progress on different indicators and shortcomings of public health programs conducted in the last fiscal year. The identified challenges have been rectified immediately with continuous coordination and collaboration with concerned stakeholders. There are also a few specific areas, which must be focused on and strengthen to improve the access to equitable and quality health services to the metropolitan people.

With the prior emphasis on developmental agendas on infrastructure development, education, health agriculture, tourism, and production sector we are also keenly committed to develop and mobilize local human resources, financial resources, skills, technology to understand the needs and grievances of the people. Efforts have been made to strengthen and expand the health services by mobilizing local resources to understand the real need, strategies for mobilizing these resources, and assess the value to the program.

The pandemic of COVID-19 has affected every program that Metropolitan runs. Without the dedication and effort of the health care workers and staff on the front line, the control of the COVID-19 spread would not have been possible. Henceforth, I deeply respect all for their tireless effort to make a difference in the lives of many peoples. I am thankful to the Mayor, all ward Chairpersons, Executive members, Ward Members, Chief Administrative Officer, Division Chiefs, Section Chiefs, and all the staff of Bharatpur Metropolitan City. Last but not the least, I would like to extend my sincere thanks to public health promotion section and all those who are in the preparation and publication of this report.

Kartik, 2078



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Parbati Shah Thakuri
Deputy- Mayor



Bharatpur Metropolitan City
Office of Municipal Executive
Bharatpur, Chitwan
Bagmati Province, Nepal



PREFACE

Bharatpur Metropolitan City is striving to provide quality basic health service as a fundamental right of its citizen established by the Constitution of Nepal. It has emphasized a high-quality health workforce across all health care facilities with the availability of medicines and technologies to achieve sustainable development goals.

Metropolitan has an emphasis on infrastructure construction and good governance as per the requirement of people. As a part of the sustainable development goal for the metropolitan, short-term and long-term plans have been taken to achieve integrated development of all sectors. It includes formulating a comprehensive master plan for infrastructure and development, health, education, cooperatives, employment, tourism, sanitation, agriculture, animal husbandry, industry, and business.

We are facing the pandemic of COVID-19 since two year which represents a global crisis, with daunting health and socio-economic challenges. Different activities and initiations were carried out including establishment and operation of COVID 19 dedicated hospital, mobilization of case investigation and contact tracing team, case management, and diagnosis through antigen test, free ambulance services and many more for the prevention, control and management of epidemic.

I am pleased to present the second Annual Health Report of Bharatpur Metropolitan City. This report is the official record of the provided services and achievements accomplished within the last year in the health sector. This report provides insight into overall achievement and challenges information of local level. The facts and figures presented in this report will be worthwhile to understand the issues in the health sector and to plan for providing high-quality services in the coming year.

To conclude, I would like to extend my appreciation and acknowledgment to the Mayor, Deputy Mayor, Ward Chairpersons, Executive members, Division Chief, Section Chief, and all staff of Bharatpur Metropolitan including the female community health volunteers. I would like to appreciate Public Health Promotion Section Chief Dipak Subedi and his team for their initiation and dedication in the preparation and publication of this report.

Kartik, 2078



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Rambandhu Subedi
Chief Administrative Officer



**Bagmati Province Government
Ministry of Health
Health Directorate
Health Office, Chitwan
Bharatpur, Chitwan**



FOREWORD

I am pleased to know that Bharatpur Metropolitan City, Office of Municipal Executive, Bharatpur is publishing the Annual Health Report of FY 2077/78 as part of continuous effort of Public Health Promotion Section. This report not only presents the current facts of health and service status of the Bharatpur Metropolitan City but also supports for robust and evidence based planning exercise. The information provided in the report will be of immense useful to Local Government, Provincial Governments, Federal Government and External Development Partners for designing and further expansion of overall public health program into the Bharatpur Metropolitan City as well as in Chitwan district.



This report is very comprehensive and covers all the aspects of municipal health system, available facilities, health status of community, health services statistics, achievement of various public health programs, problem constraints in achieving the target given for FY 2078/79. From this annual health report, I am confident that a competent and efficient health care delivery system is in place and all the information provided in this report are up to date.

I would like to congratulate Bharatpur Metropolitan City, Office of Municipal Executive, Public Health Promotion Section for establishing a system to produce the annual health report covering all aspects of public health services, information regarding health workers, volunteers, outreach clinics, physical facilities and major service utilization status of the Metropolitan City. Moreover, this report can be exemplary work for other municipalities in Chitwan district and also for other local levels in the country.

The comparison of major public health indicators at health facility level, will bring a positive competition among the health facilities regarding the target versus achievement and also encourages innovations to achieve those targets in coming days.

Also, I express my sincere gratitude to Chief, Public Health Promotion Section and team, all health workers at peripheral level, FCHV, Executives of Metropolitan City, HFOMC and I/NGO representatives in providing health services to the public of Metropolitan City, Chitwan.

Kartik, 2078

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Dipak Prasad Tiwari
Sr. Public Health Administrator



Bharatpur Metropolitan City
Office of Municipal Executive
Bharatpur, Chitwan
Bagmati Province, Nepal



ACKNOWLEDGEMENT

It is my immense pleasure to bring out the second Annual Health Report of the Bharatpur Metropolitan City for the fiscal year 2077/78 (2020/21). This report contains the relevant and comprehensive information about the various program implemented at the local level including policies, strategies, activities, achievement, and issues. It presents and analyses the data in a systematic manner on the performance of public health and supportive program of the last fiscal year, along with the comparative figures from the past three fiscal years.

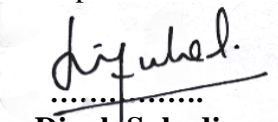


The COVID-19 pandemic had presented with an unprecedented challenge not only to public health program but also to the whole health care delivery system. Metropolitan has endeavored through its immediate response and good leadership steps to mitigate the risk, including public health and social measures. I am humbled by the passion, dedication and expertise of our health workers shown at the time of this emergency. Overall, the efforts and commitment shown by every individual in controlling the pandemic is astonishing.

I express my sincere gratitude to the Mayor Renu Dahal for her current leadership and commendable direction. I would also like to thank the Deputy-Mayor Parbati Shah Thakuri for her continuous guidance. I express my sincere gratitude to Chief Administrative Officer Rambandhu Subedi for his encouragement and valuable directives. I am also thankful to Division chief Shanta Paudel and Health Subcommittee Chair Govinda Tamang for creating enabling environment. I express my sincere thanks to all Ward Chairperson, Municipal Executive Member and Ward Members and all those who continuously put efforts and perseverance in the battle against COVID-19.

I would like to express my earnest thanks to Dipak Prasad Tiwari, Chief of Health Office Chitwan for his technical guidance and support throughout the year. I gratefully acknowledge Metropolitan Health Expert Dr. Bhojraj Adhikari for bestowing valuable suggestions. I am indebted to Division Chiefs, Section Chiefs and all staff of metropolitan for their kind coordination and cooperation. I am thankful to Ministry of Health and Population, Ministry of Health and Health Directorate of Bagmati Province, Bharatpur Hospital, Health Office Chitwan and all other stakeholders.

I would like to extend my appreciation to all our health workers, FCHVs and support staffs for their untiring efforts in providing quality health services at the community level round the year especially in the COVID 19 pandemic. I also extend my thanks to my colleagues Bishnu Prasad Acharya, Surya Prasad Tiwari, Keshav Prasad Bhatta, Rupmati Ale, Shiva Paudel, Haridatta Koirala, Binay Shrestha and Mangal Gurung for their hard and dedicated work throughout the year. Finally, I anticipate to receive valuable suggestions for further improvement in the coming years report.


Dipak Subedi
Public Health Officer

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Abbreviation and Acronym

AEFI	Adverse Event Following Immunization
AFP	Acute Flaccid Paralysis
AIDS	Acquired Immuno-Deficiency Syndrome
ANC	Antenatal Care
API	Annual Parasite Incidence
ARI	Acute Respiratory Infection
ART	Antiretroviral Therapy
BHC	Basic Health Center
BMC	Bharatpur Metropolitan City
CBIMNCI	Community Based Integrated Management of Neonatal And Childhood Illness
CBS	Central Bureau of Statistics
CDD	Control of Diarrheal Disease
CEONC	Comprehensive Emergency Obstetric and Neonatal Care
CHU	Community Health Unit
COVID	Corona Virus Disease
CPR	Contraceptive Prevalence Rate
DHF	Dengue Hemorrhagic Fever
DHIS	District Health Information System
DOTS	Directly Observed Treatment Short Course
DPT	Diphtheria, Pertussis, Tetanus
EPI	Expanded Program on Immunization
EWARS	Early Warning and Reporting System
FCHV	Female Community Health Volunteer
FCTC	Framework Convention on Tobacco Control
fIPV	Fractional Inactivated Polio Vaccine
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HP	Health Post
IDA	Iron Deficiency Anaemia
IDD	Iodine Deficiency Disorder
IEC	Information, Education and Communication
IFA	Iron Folic Acid
IUCD	Intrauterine Contraceptive Device
JE	Japanese Encephalitis
LAPM	Long Acting and Permanent Methods
LARC	Long Acting Reversible Contraceptive
LLIN	Long Lasting Insecticidal (Bed) Nets
LMIS	Logistics Management Information System

MB	Multibacillary Leprosy
MCH	Maternal and Child Health
MDA	Mass Drug Administration
MDR	Multi-Drug Resistant
MDT	Multi-Drug Therapy
MoHP	Ministry of Health and Population
MoSD	Ministry of Social Development
MR	Measles Rubella
NCD	Non-Communicable Disease
NDHS	Nepal Demographic and Health Survey
NIP	National Immunization Program
NTP	National Tuberculosis Program
OPD	Outpatient
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Solution
PB	Paucibacillary Leprosy
PBC	Pulmonary Bacteriological Confirmed
PCD	Pulmonary Clinically Diagnosed
PCR	Polymerase Chain Reaction
PCV	Pneumococcal Conjugate Vaccine
PEM	Protein Energy Malnutrition
PEN	Package of Essential Non-Communicable Diseases
Pf	Plasmodium falciparum
PHC	Primary Health Center
PHC-ORC	Primary Health Care Outreach Clinics
PMTCT	Prevention of Mother to Child Transmission
PNC	Postnatal Care
PPE	Personal Protective Equipment
PSBI	Possible Severe Bacterial Infection
PWID	People Who Inject Drugs
RDT	Rapid Diagnostic Tests
RT-PCR	Reverse-Transcriptase Polymerase Chain Reaction
SBA	Skilled Birth Attendant
STI	Sexually Transmitted Infections
Td	Tetanus and Diphtheria
TT	Tetanus Toxoid
UHC	Urban Health Center
UHPC	Urban Health Promotion Center
VSC	Voluntary Surgical Contraception

Health Service Coverage Fact Sheet (FY 2075/076 to 2077/078)

Program Indicator	Bharatpur Metropolitan City			Chitwan District 076/77	National Target	
	075/76	076/77	077/78		2020	2030
Number of health facilities						
Public hospital	2	2	2			
Primary Health Center	1	1	1			
Health Post	13	13	13			
Basic Health Center	6	6	8			
Urban Health Center	2	2	2			
MCH Clinic/Health Clinic	2	2	2			
BHC/UHC/CHU	1	1	1			
Reporting Status (%)						
Public hospitals	100	100	100	100	100	100
PHC,HP,UHPC,BHC,UHC,CHU	100	100	100	100	100	100
FCHVs	78	90	96	90	100	100
Immunization Status (%)						
BCG coverage	120	132	90	80		
DPT-HepB -Hib3 coverage	75	72	65	73	90	95
MR2 coverage (12 -23 months)	81	93	79	74		
Fully immunized children				68	90	95
Dropout rate DPT-Hep B- Hib 1 vs 3	2	4	0.5	1	<10	<5
Pregnant women who received TD2 and TD2+	47	44	38	42		
Nutrition Status (%)						
Children aged 0-11 months registered for growth monitoring	104	107	81	95	100	100
Underweight children among new growth monitoring visits (0-11 months)			0.3	1.5		
Children aged 12-23 months registered for growth monitoring	30	36	51	52	100	100
Underweight children among new growth monitoring visits (12-23months)			0.7	4.5		
Pregnant women who received 180 tablets of Iron	33	32	30	33		
Postpartum mothers who received vitamin A supplements	22	30	25	36		
IMNCI						
Incidence of ARI among under 5 years children per 1000	262	252	237	308		
Incidence of pneumonia among under 5 years children (per 1000) (HF and PHC/ORC only)	44	27	7	11		
% of under 5 years children with Pneumonia treated with antibiotics	64	93	95	100	100	100

Program Indicator	Bharatpur Metropolitan City			Chitwan District 076/77	National Target	
	075/76	076/77	077/78		2020	2030
Incidence of diarrhea per 1000 under five years children	111	109	99	164		
% of under 5 years children with diarrhea treated with ORS and zinc	79	100	91	95	100	100
Safe Motherhood (%)						
Pregnant women who attended first ANC visit (any time)	279	238	156	118		
Pregnant women who attended four ANC visits as per protocol	94	74	45	40	70	90
Institutional deliveries	217	225	185	100	70	90
Deliveries conducted by skilled birth attendant	217	225	185	100	70	90
Mothers who had three PNC check-ups as per protocol*	39	59	70	40	50	90
Family Planning (%)						
Contraceptive prevalence rate (CPR - unadjusted)*	44	44	44	40	56	60
CPR (Spacing methods)						
Female Community Health Volunteers (FCHV)						
Number of FCHVs	207	207	207	460		
% of mothers' group meeting held	90	90	95	91	100	100
Malaria and Kala-azar						
Annual blood slide examination rate (ABER) per 100	1.8	1.3	NA	NA	4.0	
Total Malaria positive case		1	1	1	0.05	
% of PF among Malaria positive case		0	0	0		
Number of new Kala-azar cases	0	0	0	0		
Tuberculosis						
Case notification rate (all forms of TB)/100,000 pop	153	133	138	126		
Cure rate	84	81	88	84	>90	>90
Leprosy						
New case detection rate (NCDR) per 100,000 population	9	7.4	9.2	6.1	10	7
Prevalence rate (PR) per 10,000	0.9	0.74	0.92	0.61	0.1	0.04
HIV/AIDS and STI						
% of pregnant woman who tested for HIV at an ANC checkup			30	30		
Curative Services						
% of population utilizing outpatient (OPD) services	161	155	130	106		

Executive Summary

Introduction

The constitution of Nepal has established basic health care as a fundamental right of its citizens. The Government of Nepal is committed to improving access to and using quality health care by embracing universal health coverage. The current federal structure of the country assigns rights related to basic health care services to local governments. Under them, the public health section has been managing and monitoring activities related to the delivery of basic healthcare services.

Bharatpur Metropolitan City is located in Chitwan District, Bagmati Province, Nepal. Bharatpur is the district headquarter of Chitwan situated in the central-southern part of Nepal. It was established in 2035 as Bharatpur Municipality, which was later upgraded to Metropolitan City in 2073 Falgun 17. Metropolitan, also known as the medical city of Nepal, is divided into 29 wards and occupies a total area of 427.35 square kilometers.

This report is the second official annual report of the Public health Promotion Section, Bharatpur Metropolitan City. This report highlights the comparative analysis of important public health indicators from the last three fiscal years. In FY 2077/78, the institutions that delivered basic health services were 1 Primary Health Care Center (PHCC), 13 Health Posts (HP), 6 Ayurveda Ausadhalaya, 8 Basic Health Centers (BHC), 2 Urban Health Centers (UHC), 1 Community Health Unit (CHU), 1 Maternal and Child Health Clinic and 1 Health Clinic. Primary health care services were further provided by 36 Primary Health Care Outreach Clinic (PHC-ORC) sites. Similarly, 80 Immunization clinics provided immunization services. These services were supported by 207 Female Community Health Volunteers (FCHVs).

Furthermore, the specific services were provided through 5 birthing centers, 10 IUCD sites, 9 implant sites, 2 safe abortion service sites, 10 laboratories, 36 DOTS centers, 12 TB microscopy centers, 2 Gene Xpert centers, 2 TB-MDR sub-centers, 3 vaccine sub-centers in Bharatpur. Besides, Bharatpur Hospital, BP Koirala Memorial Cancer Hospital, 2 medical colleges, 22 private hospitals, and more than 100 clinics and polyclinics provided different level health services.

Public Health Program

Immunization

The National Immunization Program (NIP), formerly known as Expanded Program on Immunization (EPI), started in FY 2034/35 as a priority one program. It is one of the successful public health interventions in Nepal. National Immunization Program has included several underused and new vaccines in the program. Currently, twelve antigens – BCG, DPT-HepB-Hib (penta), Rota, PCV, OPV (bOPV), Measles and Rubella (MR), and Japanese Encephalitis are provided as per the schedule during the vaccination program.

The coverage of all vaccines has decreased in 077/78 compared to 076/077. The highest coverage was of BCG with 90%. However, the Polio 3 coverage was lowest among antigen for children with 63% in FY 2077/78, which may be due to stock out of polio vaccine for few months.

Integrated management of Childhood Illness

This integrated package of child-survival intervention addresses the major problems of sick newborns such as birth asphyxia, bacterial infection, Jaundice, hypothermia, low birth weight, counseling of breastfeeding. It also addresses major childhood illnesses like Pneumonia, Diarrhea, Malaria, Measles, and Malnutrition among under five years children in a holistic way.

The incidence of ARI and diarrhea among under 5 children was 237/1000 and 99/1000 respectively. Similarly, the incidence of Pneumonia was 7.3/1000 among under 5 children and the proportion of children with diarrhea treated by ORS and Zinc was 91 percent.

Nutrition

The national nutrition program is a priority program of the government of Nepal. It aims to achieve the nutritional well-being of all people to maintain a healthy life and contribute to the country's socio-economic development. A high-level commitment from the provincial government was ensured to improve the nutritional status, especially of women and young children.

In 2077/78, two third (67%) aged 00-23 months children were registered for a new growth monitoring visit; and the average number of growth monitoring visits among 0-23 month children was three. Less than 1 percent of children aged 0-23 months registered for growth monitoring were found underweight.

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.

Pregnant women attending at least 4 ANC visits as per protocol were 45 percent in FY 2077/78, which decreased significantly by 29 percent compared to the previous fiscal year. Institutional delivery as percentage of expected live births also decreased significantly which may be due to COVID 19 pandemic. In FY 2077/78, 3107 women received safe abortion services.

Family planning

The main aim of the National Family Planning program is to ensure that individuals and couples can fulfill their reproductive needs by using appropriate family planning (FP) methods voluntarily based on informed choices. The Government of Nepal 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.

The Contraceptive Prevalence Rate (CPR) is one of the main indicators for monitoring and evaluating the Family Planning Program. The contraceptive prevalence rate (CPR) for the modern family planning method was 44% in the fiscal year 2077/78, the same as FY 2075/76. Depo and pills remained the two most common modern methods preferred by new acceptors.

Primary Health Care Outreach Clinics

Based on the local needs, Primary health care outreach clinics (PHC/ORCs) are conducted every month at fixed locations in a specific time frame. The clinics are conducted within half an hour's walking distance for the population residing in that area. PHC/ORCs extend basic health care services to the community level. The total number of clinics expected to run in a year was 456 (37 PHC/ORC clinics x 12 times). However, only 65% of clinics were conducted in FY 2077/78 due to unavoidable circumstances. On average, 13 clients were served per clinic during the FY 2077/78.

Malaria

The government of Nepal has set a vision of Malaria free Nepal in 2025. The current National Malaria Strategic Plan (NMSP) 2014- 2025 was developed based on the epidemiology of malaria derived from 2012 micro-stratification. Nepal has achieved a significant reduction in its malaria burden in recent years. One malaria case was identified in FY 2077/78. The case was imported and non-falciparum.

Lymphatic Filariasis

Lymphatic Filariasis (LF) is one of the public health problems in Nepal. The goal of the national Lymphatic Filariasis program is the people of Nepal no longer suffer from lymphatic filariasis. The government of Nepal has adopted MDA as an important strategy to eliminate Lymphatic filariasis. Chitwan completed six rounds of intensive mass drug administration in 2016.

Dengue

Dengue, a mosquito-borne disease, emerged in Nepal in 2005. The goal of the National Dengue Control Program is to reduce the morbidity and mortality due to dengue fever, dengue hemorrhagic fever (DHF), and dengue shock syndrome (DSS). Frequent outbreaks were reported in the periodic duration. In Chitwan, the metropolitan experienced the major epidemic in FY 2076/77 where the cases drastically increased from 23 in FY 2075/76 to 4803 in 2076/77. In FY 2077/78 total 247 dengue cases were identified in Chitwan district.

Leprosy

Leprosy has been a major public health problem for many years and has been a priority of the government of Nepal. The National Leprosy Control Program started in 1966, and Multi-Drug

Therapy (MDT) was introduced in 1982. In FY 2077/78, a total number of 32 new leprosy cases were detected and put under Multi-Drug Therapy (MDT). The registered prevalence rate was 0.92 per 10,000 population, which was in the elimination stage. No grade 2 disability was reported in the year.

Tuberculosis

Tuberculosis (TB) is a major public health problem in Nepal. Directly Observed Treatment Short-course (DOTS) has successfully been implemented throughout the country since April 2001, and a total of 29 DOTS treatment centers are providing TB treatment service in Bharatpur.

In FY 2077/78, a total of 478 cases were registered in the National TB program. Out of total cases, 96.1 percent of incident TB cases registered (New and Relapse) among all TB cases. The case notification rate increased to 138/100000 in FY 2077/78 compared to the 133/100000 population in the previous fiscal year. The treatment success rate was 93 percent in FY 2077/78, decreased from 95 percent in FY 2076/77.

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 in 1995. National HIV Strategic Plan 2016-2021 aims to achieve ambitious global goal 90-90-90. By July 2021, 90% of all people living with HIV (PLHIV) will know their HIV status, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy, and 90% of all people receiving antiretroviral therapy will have viral suppression. In FY 2077/78, a total of 30 percent pregnant women during the ANC and labor stage were tested HIV status for prevention of mother-to-child transmission.

Social Health Security

Social Health Security program aims to provide free treatment and management facilities of eight selected diseases to disadvantaged Nepali citizens. The “Bipanna Nagarik Aushadhi Upachar Program” provides the funding for disadvantaged Nepali citizens to treat severe health conditions. The provisions includes the treatment of diseases like Cancer, Heart disease, Kidney disease, traumatic head injury, traumatic spinal Injury, Alzheimer's disease, Parkinson's disease, and sickle cell anemia. In FY 2077/78, a total 325 disadvantage citizens were recommended for the provision of free treatment services scheme. The top most received services was treatment for Cancer with 164 patients, followed by 101 Heart disease.

Female Community Health Volunteers

The female Community Health Volunteers (FCHVs) major role in the promotion of safe motherhood, child health, family planning, and other community-based health services to promote health and healthy behavior of mothers and community people with support from health workers

and health facilities. FCHVs contributed significantly to distribute oral contraceptive Pills, Condoms, and Oral Rehydration Solution (ORS) packets and counseling and referring to mothers in the health facilities for the service utilization. Total 207 FCHVs in Metropolitan provide health services to community people.

Curative Services

Curative health services were provided to outpatients, including emergency patients and inpatients. Outpatient services were provided through OPD of Health Post, PHCC, public Hospitals, Medical Colleges, NGO/INGO-led hospitals, and private hospitals. Similarly, inpatient services were provided by public hospitals, medical colleges, and private hospitals. The percentage of new OPD visits was 130 percent in FY 2077/78.

Supportive Program

Health Service Management

A health management information system (HMIS) is a system whereby health data are recorded, stored, retrieved, and processed to improve decision-making. District Health Information System (DHIS2), a customizable free open source software, was used for data entry, analysis, and presentation of information recorded by HMIS. In Bharatpur, 25 public health institutions and more than 100 private institutions submitted monthly reports entered through DHIS2.

Logistics Management

The primary role of Logistics Management (LM) is to support in delivering quality health care services through logistics supply of essential equipment, vaccines, family planning commodities, and free drugs to all health facilities. The quarterly LMIS has facilitated evidence-based logistics decision-making and initiatives in annual logistics planning and forecasting health commodities. In FY 2077/78, all health institutions of Metropolitan submitted quarterly LMIS report.

Health Laboratory

Laboratory medicine is a vital component of health care services. Nepal's healthcare system consists of various laboratories involved in diagnostic services and those involved in public health activities like surveillance, research, etc. Bharatpur Metropolitan City has established and operated health laboratories in 10 health facilities.

Human Resource for Health

Human resources are the pivotal resource for health care delivery. Human resource management involves the planning, motivation, training, development, promotion, transfer, and training of employees. The proper placement and use of human resources are crucial for effective quality health care delivery. In FY 2077/78, all the sanctioned posts were fulfilled.

Ayurveda and Alternative Health Services

Ayurveda health system is considered the oldest health system in the world with scientific pieces of evidence. In recent years, the importance of Ayurveda and Alternative medicine have been recognized and prioritized as a part of the national health system, despite the low priority in past years. A range of Ayurveda health institutions is providing outpatient and inpatient health services. More than 16 thousand population were served by Ayurveda health institutions in FY 2077/78.

Initiatives from Bharatpur Metropolitan

Several initiatives were taken by Bharatpur Metropolitan to improve the health status of people during the last three fiscal years. Free ambulance/transportation incentives schemes were provided to women who had institutional delivery. Free OPD grants were given to Bharatpur hospital to assure free OPD tickets to women, elderly and people having disabilities. Emphasis has been given to health infrastructure development and maintenance of health facility buildings. In addition, essential medicines and equipment were procured and distributed to health institutions. The establishment and operation of health institutions have been carried out in the ward level and human resource for health were recruited on a contract basis for the smooth functioning of health services. With the slogan “Clean and Healthy City” Bharatpur Metropolitan is committed to making the city livable and healthy. Efforts have been made to make Bharatpur a tobacco-free Metropolitan. Monthly transportation costs were provided to FCHV to motivate them and achieve a higher standard of services.

In 2077/78 the pandemic of COVID 19 heavily influenced every sector of society. Activities like establishment and operation of COVID 19 hospital, case management, case investigation and contact tracing, monitoring of patients in home isolation, COVID 19 immunization campaign, awareness and preparation, PPE and medical equipment procurement, and supply were implemented to prevent, control, and manage the COVID-19 pandemic in Bharatpur.

