ANNUAL HEALTH REPORT

2078/79 (2021/22)

Bharatpur Metropolitan City

Office of Municipal Executive

Public Health Promotion Section

Bharatpur, Chitwan

Annual Health Report

2078/79 (2021/22)

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

The Bharatpur Metropolitan City has pledged to ensure that basic healthcare services are provided to its citizens as a fundamental right, as mandated by the constitution of Nepal. Following the restructuring of the healthcare system in accordance with the federal structure of the country, the city has accorded high priority to the health sector as a key developmental agenda. On behalf of the Bharatpur Metropolitan City, it gives me great pleasure to present the third annual health report for the fiscal year 2078/79, which highlights the progress and achievements made in realizing the strategic objectives set in the healthcare sector.

Bharatpur Metropolitan have emphasized the development of infrastructure, education, healthcare, tourism, and agriculture as per the motto of "Beautiful City of Central Nepal, Prosperous and Cultured Bharatpur Mahanagar". Our commitment to working collaboratively with the federal and provincial governments ensures that high-quality healthcare services are available and accessible to the metropolitan population at an affordable cost. The COVID-19 pandemic has presented unforeseen challenges to all sectors in recent years, but we have effectively managed the emergency through the collective efforts and dedication of our officials and healthcare workers. Despite numerous obstacles, I am delighted to report that significant strides have been made in the healthcare sector over the last five years.

I would like to express my deep appreciation to the Deputy Mayor, Chief administrative officers, Ward Chairpersons, executives' members, ward members, division chiefs, section chiefs, and all the staff of Bharatpur Metropolitan City for their dedicated efforts. I am especially grateful to Mr. Dipak Subedi, Chief of the Public Health Promotion section, and his team members for their hard work in preparing and publishing this annual health report. I would also like to extend my sincere gratitude to officials from the federal government, provincial government, and local stakeholders for their valuable contributions to the healthcare sector and other areas.

Finally, yet importantly, I want to express my heartfelt gratitude and utmost respect to all the health workers, support staffs, Female Community Health Volunteers, and all those who have been working tirelessly in the health sector, as well as to our stakeholders and partners who have supported us to improve the overall health status of our citizens.

Chaitra, 2079

Renu Dahal

Mayor

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

MESSAGE

Bharatpur Metropolitan City is committed to enhancing and extending healthcare services to ensure that high-quality healthcare is accessible to all members of society, including women, children, adolescents, senior citizens, vulnerable groups, underprivileged communities, indigenous populations, and marginalized populations residing in both rural and urban areas of the metropolitan region.

I am pleased to share the Annual Health Report 2078/79 of Bharatpur Metropolitan City. This report provides stakeholders with valuable information on the progress made on various indicators and identifies the shortcomings of public health programs implemented during the last fiscal year. Through continuous coordination and collaboration with relevant stakeholders, the identified challenges have been addressed promptly. However, there are still specific areas that require focused attention and strengthening to enhance access to equitable and high-quality healthcare services for the people of the metropolitan region.

In addition to prioritizing infrastructure development, education, healthcare, agriculture, tourism, and production sectors, we are equally dedicated to developing and utilizing local human resources, financial resources, skills, and technology to better understand the needs and concerns of the people. We have taken measures to enhance and broaden healthcare services by harnessing local resources to identify actual needs, develop resource mobilization strategies, and evaluate the effectiveness of these programs.

The dedication and hard work of healthcare workers and staff on the front lines have been essential in achieving the improvements in the health status of our people. I hold great respect for their tireless efforts in making a positive difference in the lives of many individuals. I extend my gratitude to the Mayor, all Ward Chairpersons, Executive Members, Ward Members, Chief Administrative Officer, Division Chiefs, Section Chiefs, and all staff of Bharatpur Metropolitan City for their contributions. Lastly, I express my sincere appreciation to the Public Health Promotion section and all those involved in the preparation and publication of this report.

Chaitra, 2079

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Chitrasen Adhikari

Deputy- Mayor

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

PREFACE

Bharatpur Metropolitan City is committed to providing its citizens with high-quality basic health services as per the fundamental right established by the Constitution of Nepal. The city places great emphasis on ensuring the availability of a skilled health workforce, as well as necessary medicines and technologies, in all healthcare facilities to achieve the sustainable development goals.

Bharatpur Metropolitan City places a strong focus on infrastructure development and good governance, in accordance with the needs of the people. In line with the sustainable development goals for the metropolitan region, both short-term and long-term plans have been put in place to achieve integrated development across all sectors. This includes the formulation of a comprehensive master plan for infrastructure and development, as well as health, education, cooperatives, employment, tourism, sanitation, agriculture, animal husbandry, industry, and business.

It is my pleasure to introduce the third Annual Health Report of Bharatpur Metropolitan City. This report serves as an official record of the services provided and accomplishments achieved within the health sector over the past year. It offers valuable insight into both the overall achievements and challenges faced at the local level. The facts and figures presented in this report will be useful in understanding the issues within the health sector and in developing plans for providing high-quality services in the upcoming year.

In conclusion, I extend my heartfelt gratitude and recognition to the Mayor, Deputy Mayor, Ward Chairpersons, Executive Members, Division Chiefs, Section Chiefs, and all staff of Bharatpur Metropolitan City, including the female community health volunteers, for their contributions. I would also like to express my appreciation to team of Public Health Promotion Section for their initiative and dedication in the preparation and publication of this report.