Chapter I: Introduction

General Information

The constitution of Nepal has established basic health care as a fundamental right of its citizens. The Government of Nepal is committed to improving access to and use of quality health care by embracing the concept of universal health coverage. For this, policies, strategies and plans including long-term health plans, national health policy and Nepal Health Sector Program have been prepared and implemented keeping in view the guidelines, goals and strategies given by international conferences and declarations including Millennium Development Goals, Sustainable Development Goals.

The Constitution of Nepal broadly defines exclusive and concurrent mandates of the three levels of government, including for health policies and services. These constitutional provisions identify the functions to be carried out by federal, provincial, and local governments. Ministry of Health and Population (MoHP) developed the National Health Policy, 2076, in light of the new constitution of the country. The Public Health Service Act and Safe Motherhood and Reproductive Health Rights Act have also been enacted by the federal parliament to operationalize the constitutional rights of citizens for health service provision. Moreover, the MoHP has defined the package of basic health services as an integrated part of the public health services regulations.

In order to fulfill the objective of the health sector, the management of the entire health care program and the provision of quality health care needs to be done effectively. Health information plays an important role in the various stages of implementation, monitoring and evaluation of programs, policies or plans implemented at all levels and improve the quality health care. The information system provides the evidenced-based decision making in all level of the health system.

Health information is an integral part of the national health system. It is a basic tool of management and a key input for the improvement of health status in the country. The primary objective of the information system is to provide reliable, relevant, up-to-date, adequate, timely and reasonably complete information for health managers at local, provincial and national levels.

This is the first ever annual report of the Bharatpur Metropolitan City, Public health Promotion Section. This report highlights the comparative analysis of important public health indicators. In Bharatpur, health services have been delivered to the people of the Metropolitan through various levels of health institutions. There are 2 central level hospitals (Bharatpur Hospital and B.P. Koirala Memorial Cancer Hospital) in Bharatpur. Under Bharatpur Metropolitan there are 1 PHC, 6 Ayurveda Ausadhalaya, 13 Health Posts, 14 Basic Health Center (BHC), 3 Urban Health Center (UHC), 1 Community Health Unit (CHU), 1 Maternal and Child Health Clinic and 1 Health Clinic which all are governed by Bharatpur Metropolitan City.

In addition, basic health service is providing through 80 Expanded Program on Immunization (EPI) clinics, 36 Primary Health Care Outreach Clinics (PHC/ORCs) and 207 Female Community Health Volunteers (FCHVs). As the policy to establish one health institutions in each wards, all wards in the Bharatpur Metropolitan have at least one health facility.

This report analyses the performance and achievements of Bharatpur Metropolitan City in fiscal year 2077/78 (2020/2021). It focuses on performance in 2077/78 and the following areas that provide the basis for improving performance in subsequent years:

- Program's policy statements, including goals, objectives, strategies and major activities
- Program's indicators and achievements.
- Problems, issues, constraints and recommendations on improving performance and achieving targets.

Health Management Information System (HMIS) is the main source of information for this report. The report also uses information from other Management Information Systems (MISs), disease surveillance systems. The main health sector MISs includes the DHIS 2, the Logistics Management Information System (LMIS), and the Ayurveda Reporting System (ARS).

Bharatpur Metropolitan Profile

Introduction

Bharatpur Metropolitan City is located in Chitwan District, Bagmati Province, Nepal. Bharatpur is the district headquarter of Chitwan situated in the central southern part of Nepal. The city is located at latitude of 27°32'58" to 27°45'40" and 84°9'5" to 84°29'5" longitude. It is surrounded by Ratnanagar Municipality, Kalika Municipality and Ichhyakamana Rural Municipality in the East, Chitwan National Park and Nawalparasi (Bardaghat Susta West) District in the West, Tanahu District in the North, Chitwan National Park in the South. Bharatpur, the fourth largest city of Nepal, is a commercial and service center of central south Nepal and major destination for higher education, health care and transportation in the region.

Bharatpur Metropolitan city is situated at an altitude of about 251 meters from the sea level with latitude of 27°32'58" to 27°45'40" and 84°9'5" to 84°29'5" longitude. The Bharatpur Metropolitan city is the local government of Nepal where 29 ward are cumulated to form whole metropolitan city. According to population census 2011 the population of Bharatpur Metropolitan city is 280,502.

Bharatpur was established in 2035 as Bharatpur Municipality and later upgraded to Metropolitan City since 2073 Falgun 17. It is divided into 29 wards and occupies a total area of 427.35 square kilometer. Organized settlement started in the city since the establishment of Rapti Dun Project in 2013 BS and inhabited by migrants from all districts of Nepal. It is renowned for historical, social, economic, cultural and religious perspectives with the presences of various ethnic groups, most of

the people except some indigenous group like Tharus, Darai, Kumals and Chepangs are emigrated from different parts of the country. The principal language in the city is Nepali and the major religions are Hinduism.

Bharatpur is also known as the medical city of Nepal. There are many top rated medical institutions in the city where Central hospital like BPKMCH Cancer hospital, Government Bharatpur hospital, College of Medical Science (CMS), Chitwan Medical College (CMC) with others private hospitals, Primary health Post, Urban Health Centers, are providing health services regularly. People from all over Nepal and also from North India come here for treatment. The district is especially famous for the cancer hospital named after B.P. Koirala.

The historical and religious place Devghat, Deepest River - Narayani River, Bishajari Tal (Twenty thousand lake), Rapti River are some of the important places in Bharatpur. Ranging from Golaghat, the confluence of Narayani and Rapti rivers, to high hilly are Chowkidanda, Bharatpur has immense possibility of social, economic and cultural advancement.

Map of Bharatpur Metropolitan City

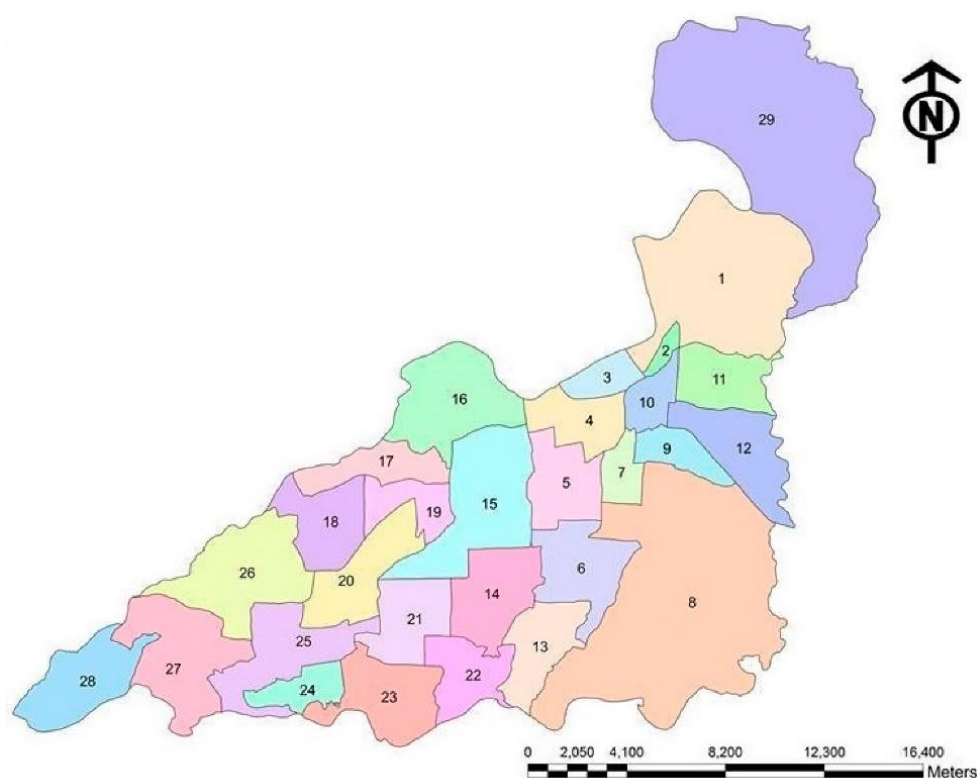


Figure: Map of Bharatpur Metropolitan City

Bharatpur Metropolitan at a Glance

Country	Nepal
Province	Bagmati
District	Chitwan
Longitude	84 ⁰ 9'5" to 84 ⁰ 29'5" East
Latitude	27 ⁰ 32'58" to 27 ⁰ 45'40" North
Elevation	140 to 390 meters above sea level
Area	432.95 sq. km.
Average rainfall	1500 mm
Average temperature	25 °C (Lowest: 10°C, Highest: 40°C)
Number of wards	29
Population	280,502 (CBS 2001)
Annual Growth Rate	2.06%
Population Density	665/ sq.km.
Number of household	69035 (CBS 2001)
Average family size	4.06
Male Female ratio	91.46
Major religions	Hindu
Principal Language	Nepali, Tharu

Health Profile of Bharatpur Metropolitan City

Number of Health Service Unit

Hospital (Government)	2	IUCD site	10
COVID Hospital	2	Implant site	10
Primary Health Center (PHC)	1	Safe abortion service site	2
Health Post (HP)	13	Laboratory	10
Basic Health Center (BHC)	14	DOTS center	36
Urban Health Center (UHC)	3	TB microscopy center	12
Community Health Unit (CHU)	1	Gene xpert center	2
Ayurved Aushadhalaya	6	MDR sub center	2
MCH Clinic	1	Vaccine sub-center	3
Health Clinic	1	Medical college	2
Immunization clinic	80	Private Hospital / Nursing Home	24
PHC-ORC	36	Polyclinic/Clinic/Others	151
FCHV	207	Ambulance	57
Birthing center	5		

Type of Health Institution

S.N.	Health Institution Type	Name of Health Institution	Ward No	Established Year
1	Primary Health Center (PHC)	Shivanagar PHC	14	
2	Health Post (HP)	Shahid Ganesh HP	6	
3		Bharatpur HP	8	
4		Fulbari HP	15	
5		Mangalpur HP	16	
6		Gunjanagar HP	17	
7		Sharadanagar HP	19	
8		Parvatipur HP	21	
9		Patihani HP	22	
10		Jagatpur HP	23	
11		Shukranagar HP	25	
12		Divyanagar HP	26	
13		Megghauli HP	27	
14		Kabilas HP	29	
15	Basic Health Center (BHC)	Thimura BHC	1	
16		Aaptari BHC	2	
17		Nagarban BHC	3	
18		Durgachowk BHC	4	
19		Kailashnagar (Bhimlal) BHC	5	
20		Krishnapur BHC	7	
21		Sharadpur BHC	9	
22		Jaldevi BHC	11	
23		Munal BHC	12	
24		13 No BHC	13	
25		Shashinagar BHC	18	
26		BhimnagarBHC	20	
27		Dhruba BHC	24	
28		Jitpur BHC	28	
29	Urban Health Center (UHC)	Torikhet UHC	5	
30		Suryanagar BHC	15	
31		Kasara UHC	23	
32	Community Health Unit (CHU)	Chaukidada CHU	29	
33	MCH Clinic	MCH Clinic	10	
34	Health Clinic	Devghat Clinic	1	
35	Ayurveda Aushadhalaya (AA)	Devghat AA	1	
36		Shivaghat AA	4	
37		Gunjanagar AA	18	
38		Patihani AA	22	
39		Megghauli AA	27	
40		Daletar AA	29	

Description of Immunization Clinic, PHC-ORC and FCHVs

S.N.	Health Institution	Immunization Clinic	PHC-ORC	FCHVs
1	Thimura BHC	1	0	11
2	Aaptari BHC	1	0	5
3	Nagarban BHC	1	0	6
4	Durgachowk BHC	3	0	11
5	Kailashnagar BHC	1	0	5
6	Torikhet UHC	1	0	6
7	Shahid Ganesh HP	5	3	6
8	Krishnapur BHC	1	0	6
9	Bharatpur HP	3	0	6
10	Sharadpur BHC	1	0	20
11	MCH Clinic	1	0	0
12	Jaldevi BHC	2	0	8
13	Munal BHC	1	0	7
14	13 No BHC	2	0	5
15	Shivanagar PHC	4	3	7
16	Fulbari HP	4	1	16
17	Suryanagar UHC	1	0	0
18	Mangalpur HP	4	2	6
19	Gunjanagar HP	3	2	5
20	Shashinagar BHC	2	1	4
21	Sharadanagar HP	4	3	4
22	Bhimnagar BHC	1	0	5
23	Parvatipur HP	5	2	9
24	Patihani HP	3	2	5
25	Jagatpur HP	1	2	4
26	Kasara UHC	1	1	2
27	Dhruba BHC	2	0	3
28	Shukranagar HP	5	4	9
29	Divyanagar HP	5	3	9
30	Meghauli HP	4	4	5
31	Jitpur BHC	1	0	4
32	Kabilas HP	3	2	6
33	Chaukidada CHU	2	1	3
	Total	80	36	207

Infrastructure of Health Institution

S.N.	Health Institution	Land	Land Area	Building	Building status	Standard Building
1	Thimura BHC	Yes	0-1-10-0	Yes	New	Yes
2	Aaptari BHC	No		No	Rent	
3	Nagarban BHC	Yes		No	Process	
4	Durgachowk BHC	Yes	0-1-10-0	No	Process	
5	Kailashnagar BHC	Yes	0-1-10-0	No	Process	
6	Torikhet UHC	Yes		No	Rent	
7	Shahid Ganesh HP	Yes	0-5-0-0	Yes	Old	No
8	Krishnapur BHC	No				
9	Bharatpur HP	Yes		Yes	New	Yes
10	Sharadpur BHC	No		No	Rent	
11	MCH Clinic	No		No	HO	
12	Jaldevi BHC	Yes	0-1-8-0	Yes	New	Yes
13	Munal BHC	No			Ward	
14	13 No BHC	No		No	Rent	
15	Shivanagar PHC	Yes		Yes	New	Yes
16	Fulbari HP	Yes	0-5-0-0	Yes	New	Yes
17	Suryanagar UHC	Yes		Yes	New	
18	Mangalpur HP	Yes	0-5-0-0	Yes	Old	No
19	Gunjanagar HP	Yes	0-5-0-0	Yes	New	Yes
20	Shashinagar BHC	Yes	0-1-10-0	Yes	Process	No
21	Sharadanagar HP	Yes	5-0-0-0	Yes	New	Yes
22	BhimnagarBHC	Yes		No		
23	Parvatipur HP	Yes	0-5-0-0	Yes	Process	
24	Patihani HP	Yes		Yes	New	No
25	Jagatpur HP	Yes	0-5-0-0	Yes	New	Yes
26	Kasara UHC	Yes		Yes	New	Yes
27	Dhruba BHC	Yes			Process	
28	Shukranagar HP	Yes	0-5-0-0	Yes	Process	
29	Divyanagar HP	Yes	0-10-0-0	Yes	Old	
30	Meghauli HP	Yes	0-10-0-0	Yes	New	
31	Jitpur BHC	Yes		No	Process	
32	Kabilas HP	Yes	0-6-10-0	No	Community	
33	Chaukidada CHU	Yes		No	Community	
34	Devghat Clinic	Yes		No	Ayurveda	
35	Devghat AA	Yes		Yes	Old	No

36	Shivaghat AA	Yes		Yes	New	Yes
37	Gunjanagar AA	Yes		Yes	Old	No
38	Patihani AA	Yes		Yes	New	Yes
39	Meghauli AA	No		No		
40	Daletar AA	No		No	Rent	

Health Service Centers

Laboratory Service

- | | |
|---------------------|--------------------|
| 1. Shahid Ganesh HP | 6. Sharadanagar HP |
| 2. Sharadpur BHC | 7. Patihani HP |
| 3. Shivanagar PHC | 8. Shukranagar HP |
| 4. Fulbari HP | 9. Divyanagar HP |
| 5. Mangalpur HP | 10. Meghauli HP |

Birthing Center

- | | |
|--------------------|----------------|
| 1. Shivanagar PHC | 4. Jagatpur HP |
| 2. Gunjanagar HP | 5. Meghauli HP |
| 3. Sharadanagar HP | |

IUCD Service

- | | |
|---------------------|--------------------|
| 1. Aaptari BHC | 6. Sharadanagar HP |
| 2. Shahid Ganesh HP | 7. Patihani HP |
| 3. Shivanagar PHC | 8. Jagatpur HP |
| 4. Fulbari HP | 9. Divyanagar HP |
| 5. Mangalpur HP | 10. Kabilas HP |

Implant Service

- | | |
|---------------------|--------------------|
| 1. Aaptari BHC | 6. Sharadanagar HP |
| 2. Shahid Ganesh HP | 7. Patihani HP |
| 3. Shivanagar PHC | 8. Jagatpur HP |
| 4. Fulbari HP | 9. Divyanagar HP |
| 5. Mangalpur HP | 10. Kabilas HP |

TB Gene Xpert Center

- | | |
|--------------------------|-------------------|
| 1. Health Office Chitwan | 2. Shivanagar PHC |
|--------------------------|-------------------|

DR-TB Sub-center

- | | |
|--------------------|---------|
| 1. Sharadanagar HP | 2. NATA |
|--------------------|---------|

TB Microscopy Center

- | | | |
|---------------------|--------------------|---------------------------|
| 1. Shahid Ganesh HP | 5. Mangalpur HP | 9. Divyanagar HP |
| 2. Sharadpur BHC | 6. Sharadanagar HP | 10. Meghauli HP |
| 3. Shivanagar PHC | 7. Patihani HP | 11. Health Office Chitwan |
| 4. Fulbari HP | 8. Shukranagar HP | 12. NATA |

TB DOTS Center

- | | | |
|---------------------|---------------------|-------------------------|
| 1. Thimura BHC | 13. 13 No BHC | 25. Kasara UHC |
| 2. Aaptari BHC | 14. Shivanagar PHC | 26. Dhruba BHC |
| 3. Nagarban BHC | 15. Fulbari HP | 27. Shukranagar HP |
| 4. Durgachowk BHC | 16. Suryanagar BHC | 28. Divyanagar HP |
| 5. Kailashnagar BHC | 17. Mangalpur HP | 29. Meghauli HP |
| 6. Torikhet UHC | 18. Gunjanagar HP | 30. Jitpur BHC |
| 7. Shahid Ganesh HP | 19. Shashinagar BHC | 31. Kabilas HP |
| 8. Krishnapur BHC | 20. Sharadanagar HP | 32. Health Office |
| 9. Bharatpur HP | 21. BhimnagarBHC | 33. CoMS |
| 10. Sharadpur BHC | 22. Parvatipur HP | 34. NATA |
| 11. Jaldevi BHC | 23. Patihani HP | 35. Karagar Office |
| 12. Munal BHC | 24. Jagatpur HP | 36. Adarsha Nari Clinic |

Vaccine Sub-center

- | | |
|--------------------|----------------|
| 1. Shivanagar PHC | 3. Meghauli HP |
| 2. Sharadanagar HP | |

Service Availability in Health Institution

Description	No of HI
Office telephone	6
Electricity	40
Solar backup	11
Computer	20
Internet	20
Ambulance	3

Ward-wise Number of Female Community Health Volunteer

Ward No	Health Institution	No of FCHVs	Ward No	Health Institution	No of FCHVs
1	Thimura BHC	11	16	Mangalpur HP	6
2	Aaptari BHC	5	17	Gunjanagar HP	5
3	Nagarban BHC	6	18	Shashinagar BHC	4
4	Durgachowk BHC	11	19	Sharadanagar HP	4
5	Kailashnagar BHC	5	20	BhimnagarBHC	5
	Torikhet UHC	6	21	Parvatipur HP	9
6	Shahid Ganesh HP	6	22	Patihani HP	5
7	Krishnapur BHC	6	23	Jagatpur HP	6
8	Bharatpur HP	6		Kasara UHC	
9	Sharadpur BHC	7	24	Dhruba BHC	3
10		13	25	Shukranagar HP	9
11	Jaldevi BHC	8	26	Divyanagar HP	9
12	Munal BHC	7	27	Meghauli HP	5
13	13 No BHC	5	28	Jitpur BHC	4
14	Shivanagar PHC	7	29	Kabilas HP	9
15	Fulbari HP	16		Chaukidada CHU	
	Suryanagar BHC		Total		207

Government Hospitals, Medical College and Private Hospitals in Bharatpur

S.N.	Institution	Bed Capacity	Address	Office Phone
1	Bharatpur Hospital	600	BMC-10	056-520111
2	B.P. Koirala Memorial Cancer Hospital	450	BMC-07	056-524501
3	Chitwan Medical College Teaching Hospital	750	BMC-10	056-532933
4	College of Medical Sciences Teaching Hospital	750	BMC-10	056-524203
5	NPI Narayani Samudayik Hospital	150	BMC-10	056-525517
6	Manakamana Hospital	100	BMC-10	056-595280
7	Asha Hospital	55	BMC-10	056-525356
8	Bharatpur Central Hospital	55	BMC-10	056-59532
9	Bharatpur Samudayik Hospital	55	BMC-10	056- 595200
10	Chitwan Hospital	55	BMC-10	056-527101
11	Maula Kalika Hospital	55	BMC-10	056-526738
12	National City Hospital	55	BMC-10	056-523421
13	Pushpanjali Hospital	55	BMC-10	056-528480
14	Shanti Hospital	55	BMC-10	056- 525578
15	Chitwan Model Hospital	51	BMC-10	056-594460
16	Oasis Medical College Hospital	50	BMC-11	056-530577
17	Alive Hospital	25	BMC-10	056-525428
18	Chitwan Everest Hospital	25	BMC-10	056- 524162
19	Chitwan Heart Hospital	25	BMC-10	056-523349
20	Deva Hospital	25	BMC-10	056-520266
21	Saptagandaki Hospital	25	BMC-10	056- 524162
22	Chitwan Om Hospital	24	BMC-10	056- 521066
23	Niko Children Hospital	24	BMC-10	056- 528053
24	Jay Buddha Hospital	15	BMC-10	056-521371
25	Rakshya Hospital	15	BMC-10	056-525000

Chapter II: Public Health Program

National Immunization Program

Background

National Immunization Program (NIP) is a priority program of Nepal and was started in 2034 BS. It is one of the successful public health programs of Ministry of Health and Population, and has achieved several milestones contributing to reduction in morbidity and mortality associated with vaccine preventable diseases.

NIP works in coordination with other divisions of Department of Health Services and national centres of Ministry of Health and Population, and different partners, including WHO and UNICEF, supporting the National Immunization Program. NIP has introduced several new and underutilized vaccines from the time of 2011-2020, contributing towards achievement of Global Vaccine Action Plan targets of introducing new and underutilized vaccines in routine immunization. Currently, the program provides vaccination against 12 vaccine preventable diseases. In the year 2020 oral rotavirus vaccine was added in the routine immunization schedule.

NIP has been successful for meeting the targets of eradication, elimination and control of vaccine preventable diseases. Smallpox being the first vaccine preventable disease to be eradicated in 2034 BS (1977 AD) created a history. The elimination status has been sustained since maternal and neonatal tetanus (MNT) was eliminated in 2005. In Nepal the last case of polio was in 2010 and along with other countries of South East Asia Region, Nepal was certified polio free in 2014, which has been maintained up to now.

Nepal is one of the first country in the world to introduce JE vaccine in routine immunization. Nepal was also certified as having achieved control of rubella and congenital rubella syndrome in august, 2018. Overall, the National Immunization Program is considered as the main contributor towards the decline of infant and child mortality and to achieve the Sustainable Development Goal 3. Ensure healthy lives and promote well-being for all at all ages, target 3.2 End preventable deaths of newborns and children under 5 years of age by 2030.

Nepal is the first country in the South East Asia Region to have Immunization Act, thus supporting and strengthening the National Immunization Program. Immunization Act 2072 was published in the Official Gazette on 26 January 2016. Based on the Act, Nepal also has Immunization Regulation 2074, which was published in the Official Gazette on 6 August 2018 and have recognized immunization as a right of all children.

Since FY 2069/70 (2012/13), Nepal has initiated and implemented a unique initiative known as 'full immunization program'. It addresses the issues of social inequality and discrimination in immunization as every child regardless of any geographical or social aspect within an administrative boundary are meant to be fully immunized under this program. Chitwan was declared fully immunized district in July, 2018.

National Immunization program helps in the evidence generation on burden of vaccine preventable diseases and impact of vaccine introduction. Nation-wide surveillance of acute flaccid paralysis (for polio), measles and rubella, neonatal tetanus, and Japanese encephalitis is conducted through WHO supported surveillance.

National Immunization Schedule

Table: National immunization schedule

S.N.	Type of vaccine	Number of Doses	Schedule
1	BCG	1	At birth or on first contact with health institution
2	OPV	3	6, 10, and 14 weeks of age
3	DPT-HepB-Hib	3	6, 10, and 14 weeks of age
4	Rota	2	6 and 10 weeks of age
5	fIPV	2	6 and 14 weeks of age
6	PCV	3	6,10 weeks and 9 months of age
7	Measles-Rubella	2	First dose at 9 months and second dose at 15 months of age
8	JE	1	12 months of age
9	Td	2	Pregnant women: 2 doses of Td one month apart in first pregnancy, and 1 dose in each subsequent pregnancy

Major Activities

- Delivery of routine immunization service from health institution and immunization outreach clinics
- Successful conduction of COVID 19 vaccination campaign

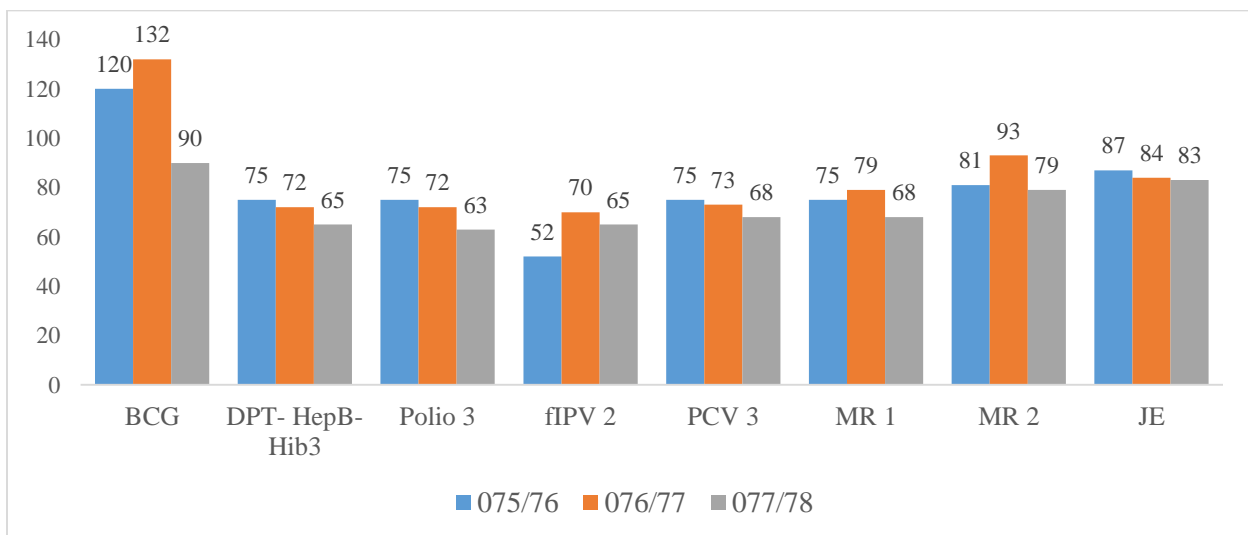
Achievements

Vaccine coverage

The chart presented below show the routine immunization vaccination coverage of Bharatpur Metropolitan City in FY 2075/76 to 2077/78. Identification of non-immunized children and micro planning is needed to reach those children.

Table: Immunization coverage by antigen doses in 2077/78

S.N.	Antigens	Target	Achievement	% achieved
1	BCG	7191	6486	90.2
2	DPT-Hep B-Hib 1	7191	4702	65.4
3	DPT-Hep B-Hib 2	7191	4555	63.3
4	DPT-Hep B-Hib 3	7191	4681	65.1
5	OPV 1	7191	4578	63.7
6	OPV 2	7191	4408	61.3
7	OPV 3	7191	4524	62.9
8	PCV 1	7191	4693	65.3
9	PCV 2	7191	4559	63.4
10	PCV 3	7191	4856	67.5
11	Rota 1	7191	4449	61.9
12	Rota 2	7191	3866	53.8
11	fIPV 1	7191	4658	64.8
12	fIPV 2	7191	4658	64.8
13	MR 1	7191	4901	68.2
14	MR 2	6040	4775	79.1
15	JE	6040	5020	83.1
16	TD 2 and 2+	8737	3280	37.5

Trend of immunization coverage**Figure: Trend of immunization coverage in percentage**

The figure above shows vaccine wise coverage of Bharatpur Metropolitan City for three years, from FY 2075/76 to FY 2077/78. Coverage of all vaccines are in decreasing trend in compared to previous fiscal year.

Dropout rates of vaccination:

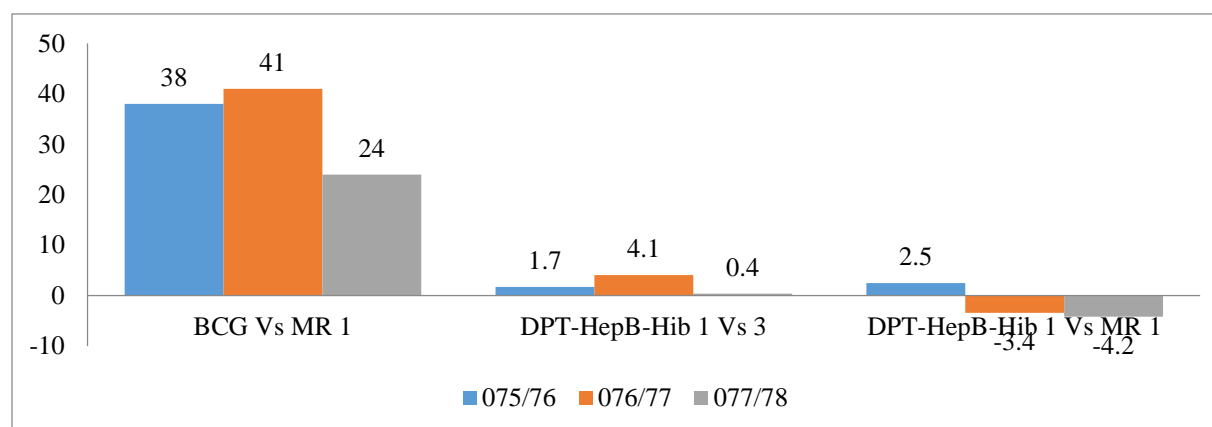


Figure: Dropout rates (%) of different vaccinations

The figure shows dropout rate for BCG Vs MR1, DPT-HepB-Hib1 Vs 3 and MR1. In FY 2077/78, the dropout rate of BCG Vs MR1, DPT-HepB-Hib1 Vs 3 and DPT-HepB-Hib1 Vs MR1 has reduced compared to FY 2076/77.

Vaccine wastage rates

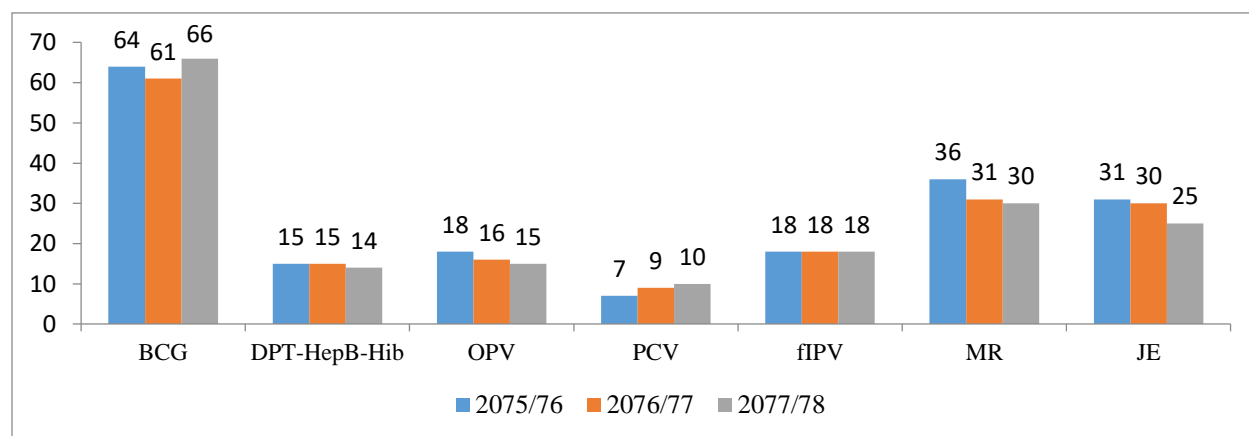


Figure: Vaccine wastage rates (%), FY 2075/76 to FY 2077/78

Indicative wastage rates of BCG vaccine is 50%, JE vaccine is 10%, MR vaccine is 50%, DPT - HepB-Hib vaccine and OPV is 25%, PCV is 10% and that of FIPV should be lower than 25%.

The wastage rate of BCG and JE vaccine has remained above the indicative wastage rate i.e. above 60%. This is because BCG, MR (it has remained below indicative wastage rate) and JE needs to be discarded within 6 hours (1 hour only for JE) or at the end of immunization session whichever comes first. There is at least 'one vial per session' policy used in Nepal for BCG, MR and JE vaccines. Though, wastage rate of DPT-HepB-Hib, OPV, PCV and FIPV has remained below indicative wastage, past three years data of these vaccines shows increasing trend which needs to be monitored closely.

Access and Utilization of Immunization Services

National Immunization Program evaluates status of the districts by accessibility and utilization of immunization services. Districts are categorized in category 1 to 4 on basis of DPT-HepB-Hib 1 coverage and dropout rate of DPT-HepB-Hib1 vs DPT-HepB-Hib 3 to know the accessibility and utilization of immunization services respectively.

Table: Health institution categorization based on access (DPT-HepB-Hib 1 coverage) and utilization (DPT-HepB-Hib 1 vs. DPT-HepB-Hib 3 drop-out)

Category 1 (less Problem)	Category 2 (Problem)	Category 3 (Problem)	Category 4 (Problem)
High Coverage ($\geq 80\%$) Low Drop-Out ($< 10\%$)	High Coverage ($\geq 80\%$) High Drop-out ($\geq 10\%$)	Low Coverage ($< 80\%$) Low Drop-out ($< 10\%$)	Low Coverage ($< 80\%$) High Drop-out ($\geq 10\%$)
Thimura BHC Bharatpur HP MCH Clinic Mangalpur HP Sharadanagar HP Jagatpur HP Megghauli HP	Gunjanagar HP	Aaptari BHC Durgachowk BHC Shahid Ganesh HP Jaldevi BHC 13 No BHC Shivanagar PHC Fulbari HP Shashinagar BHC Parvatipur HP Patihani HP Shukranagar HP Divyanagar HP Kabilas HP Chaukidada CHU	Kailashnagar BHC Torikhet BHC Sharadpur BHC

Health facilities performances are recognized as Category 1 (coverage of DPT-HepB-Hib 1 is more than 80% and dropout of DPT-HepB-Hib 1 Vs. DPT-HepB-Hib 3 is less than 10%), Category 2 (coverage of DPT-HepB-Hib 1 is more than 80% and dropout of DPT-HepB-Hib 1 Vs. DPT-HepB-

Hib 3 is also more than 10%), Category 3 (coverage of DPT-HepB Hib 1 is less than 80% and dropout of DPT-HepB-Hib 1 VS DPT-HepB-Hib 3 is also less than 10%) and Category 4 (coverage of DPT-HepB-Hib1 is less than 80% and dropout of DPT-HepB-Hib 1 VS DPT-HepB-Hib 3 is more than 10%).

The table shows that 6 health facilities are in category 1 which indicates good access and good utilization, and the other 13 health facilities are in category 3 (poor access, good utilization). Likewise, 1 health facilities are in category 2 (good access, poor utilization), and the remaining 3 health facilities are in category 4 (poor access, poor utilization). The overall access and utilization of Bharatpur Metropolitan is on category 3 (poor access, good utilization).

Monthly Distribution of Vaccinated Child in Number in FY 2077/78

Table: Number of vaccinated child month-wise

Antigen	Shravan	Bhadra	Ashwin	Kartik	Mangsir	Poush	Magh	Falgun	Chaitra	Baisakh	Jestha	Ashadh
BCG	662	26	1063	452	827	796	614	515	543	286	174	528
DPT-HepB-Hib 1	336	9	669	503	578	515	478	454	407	269	88	396
DPT-HepB-Hib 2	339	5	336	498	566	618	533	474	448	288	87	363
DPT-HepB-Hib 3	398	4	350	282	562	611	645	485	501	379	73	391
MR1	488	5	839	357	479	385	347	291	341	389	54	566
MR 2	319	1	535	273	622	584	488	475	519	339	54	566
JE	418	2	851	369	651	590	477	419	383	273	52	535

Storage of vaccine:

Vaccines are distributed through one district cold room located in Health Office Chitwan, and three vaccination sub-centers that are located in Meghauli HP, Shivanagar PHC, and Sharadanagar HP. Cold chain has been maintained up to immunization clinic.

Immunization program – achievement in numbers 2077/78

Type of vaccine		Children immunized	Vaccine dose		AEFI cases
			Received	Expended	
BCG		6486	26860	18980	0
DPT Hep-B Hib	1 st	4702	21502	16254	0
	2 nd	4555			
	3 rd	4681			
OPV	1 st	4578	20852	15914	0
	2 nd	4408			
	3 rd	4524			
PCV	1 st	4693	20571	15664	0
	2 nd	4559			
	3 rd	4856			
Rota	1 st	4449	11541	8427	0
	2 nd	3866			
fIPV	1 st	4658	15729	11365	0
	2 nd	4658			
Measles Rubella	1 st	4901	19138	13906	0
	2 nd	4775			
JE		5020	9603	6647	
3 doze completion of DPT-HepB-Hib & OPV after 1 year		72			
TD (Pregnant woman)	1 st	3140	12135	8691	0
	2 nd	2500			
	2 nd +	780			

Vaccine preventable disease surveillance

To support polio eradication activities, surveillance of acute flaccid paralysis for polio was started in Nepal in 1998. In 2003, measles (and rubella) and neonatal tetanus surveillance was integrated in the AFP/polio surveillance network. In 2004, surveillance of acute encephalitis syndrome for Japanese encephalitis was integrated in the AFP/polio surveillance network. Supported by WHO-IPD, surveillance for these diseases are conducted throughout the country through routine weekly zero reporting sites, case-based measles surveillance sites and informers.

COVID 19 Vaccination Campaign 2077/78

COVID 19 Vaccination Campaign has been conducted to achieve the objectives of Government of Nepal to reduce mortality and morbidity due to COVID 19 by developing high immunity against the disease. The campaign has targeted persons aged 18 years or more. Achievement of COVID 19 vaccination campaign at the end of fiscal year 2077/78 was as follows:

Table: Achievement of COVID 19 vaccination campaign 2077/78

S.N.	Campaign date	Day	Vaccine Name	Dose	Achievement		
					Female	Male	Total
1	2077 Magh 14-24	11	Covishield	First	3602	2880	6482
2	2077 Falgun 2-10	9	Covishield	First	1435	2506	3941
3	2077 Falgun 23 – Chaitra 3	10	Covishield	First	7446	7628	15074
4	2078 Baishakh 7-13	7	Covishield	Second	4228	5320	9548
5	2078 Jestha 17-18	2	Covishield	Second	166	385	551
6	2078 Jestha 25-27	3	Verocell	First	3441	3519	6960
7	2078 Ashadh 22-24	3	Verocell	Second	3310	3368	6678

In Bharatpur, the COVID 19 vaccination campaign was started from 2077 Magh 14. In the first phase health workers, security forces (Nepal Army, Nepal Police and Armed Police), people in jail and people in oldage homes were targeted. In the second phase civil servants, elected personnel, journalists, bank staffs, health workers and security personnel were included. In the third phase, senior citizen >65 years were included for the vaccination. COVID 19 vaccination was provided from all health institutions of Bharatpur metropolitan.

Issues

- Challenges to conduct COVID 19 vaccination due to high demand and low supply
- Wastage of vaccine in scattered population
- Poor cold chain equipment repair, maintenance and replacement
- Micro planning program limited to PHC and Health post only
- Overcrowding in some immunization clinics

Integrated Management of Neonatal and Childhood Illnesses

Background

IMNCI is an integrated approach to child health that focuses on the wellbeing of the whole child. IMNCI aims to reduce death, illness and disability, and to promote improved growth and development among children under five years of age. IMNCI includes both preventive and curative elements that are implemented by families and communities as well as by health facilities.

Integrated Management of Neonatal and Childhood Illness (CBIMNCI) is integrated program of Integrated Management of Childhood Illness (CB-IMCI) and New-born Care Practices (CBNCP) Program which is being implemented in phase wise model. 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 community and health facility level focusing on under-five children throughout the country which is focused to reduce mortality and morbidity of new born, addresses the main causes of neonatal mortality - infection, low birth weight, prematurity, hypothermia, and asphyxia.

In CB-IMNCI program, the health promotional activities are carried out by FCHVs for maternal, newborn and child health. They distribute the essential commodities which do not require assessment and diagnostic skill such as distribution of iron, zinc, ORS, chlorhexidine and referral in case of any danger sign appears among sick newborn and child, to nearby Health facilities. The program has also provisioned the post-natal visits by trained health workers through primary health care outreach clinic. National wide implementation of CB-IMNCI was completed in 2009 and revised in 2012 including important new interventions. CB-IMNCI program is now implemented in all 77 district of Nepal.

There are different indicators for monitoring CB-IMNCI Program which are listed below:

- Percentage of infants (0-2months) with Possible Severe Bacterial Infection receiving complete dose of Injection Gentamicin.
- Percentage of under 5 children with pneumonia treated with antibiotics
- Percentage of under 5 children with diarrhoea treated with ORS and Zinc.
- Stock out of the 5 key CB-IMNCI commodities at health facility (ORS, Zinc, Gentamicin, Amoxicillin/Cotrim, CHX)

Major Activities

- Procurement and supply of equipment and medicines for IMNCI program (ORS, Zinc, Amoxicillin, Gentamycin, Chlorohexidine gel)

Achievements

Table: Status of CB-IMNCI program indicators

Program indicators	2075/76	2075/76	2077/78
% of PSBI among registered 0-2 months infant (sick baby)	5.3	12.5	3.5
% of PSBI cases among expected live births	0.12	0.99	0.08
Incidence of ARI among children U5 years (per 1000)	262	258	237
Incidence of pneumonia among children U5 years (per 1000) (*HF and PHC/ORC only)	44	27	7.3
% of severe Pneumonia among new cases	0.43	0.34	0.04
% of children U5 years with Pneumonia treated with antibiotics	64	93	95
Diarrhoea incidence rate among children under five years	111	109	99
Diarrhoea mortality rate among children under five years (per 1000)	0.8	1.3	0.03
Percentage of children under five years with diarrhoea suffering from Severe dehydration	1.5	1.1	0.4
Percentage of children under five years with diarrhea treated with zinc and ORS	79	100	91
Percentage of children under five years with diarrhoea treated with IV fluid	0.05	0.11	0.04

The data obtained for FY 2077/78 indicate decrease in the percentage of PSBI cases. In the case of registered Infants who are 0-2 months old, the identified percentage of PSBI is 3.5%. In general, the percentage of PSBI cases among expected live birth is 0.08%.

However, among the U5 children, the incidence of ARI was 237 and that of pneumonia was 7.3 in the FY 2077/78, which helps us conclude that the ARI cases have been managed at its early phase before leading to any complication. The incidence of diarrhoea among U5 children has decreased in FY 2077/78.

CVIMNCI program – achievement in numbers 2077/78

< 2 months Children	Classification										
	Total Cases		PSBI		LBI		Jaundice		Low birth weight/ Feeding problem		
	≤ 28 days	29-59 days	≤ 28 days	29-59 days	≤ 28 days	29-59 days	≤ 28 days	29-59 days	≤ 28 days	29-59 days	
Health facility	123	40	5	1	26	8	3	0	8	3	
PHC-ORC	7	0	0	0	0	0	0	0	0	0	
< 2 months Children	Treatment										
	Amoxicillin		Ampicillin		Gentamycin (only severe disease)		Cotrim P		Other antibiotic		
	≤ 28 days	29-59 days	≤ 28 days	29-59 days	First dose	Complete dose	≤ 28 days	29-59 days			
Health facility	12	4	2	0	2	0	1	0	7		
PHC-ORC	0	0	0	0	0	0	0	0	0		
< 2 months Children	Other										
	Refer			Follow up			Death				
	≤ 28 days	29-59 days					≤ 28 days	29-59 days			
Health facility	7		2		8			0		0	
PHC-ORC	0		0		0			0		0	

2 -59 months Children	Classification								
	Total Cases	ARI			Diarrhea				
		No Pneumonia	Pneumonia	Severe Pneumonia	No dehydration	Some dehydration	Severe dehydration	Chronic diarrhea	Dysentery
Health facility	5899	1911	229	3	512	45	2	3	21
PHC-ORC	24	4	1	0	4	0	0	0	0

2 -59 months Children	Classification									
	Malaria		Very Severe Febrile disease	Measles	Ear problems	Fever	Severe malnutrition	Anemia	Others	
	Falciparum	No falciparum								
Health facility	0	0	0	0	371	232	6	50	1479	
PHC-ORC	0	0	0	0	1	0	0	0	14	
2 -59 months Children	Treatment							Refer		
	Severe/ Pneumonia			ORS and Zinc	IV Fluid	Albendazole	Vitamin A	ARI	Diarrhea	Other
	Amoxycillin	Cotrim P	Other antibiotic							
Health facility	220	45	144	396	1	69	26	0	7	55
PHC-ORC	1	0	0	2		0	0	2	1	0

Issues

- High incidence of ARI among children under five
- Indistinct service from FCHV in urban area
- Less priority has given to integrated care
- Limited engagement of private sectors

Nutrition

Background

National Nutrition Program is mostly targeted for improving the nutritional status of children, pregnant women and adolescents in the country. The main goal of the national nutrition program is to achieve nutritional well-being as well as to maintain healthy life of all people to contribute in the socio-economic development of the country, through improved nutrition program implementation in collaboration with relevant sectors. There are different nutrition interventions which are cost-effective for attaining the Sustainable Development Goals. The Government of Nepal in alignment with different international and national declarations including the national health policies is committed in ensuring that its citizens have adequate food, health and nutrition. The 2015 Constitution of the country have also ensured the right to food, health and nutrition to all citizens. The main reason of the vicious cycle of malnutrition and infections is hunger and under-nutrition which results in poor intellectual development, less productivity and compromised socio-economic development of the children.

Nutrition is one of the development agenda set by the countries worldwide. There have been several global movements since 2000 that have advocated nutrition for development. As a multi-sectoral action the Scaling-Up-Nutrition (SUN) initiative calls for improved nutrition during the first 1,000 days of life. Government of Nepal adopted the Multi-Sector Nutrition Plan (MSNP) in 2012 to reduce chronic malnutrition.

Child under-nutrition is in decline phase but it is still unacceptable in Nepal. The national Vitamin A program which is Nepal's one of the micronutrient supplementation programs have been globally recognized as a successful program but still nutritional anaemia remains a public health threat among adolescents, children and women.

There are several programs implemented to counter malnutrition. Growth monitoring and breastfeeding promotion began with this followed by community-based micronutrient supplementation. Food-based approach among vulnerable groups has been followed by the most recent national nutrition programs to promote improved dietary behavior. There are different programs implemented for the improvement of nutrition status as mentioned below:

Nationwide programs:

- Growth monitoring and counseling
- Prevention and control of iron deficiency anaemia (IDA)
- Prevention, control and treatment of vitamin A deficiency (VAD)
- Prevention of iodine deficiency disorders (IDD)
- Control of parasitic infestation by deworming
- Mandatory flour fortification in larger roller mills

Major Activities

Control of protein energy malnutrition

- Promotion of breastfeeding within 1 hour of birth and avoid pre-lacteal feeding.
- Promotion of exclusive breastfeeding for first six months and the timely introduction of complementary food.
- Ensure continuation of breastfeeding for at least 2 years and the introduction of appropriate complementary feeding after

Control of iron deficiency anaemia (IDA)

- Iron folic acid supplementation for pregnant and post-partum mothers.
- Iron folic acid supplementation program to adolescents

Control of iodine deficiency disorders

- The universal iodization of salt
- Create awareness about the importance of using iodized salt to control iodine deficiency disorder (IDD)

Control of vitamin A deficiency

- The biannual distribution of vitamin A capsules to 6 to 59 -month olds through FCHVs.
- Post-partum vitamin A supplementation for mothers within 42 days of delivery.
- Strengthen implementation of vitamin A treatment protocol for severe malnutrition, persistent diarrhoea, measles and xerophthalmia.
- Nutrition education to promote dietary diversification and consumption of vitamin A rich foods.
- Ensuring the availability of vitamin A capsules at health facilities.
- Increase awareness of importance of vitamin A supplementation.

Achievements

Growth monitoring and promotion

Growth monitoring helps to prevent and control protein-energy malnutrition of children less than two years of age and provides the opportunity for taking preventive and curative actions. All public health facilities using the growth monitoring card run growth monitoring once a month based on WHO's new growth standards.

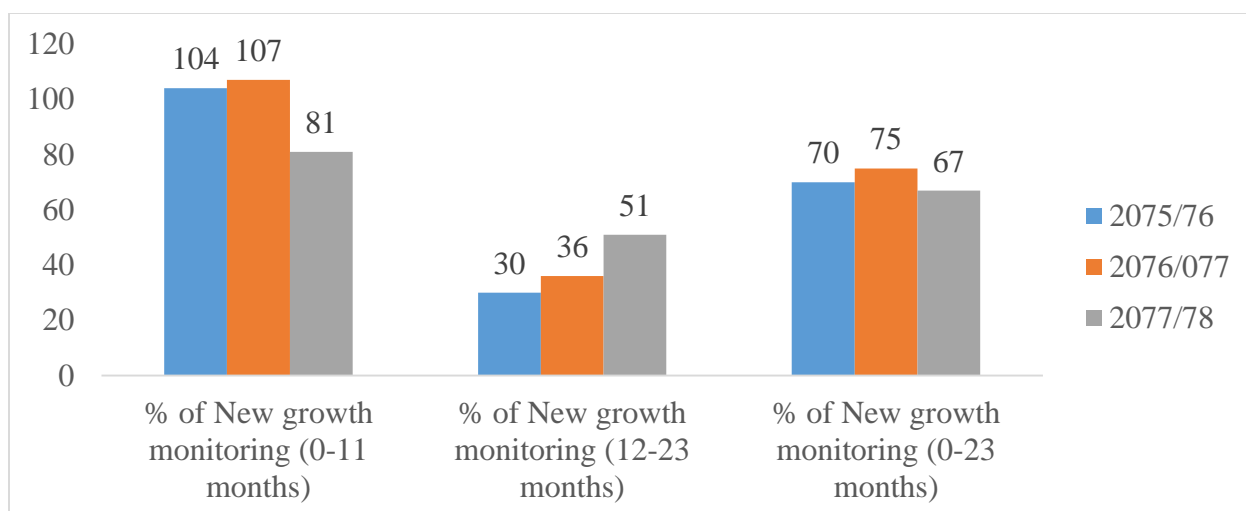


Figure: Percentage of children registered for growth monitoring

Growth monitoring among 0-11 months children and 0-23 months children has decreased whereas among 12-23 months children, data shows increasing trend. In FY 2077/78, growth monitoring among 00-11 months children was 81%, 1223 months was 51% and 00-23 months was 67%.

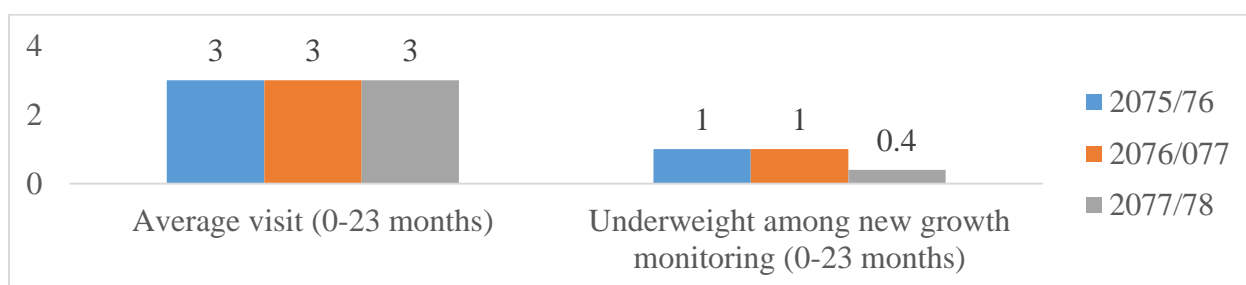


Figure: Average no. of growth monitoring visits per child (0–23 months)

The average growth monitoring among (0-20) months has remained stagnant to 3% since last three years. Underweight among them was 1% in FY 2075/76 and FY 2076/77 which was then reduced to 0.04% in FY in 2077/78.

Infant and young child feeding

To enhance the nutrition, survival, growth and development of infants and young children appropriate feeding practices are essential. This includes exclusive breastfeeding for six months, providing nutritionally adequate and complementary feeding starting from six months along with continued breastfeeding up to two years of age or beyond.

Past three years trends shows that the reported percentage of new born who were breastfed within 1 hour is very low (less than 1%). Among 0 - 6 months old children registered for growth

monitoring, exclusive breastfeeding percentage has increased from 5% in FY 2076/77 to 11% in FY 2077/78.

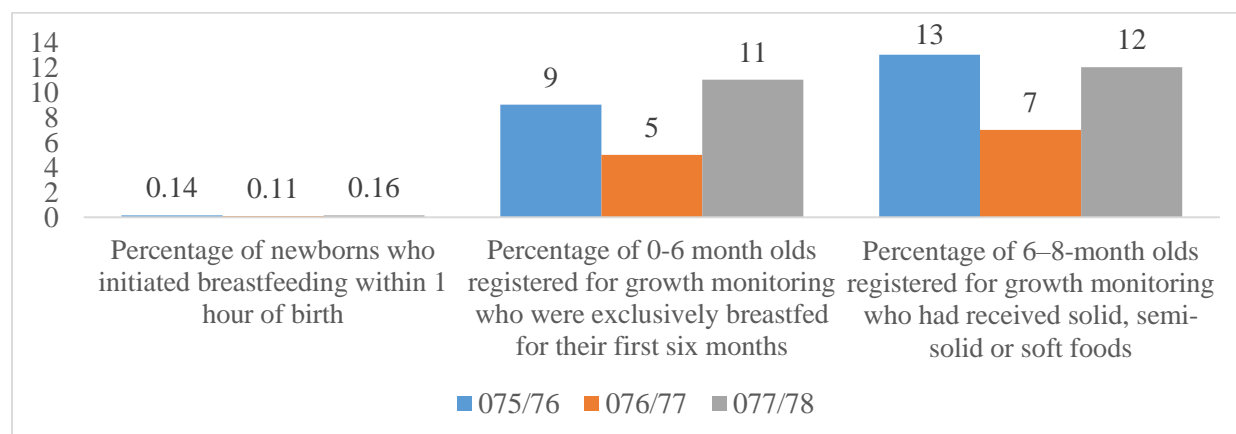


Figure: Early and exclusive breastfeeding and complementary feeding

Prevention and control of iron deficiency anaemia

MoHP has been providing Iron Folic Acid (IFA) supplement to pregnant and postpartum women since 1998 to reduce maternal anaemia. The protocol is to provide 60mg elemental iron and 400 microgram folic acid to pregnant women for 225 days from their second trimester. To improve access and utilization of IFA supplements, the Intensification of Maternal and Neonatal Micronutrient Program (IMNMP) started IFA supplementation through Female Community Health Volunteers (FCHVs) in 2003. The intensification program improved coverage, although compliance with taking 180 tablets during pregnancy and 45 tablets post-partum remains an issue

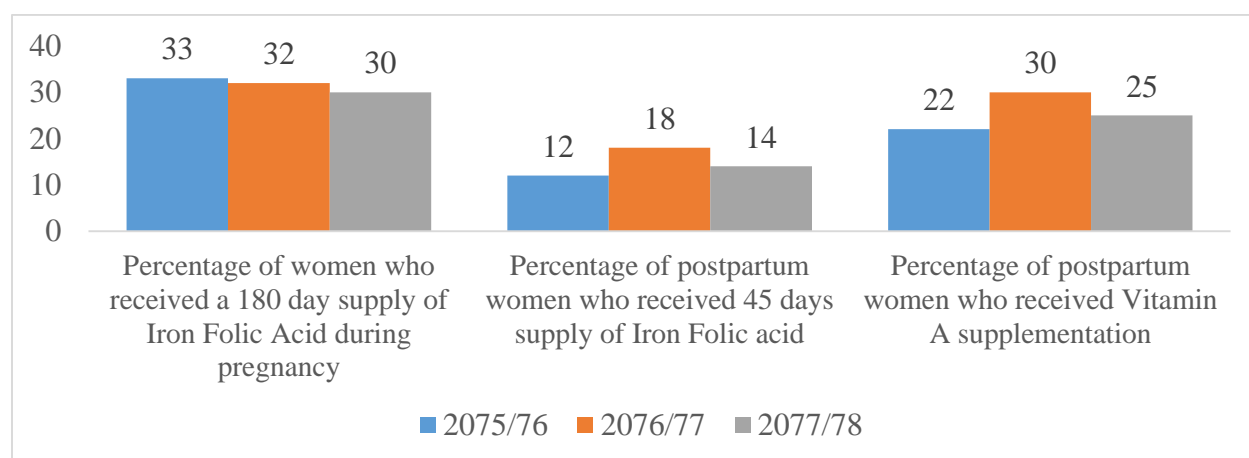


Figure: Percentage of pregnant and lactating women receiving IFA tablets and Vitamin A

In FY 2077/78, only 30% of women received 180 day supply of Iron folic acid during pregnancy which has decreased by 2% compared to FY 2076/77. Percentage of women receiving vitamin A supplementation has also decreased from 30% in FY 2076/77 to 25% in FY 2077/78.

Prevention and control of iodine deficiency disorder

MoHP adopted a policy to fortify all edible salt in 1973 to address iodine deficiency disorders (IDD) through universal salt iodization. The Salt Trading Corporation is responsible for the iodine fortification of all edible salt and its distribution, while Ministry of Health and Population (MoHP) is responsible for policy drive and promoting iodized salt to increase consumption.

Control of Vitamin A deficiency disorders

The government initiated the National Vitamin A Program in 1993 to prevent and control of vitamin A deficiency disorders of the children aged 6-59 months and reduce child mortality associated with vitamin A deficiency disorders. Vitamin A supplementation in Nepal has been ongoing as bi-annual supplementation targeting to all 6-59 months children and coverage of supplementation is more than 80 per cent every time for last five plus years. FCHVs distribute the capsules of vitamin A to the targeted children twice a year through a campaign as vitamin A campaign in Kartik (October) and Baisakh (April) every year.

Biannual Deworming Tablet distribution to the children aged 12-59 months

Biannual deworming tablets distribution to the children aged 12-59 months aiming to reduce childhood anaemia with control of parasitic infestation through public health measures. Deworming to the target children was initiated in few districts during the year 2000 integrating with biannual Vitamin A supplementation and with gradual scaling-up, the program was successfully implemented nationwide by the year 2010 integrating with Vitamin A as Vitamin A campaign.

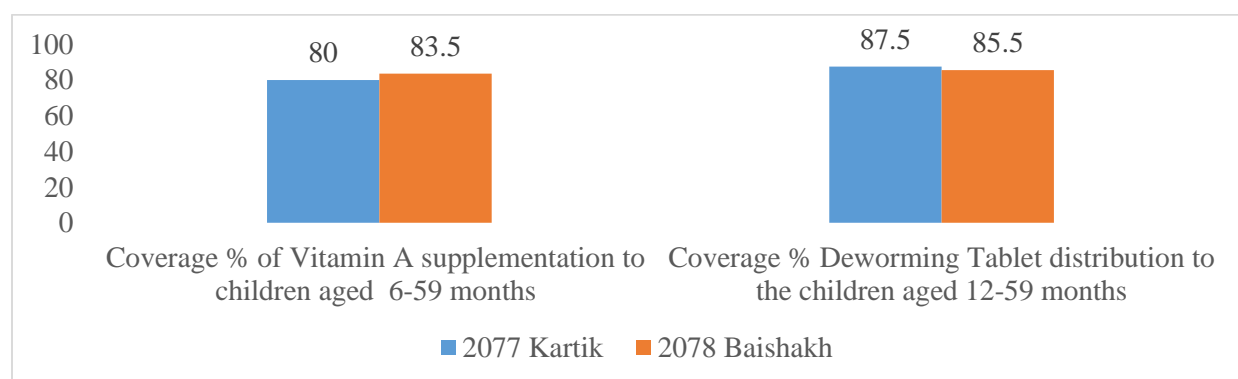


Figure: Coverage of Vitamin A mass campaign

The data of Kartik and Ashadh on Vitamin A supplementation and deworming tablet distribution campaign has remained sustained in FY 2077/78 and is above 80%.

Nutrition program – achievement in numbers 2077/78

Children Registered for growth monitoring	Nutritional status of children registered for growth monitoring (New and follow up visit)					
	0-11 months			12-23 months		
	Normal	Moderate	Severe	Normal	Moderate	Severe
New visit	5816	15	3	3049	18	4
Follow up visit	8793	37	4	3620	17	0
Pregnant women receiving			PP mother receiving			
Iron tablets at first time	180 iron tablets	Deworming tablets	45 Iron tablets	Vitamin A		
3671	2212	3615	1026	1003		

Issues

- No proper nutrition corner in health facilities
- Error in recording and reporting
- Inadequate recording and reporting of growth monitoring

Safe Motherhood and Newborn Care

Background

Safe motherhood is considered an important part of reproductive health, it encompasses a series of initiatives, practices, protocols and service delivery guidelines designed to ensure that women receive high-quality gynecological, family planning, prenatal, delivery and postpartum care, in order to achieve optimal health for the mother, fetus and infant during pregnancy, childbirth and postpartum.

The goal of the National Safe Motherhood Program is to reduce maternal and neonatal morbidity and mortality and to improve the maternal and neonatal health through preventive and promotive activities as well as by addressing avoidable factors that cause death during pregnancy, childbirth and postpartum period.

Safe Motherhood Program, initiated in 1997 has made significant progress with formulation of safe motherhood policy in 1998. The policy on skilled birth attendants (2006) highlights the importance of skilled birth attendants (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. Safe Motherhood Program introduced Aama Program to provide free service and encourage women for institutional delivery has improved access to institutional deliveries and emergency obstetric care services.

Maternal death has dropped significantly since the adoption of the Millennium Development Goals (MDGs). At present the maternal mortality rate is 239 as per (NDHS 2016) data. Maternal mortality reduction remains a priority under Sustainable Development Goals (SDGs) "Goal 3: Ensure healthy lives and promote well-being for all at all ages" The targets under Sustainable Development Goals to reduce maternal mortality rate to 75 for every 100,000 births by 2030.

Main strategies of the Safe Motherhood Program

1. 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.
2. Strengthening and expanding delivery by skilled birth attendants and providing basic and comprehensive obstetric care services at all levels.
3. Strengthening community-based awareness on birth preparedness and complication readiness through FCHVs and increasing access to maternal health information and services.
4. Supporting activities that raise the status of women in society.
5. Promoting research on safe motherhood to contribute to improved planning, higher quality services and more cost-effective interventions.

Major activities

- Antenatal and postnatal service from all health institutions and PHC outreach clinics
- Provision of 24 hours delivery services from 5 birthing centers
- Contract continuation of recruited ANM for 24 hour delivery services
- Onsite clinical coaching and mentoring
- Safe abortion services
- Nyano Jhola Program
- Aama and Free Newborn Program

Aama and Free Newborn Program

The government has introduced demand-side interventions to encourage women for institutional delivery. The Maternity Incentive Scheme, 2005 provided transport incentives to women who deliver their babies in health facilities. In 2006, user fees were removed from all types of delivery care in 25 low HDI districts and expanded to nationwide under the Aama Program in 2009. In 2012, the separate 4 ANC incentives Program was merged with the Aama Program. In 2073/74, the Free Newborn Care Program (introduced in FY 2072/73) was merged with the Aama Program which was again separated in FY 2075/76 as two different Programs Provisions of the Aama Program and New born Program with following provision:

For women delivering their babies in health institutions:

- a. Transport incentive for institutional delivery: Cash payment to women immediately after institutional delivery (NPR 3,000 in mountains, NPR 2,000 in hills and NPR 1000 in Tarai districts).
- b. Incentive for 4 ANC visits: A cash payment of NPR 800 to women on completion of four ANC visits at 4, 6, 8 and 9 months of pregnancy, institutional delivery and postnatal care.
- c. Free institutional delivery services: A payment to health facilities for providing free delivery care. For a normal delivery health facility with less than 25 beds receive NPR 1,000 and health facilities with 25 or more beds receive NPR 1,500. For complicated deliveries health facilities receive NPR 3,000 and for C- sections (surgery) NPR 7,000. Anti-D administration for RH negative is reimbursed NPR 5,000. Laparotomies for perforation due to abortion, elective or emergency C-sections, laparotomy for ectopic pregnancies and ruptured uterus are reimbursed NPR 7,000 to both public and private facilities.

Incentives to health service provider:

For deliveries: A payment of NPR 300 to health workers for attending all types of deliveries to be arranged from health facility reimbursement amounts.

Newborn Care Program Provision

- For sick newborns: There are four different types of package (Package 0, Package A, B, and Package C) for sick newborns case management. Sick newborn care management cost is reimbursed to health facility. The cost of package of care include 0 Cost for Packages 0, and NPR 1000, NPR 2000 and NPR 5000 for package A, B and C respectively. Health facilities can claim a maximum of NPR 8,000 (packages A+B+C), depending on medicines, diagnostic and treatment services provided.
- Incentives to health service provider: A payment of NPR 300 to health workers for providing all forms of packaged services to be arranged from health facility reimbursement amounts.

Achievements

Antenatal care

WHO recommended a minimum of four antenatal check-ups at regular intervals to all pregnant women (at the fourth, sixth, eighth and ninth months of pregnancy). During these visits women should receive the following services and general health check-ups:

- Blood pressure, eight and fetal heart rate monitoring.
- IEC and Behavior change communication on pregnancy, childbirth and early newborn care and family planning.
- Information on danger signs during pregnancy, childbirth and in the postpartum period and timely referral to appropriate health facilities.
- Early detection and management of complications during pregnancy.
- Provision of tetanus toxoid and diphtheria (Td) immunization, iron folic acid tablets and deworming tablets to all pregnant women, and malaria prophylaxis where necessary.

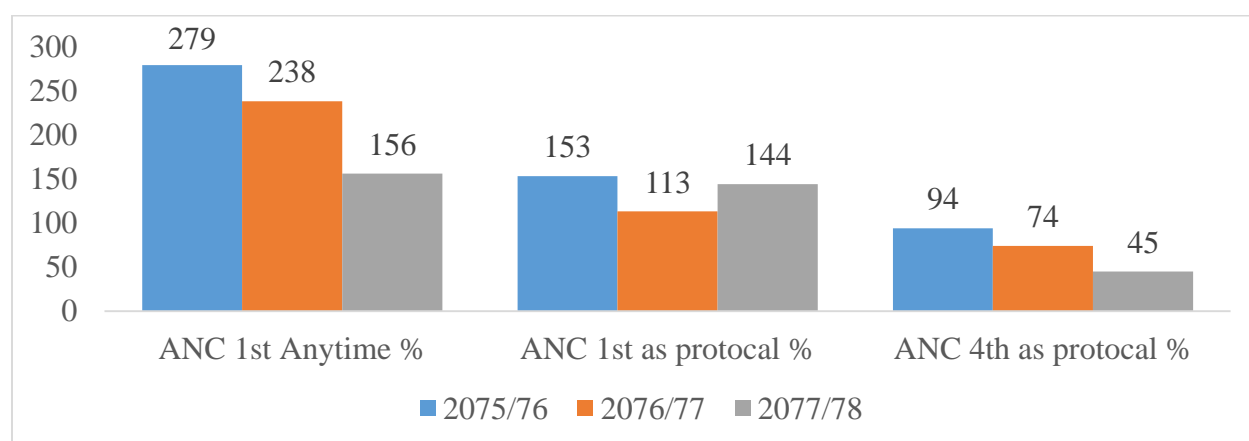


Figure: Percentage of pregnant women having ANC visits

Three years Data on ANC visit shows the decreasing pattern. In comparison to the data of FY 2076/77, ANC first visit at anytime has decreased from 238 to 156, 4 time ANC visit as per protocol has decreased from 74 to 45, whereas first ANC visit as per protocol has increased from 113 to 144 in FY 2077/78.

Delivery care

Delivery care services include:

- Skilled birth attendance at home and facility-based deliveries
- Early detection of complicated cases and management or referral (after providing obstetric first aid) to an appropriate health facility where 24hours emergency obstetric services are available; and
- The registration of births and maternal and neonatal deaths.

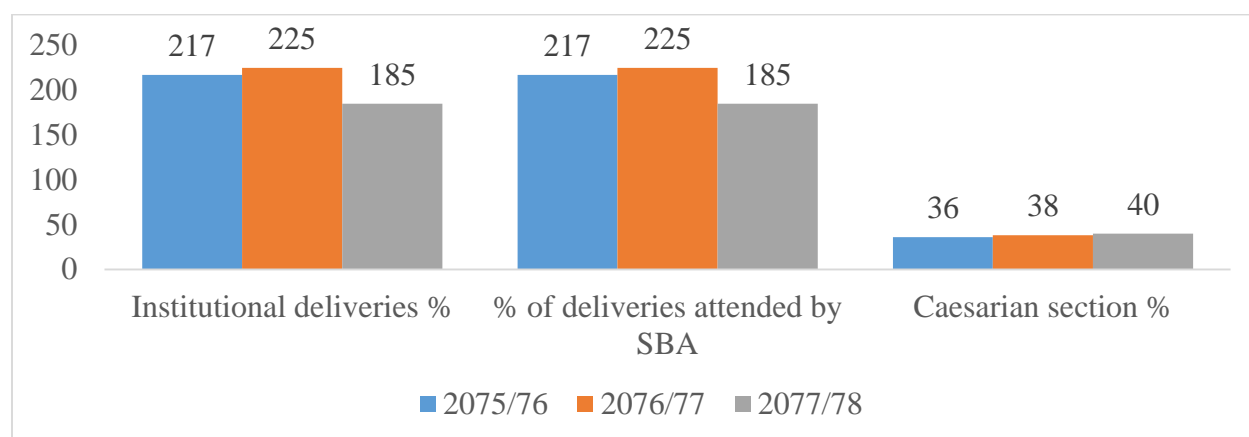


Figure: Percentage of births attended by Skilled Birth Attendant (SBA)

Institutional delivery and deliveries attended by skilled manpower has decreased to 185 in FY 2077/78. Delivery by caesarian section was in increasing trend and increase by 2% from previous year.

Postnatal care

Postnatal care services include the following:

- Three postnatal check-ups, the first in 24hours of delivery, the second on the third day and the third on the seventh day after delivery.
- The identification and management of complications of mothers and newborns and referrals to appropriate health facilities.
- The promotion of exclusive breastfeeding and immunization of newborns.

- Personal hygiene and nutrition education, and postnatal vitamin A and iron supplementation for mothers.
- Postnatal family planning counseling and services.

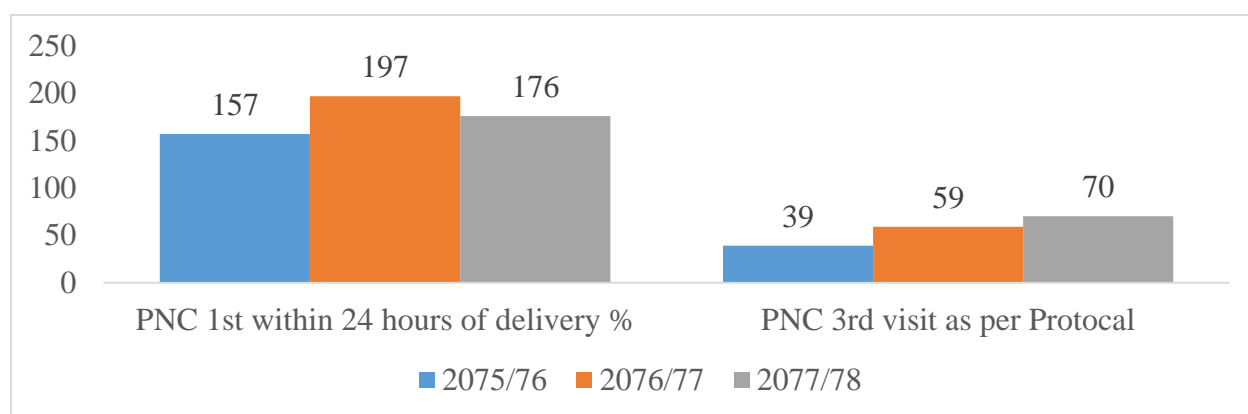


Figure: Percentage of pregnant women having PNC visits

Compared to first PNC, third PNC visit has remained very low. 1st PNC checkup has decreased to 176 in FY 2077/78. PNC 3rd visit as per protocol was increased significantly to 70% in FY 2077/78.

Newborn care

Newborn care includes:

- Delivery by a skilled birth attendant at home and facility births with immediate newborn care(warmth, cleanliness, immediate breast feeding, cord care, eye care and immunization) for all newborns and the resuscitation of newborns with asphyxia;
- Health education and behavior change communication for mothers on early newborn care at home;
- The identification of neonatal danger signs and timely referral to an appropriate health facility; and
- Community based newborn care.

Safe abortions

Women of reproductive age have been receiving safe abortion services (SAS) from certified sites since the service began in Nepal from 2060/61.

The proportion of <20 years women receiving abortion services has decreased from 17.3% in FY 2076/77 to 9.5% in FY 2077/78. The number of CAC (comprehensive Abortion Care) is 3107 in FY 2077/78 which has decreased in compared to past fiscal year.

Table: Safe abortion service indicator

Program indicators	2075/76	2076/77	2077/78
Proportion of <20 yrs women receiving abortion service	10.5	17.3	9.5
Total CAC Services	3974	4119	3107

Safe motherhood program – achievement in numbers 2077/78

Antenatal Checkups	<20 Years	≥ 20 years	Total
First ANC Visit (any time)	2162	9377	11539
First ANC visit as per protocol	1850	8836	10686
Four ANC visits as per protocol	766	2566	3332
Total	4778	20779	25557
Delivery service	Facility	Home	Total
Skilled birth attendant	13657	29	13686
Other health workers	9	0	9
Total	13666	29	13695
Type of delivery	Presentation		
	Cephalic	Shoulder	Breech
Normal	8098	1	62
Vacuum/Forceps	282	0	0
C/S	5243	23	294
Gestation and delivery outcome		Single	Multiple
			Twins ≥ Triplets
No of mothers		13611	105 1
No of live births	Female	6369	86 1

	Male	7268	92	2
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Aama program		No of women				
		Eligible	Received			
Incentives	Transport	12615	12488			
	ANC	1000	972			
Birth weight		Live birth				
		Total	Asphyxia	Defect		
Normal (≥ 2.5 kg)		11967	310	18		
Low (2 to < 2.5 kg)		1602	106	11		
Very low (< 2 kg)		285	70	5		
Still birth			Chlorhexidine Applied		Blood transfusion	
Fresh	126		10616		Mother	237
Macerated	171				Pint	431
PNC visit	Within 24 hours		13038			
	3 PNC visit as per protocol		5213			
Safe abortion services			Medical	Surgical		
No of women	<20 years		169	126		
	≥ 20 years		1412	1400		
Post abortion FP methods	Short term		842	759		
	LARC		238	253		
Complication after abortion			3	37		
Post Abortion Care (PAC)			332			

Issues

- Fourth ANC as per protocol was lower as compared to first ANC checkup.
- Low PNC coverage
- Inadequate SBA Training to nursing staff

Family Planning

Background

Family Planning is the practice of controlling the number of children one has and the intervals between their births, particularly by means of contraception or voluntary sterilization. It can reduce maternal mortality by preventing unwanted pregnancy and unsafe abortion and by promoting healthy pregnancies. Family planning is one of the most basic and essential health care services that can promote and ensure reproductive health.

Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to functions and processes.

The main aim of National family Planning program is to ensure that individuals and couples can fulfill 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..

Family planning is one of the priority programs of Government of Nepal, Ministry of Health. It is also considered as 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's commitments to FP2020.

Quality Family Planning services are also provided through private and commercial outlets such as NGO run clinic/ Centre, private clinics, pharmacies, drug stores, hospitals including academic hospitals. FP services and commodities are made available by some social marketing (and limited social franchising) agencies.

Family planning and reproductive health (FP/RH) is one of the best investments a country can make. FP/RH can improve women and children's overall health, reduce maternal and child mortality, and help prevent HIV.

Objectives, policies and strategies

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 post abortion women, the wives of labour 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 behaviour change communication activities.

Major Activities

- Provision of regular comprehensive FP service
- Provision of long acting reversible services(LARCs)
- Family planning counseling and service provision

Achievements

Family planning current users

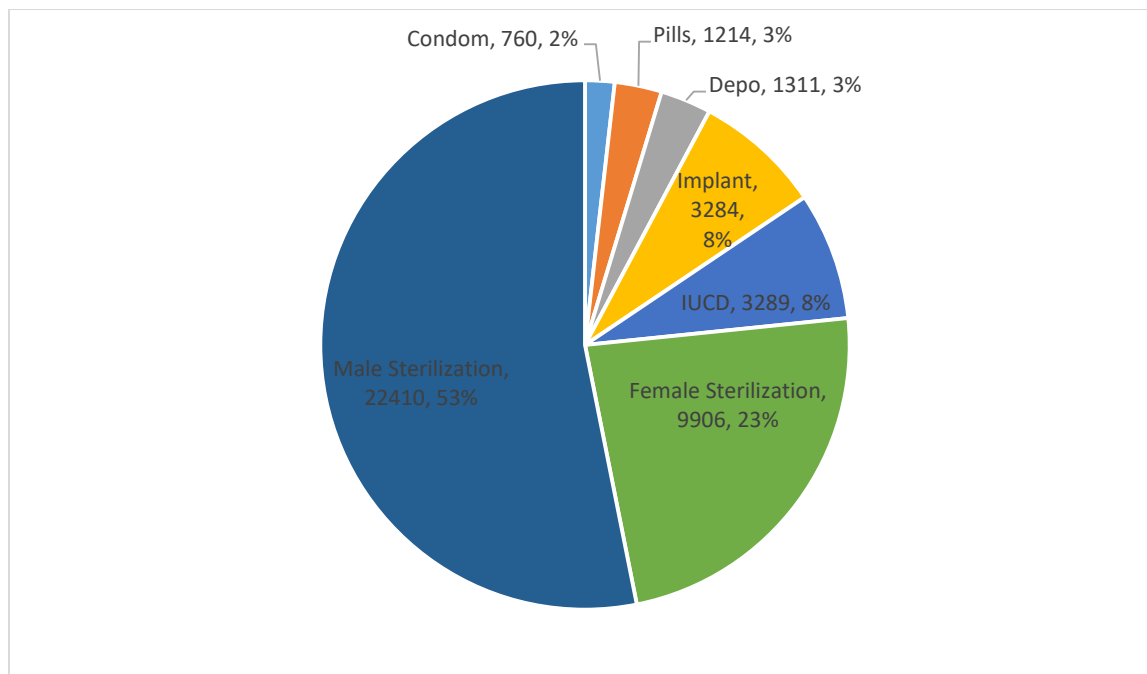


Figure: Proportion of FP current users (method mix)

Among current users, male sterilization is the most commonly used (53%) method of family planning, followed by female sterilization (23%), implants and IUCD (8% each), depo and pills (3% each) and condom (2%).

Family planning new acceptors and Contraceptive Prevalence Rate

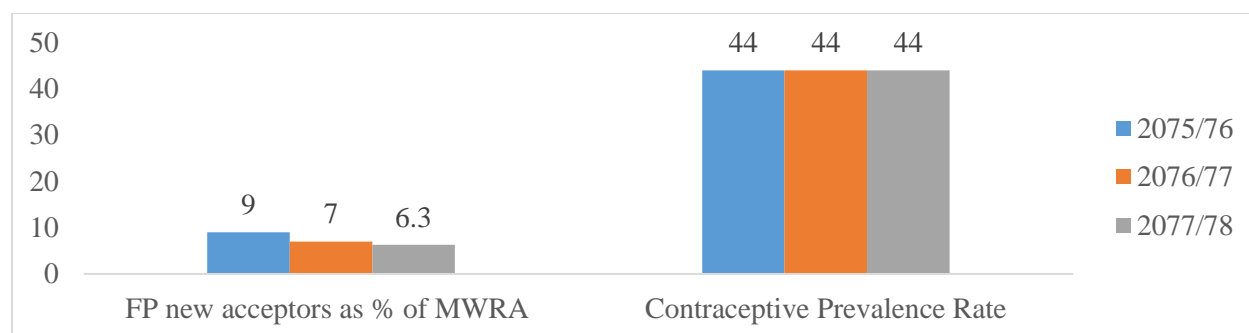


Figure: FP new acceptors as % of MWRA and CPR

Trend of Family Planning New acceptors

FP method mix among all new acceptors

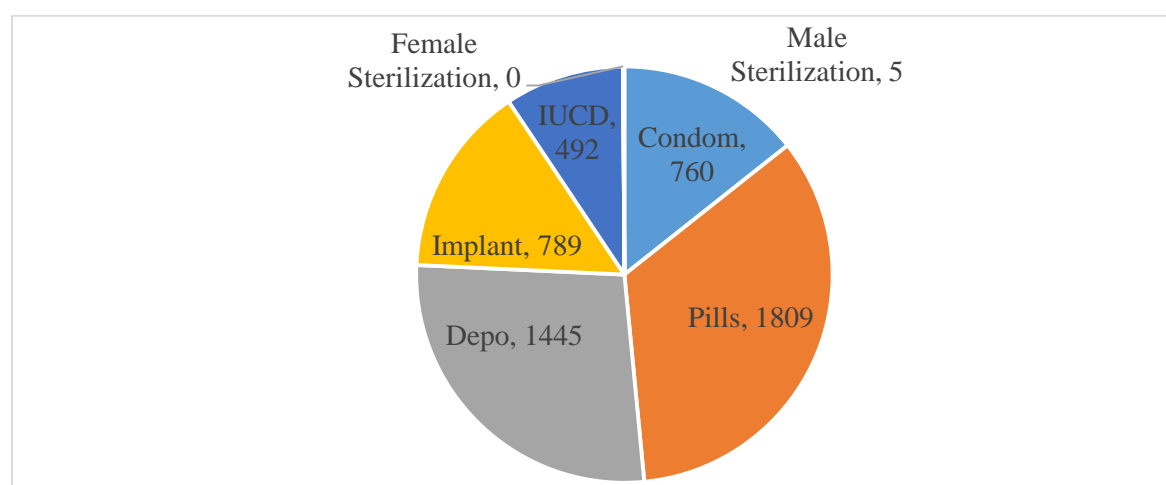


Figure: FP method mix among all new acceptors

Table: Number of FP new acceptors

Contraceptives	Family Planning New Acceptor (number)			New acceptor percentage as compared to MWRA		
	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
Condom (qty/150)	1092	903	760	1.4	1.2	0.9
Pills	2093	1497	1809	2.8	1.9	2.3
Depo	1639	1653	1445	2.2	2.1	1.8
Implant	836	763	789	1.1	1.0	1.0
IUCD	848	459	492	1.1	0.6	0.6

Past three years data shows that the new acceptor percentage of temporary methods of FP when compared to MWRA is in decreasing trends.

Family planning program- achievement in numbers 2077/78

Table: Number of temporary family planning users

Temporary FP methods	New users		Current users	Discontinue / Removal	Distribution	
	< 20 years	≥ 20 years			Unit	Quantity
Condom					Piece	11237
Pills	162	1147	1213	158	Cycle	1007
Depo	118	1327	1311	129	Dose	423
IUCD	5	487	3243	9	Set	17
Implant	24	765	3284	31	Set	48
Permanent FP methods	New users				Current users	
	Health Facility		Camp			
	Female	Male	Female	Male	Female	Male
Government	0	0	0	2	9906	22410
Non-government	0	3	0	0		
Postpartum FP users (within 48 hours of delivery)			IUCD	Implant	Tubectomy	
			0	0	4	

Issues

- New acceptors of all temporary methods have decreased
- Limited health facilities providing all 5 temporary FP services
- Long Acting Permanent Method (LAPM) not available
- Frequent stock out of family planning commodities

Primary Health Care Outreach Program

Background

Health facilities were extended to the village level under the National Health Policy (1991). However, the use of services provided by these facilities, especially preventive and promotive services, was limited due to accessibility factors. Primary health care outreach clinics (PHC-ORC) were therefore initiated in 1994 (2051 BS) to bring health services closer to the communities.

The aim of these clinics is to improve access to basic health services including family planning, child health and safe motherhood. These clinics are service extension sites of PHCs and health posts. The primary responsibility for conducting outreach clinics is of ANM and paramedics. FCHVs and local NGOs and community based organisations (CBOs) support health workers to conduct clinics including recording and reporting.

Based on local needs, these clinics are conducted every month at fixed locations, dates and times. They are conducted within half an hour's walking distance for their catchment populations. ANMs/AHWs provide the basic primary health care services listed as:

Services to be provided by PHC-ORCs according to PHC-ORC strategy

Safe motherhood and newborn care:

- Antenatal, postnatal, and newborn care
- Iron supplement distribution
- Referral if danger signs identified.

Family planning:

- DMPA (Depo-Provera) pills and condoms
- Monitoring of continuous use
- Education and counselling on family planning methods and emergency contraception
- Counselling and referral for IUCDs, implants and VSC services
- Tracing defaulters.

Child health:

- Growth monitoring of under 3 years children
- Treatment of pneumonia and diarrhoea.

Health education and counselling:

- Family planning
- Maternal and newborn care
- Child health
- STI, HIV/AIDS
- Adolescent sexual and reproductive health.

First aid:

- Minor treatment and referral of complicated cases.

Major Activities

- PHC service provided from 37 outreach clinics

Achievements

Service coverage

There are 37 PHC Outreach clinic in Bharatpur. In 2077/78, 4687 people were served by those outreach clinics. About 65% of the outreach clinics were conducted in a year which may be due to COVID 19 epidemic. Average people served per clinic was 13 person.

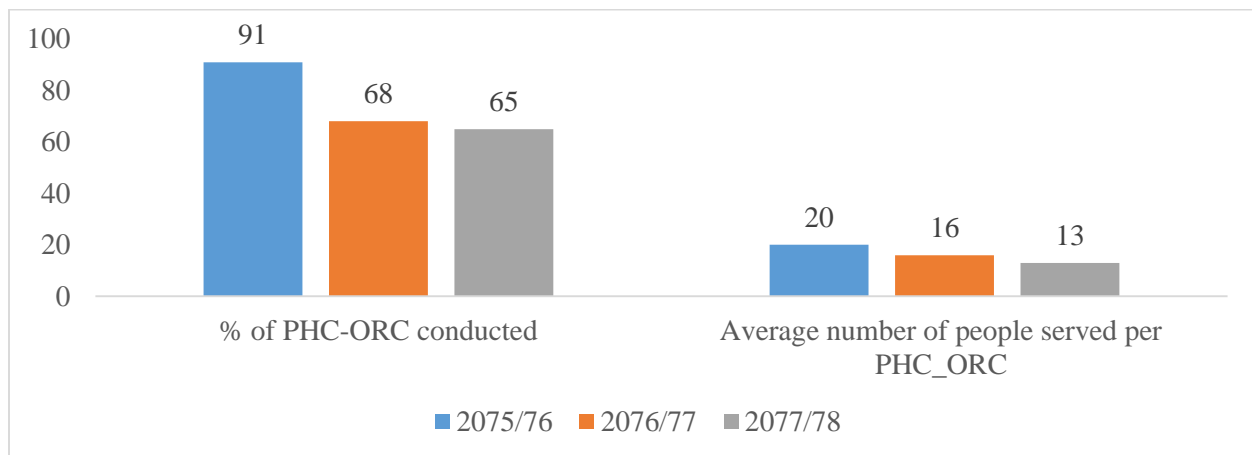


Figure: PHC-ORC reporting status and people served

Issues

- Limited service provided from PHC-ORC
- Poor infrastructure of outreach clinic

Malaria

Background

Malaria control Program in Nepal has begun in year 1954, mainly in Tarai belt of central Nepal with support from the United States. In 1958, the National Malaria Eradication Program was initiated and in 1978 the concept reverted to a control program. Malaria is a priority public health problem of Nepal where approximately 50% of the population is at risk of malaria.

Malaria risk stratification 2019 was tailored to suit the changing epidemiology of malaria in the country and to ensure appropriate weightage is allotted to key determinants of malaria transmission as recommended by external malaria program review. In order, to refine the risk stratification at the community level and there by defined the total population at risk of malaria; malaria risk micro stratification was conducted at the wards level of Rural Municipality or Municipalities. According to the micro stratification report all wards of Bharatpur Metropolitan City falls under low risk wards.

Nepal has achieved and exceeded the malaria target of the Millennium Development Goals (MDGs) and universal coverage of malaria control interventions, and the Roll Back Malaria (RBM) targets of 2010. Nepal has achieved a significant reduction in its malaria burden in recent years.

National Malaria Strategic Plan (2014-2025)

Current National Malaria strategic Plan (NMSP) 2014-2025 was developed based on the epidemiology of malaria derived from 2021 micro stratification, 2013 mid- term Malaria Program Review, and the updated WHO guidelines, particularly for elimination in low endemic country. The aim of NMSP is to attain “Malaria Free Nepal by 2025”. The goals of the National Malaria Strategic Plan 2014 – 2025 are (i) achieve Malaria Elimination (zero indigenous cases) throughout the country by 2022; and (ii) sustain malaria – free status and prevent re-introduction of malaria.

The specific objectives of NMSP (2014 -2025, Revised) are as follows:

- Strengthen surveillance and strategic information on malaria for effective decision making.
- Ensure effective coverage of vector control intervention in the targeted malaria risk areas.
- Ensure universal access to quality assured diagnosis and effective treatment for malaria.
- Develop and sustain support from leadership and communities towards malaria elimination.
- Strengthen programmatic technical and managerial capacities towards malaria elimination.

Major Activities

- LLIN was distributed to pregnant women at their first ANC visits.
- Continuation of case-based surveillance system
- Orientated health workers from private sectors on case based surveillance and response.

Achievements

Table: Malaria epidemiological information

Program indicators	2075/76	2076/77	2077/78
Annual blood examination rate (ABER) of malaria in high risk district	NA	NA	NA
Malaria annual parasite incidence(per 1000 population in high risk district)	NA	NA	NA
Percentage of Plasmodium falciparum(PF) cases in high risk districts	30	0	0
Percentage of imported cases among positive cases of malaria	90	100	100
Total Malaria indigenous cases	1	0	0
Total Malaria PF cases	3	0	0
Total Malaria PF indigenous	0	0	0
Total Malaria positive cases	10	6	1
Total Malaria PF imported	3	0	0
Total malaria slide collection	5910	4341	1256
Slide positivity rate of Malaria	0.17	0.14	0.08

Malaria Program – achievements in numbers 2077/78

Blood sample collection		Diagnosis and Result	Microscopy only	RDT only	Microscopy and RDT	Treatment	
ACD	101	Examined	200	987	69	Total	1
PCD	1155	Positive	0	1	0	Pregnant	0

Issues

- Discontinuation of supply of LLIN through EDCCD
- Refresher training needed to HWs on Malaria case reporting and investigation
- Limited use of malaria testing kit for case finding

Lymphatic Filariasis

Background

Lymphatic Filariasis (LF) is a public health problem in Nepal. Mapping of the disease in 2001 using ICT (immune-chromatography test card) revealed 13 percent average prevalence of lymphatic filariasis infection in Nepal's districts, ranging from <1 percent to 39 percent. Based on the ICT survey, morbidity reporting and geo-ecological comparability, 61(63) districts were identified as endemic for the disease. The disease has been detected from 300 feet above sea level in the Terai to 5,800 feet above sea level in the mid hills. Comparatively more cases are seen in the Terai than the hills, but hill valleys and river basins also have high disease burdens. The disease is more prevalent in rural areas, predominantly affecting poorer people. *Wuchereria bancrofti* is the only recorded parasite in Nepal, The mosquito *Culex quinquefasciatus*, an efficient vector of the disease, has been recorded in all endemic areas of the country.

The EDCD initiated mass drug administration (MDA) from Parsa district in 2003, which was scaled up to all endemic districts by 2069/70 (2013). As of 2077/78, MDA has been stopped (phased out) in more than 50 districts, post-MDA surveillance and morbidity management initiated in all endemic districts. All endemic districts have completed the recommended six rounds of MDA by 2018 including Chitwan district.

Goal, objectives and strategies of Lymphatic Filariasis elimination program

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.

Dengue

Background

Dengue is a mosquito-borne disease that is transmitted by mosquitoes (*Aedes aegypti* and *Aedes albopictus*) and occurs in most of the districts of Nepal. WHO (2009) classified dengue as: i) Dengue without warning signs, ii) Dengue with warning signs, iii) Severe Dengue. The first dengue case was reported from Chitwan district in a foreigner. The earliest cases were detected in 2004. Since 2010, dengue epidemics have continued to affect lowland districts as well as mid-hill areas. This trend of increased magnitude has since continued with number of outbreaks reported each year in many districts- Chitwan, Jhapa, Parsa (2012-2013), Jhapa, Chitwan (2015-2016), Rupandehi, Jhapa, Mahottari (2017), Kaski (2018) and Sunsari, Kaski, Chitwan (2019). The mostly affected districts are Chitwan, Kanchanpur, Kailali, Banke, Bardiya, Dang, Kapilbastu, Parsa, Rupandehi, Rautahat, Sarlahi, Saptari and Jhapa, reflecting the spread of the disease throughout the Tarai plains from west to east.

In 2011, 79 confirmed cases were reported from 15 districts with the highest number in Chitwan (55). During 2012 -15, the dengue cases still continued to be reported from several districts but the number fluctuated between the years. In 2019, we experienced the outbreak at Sunsari (Dharan), Chitwan (Bharatpur) and Kaski (Pokhara).

Aedes aegypti (the mosquito-vector) was identified in five peri-urban areas of the Terai (Kailali, Dang, Chitwan, Parsa and Jhapa) during entomological surveillance by EDCCD during 2006-2010, indicating the local transmission of dengue. However, recent study carried out by VBDRTC has shown that both the mosquitoes have found to be transmitting the disease in Nepal. Studies carried out in 2006 by EDCCD and the National Public Health Laboratory (NPHL) found that all four subtypes of the Dengue viruses (DEN-1, DEN-2, DEN-3 and DEN-4) were circulating in Nepal.

Nepal's Dengue Control Program

Goal - To reduce the morbidity and mortality due to dengue fever, dengue haemorrhagic 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
- Regular monitoring of dengue fever surveillance through the EWARS
- Mosquito vector surveillance in municipalities

- The integrated vector control approach where a combination of several approaches are directed towards containment and source reduction

Major Activities

- Awareness program

Achievements

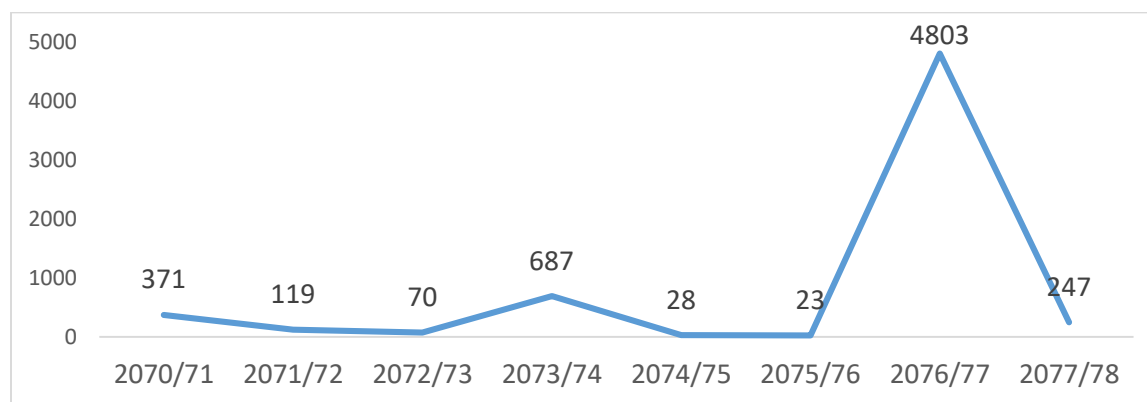


Figure: Dengue Cases in Chitwan (FY 2070/71 to FY 2077/78)

The number of reported dengue cases has significantly increased from 23 in FY 2075/76 to 4803 in FY 2076/77. The major cause of increasing the reported case is the impact of global dengue outbreak. In 2077/78 Chitwan experienced a severe Dengue outbreak along with many other district. Among the total cases 4803 in district, 3545 cases were from Bharatpur Metropolitan including 4 deaths in the district. In FY 2077/78 the dengue cases have significantly decreased and the reported cases were 247 in the district.

Issues

- Dengue outbreak in periodic duration
- Poor environmental sanitation especially in urban area
- Inadequate community participation on search and destroy program

Leprosy

Background

For ages, leprosy has been a disease causing public health problem and has been a priority of the government of Nepal. Thousands of people have been affected by this disease and many of them had to live with physical deformities and disabilities. Activities to control leprosy in an organized and planned manner were initiated only from 1960. According to a survey conducted in 1966, an estimated 100,000 leprosy cases were present in Nepal. Nepal Leprosy Control Program was started in the country in 1966. Multi Drug Therapy (MDT) was introduced in 1982 in few selected areas and hospitals of the country.

Goal, objectives, strategies and targets of the leprosy control program

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

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

Strategies

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

Major Activities

Different activities have been conducted under leprosy control and awareness which are mentioned below:

- MDT service delivery through health facilities
- Conducted quarterly review meeting
- Transport support to released-from-treatment cases
- Recording, reporting, update and leprosy case validation
- Coordination with support partners and stakeholders
- Skin camp conducted for active case finding

Achievement

Registered cases:

Number of registered cases at the end of the year in FY 2077/78 was 32. Among them 27 were Multibacillary (female 9, male 18) and 5 were paucibacillary (female 2, male 3).

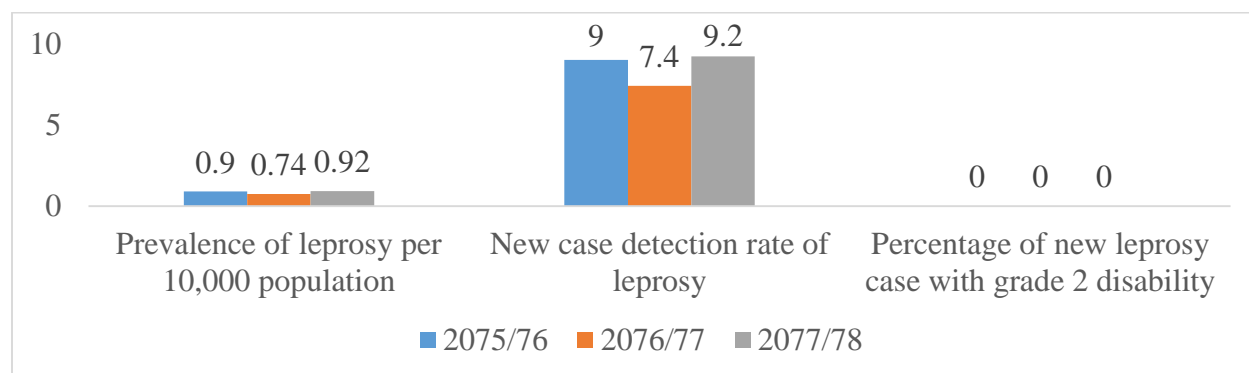


Figure: Prevalence rate, new case detection rate and percentage of grade 2 disability

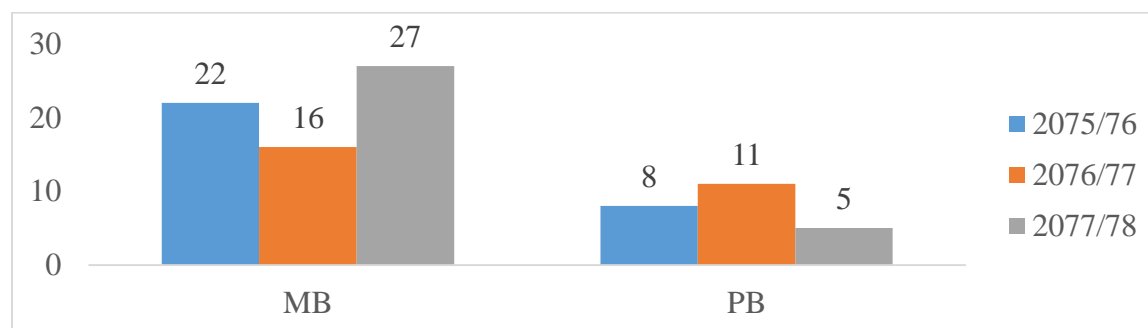


Figure: Number of New Leprosy cases

Table: Leprosy control program indicators

Program indicators	2075/76	2076/77	2077/78
Child proportion among New Leprosy cases	0	0	0
Female Proportion among New Leprosy cases	43.3	48.1	34.4
Prevalance of leprosy per 10,000 population	0.9	0.79	0.92
New case detection rate of leprosy	9	7.9	9.2
Percentage of PB and MB cases who started treatment but defaulted	5.9	1.3	0.54
Percentage of leprosy cases released from treatment (RFT)	48.2	41.8	7.3
Percentage of new leprosy cases presenting with a grade-2 disability	0	0	0
Percentage of new leprosy cases that are MB	73.3	59.3	84.4
Percentage of relapse cases of leprosy	3.5	0	0
Proportion of defaulted leprosy cases who started treatment	14.3	3.5	5.9

Leprosy program –achievement in numbers 2077/78

Particulars		Multi Bacillary		Pauci Bacillary	
		F	M	F	M
Patient at the end of last month		10	17	1	2
Total Additions	New cases never registered earlier	9	18	2	3
	Relapsed cases				
	Retreatment cases				
	Transferred in cases				
No of patients treated in this month		11	18	1	2
Total Deducted	No of patients released from treatment (RFT)	1			2
	No of patients transferred elsewhere				
	Defaulters				
	Other deducted from treatment		1		
Patient at the end of this month		10	17	1	0
Patient <14 years at the end of this month					

No of smear examined cases among new cases				
No of smear +ve cases among smear examined				
No of < 14 years patients among new cases				

Issues/challenges

- Further reduction of disease burden and sustain the achievement of elimination
- Maintenance of quality of services and logistics
- Stigma and discrimination against affected persons and their families.
- Integration of leprosy services in private sector, including medical colleges.
- Low priority to leprosy program at periphery.
- Inadequate training and orientation for health workers, focal persons and managers

Tuberculosis

Background

Tuberculosis (TB) is a public health problem in Nepal that affects thousands of people each year and is one of the leading cause of death in the country. WHO estimates that around 42,000 (incidence rate of 151 per 100,000) people develop active TB every year in Nepal. Nearly fifty percentage of them are estimated to have infectious pulmonary disease.

Globally, tuberculosis is a major public health problem. Despite the long history of tuberculosis prevention efforts, tuberculosis still ranks among the top ten causes of deaths in Nepal. It is estimated that around 44,000 new infectious occurs annually and accounts for 5000-7000 life lost. Nearly fifty percentages of them are estimated to have infectious pulmonary disease and can spread the disease to others.

According to the latest WHO Global TB Report 2018, TB Mortality rate was 23 per 100,000 populations, which exclude HIV+TB. As per the Global TB report, 6000 to 7000 people are dying per year from TB disease. TB mortality is high given that most deaths are preventable if people can access tuberculosis care for the diagnosis and the correct treatment is provided. Nepal NTP has adopted the global WHO's END TB Strategy as the TB control strategy of the country.

The Directly Observed Treatment, Short Course (DOTS) has been implemented throughout the country since April 2001. The NTP has coordinated with the public sector, private sector, local government, I/NGOs, social workers, educational institution and other sectors to expand DOTS and sustain the good progress achieved by the NTP. There are 4382 DOTS treatment centers in Nepal and the NTP has adopted the global End TB Strategy and the achievement of the SDGs as the country's TB control strategy.

Vision, goal, objectives of the National TB Program

Vision TB Free Nepal

Goal

To reduce the TB incidence by 20% by the year 2021 compared to 2015 and increase case notification by a cumulative total of 20,000 from July 2021, compared to the year 2015.

Objectives

1. 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.
2. Maintain the treatment success rate at 90% of patients (all forms of TB) through to 2021
3. Provide DR diagnostic services for 100% of person with presumptive DR TB by 2021; successfully treat at least 75% of the diagnosed DR patients.

4. Further expand case finding by engaging providers for TB care from the public sector (beyond MoHP), medical colleges, NGO sector, and private sector to notify TB cases.
5. Strengthen community systems for management, advocacy, support and rights for TB patients in order to create an enabling environment to detect and manage TB cases
6. Contribute to health system strengthening through HR management and capacity development, financial management, infrastructures, procurements and supply management in TB.
7. Develop a comprehensive TB Surveillance, Monitoring, and Evaluation system
8. To develop a plan for continuation of NTP services in the event of natural disaster or public health emergency.

END TB Strategy

Vision: A world free of TB

Zero deaths, disease and suffering due to TB

Goal: End the Global TB Epidemic

Milestones for 2025:

1. 75% reduction in TB deaths (compared with 2015)
2. 50% reduction in TB incidence rate (less than 55 TB cases per 100,000 population)
3. No affected families facing catastrophic costs due to TB

Targets for 2035:

1. 95% reduction in TB deaths (compared with 2015)
2. 90% reduction in TB incidence rate (less than 10 TB cases per 100,000 population)

No affected families facing catastrophic costs due to TB

The End TB Strategy was unanimously endorsed by the World Health Assembly in 2014. Its three overarching indicators are i) the number of TB deaths per year, ii) TB incidence rate per year, and iii) the percentage of TB-affected households that experience catastrophic costs as a result of TB. These indicators have related targets for 2030 and 2035.

The strategy's components (three pillars) are as follows:

1. Integrated, patient- entered care and prevention
2. Bold policies and supportive systems
3. Intensified research and innovation

Major Activities

- Provided effective chemotherapy to all patients in accordance with national treatment policies.
- Promote early diagnosis of people with infectious pulmonary TB by sputum smear examination and Gene xpert.
- Implemented active case finding interventions to identify missing tuberculosis cases among high risk groups
- Provided continuous drugs supply to all treatment centers.
- Maintained a standard system for recording and reporting
- Linkage of DOTS centers to microscopic center through courier.
- Conducted quarterly cohort analysis of TB patient
- Community Based DOTS
- Nutrition support incentives for retreatment case

Achievements

Case notification

In Fiscal Year 2077/78, a total of 478 cases of TB was notified and registered at NTP. There were 96.1 % incident TB cases registered (New and Relapse) among all TB cases. Among the notified TB cases, 76.3 % of all TB cases were pulmonary cases and out of notified pulmonary TB cases, 70% were bacteriologically confirmed.

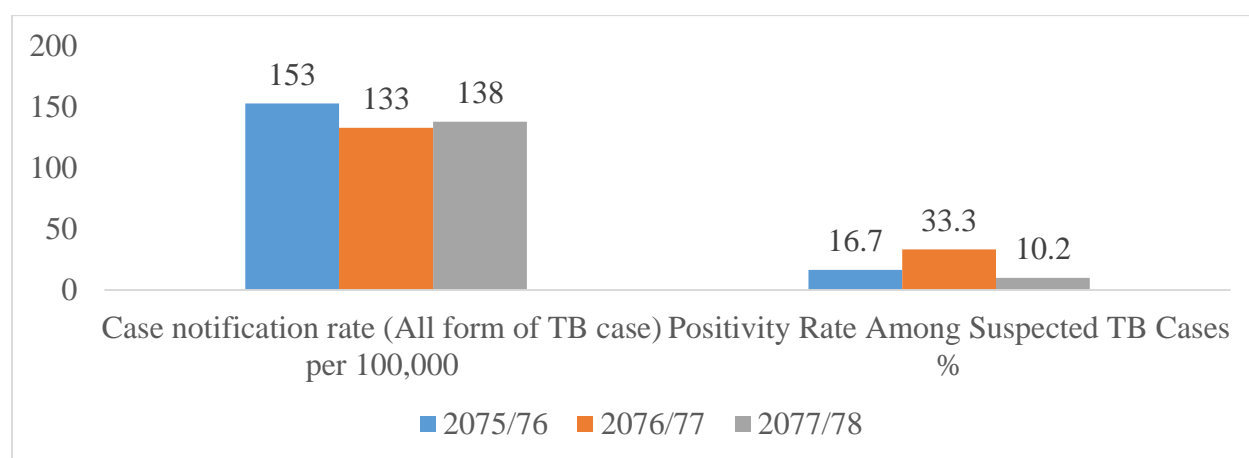


Figure: Case notification rate, positivity rate and sputum conversion rate

Case notification rate of TB was at its peak (133 per 100,000) in FY 2076/77 which increased to 138/100,000 in FY 2077/78. Positivity rate among suspected Tb cases was 10.2 in FY 2077/78.

Treatment outcome

In 2077/78 treatment success rate of TB was 93%. Death rate among TB cases was (2.7%), failure rate was 1.8%, lost to follow up rate was 1.3% during the year.

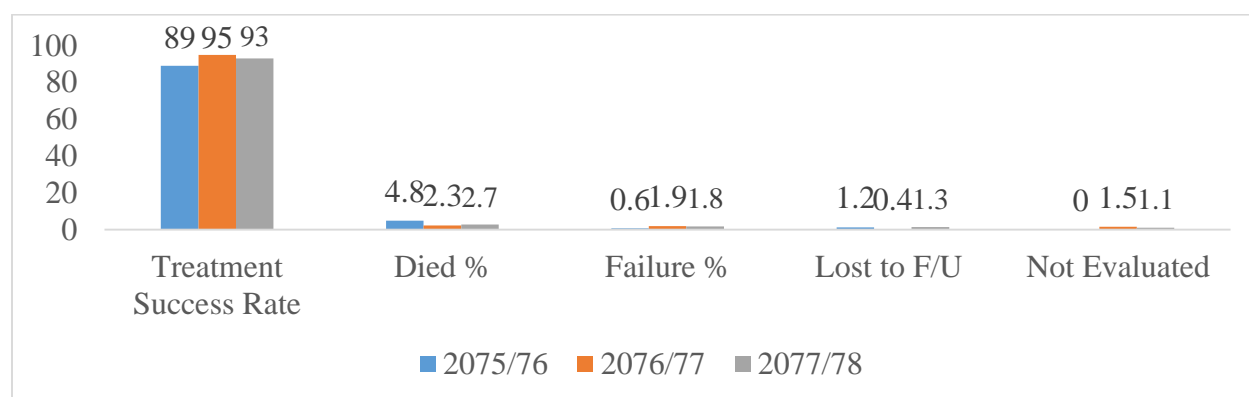


Figure: Treatment outcome of TB cases

Tuberculosis program – achievement in numbers 2077/78

Case Registration	New		Relapse		Treatment after failure		Treatment after loss to follow-up		Other previously treated		Previous treatment history unknown					
	F	M	F	M	F	M	F	M	F	M	F	M				
Pulmonary (BC)	72	141	15	27	3	4	0	0	0	0	0	0				
Pulmonary (CD)	33	60	2	0			0	0	0	2	0	0				
Extra pulmonary (BC or CD)	51	59	0	3			0	1	1	1	2	1				
Registration (BC or CD)	0-4 Years		5-14 Years		15-24 Years		25-34 Years		35-44 Years		45-54 Years		55-64 Years		≥ 65 Years	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
New (all)	3	4	4	1	48	52	33	54	27	33	10	55	15	23	15	38
Relapse (all)	0	0	0	0	1	3	1	2	3	5	3	9	4	9	5	2
Others (all)					1		1	1		2	2	2	2	3		1

Index TB cases	No of family members		Members investigated		Diagnosed with TB	Eligible for TBPT	Enrolled on TBPT
	Child	Adult	Child	Adult			
32	19	92	17	62	1	8	8

Treatment Regimen									DST of TB patient		
Age group	2HRZE +4HR		2HRZE +7HRE		6HRZE		6HRZE +Lfx		TB cases	Xpert MTB/RIF	LPA
	F	M	F	M	F	M	F	M			
Child (0-14)	7	5							New	1	
Adults (>14)	153	263	6	9	12	21		1	Re-treatment	4	2

Presumptive TB							
Sex	Presumptive TB cases	Screened by		Diagnosed		Enrolled	
		X-ray	Symptoms	DS TB	DR TB	DS TB	DR TB
Female	156		45	7		6	
Male	242	1	72	26		22	

Sputum Smear Examination by Microscopy			Xpert MTB/RIF Test Result						
Sex	No of Presumptive TB examined		Sex	Mycobacterium Tuberculosis (MTB)			Rifampicin Resistance		
	Positive	Negative		Detected	Not detected	Error / No result / Invalid	Detected	Not detected	Indetermined
Female	67	848	Female	52	351	11	0	29	1
Male	118	1155	Male	117	566	28	3	65	1

TB HIV status				
Sex	HIV test result of TB patient		TB HIV patients on	
	Positive	Negative	ART	CPT
Female		174	0	0
Male		279	0	0

Registration category		No of registered cases		Cured		Completed		Failed		Died		Lost to follow up		Not evaluated	
PBC	New	75	131	63	121	3	6	2	1	3	2	2	1	2	1
	Relapse	9	31	9	26		3		1		1				
	TAF	1	5	1	3		2								
	TALF		2		1		1								
	OPT		1								1				
	UPTH														
PCD	New	30	44			28	38	0	2	0	2	1	1	1	0
	Relapse	1	10			1	8				1				1
	Other	0	0			0	0								
EP	New	55	47			53	45	1	1	1	1	0	1	0	0
	Relapse	2	1			2	1								
	Other	0	0			0	0								
HIV infected TB patient (all forms)		0	0			0	0	0	0	0	0	0	0	0	0

Issues

- No training/orientation given to health workers about new TB regimen
- Inadequate supply of recording and reporting tools
- Inadequate TB management training
- Lost to follow up due to mobility of population

HIV/AIDS

Background

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. A new National HIV Strategic Plan 2016-2021 is recently launched to achieve ambitious global goals of 90-90-90. By 2020, 90% of all people living with HIV (PLHIV) will know their HIV status by 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART) and by 2020, 90% of all people receiving antiretroviral therapy will have viral suppression.

Starting from a ‘low-level epidemic’ over the period of time HIV infection in Nepal evolved itself to become a ‘concentrated epidemic’ among key populations (KPs), notably with People who Inject Drugs (PWID), Female sex workers (FSW), Men who have Sex with Men (MSM) and Transgender (TG) People in Nepal. A review of the latest epidemiological data, however, indicates that the epidemic transmission of HIV has halted in Nepal. The trend of new infections is taking a descending trajectory, reaching its peak during 2002-2003.

Major Activities

- Prevention of Mother to Child Transmission for elimination of vertical transmission
- Coordination with different stakeholders

Achievements

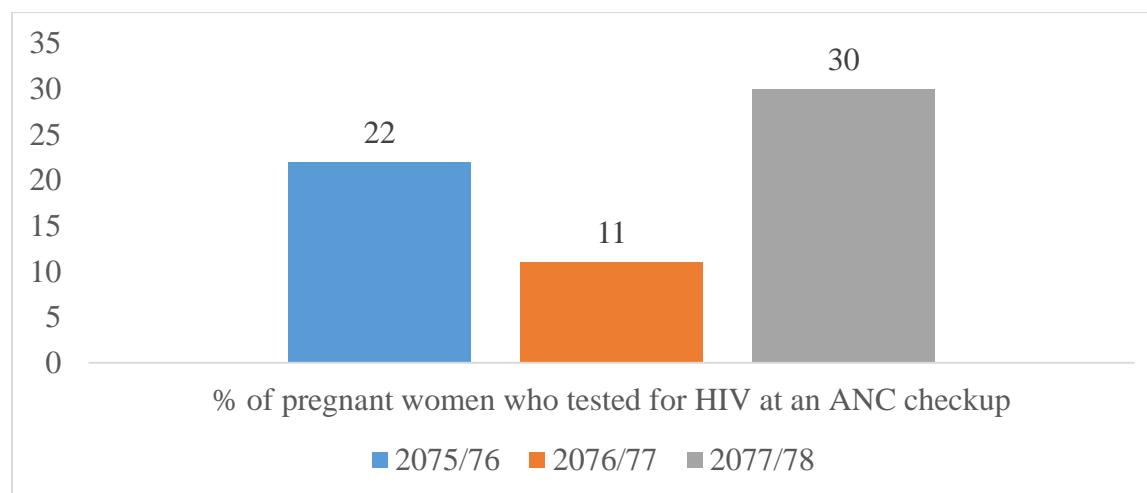


Figure: Pregnant women tested for HIV

Table: Service statistics HIV testing and counseling for the period of FY 2075 /76-2077/78

Indicators	2075/76	2076/77	2077/78
Total tested for HIV	4776	2163	1854
Total HIV positive reported	104	136	337

Issues

- Limited coverage of prevention program
- Availability of HIV test kits with the limited expiry date.
- Limited coverage of HIV testing and counseling
- Stigma and discrimination

Non Communicable Diseases

Background

In Nepal, there has been an epidemiological transition from communicable diseases to Non Communicable Disease (NCDs) as the major cause of illness/disease, disability and death including impoverishment from long-term treatment, care costs leading to loss of productivity that threatens household income and leads to productivity loss for individuals and their families and to the economy of the nation.

The deaths due to NCDs (Cardio-Vascular Disease, diabetes, cancer and respiratory disease) have increased from 60% of all deaths in 2014 to 66% in 2018 (WHO Nepal Country profile 2018). These NCDs impose substantial costs on health services leading to poverty and hunger, which may have a direct impact on the achievement of the internationally-agreed Sustainable Development Goals 3 i.e. “Ensure Healthy Life and Promote Well Being for All at All Ages” of this goal 3.4 targeted to “reduce by one third premature mortality from NCDs through prevention and treatment and promote mental health and wellbeing”.

Better health outcomes from NCDs can be achieved much more readily by work across different sectors and levels of government influencing public policies in sectors like agriculture, communication, education, employment, energy, environment, finance, industry, labor, sports, trade, transport, urban planning, and social and economic development than by making changes in health policy alone.

Thus PEN Implementation Plan (2016-2020) has been developed in line with the Multi-Sectoral Action Plan for prevention and control of NCDs (2014-2020).

Multisectoral Action Plan (MSAP) for the Prevention and Control of NCD

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 objectives for MSAP

- 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

Targets (at the end of 2025 AD)

1. 25% relative reduction in overall mortality from CVD, cancers, diabetes, or COPD
2. 10% relative reduction in the harmful use of alcohol
3. 30% relative reduction in prevalence of current tobacco use in persons aged over 15 years
4. 50% relative reduction in the proportion of households using solid fuels as the primary
5. source of cooking
6. 30% relative reduction in mean population intake of salt/sodium
7. 25% reduction in prevalence of raised blood pressure
8. Halt the rise in obesity and diabetes
9. 10% relative reduction in prevalence of insufficient physical activity
10. 50% of eligible people receive drug therapy and counseling (including glycemic control) to prevent heart attacks and strokes
11. 80% availability of affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities

Nepal PEN program

The WHO PEN Protocol was developed on risk based approach. Those people who are under high risk with high symptoms will get medicine but those people who are under low risk even symptoms present will go through life style modification and follow up. This PEN program is feasible for low cost and resource setting and is public health (mass) based approach of NCD treatment and management.

The PEN intervention has four protocols:

Protocol I: Prevention of heart attack, stroke and kidney disease through integrated management of diabetes and hypertension.

Protocol II: Health education and Counseling on Healthy Behavior (For All)

Protocol III: Management of chronic obstructive pulmonary disease (COPD) and Asthma

Protocol IV: Assessment and referral of women with suspected cancer (Breast & Cervix)

Goals

- Achieve universal access to high quality diagnosis & patient-centred care
- Reduce suffering & socio-economic burden of major NCDs
- Protect poor & vulnerable populations from major NCDs
- Provide effective & affordable prevention & treatment through PHC approach
- Support early detection, community engagement and self-care

Objectives

- To timely diagnose, treat and management of NCDs.
- To prevent and control risk factors of NCDs.
- To bring uniformity in treatment of NCDs.
- To increase coordination between health facility and community.
- To increase accessibility for Universal Health Coverage (UHC).

The Nepal PEN protocol I, II and concept note was developed and endorsed in June, 2016 and the program started in two pilot districts (Ilam and Kailali) on October, 2016. In addition, Nepal PEN protocol III and IV was endorsed and the program was scaled-up in the 8 districts (Palpa, Myagdi, Baglung, Achham, Bardiya, Surkhet, Makwanpur and Rautahat) for Fiscal Year 2073/74. For the Fiscal Year 2075/76 PEN program was scaled up in additional 6 districts (**Chitwan**, Jumla, Jajarkot, Dhading, Nuwakot, and Gorkha). For Fiscal Year 2075/76 PEN program was scaled up in additional 14 districts.

Mental Health

Mental health and substance abuse is recognize as one of health priorities and also addressed unsustainable 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.

There are various activities to be conducted to address the burden of mental health related issues and to raise awareness about them. The activities were focused on awareness raising, capacity building of health workers, and use of information technology to get proper information regarding mental health and rehabilitation services.

Epidemiology and Disease Outbreak Management

Introduction

Epidemiology and Outbreak Management Section in EDCD works in the area of preparedness and response to outbreaks, epidemics and other health emergencies occurring in different 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.

Rapid Response Team (RRT)

The concept of Rapid Response Team (RRT) was developed in the year 2057 B.S. for the development of epidemic preparedness and response system throughout the country in order 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.

Roles and responsibilities of RRTs are as follows

- Preparedness plan for disease outbreaks.
- Investigation of disease outbreaks.
- Responding to disease outbreaks through awareness and IEC activities, case management, community mobilization and the coordination of stakeholders.
- The monitoring of potential diseases outbreak (malaria, kala-azar, dengue, scrub typhus, acute gastroenteritis, cholera, severe acute respiratory infections, influenza, etc.) at sentinel sites.
- The active surveillance of diseases outbreak situation.
- Risk communication, dynamic listening and rumours management.
- Coordinate with the province and local authorities for diseases outbreak management. Along with back up with human resources and logistics as per need.
- Identify the risk factors leading to the 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.

Major activities

- Stock piling of emergency drugs and health logistics
- Orientation to RRT members

- Multisectoral interaction program conducted for preparedness of outbreaks, epidemics and unusual health events.
- Identification of disease outbreaks and epidemic prone areas and communities
- Different level of RRTs mobilized for investigation of outbreaks and response activities.

Achievements

- Formation of local level Rapid Response Team

Major Outbreaks in 2077/78

Since the beginning of 2020, the world is experiencing an once-in-a-lifetime pandemic, COVID 19 which has claimed millions of lives and changed the ways in which each of us relates to and navigates the world. Bharatpur being one among the biggest city in terms of population, movement and hospital facilities experienced a shattering pandemic of COVID 19.

In Nepal, a range of strategies has been adopted by federal, provincial and local level government based on the health care system for the prevention and control of the disease. Detail about the COVID 29 prevention and control are described in Chapter VI.

Issues

- The threat of emerging and reemerging diseases

Social Health Security

Background

The Social Health Security Section was established in 2075 B.S and is responsible for free treatment and management facilities for eight selected diseases to impoverished Nepali citizens at listed hospitals under this scheme. The section is also answerable for development and revision of FCHVs and other health related volunteer's policy, strategy, standard, protocol and guideline.

The specific functions of this section are given below:

1. Develop the policy, strategy, standard, protocol and guideline etc. regarding easy access and provision of hospital based services to the target population.
2. Overall management of “Bipanna Nagrik Aushadi Program”, treatment of serious health conditions of citizens, SSU and OCMC; and
3. Develop, revise and update the policy, standard for FCHVs and other health related volunteers.

Bipanna Nagarik Aushadhi Upachar Program

The goal of the program is to manage the provision of free treatment to impoverished citizens. The objectives includes i) notify the different types of hospitals for free medication and treatment and ii) develop, revise and update the policy, standard, guideline and protocol for “Bipanna Nagrik Aushadi Program”.

Major ongoing activities

The Impoverished Citizens Service Scheme of Social Health Security Section provides the following funding for impoverished Nepali citizens to treat serious health conditions:

1. Free treatment up to NPR 100,000 per patient via listed hospitals for severe diseases including cancer, heart disease, traumatic head injuries, traumatic spinal injuries, Alzheimers disease, Parkinson's and sickle cell anaemia diseases
2. Medication costs up to NPR 100,000 for post-renal transplant cases
3. Free dialysis services
4. Pre transplant (HLA & cross match) test support upto 50,000 and
5. Renal transplantation costs up to NPR 400,000 per patient and
6. Free medical treatment for certain severe kidney disease upto 100,000.

Major Activities

- 210 meeting was conducted in 2077/78 to recommend impoverished citizen, who had listed 8 diseases, for free treatment

Achievements

Achievement of recommendation to impoverished citizens for free treatment

S.N.	Name of the disease	Number of recommendation		
		Female	Male	Total
1	Heart Disease	44	57	101
2	Cancer	83	81	164
3	Kidney Disease	12	34	46
4	Head Injury	2	9	11
5	Spinal Injury	1	2	3
6	Alzheimer's Disease	0	0	0
7	Parkinson's Disease	0	0	0
8	Sickle Cell Anaemia	0	0	0
	Total	142	183	325

Ward-wise Distribution of Impoverished Citizen under Bipanna Program

Table: Ward-wise distribution of impoverished citizen in FY 2077/78

Ward No	Heart Disease	Cancer	Kidney Disease	Head Injury	Spinal Injury	Alzheimer's Disease	Parkinson's Disease	Sickle Cell Anemia	Total
1	3	6	3			0	0	0	12
2	6	10	2						18
3	4	2	2	1					9
4	5	8	3						16
5	4	5	1	1					11
6	6	16	2						24
7	3	4	1	2	1				11
8	4	6	2						12
9	5	4	1						10
10	6	6	1						13

Ward No	Heart Disease	Cancer	Kidney Disease	Head Injury	Spinal Injury	Alzheimer's Disease	Parkinson's Disease	Sickle Cell Anemia	Total
11	7	13	3	2					25
12	2	3	1						6
13	3	4	0						7
14	5	11	2	2					20
15	5	10	4						19
16	6	5	2		1				14
17	1	3	2						6
18	3	14	0						17
19	1	1	2						4
20	2	4	1						7
21	3	4	1						8
22	5	7	0						12
23	3	1	1						5
24	2	5	0						7
25	1	5	3	2					11
26	2	3	2		1				8
27	2	3	3						8
28	2	0	1	1					4
29	0	1	0						1
Total	101	164	46	11	3	0	0	0	325

Issues

- Troublesome procedure for impoverished citizen for the recommendation
- No budget for the program in local level
- Inadequate awareness among beneficiaries

FCHV Program

Background

The government initiated the Female Community Health Volunteer (FCHV) Program in 2045/46 (1988/1989) in 27 districts and expanded it to all 77 districts thereafter. Initially one FCHV was appointed per ward and followed by a population-based approach that was introduced in 28 districts in 2050 (1993/94). There are currently 51,420 FCHVs working in Nepal.

Goal and objectives of the FCHV Program

Goal: Improve the health of local community peoples by promoting public health. This includes imparting knowledge and skills for empowering women, increasing awareness on health related issues and involving local institutions in promoting health care.

Objectives:

1. Mobilize a pool of motivated volunteers to connect health programs with communities and to provide community-based health services,
2. Activate women to tackle common health problems by imparting relevant knowledge and skills,
3. Increase community participation in improving health,
4. Develop FCHVs as health motivators and
5. Increase the demand of health care services among community people.

FCHVs are selected by health mothers' groups. FCHVs are provided with 9 days basic training and 9 days refresher training following which they receive medicine kit boxes, manuals, Flipcharts, ward registers, IEC materials, and an FCHV bag, sign board and identity card. Family planning devices (pills and condoms only), iron tablets, vitamin A capsules, and ORS are supplied to them through health facilities.

The major role of FCHVs is to advocate healthy behaviour among mothers and community people to promote safe motherhood, child health, family planning and other community based health issues and service delivery. FCHVs distribute condoms and pills, ORS packets and vitamin A capsules, treat pneumonia cases, refer serious cases to health institution and motivate and educate local people on healthy behaviour related activities. They also distribute iron tablets to pregnant women.

The Government of Nepal is committed to increase the morale and participation of FCHVs for community health. Policies, strategies and guidelines have been developed and updated accordingly to strengthen the program. The FCHV program strategy was revised in 2067 and in 2076 to promote a strengthened national program. In Fiscal year 2064/65 MoH established FCHV funds of NPR 50,000 in each VDC mainly to promote income generation activities. FCHVs are recognized for having played a major role in reducing maternal and child mortality and general fertility through community-based health programs.

Major activities

There are 207 Female Community Health Volunteers (FCHVs) working in Bharatpur Metropolitan City. Major activities related to FCHVs in FY 2077/78 as follows:

- Different allowance and travel cost provided to FCHVs
- Implementation of biannual Vitamin A program
- Support to Measles Rubella campaign
- Involvement in maternal and child health program and activities
- FCHV Day celebrated on 5th December

Incentives provided to FCHV

- Dress allowance of Rs.10000.00 per FCHV
- Communication cost Rs.2500.00
- Travel cost Rs.9600 per year from local initiation
- Travel cost in Vitamin A program Rs.1600
- Travel cost if participated in national public health program
- Respectable farewell with cash incentives of Rs.50000.00 for FCHVs having long term service and aged more than 60 years.

Achievements

Reporting status and average people served per FCHV

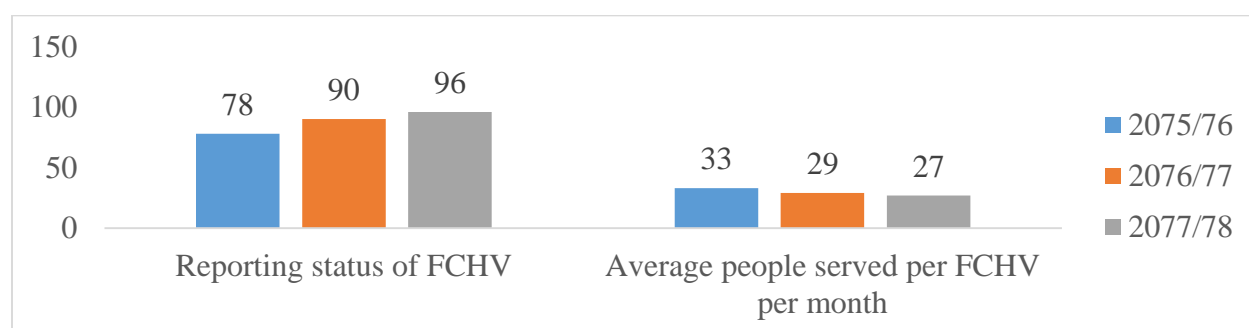


Figure: Reporting status and average people served per FCHV

Issues

- Inadequate budget for FCHV day, FCHV biannual review meeting
- Decreasing work performance of FCHVs
- Low utilization of FCHV fund

Chapter III: Curative Services

Curative Services

Background

According to the institutional framework of the MoHP, the health post (from an institutional perspective) is the first contact point for curative services. Each level above the HP is a referral point in a network from HP to PHCC, on to District, zonal and sub-regional, regional hospitals and finally to specialized tertiary hospitals. This referral hierarchy has been designed to ensure that the majority of population will receive minor to specialized treatment in places accessible to them and at a price they can afford. Inversely, the system works as a supporting mechanism for lower levels by providing logistic, financial, supervisory and technical support from the center to the periphery. The major responsibility of CSD is to provide the basic health service free of cost guaranteed by constitution of Nepal.

The Government of Nepal is committed to improving the health status of rural and urban people by delivering high-quality health services. The policy aims to provide prompt diagnosis and treatment, and to refer cases from PHCCs and health posts to hospitals. Diagnostic services and referral mechanisms have been established at different levels to support early diagnosis of health problems.

In December 2006 the government began providing essential health care services (emergency and inpatient services) free of charge to destitute, poor, disabled, senior citizens, FCHVs, victims of gender violence and others in up to 25-bed district hospitals and PHCCs and for all citizens at health posts in October 2007. The overall objective is to reduce morbidity, mortality by ensuring the early diagnosis of diseases and providing appropriate and prompt treatment.

In Bharatpur, all public health institution provide curative services except MCH clinic as part of their services. Government hospitals, medical college and private hospitals as well as health clinic and polyclinic provide mostly curative services.

Major Activities

- Curative health services were provided at all health facilities including outpatient and emergency care
- Inpatient services were provided at all levels of hospitals including private medical college hospitals, nursing homes and private hospitals.

Achievements

Table: Coverage of curative service

Indicators	Unit	2075/76	2076/77	2077/78
Outpatient (OPD) new visits	No.	536915	527695	452189
% of outpatient (OPD) new visits among total population	%	161	155	130
Proportion of female patients among total new OPD visits	%	53	53	54
Proportion of elder population (≥ 60 years) among total new OPD visit	%	19	20	31

OPD Top Ten Diseases

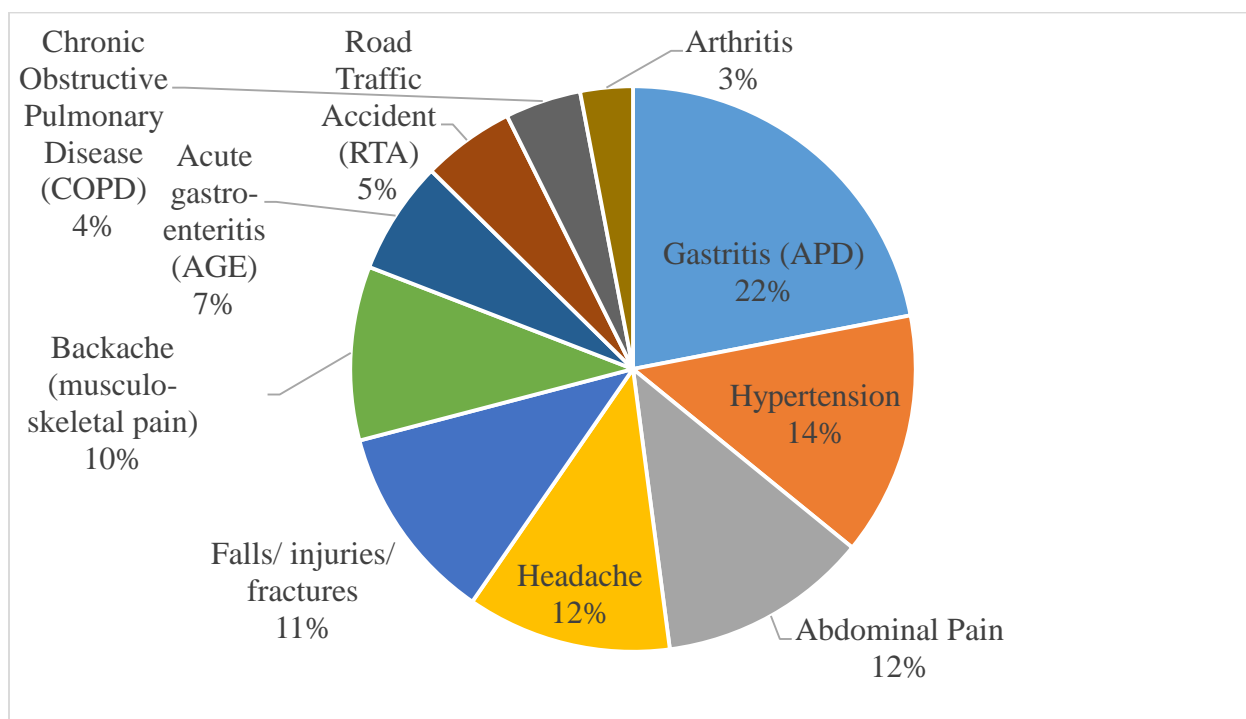


Figure: OPD top ten diseases

Issues

- No local level (palika) hospital in Bharatpur.
- Error in recording and reporting from private hospitals

Chapter IV: Supportive Program

Health Training

Background

National Health Training Centre (NHTC) was established in 1993 AD as the national body for coordinating and conducting all training activities under MoHP. It plans and conducts its training activities in line with the National Health Training Strategy, 2004 and according to the need of the different divisions and centers. The goal of NHTC is to build the technical and managerial capacity of health service providers at all levels to deliver quality health care services to attain the highest level of health status of Nepali citizens.

There are seven provincial training centers (Dhankuta, Pathaliya, Kathmandu, Pokhara, Butwal, Surkhet and Dhangadi) and 49 clinical training sites. It caters to training needs of all departments, divisions, and centers of the Ministry of Health and Population (MoHP), and coordinate and supports to provincial health training centers, thus contributing to meet the targets envisioned in the National Health Policy 2076 BS, National Health Sector Strategy (2015- 2020) and Sustainable Development Goals 2030 AD.

Goal: The overall goal of NHTC is to build a technical and managerial capacity of health service providers at all levels to deliver quality health care services towards attainment of the optimum level of health status.

Objectives

- To standardize the training Learning Resource Packages (LRP) i.e. Trainer's Guide, Participant's Handbook and Reference Manual of different trainings
- To organize and conduct in service trainings to address the need of the country and to support the quality of care by enhancing the service provider's competency
- To ensure the quality of training activities by different mechanisms in adherence to national standards and to enhance the capacity of different training sites
- To adopt and promote innovative training approaches
- To strengthen mechanism and capacity for post training follow up and support

Strategies

- Assessing, standardizing and accrediting training activities and clinical training sites
- Developing and standardizing training packages
- Institutional capacity development of training sites
- Conducting trainings as per national requirements
- Integrating and institutionalizing training activities
- Developing links with professional career development organizations
- Strengthening trainer's pool at federal, provincial and local level

Health Education Information and Communication

Background

The National Health Education, Information and Communication Centre (NHEICC) is the apex body under the Ministry of Health and Population for planning, implementing, monitoring and evaluating Nepal's health promotion, education and communication programs including periodic surveys and research. The Scope of the centre is guided by the National Health Communication Policy 2012 and the National Health Policy 2019, communication strategies and other health related plans and policies. The centre functions to support health programs and services to achieve national health goals and SDGs through health promotion, education, information and communication approach.

The center is the lead for all health promotion, education and communication programs including multi-sectoral health initiatives. The centre uses advocacy, social mobilization and marketing, behaviour change and community lead social change strategies to implement its programs.

Vision: Every Nepali is healthy and lives a long and productive life.

Goal: The goal of NHEICC is to contribute to the attainment of the highest level of health of the people of the nation.

Objectives

The general objective of education, information and communication for health is to raise health awareness of the people as a means to promote improved health status and to prevent disease through the efforts of the people themselves and through full utilization of available resources.

Specific objectives

- To mobilize and use communication multimedia and methods to raise health awareness, knowledge and promote healthy behaviour among the general public.
- To strengthen, expand and implement health communication programs at all levels.
- To generate, collect and mobilize resources to implement health communication programs.
- To prevent the unauthorized dissemination and duplication of health related messages or information and materials on different issues.
- To enhance capacity on health communication to develop, produce and disseminate quality, correct, authorized, uniform and appropriate messages and information.
- To provide quality health messages and information through appropriate media and methods to the citizens who otherwise have little access to such messages and information

Strategies

Advocacy, social mobilization and behaviour change communication are the major strategies for health promotion, education and communication. The specific strategies are as follows:

- Advocating with all levels of stockholders for building healthy public policy and health in all policies.

- Implementing a one-door integrated approach for all health communication programs under MoHP.
- Coordinating and collaborating with all levels of stakeholders through technical committees and other means.
- Ensuring implementation of health communication programs through health infrastructure at all tiers of government i.e. federal, provincial and local levels in a decentralized manner.
- Mobilizing communication media, methods and materials for the prevention of diseases and promotion of health.
- Standardizing health messages and information for uniformity and appropriateness.
- Using edutainment approach with an education format for disseminating health messages and information.
- Ensuring that all stakeholders disseminate health messages and information after taking consent from concerned health authorities.
- Encouraging the media to disseminate messages and information on health issues.
- Encouraging the dissemination of health messages and information through public private partnerships.
- Discouraging messages and information that is harmful to health.
- Prioritizing lifestyle diseases prevention messages and information dissemination.
- Building the capacity of health workers to plan and implement health communication programs.
- Ensuring the quality, uniformity and standardization of health messages and materials through technical committees.
- Introducing new communication technologies for health promotion and communication.
- Coordinating with academia for building the capacity of health workers on health promotion and health communication.
- Strengthening monitoring and supervision activities to determine the gaps in knowledge, attitudes and practices among target audiences and service providers.

Major activities and achievements

- Publication of health messages in print media
- Production of need-based IEC materials
- Community interaction programs for promoting health services
- Distribution of IEC materials to health facilities
- Communication program on tobacco control and regulation
- Communication program on IMNCI, immunization, nutrition
- Communication program on communicable disease and epidemic prevention
- Health promotion program on safe motherhood and family planning
- Communication program on risk factors of non-communicable
- Hygiene and sanitation programs for preventing and controlling epidemics

Health Service Management

Background

Health service management includes information management, planning, coordination, supervision, forecasting, quantification, procurement and distribution of health commodities for the health facilities and the monitoring and evaluation of health programs. It comprises monitoring the quality of air, environment health, health care waste management, water and sanitation. It also monitors the construction and maintenance of public health institution buildings and supports the maintenance of medical equipment. More activities assigned include including policy and planning related to health infrastructure and logistics management.

Health Management Information System (HMIS)

Health management information system (HMIS) is a system whereby health data are recorded, stored, retrieved and processed to improve decision-making. HMIS data quality should be monitored routinely as production of high quality statistics depends on assessment of data quality and actions taken to improve it.

HMIS in DHIS2 platform:

DHIS2 (District Health Information System), customizable free open source software, was used for the submission of monthly report recording in HMIS. DHIS2 is developed by the Health Information Systems Program (HISP) as an open and globally distributed process with developers and is coordinated by the University of Oslo with support from NORAD and other. Nepal implemented this software Nationally for HMIS online reporting system from FY 2073/74. Initially, the report was collected from health facilities to District Public Health/Health Office. From FY 2075/76, report was submitted by 753 palika's health section. In Bharatpur more than 25 public health institution and more than 100 private health institution monthly submit report which was submitted to higher authority through DHIS2.

Major Activities

- Annual palika level performance review meeting conducted participating health institution, health office and other stakeholders
- Monthly meeting conducted among health facility in-charge and public health promotion section
- Data entry on DHIS 2 platform of 25 public institutions and more than 50 private health institutions
- HMIS tools and monthly monitoring sheet distributed to health institutions
- Supervision and monitoring for data quality and to improve recording and reporting from health institution

Achievements

Reporting status

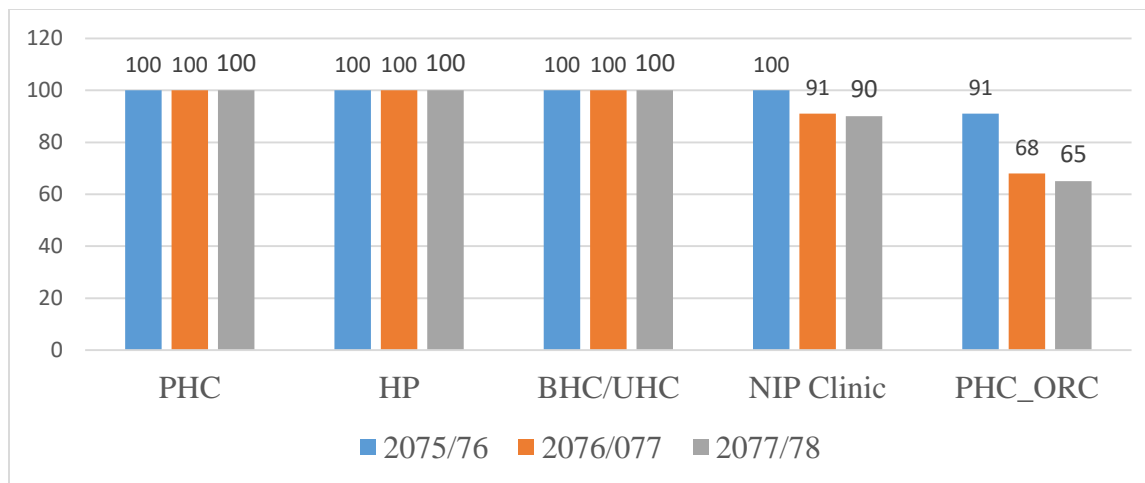


Figure: Reporting status of health institutions

Number of service users and report received

Table: Number of client served by health institutions

Age Group	New Clients Served		Total Clients Served		Referred	
	Female	Male	Female	Male	Female	Male
0 - 9 Years	25873	27924	35481	40031	128	156
10 - 19 Years	33593	32564	43564	44440	233	223
20 - 59 Years	204477	136561	262499	181708	2219	1378
≥ 60 Years	73960	67678	92444	91960	657	559

Table: Number of report received and client served by EPI clinic, PHC-ORC and FCHVs

Health Facilities Within Catchment Area	Planned (No)	Conducted (No)	People Served (No)
Outreach Clinics	413	268	3450
EPI Clinics	913	735	35894
EPI Sessions	1125	717	
FCHVs	2502	2391	64879

DHIS 2 Entry

Bharatpur Metropolitan City has been using DHIS 2 platform for submission of HMIS report. A total of 112 health public and private health institutions including medical college has been registered in DHIS 2 system under Bharatpur Metropolitan. Every month about 100 health institutions submit report to public health section. Summary of data entry in FY 2077/78 was as below:

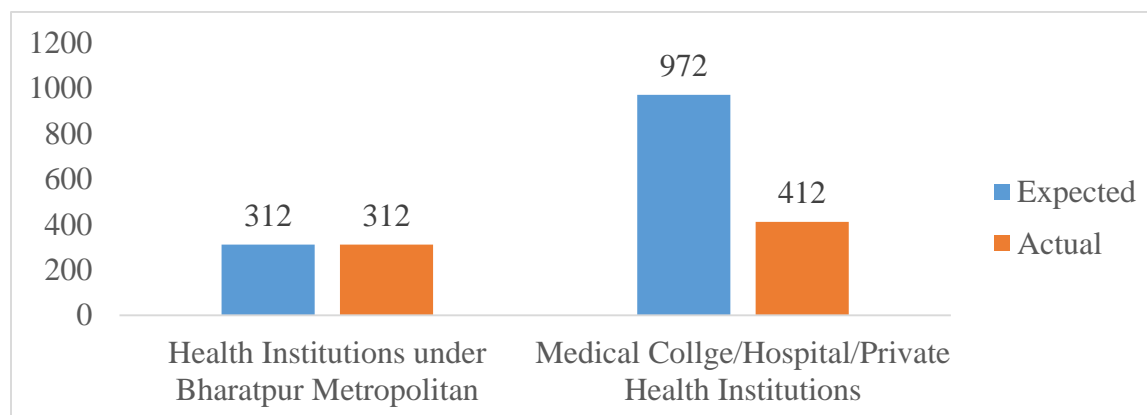


Figure: Expected Vs actual report submitted

Issues

- Information flow from lower level health facilities and data quality issues
- The monitoring of private health care
- Management of Expired, Wastage and unused materials
- Inadequate of HMIS/LMIS tools and late supply

Logistics Management

Background

An efficient management of logistics is crucial for an effective and efficient delivery of health services as well as ensuring rights of citizen of having quality of health care services. Logistics Management Division was established under the Department of Health Services in 2050/51 (1993), with a network of central and five regional medical stores as well as district level stores. The major function of LMD was to forecast, quantify, procure, store and distribute health commodities for the health facilities of government of Nepal. It also involved repair and maintenance of bio-medical equipment, instruments and the transportation vehicles.

In order to systematize the management of logistics, the Logistics Management Information System (LMIS) unit was established in LMD in 1994. LMIS unit started Online Inventory Management from 2073/2074. After the restructure of Nepal's governance in federal structure, the logistics management division was demolished, and its functions are being carried out through logistic management section under Management Division.

Major Functions of Logistic Management section are collection and analysis of quarterly (three monthly) LMIS reports from all the health facilities across the country; preparation, reporting and dissemination of information to:

- Forecast annual requirements of commodities for public health program including family planning, maternal, neonatal and child health, HIV and AIDS commodities, vaccines, and essential drugs
- Help to ensure demand and supply of drugs, vaccines, contraceptives, essential medical and cold chain supplies at all levels
- Quarterly monitor the national pipeline and stock level of key health commodities.

Goal: Quality health commodities available at health facilities and community level round the year.

Objectives

To plan and carry out the logistics activities for the uninterrupted supply of essential medicines, vaccines, contraceptives, equipment, HMIS/LMIS forms and allied commodities (including repair and maintenance of bio-medical equipment) for the efficient delivery of healthcare services from the health institutions of government of Nepal in the country.

Strategies

- Logistics planning for forecasting, quantification, procurement, storage and distribution of health commodities.
- Introduce effective and efficient procurement mechanisms like e-Bidding, e Submission.
- Use of LMIS information and real-time data in the decision-making through data visibility in electronic logistics management information system (eLMIS).
- Strengthen physical facilities at the central, regional, sub-regional and district level for the storage and distribution of health commodities.

- Promote Online Inventory Management System
- Implement effective Pull System for year-round availability of Essential Drugs and other health commodities at all levels.
- Improvement in procurement and supply chain of health commodities

Activities

- Plan for the efficient management on forecasting/quantification, procurement, storage, distribution and transportation of health commodities to all health facilities for the delivery of healthcare services based on LMIS.
- Develop tender documents as per public procurement rules and regulations and procure essential medicines, equipment,
- Store, re-pack and distribute medicines, contraceptives equipment and allied commodities.
- Print and distribute HMIS/LMIS forms, stock books and different forms required for all health institutions.
- Implement and monitor Pull System for contraceptives, and essential drugs.
- Supervise and monitor the logistics activities of all health institutions.

Major logistics activities to strengthen health care services

- eLMIS
- Procurement of health commodities
- Forecasting and supply planning
- Strengthen storage capacity
- Improving inventory management and warehouse best practices

Achievements

Reporting status of LMIS

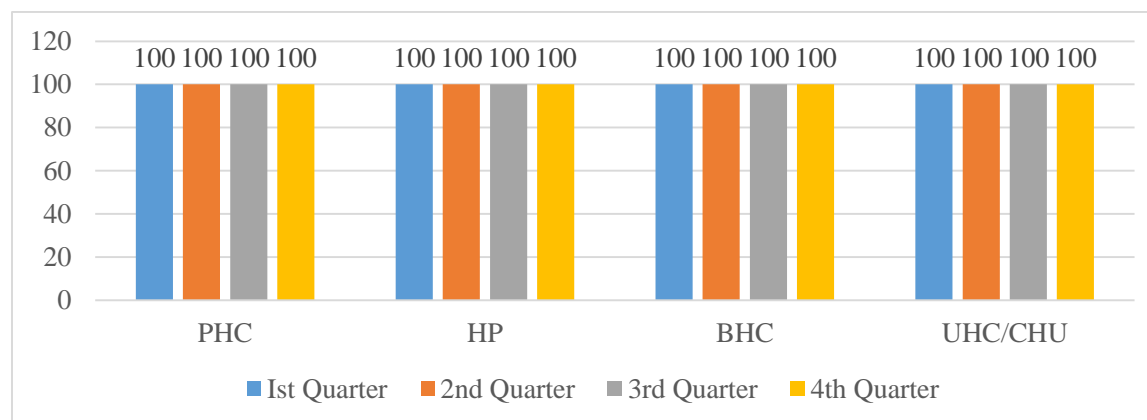


Figure: Reporting status of LMIS

Health Laboratory

Background

Laboratory medicine is a vital component of health care services. Nepal's healthcare system consists various levels of laboratories involved in diagnostic services as well as those involved in public health activities (surveillance, research etc.). National Public Health Laboratory (NPHL) is a center under the Ministry of Health and Population (MoHP) and Division of Health Service (DoHS) that serves as national level referral lab which regulates the laboratory services in the country. It was established in 2024B.S. as Central Health Laboratory and began its function as National Public Health Laboratory (NPHL) since 2047B.S.

National Health Policy- 2071, National Health Laboratory Policy, 2069 and the Guideline for Health Laboratory Establishment & Operations- 2073 identify the National Public Health Laboratory (NPHL) as the central specialized national referral public health laboratory for the country and the regulatory body to license public and private labs. NPHL monitors laboratories within the country through its external quality assurance of lab services and the quality control testing of samples and periodic supervision of both government and non-government laboratories.

Bharatpur Metropolitan City have established and operate 8 health laboratory in health post and basic health center in addition to 1 Primary Health care center.

Laboratory service in Bharatpur Metropolitan City

S.N.	Health Institution	Type of HI	Established by
1	Shivanagar PHC	PHC	MoHP
2	Shahid Ganesh HP	HP	BMC
3	Fulbari HP	HP	BMC
4	Mangalpur HP	HP	BMC
5	Sharadanagar HP	HP	BMC
6	Patihani HP	HP	BMC
7	Shukrangar HP	HP	BMC
8	Divyanagar HP	HP	BMC
9	Megghauli HP	HP	BMC
10	Sharadpur BHC	HP	BMC

Human Resource for Health

Background

Human resources are the pivotal resource for health care delivery. Human resource management involves the planning, motivation, use, training, development, promotion, transfer and training of employees. The proper placement and use of human resources is crucial for effective quality health care delivery.

Status of sanctioned and fulfilled posts in health institution of Bharatpur Metropolitan City

Table: Permanent staff (sanctioned position in Public Health Promotion Section, Primary Health Care Center and Health Post)

S.N.	Position	Level	Sanctioned	Fulfilled	Remarks
1	Medical Officer	8	1	2	Study leave
2	Public Health Officer	7/8	1	1	
3	Staff Nurse	5/6/7	1	2	
3	PHO/PHI/HA/SAHW	5/6/7	43	45	
4	SAHW/AHW	4/5/6	14	14	
6	S/ANM	4/5/6	29	31	
7	Lab Assistant	4/5/6	1	1	
8	Office Assistant		14	8	

Table: Permanent Staff (sanctioned position in Ayurveda Aushadhalaya)

S.N.	Position	Level	Sanctioned	Fulfilled	Remarks
1	Senior/Kabiraj	5/6/7	6	8	
2	Senior/Baidhya	4/5/6	6	7	
3	Office Assistant		12	5	

Table: Contracted staff (sanctioned position in Public Health Promotion Section, Primary Health Care Center, Health Post, Basic Health Care Center, Urban Health Center, Community Health Unit, MCH Clinic, Health Clinic and Ayurveda Aushadhalaya)

S.N.	Position	Level	Fulfilled	Remarks
1	Medical Officer	8	8	
2	Public Health Officer	7	1	
3	AHW	5/4	18	
4	ANM	5/4	18	
5	Lab Technician	5	1	
6	School Nurse	5	2	
7	Lab Assistant	4	10	
8	Immunization Assistant	4	4	
9	Computer Assistant		1	
10	Office Assistant		31	

Issues

- Inconsistent distribution of human resource within health institutions

Chapter V: Ayurveda and Alternative Medicine

Background

Ayurveda is an ancient medical system and indigenous to Nepal with deep roots. The sources of Ayurvedic medicine are medicinal herbs, minerals and animal products. The system works through simple and therapeutic measures along with promotive, preventive, curative and rehabilitative health of people. Ayurveda health services are being delivered through one Central Ayurveda Hospital (Nardevi), one Provincial Hospital (Dang), 14 Zonal Ayurveda Dispensaries, 61 District Ayurveda Health Centers and 305 Ayurveda dispensaries across the country.

The Ayurveda and Alternative Medicine unit in the Ministry of Health & population (MoHP) is responsible for formulating policies and guidelines for Ayurveda and other traditional medical system. Department of Ayurveda and Alternative Medicine (DoAA) primarily manages the delivery of Ayurveda & Alternative Medicine Services and promotes healthy lifestyles through its network facilities all across the country. The Department of Ayurveda & Alternative Medicine, one of the three departments of the Ministry of Health & Population (MoHP) is responsible for programming, management of information, and supervision, monitoring and evaluation of the Ayurveda Service programs.

Various national and international policies have highlighted the importance of Ayurveda services in primary health care and for prevention of NCDs. The Constitution of Nepal has called for the protection and promotion of traditional Ayurveda medicines along with naturopathy and homeopathy. The National Health Policy (2014) has called for expansion of Ayurvedic services as have the National Ayurveda Health Policy (1995) and National Urban Health policy (2015). The objectives and strategies of Ayurveda and alternative medicine are as follows:

Objectives

- To expand and develop functional, physical Ayurveda health infrastructure
- To improve quality control mechanism for Ayurveda health services throughout the country
- To develop and manage the required human resources
- To mobilize the adequate resources for medicinal plants
- To promote community participation in the management of the health facility & utilization of local herbs
- To promote health status & sustainable development of Ayurveda system using locally available medicinal plants
- To promote positive attitudes towards health care & awareness of health issues

Strategies

- Provide preventive, promotive & curative health services in the rural areas
- Establishment & development of Ayurveda institutions

- Strengthen & expand the Ayurveda health services
- Develop skilled manpower required for various health facilities
- Strengthening of monitoring & supervision activities
- Development of information, education & communication center in the Department
- Develop Inter sectoral co-ordination with Education Ministry, Forestry, local development sector & other NGO's & INGO's
- Establishment of regional Ayurveda Hospitals & Ayurveda Dispensaries
- Strengthening & expansion of research & training center of international level
- National & International level training for the capacity enhancement of its human resources

Major Activities

- Procurement and distribution of medicines
- Yoga and lifestyle management training program
- Promotive program for senior citizens (distribution of ayurvedic tonic like Ashwagandha)
- Awareness program on medicinal plants
- Program for lactating mother (distribution of galactagogue medicine).
- Procurement and distribution of medical equipment
- Regular supply of medicines to Ayurveda Aushadhalaya from health section

Achievements

Based on the treatment report of different Ayurveda institutions following diseases were classified as top ten diseases:

1. Udarrog (Abdominal diseases)
2. Amlapitta (Gastritis)
3. VataVyadhi (Osteoarthritis, Rheumatoid Arthritis & other neuromuscular Diseases)
4. Swas/Kash (Respiratory diseases)
5. Jara janya (Geriatric disease)
6. Aambat (Rh. Rh Arthritis)
7. Stri rog (Gynecological diseases)
8. Twak Bikar (Skin disease)
9. Gud bikar (Ano-rectal disease)
10. Mutrabikar (Urinary diseases)

Table: Service Statistics for fiscal year 2075/2076

S. N.	Diseases	Daletar	Devghat	Patihani	Gunja-nagar	Shivaghat	Meghauli	Grand Total
1	Jwar (Fever)	55	50	20	0	32	0	157
2	Swas/Kash (Respiratory disease)	97	94	202	200	122	111	826
3	Amlapitta (Gastritis)	438	372	337	532	159	853	2691
4	Atisar/Grahani (Diarrhea)	44	38	75	11	73	23	264
5	Udar Rog (Abdominal Disease)	516	183	411	560	1171	440	3281
6	Prameha/madhumeha (Diabetes)	25	35	53	57	20	11	201
7	Kamala (Jaundice)	19	0	16	8	9	0	52
8	Pandu (Anaemia)	15		87	0	9	0	111
9	Hridaya Rog (Cardiac disease)	0	0	0	1	14	0	15
10	Raktachap (Hypertension)	98	127	169	82	67	11	554
11	Soth (Oedema)	0	40	60	0	15	0	115
12	Krimi (Worms)	0	29	57	0	5	0	91
13	Twak Bikar (Skin disease)	49	98	96	111	58	14	426
14	Brana (Wound Abscess)	0	47	96	8	100	3	254
15	Aaghat (Traumatic Disease)	0	10	64	10	46	0	130
16	Baatbyadhi (Vataha Disease)	259	394	249	431	393	292	2018
17	Aambat (Rh. Arthritis)	39	107	99	78	71	70	464
18	Baatrakta (Gout)	40	43	35	55	53	74	300
19	Raktabikar (Blood Disorder)	0	54	63	2	40	2	161
20	Mutrabikar (Urinary Disorder)	46	97	102	70	58	1	374
21	Prasutibikar (Obstetric Disease)	110	61	5	0	22	39	237
22	Strirog (Gynecological Disease)	125	10	144	95	71	16	461
23	Gud Bikar (Ano-rectal Disease)	51	0	61	120	122	69	423
24	Netra Rog (Ophthalmic Disease)	0	29	26	0	7	0	62
25	Karna Rog (ENT Disease)	0	44	94	64	122	5	329
26	Sheer Rog (Headache)	11	68	11	7	82	0	179
27	Manas Bikar (Mental Disease)	0	0	0	0	0	0	0
28	Balrog (Pediatric Disease)	128	97	2	63	45	5	340
29	Jarajanya (Geriatric Disease)	394	17	84	89	74	57	715
30	Others	40	19	83	318	91	127	678
31	Panchakarma and others	61	0	0	0	91	0	152
	Total	2660	2163	2801	2972	3242	2223	16061

Table: Age-wise service statistics

S. N.	Health Institution	0-5 years		6-14 years		>15 years		All age group		
		M	F	M	F	M	F	M	F	Total
1	Devghat AA	8	9	39	41	1055	1066	1102	1116	2218
2	Shivaghat AA	8	9	17	5	1579	1527	1604	1547	3145
3	Gunjanagar AA	11	4	17	21	1103	1525	1131	1550	2681
4	Patihani AA	5	6	17	31	1082	1488	1104	1525	2629
5	Meghauli AA	0	0	34	84	1659	1157	831	1243	2934
6	Daletar AA	24	31	28	38	1050	1283	1102	1352	2454
	Total	112	118	304	440	15056	16092	13748	16666	32122

Issues

- Lack of community based program for publicity of Ayurveda
- Lack of appropriate recording & reporting system
- Limited budget for medicine and equipment

Chapter VI: Programs Carried Out by Bharatpur Metropolitan City in FY 2077/78

COVID 19 Prevention, Control and Management

Background

The first case of COVID-19 was reported from Hubei Province of China on 31 December 2019. Public Health Emergency of International Concern (PHEIC) has been declared on 30 January 2020 and pandemic on 11 March 2020. Illness caused by coronavirus was termed as COVID-19 by the WHO, which is derived from “coronavirus disease 2019.” The first name was selected to avoid stigmatizing the virus’s origin in terms of population, geography, or animal associations.

In Nepal, the first case was reported on 23 January 2020, a 32 years old Nepali man returning from Wuhan. The patient recovered, and the contacts were also asymptomatic. Immediate actions were taken to strengthen the health desks at Tribuvan International Airport and gradually at other airports. The ground crossing points of Entry (PoE) at the Nepal-China border and the Nepal-India border were strengthened with health desks. The government of Nepal announced the suspension of all international flights, followed by a country-wide complete lockdown since 23 March 2020.

In Chitwan, the first case was reported on 4 Baisakh 2076, among the mother and son of Rapti Municipality ward no. 9. Both patients recovered, and contacts were also asymptomatic. In Bharatppur Metropolitan city, the first case of COVID-19 was reported on 8 Jestha 2076, among a spouse of 74 years old husband and 73 years old wife. They were the resident of ward no. 6 Kesharbag, and had a travel history of visiting India. Furthermore, the first death case of COVID-19 infection in Nepal was reported on 1 Jestha 2076, a pregnant woman of sindhupalchowk district. In Bharatpur, the first death case reported on 27 Jestha 2076, a male of 68 years who was a resident of Bharatpur-11.

Bharatpur Metropolitan city has given high priority to the prevention and control of COVID-19 (then Novel Corona Virus). District level stakeholders meeting was called upon by Metropolitan in the first week of Magh 2076. Metropolitan has been managing and monitoring COVID-19 prevention and control activities where the standards and directives from provincial governments have been adopted for preventing and managing COVID-19 infections.

A multisectoral approach requires all level governments, non-government and private sectors, corporate organizations, and community to prevent and control diseases. So, the coordination and cooperation had done with federal and provincial institutions, district and local level stakeholders. In addition, coordination was established with sisterhood cities of China. A series of coordination meetings were carried out between Bharatpur Metropolitan city, Bharatpur Hospital, District Administration office Chitwan, Health Office, Chitwan, BP Koirala Memorial Cancer Hospital, Chitwan Medical College, College of Medical Sciences, Associations of Private Health Institutions Chitwan, Private Hospitals, Chamber of Commerce and Industry Chitwan, Chitwan Association

of Industries, Journalist, Nepal Medical Association, Nepal Nursing Association, and other stakeholders.

Bharatpur Metropolitan has carried out an awareness-raising program, established and operated health desks, and run fever clinics. Elected representatives, officials, and health workers have been active in establishing and managing quarantine facilities and isolation services. They also played an important role in initiating contact tracing where infections were identified and facilitated diagnostic tests.

By the end of FY 2077/78 there were 15329 COVID 19 positive cases in Bharatpur Metropolitan City. Among them 7058 were Female and 8267 were male. Among the total positive cases 13584 were recovered and 217 person died by the end of FY 2077/78.

The initiatives taken in the process of COVID-19 control and prevention efforts are mention below:

Case Investigation and Contact Tracing Team (CICTT)

Case Investigation and Contact Tracing Teams (CICTT) were formed in Bharatpur as per the guideline of Ministry of Health and Population. Various cluster of wards were formed and assigned to each team. CICTT were assigned three major responsibilities viz. contact tracing, swab collection, and case management. Each group consisted of one public health graduate, one paramedic, and one lab technician/assistant.

In the first wave, Individuals stayed under quarantine and suspected of COVID-19 infection were tested with PCR test. CICTT identified primary and secondary contacts of COVID 19 patients and then collected swabs of the suspected and primary contact and sent them to Bharatpur Corona Laboratory for further investigation. Public Health Promotion Section developed an internal guideline to prioritize the primary contact. Elected representatives and residents played an important role in identifying contacts of a confirmed COVID-19 patient. Among those contacts, swab collection was done by prioritizing them in a systematic manner i.e. close and primary contacts. By the end of Kartik 2078, a swab of 5412 suspected people was collected and sent for diagnosis. More than 15000 people were contacted during the period.

Later in the second wave of epidemic, the strategy of CICTT were modified. They were responsible for contact tracing, antigen testing and counseling. PCR swab was collected only in the hospitals. Antigen test were carried out in 10 laboratories of Bharatpur Metropolitan.

Establishment of COVID 19 Hospital in Shivanagar and Sharadanagar

Bharatpur Metropolitan established Shivanagar COVID-19 hospital with in Shivangar Primary Health Center, Bharatpur Metropolitan Ward No 14 on 2078 Jestha and in Sharadanagar Health Post, Bharatpur Metropolitan Ward No 19 on Asar 2078. The major objective was to provide health

care services to patients having need of oxygen support. Both hospitals have the capacity of minimum 15 beds with oxygen support. Shivangar COVID 19 hospital were provided inpatient service and served more than 100 patients till the declination of second wave of epidemic. Sharadanagar COVID 19 hospital were provided mainly diagnostic service and counseling. Both of the hospital were planned to operate as Metropolitan level hospital in future.

COVID 19 Antigen test

Individuals having symptoms of COVID 19 or suspected COVID 19 infection were tested using the COVID 19 antigen kit. Ten health institutions having the facility of laboratory were provided Antigen test. The service was provided from Sunday to Friday regularly in a planned manner. A total of 2597 (1224 female and 1373 male) tests were carried out by the end of FY 2077/78 in Bharatpur metropolitan. Among the tested 976 (482 female and 494 male) were found positive.

Total examined			COVID 19 positive		
Female	Male	Total	Female	Male	Total
1224	1373	2597	482	494	976
Positivity rate: 37.6%					

Free Ambulance Services

Dedicated ambulance service was provided by Metropolitan to facilitate the travel of COVID 19 patients to hospital. Four ambulance were kept standby in three strategic location to provide 24*7 services throughout the epidemic wave. Two ambulances were reserved in Bharatpur metropolitan city office and one each were reserved in Shivanagar COVID 19 hospital and 1 in Sharadanagar COVID 19 hospitals. More than 500 people were served by the end of FY 2077/78.

Free Shabbahan (hearse), firewood and JCB service

Free shabbahan service along with firewood and JCB services were provided to those who have died from COVID 19 within the territory of Bharatpur Metropolitan. More than 100 people were served by the end of FY 2077/78.

Case management

The hospitals have the primary responsibility in the treatment and management of individuals with infections. At first, Bharatpur hospital was designated for the management of COVID-19 patients, which then extended the facilities to Chitwan Medical College, College of Medical Sciences. Private hospitals also allocated certain beds for the patients. The person diagnosed with COVID-

19 was sent to the Bharatpur hospital by coordinating with Ambulance services. CICTT bridges between hospitals and patients in facilitating the transport of patients to hospitals. A dedicated ambulance service was provided for the commute of COVID-19 patients.

Health workers mobilization

Health workers were mobilized in quarantines, health desks, fever clinics and assigned to monitor home isolation patients for COVID-19 prevention and health care services delivery. Regular health care services have been provided despite the difficult circumstances and limited human resources because most of the available health workers have been mobilized to combat the threat of COVID-19.

PPE and medical equipment procurement, receive and supply

Bharatpur Metropolitan city managed personal protective equipment (PPE) by means of various sources as a preventive measure to address the risk of the COVID-19 pandemic. The medicines, PPE Gowns, surgical masks, N95 masks, gloves, face shields, sanitizer were purchased and distributed to CICTT and health institutions. Many such materials were received through the donation by national and international donors including sister city in China.

Commodities supply to health facilities

All health institutions were supplied with oxygen concentrator, oxymeter, masks, sanitizer, PPE gown, face shield, gloves and other necessary supplies. But the supply was very limited as per the requirement of health institutions. Medicines were regularly supplied to health institution to maintain the stock and normal functioning of health care service.

Monitoring of patients in home isolation

The most of the patients were asymptomatic so, they were in home isolation. They were monitored regularly by health workers from respective health institutions. Counseling on food and nutrition, personal hygiene, sign, and symptoms and necessary treatment services were provided to patients and their family members. Elected representatives and other communities had equal responsibility for the monitoring of patients in home isolation.

Initiative from Bharatpur Metropolitan City in 2077/78

Continuation of free ambulance/transportation incentives for women having institutional delivery

An incentive was provided to those women having institutional delivery by skilled birth attendant as per the guideline named “Free Ambulance / Transportation Incentives for Women Attending Health Institution for Delivery”. This guideline supports the safe motherhood program with the objective to reduce the maternal morbidity and mortality by increasing the access to the health care services.

Based on the criteria, those woman who have delivered in birthing centers of Bharatpur metropolitan city or other government authorized health institutions through skilled birth attendants are provided with incentives. The incentive varies from One thousand to two thousand based on the distance of the wards. In total, 241 persons were benefitted from the free ambulance/ transportation incentives in FY 2077/78.

Health infrastructure construction and maintenance

Bharatpur Metropolitan City has prioritized need-based infrastructure development and maintenance. As the buildings of the health institutions were not as per standard, the quality of health services were compromised. The status of health infrastructure construction are given below in detail:

Table: Health building construction FY 2077/78

S.N.	Health Institution	Ward No	Building Type	Status	Budget source
1	Parvatipur HP	21	HP2	Under construction	BMC
2	Shukranagar HP	25	HP2	Under construction	BMC
3	Meghauli HP	27	HP2	Under construction	MoSD, Bagmati
4	Jaldevi BHC	11	BHC	Under construction	BMC

In addition, the maintenance and upgrade of the physical infrastructure of the Shivanagar PHCC were carried out in FY 2077/78 to improve service delivery and meet the standards.

Human resource management

Human resources are the pivotal resource for health care delivery. In those wards where no health institutions are present, health workers and support staffs were contractually hired to continue health services. In total, 76 different positions of staffs were hired in FY 2077/78. Among those 8 were Medical officer, 1 was Public Health Officer, 13 was HA/AHW, 15 were SN/ANM, 13 were Lab technician/assistant, 4 were immunization assistant, 1 was computer assistant and 25 were office assistants.

Procurement and supply of essential medicines and Ayurvedic medicines

Logistic is getting goods through the supply chain from the points of origin to the point of consumption. Without logistics, health programs would not have the commodities they need to provide clients with lifesaving services. “No commodities, No program” is the slogan of logistic management. Different essential medicines and Ayurvedic medicines were procured and distributed to health facilities. The stockpiling of medicine required for emergency were maintained at health section of health institutions.

Procurement and establishment of X-ray machine in Shivanagar PHC

X-ray machine was procured and established in Shivanagar PHC to improve the health care services by uplifting diagnostic services. It is the first institution under Bharatpur metropolitan to have the facility of X-ray which address the need of rural people having limited access to quality health services.

Procurement and supply of computer, printer and furniture

Successful performance of health care activities will not only depend on the availability and use of quality medicine but also depend on the medical equipment and other supplies like furniture, computers etc. Most of the health institution were functioning with limited supplies of such requirements. To fulfill the gap computer, printer and furniture were procured and supplied to health institutions.

Grant to Bharatpur Hospital to provide free OPD service to women and elderly

Bharatpur Metropolitan has given special emphasis to the health of women, senior citizens and people having disabilities. Under mayor's leadership, programs have been conducted to provide facilities to women and senior citizens. In FY 2077/78, Bharatpur Metropolitan provided about 6 million rupees grants to Bharatpur Hospital to provide free OPD service to women and elderly. By the end of FY 2077/78, a total of 114,348 female and 21,472 senior citizen benefited from the grants.

Tobacco control and regulation

Nepal signed the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) on 3 December 2003 and ratified on 7 November 2006, and became a party to the WHO FCTC on 5 February 2007. The government has enacted laws and procedural documents aiming at tobacco control. The Tobacco Product (Control and regulation) Act 2011 is the primary law governing tobacco control in Nepal. The Tobacco product (Control and Regulatory) Regulations 2012, Tobacco Product (Control and Regulatory) Directives and the Directives for printing and labeling of warning messages and pictures in the box, pocket, wrapper, carton, parcel, and packaging of Tobacco Product, 2011 (Amendment 2014) covers most of the articles of FCTC.

With the slogan “Clean and Healthy City” Bharatpur metropolitan is committed to make the city livable and healthy. Efforts have been made to make Bharatpur a tobacco-free Metropolitan. There is an urgent need to maximize the tobacco control initiatives by focusing more on the execution of existing policy, strategy, and national plans.

Various activities have been executed to achieve the goal of a tobacco-free metropolitan city, which are given as: series of stakeholders meeting, distribution of “No Tobacco” signage to health institution and ward office and advocacy of tobacco-free city campaign in different setting.

Incentives to FCHVs

FCHVs form the foundation of health care delivery systems in Nepal. FCHV program is one of the long-standing health volunteer programs that contributed to the country’s health achievement. Different incentives were provided to FCHV to motivate them and achieve a higher standard of services.

In FY 2077/78, FCHVs in Bharatpur were provided monthly transportation costs. The cost was provided two times per month based on the conduction of mother group’s meeting and monthly meeting of FCHVs at health institutions. An amount of 8 hundred rupees was given per FCHV per month.

In addition, farewell with cash incentives were provided to those FCHVs who have the age of 60 years or more and worked for more than 10 years. In FY 2077/78 38 FCHVs were given farewell with cash incentives of 50 thousand each.

Long Lasting Insecticide Treated Bed-net (LLIN) supply and calcium supplementation to pregnant women

Bharatpur metropolitan locally purchase long lasting insecticide treated bed-net targeting pregnant woman having antenatal checkup in health facility. LLIN were supplied free of cost to pregnant woman to protect them from vector borne diseases. In addition calcium supplementation program to pregnant started in FY 2077/78 from all health institutions of Bharatpur metropolitan.

Preparation and approval of Acts and Directives

Different Acts and directives were prepared and approved as part of the local government in health sector. By the end of FY 2077/78 following acts and directives were approved in health sector.

- Bharatpur Metropolitan Public Health Act 2077
- Bharatpur Metropolitan Health Institution Establishment, Permission, Renewal and Upgrade Directive 2077
- Respectable Farewell for Female Community Health Volunteers having Long Term Service Directive 2078

Chapter VII: Miscellaneous

Functions of Public Health Promotion Section

1. To formulate, implement, promote and regulate basic health, reproductive health and nutrition policies, laws, norms and plans.
2. To operate blood transfusion service in local and urban health services.
3. To make recommendations for the treatment assistance of vulnerable citizens under health insurance and social security.
4. To manage the family planning, maternal health and child health services
5. To conduct preventive, curative and therapeutic programs related to non-communicable diseases.
6. To formulate policy arrangements, laws and standards related to communicable diseases, epidemic control and disaster management and to coordinate and facilitate the implementation with the concerned stakeholders.
7. To establish, operate, monitor and regulate hospitals and other health institutions.
8. To operate, monitor and regulate medical stores.
9. To work on Ayurvedic dispensary and naturopathy and its related sectors.
10. To work in coordination, collaboration and partnership with private and non-governmental organizations related to the health sector as well as monitoring and regulating it.
11. To operate free health camp for the marginalized, underprivileged and targeted groups.
12. To manage government and public health institutions.
13. To prepare health related data, report and submit it to the concerned authorities of provincial and federal level.
14. To execute health promotional activities by enabling capacity of health workers and female community health volunteers

Estimated Target Population for FY 2077/78

Ward	Total Population	Exp. Live Births	00 - 11 Months	12 - 23 Months	00 - 23 Months	6 – 23 Months	00 - 59 Months
BMC 1	13738	294	285	218	503	361	1187
BMC 2	20528	439	426	363	789	576	1937
BMC 3	18145	388	376	375	751	563	1926
BMC 4	17672	378	366	277	643	460	1529
BMC 5	10025	214	208	194	402	298	929
BMC 6	13151	281	273	206	479	343	1153
BMC 7	12710	272	264	213	477	345	1143
BMC 8	8557	183	177	136	313	225	728
BMC 9	11062	236	229	151	380	266	951
BMC 10	28917	618	601	380	981	674	2186
BMC 11	25670	548	532	500	1032	766	2552
BMC 12	13313	284	276	203	479	341	1104
BMC 13	7292	156	151	114	265	190	657
BMC 14	10330	221	214	164	378	271	916
BMC 15	14525	310	301	237	538	388	1253
BMC 16	16678	356	346	336	682	509	1742
BMC 17	8118	173	168	144	312	228	786
BMC 18	8502	182	176	142	318	230	789
BMC 19	7486	160	155	131	286	209	690
BMC 20	8136	174	169	150	319	235	740
BMC 21	7891	169	164	134	298	216	732
BMC 22	6369	136	132	104	236	170	551
BMC 23	8628	184	179	167	346	257	888
BMC 24	5261	112	109	115	224	170	616
BMC 25	9740	208	202	193	395	294	939
BMC 26	10173	217	211	182	393	288	955
BMC 27	9441	202	196	171	367	269	896
BMC 28	7664	164	159	193	352	273	881
BMC 29	7025	150	146	147	293	220	751
Bharatpur	346747	7409	7191	6040	13231	9635	32107
Chitwan	705474	15074	14633	13878	28511	21195	70691

Estimated Target Population for FY 2077/78

Ward	06 - 59 Months	12 - 59 Months	00 - 14 Years	10-19 Years	MWRA 15- 49 Years	Expected Pregnancy	60 & + Years
BMC 1	1045	902	3293	56058	2784	347	1098
BMC 2	1724	1511	5339	56058	4626	518	1283
BMC 3	1738	1550	5311	56058	3709	458	864
BMC 4	1346	1163	4696	56058	4120	446	1552
BMC 5	825	721	2672	56058	2257	252	938
BMC 6	1017	880	3414	56058	2968	331	1463
BMC 7	1011	879	3463	56058	3043	321	914
BMC 8	640	551	2422	56058	1905	216	779
BMC 9	837	722	3048	56058	2676	278	821
BMC 10	1879	1585	5983	56058	6700	728	1707
BMC 11	2286	2020	7270	56058	5981	646	1757
BMC 12	966	828	3276	56058	3147	335	961
BMC 13	582	506	2045	56058	1606	184	777
BMC 14	809	702	2789	56058	2413	261	1132
BMC 15	1103	952	3756	56058	3341	366	1402
BMC 16	1569	1396	4974	56058	3782	420	1473
BMC 17	702	618	2323	56058	1985	204	726
BMC 18	701	613	2373	56058	1983	215	976
BMC 19	613	535	2006	56058	1787	189	806
BMC 20	656	571	2133	56058	1922	205	854
BMC 21	650	568	2201	56058	1780	199	963
BMC 22	485	419	1700	56058	1512	160	688
BMC 23	799	709	2729	56058	1941	217	761
BMC 24	562	507	1784	56058	1058	132	473
BMC 25	838	737	2741	56058	2349	245	961
BMC 26	850	744	2785	56058	2392	256	1064
BMC 27	798	700	2823	56058	2219	238	964
BMC 28	802	722	2443	56058	1804	193	621
BMC 29	678	605	2231	56058	1424	177	635
Bharatpur	28511	24916	94023	65129	79214	8737	29413
Chitwan	63375	56058	201590	134658	157105	17776	61424



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