Chaitra, 2079

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Narendra Kumar Rana

Chief Administrative Officer

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

FOREWORD

I am delighted to announce that the Bharatpur Metropolitan City is publishing the Annual Health Report for FY 2078/79. The annual health report is a comprehensive account covering all aspects of the municipal health system, available facilities, community health status, health service statistics, achievements of various public health programs, and constraints encountered in meeting the targets set for FY 2078/79.

This report is a reflection of the continuous efforts being made by the Bharatpur Metropolitan City to improve public health. In addition to presenting current facts and figures on health and service status, this report serves as a valuable resource for evidence-based planning exercises. The information provided in this report will be of immense use to local government, provincial governments, federal government, and external development partners for designing and expanding public health programs in Bharatpur Metropolitan City. Upon review of this report, I am confident that an effective and proficient healthcare delivery system is in operation, and all the information presented herein is current.

I would like to congratulate Public Health Promotion Section for successfully creating a system that generates an annual health report that covers all aspects of public health services. This report provides comprehensive information about health workers, volunteers, outreach clinics, physical facilities, and major service utilization status of the Metropolitan City. Furthermore, this report serves as an exemplary work that other municipalities in Chitwan district and other local levels in the country can follow.

Finally, I would like to extend my heartfelt appreciation to the Chief of Public Health Promotion Section and the team, all our health workers, FCHVs and support staffs for their untiring efforts in providing quality health services at the community level round the year.

Chaitra, 2079

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Shanta Kumari Paudel

Director

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

ACKNOWLEDGEMENT

I am delighted to present the third Annual Health Report of the Bharatpur Metropolitan City for the fiscal year 2078/79 (2021/22), which provides a comprehensive overview of the policies, strategies, activities, achievements, and issues related to various programs implemented at the local level. This report systematically presents and analyses the data on the performance of public health and supportive programs of the last fiscal year, and also includes comparative figures from the past three fiscal years.

I extend my sincere gratitude to Mayor Renu Dahal for her exemplary leadership and commendable guidance. I would also like to express my thanks to Deputy-Mayor Chitrasen Adhikari for his continuous support and direction. I am deeply grateful to Chief Administrative Officer Narendra Kumar Rana for his valuable guidance and encouragement. I would also like to thank former Chief Administrative Officers Rambandhu Subedi, Naryan Prasad Sapkota, Mahendra Prasad Paudyal and Ganesh Nepali for their able leadership during their tenure at the Metropolitan. Additionally, I would like to express my sincere appreciation to Division Chief Shanta Paudel for creating an enabling environment for the successful implementation of the health programs. Furthermore, I extend my thanks to all Ward Chairpersons, Municipal Executive Members, and Ward Members for their unwavering efforts and perseverance in ensuring the success of the health programs.

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 heartfelt appreciation to the chief of health institutions, all the health workers at the peripheral level, Female Community Health Volunteers, Health Facility Operation and Management Committees, and all stakeholders for their unwavering commitment and dedicated efforts in improving health status of the people of Bharatpur.

I also extend my thanks to my colleagues of public health promotion section Bishnu Prasad Acharya, Surya Prasad Tiwari, Keshav Prasad Bhatta, Rupmati Ale, Shiva Paudel, Arjun Rimal, Binay Shrestha, Mangal Gurung and Amit Shrestha for their hard and dedicated work throughout the year. I would like to acknowledge Sreeya Pathak, MPH for her kind help in drafting the report. Finally, I anticipate to receive valuable suggestions for further improvement in the coming years report.

Chaitra, 2079

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Dipak Subedi
Senior Public Health Officer

CONTENTS

Abbreviation and Acronym

AIDS	Acquired Immuno-Deficiency Syndrome
ANC	Antenatal Care
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
CDD	Control of Diarrheal Disease
CEONC	Comprehensive Emergency Obstetric and Neonatal Care
CHU	Community Health Unit
CHX	Chlorhexidine
COVID	Corona Virus Disease
CPR	Contraceptive Prevalence Rate
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
FY	Fiscal Year
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
MoH	Ministry of Health
MoHP	Ministry of Health and Population
MR	Measles Rubella
NCD	Non-Communicable Disease
NDHS	Nepal Demographic and Health Survey
NIP	National Immunization Program
NMSP	Nepal Malaria Strategic Plan
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 2076/077 to 2078/079)

Program Indicator	Bharatpur Metropolitan City			Chitwan 078/79	National Target	
	076/77	077/78	078/79		2022	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	8	14			
Urban Health Center	2	2	3			
MCH Clinic/Health Clinic	2	2	2			
Community Health Unit	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	132	90	156	80		
DPT-HepB -Hib3 coverage	72	65	101.8	73	90	95
MR2 coverage (12 -23 months)	93	79	102.5	74		
Fully immunized children				68	90	95
Dropout rate DPT-Hep B- Hib 1 vs 3	4	0.5	-2.7	1	<10	<5
Pregnant women who received TD2 and TD2+	44	38	70.3	42		
Nutrition Status (%)						
Children aged 0-11 months registered for growth monitoring	107	81	149	95	100	100
Underweight children among new growth monitoring visits (0-11 months)						
Children aged 12-23 months registered for growth monitoring	36	51	82	52	100	100
Underweight children among new growth monitoring visits (0-23months)	1	0.4	0.7	4.5		
Pregnant women who received 180 tablets of Iron	32	90	46	33		
Postpartum mothers who received vitamin A supplements	30	25	61	36		
IMNCI						
Incidence of ARI among under 5 years children per 1000	258	237	372	308		
Incidence of pneumonia among under 5 years children (per 1000) (HF and PHC/ORC only)	27	7.3	13.4	11		

Program Indicator	Bharatpur Metropolitan City			Chitwan 078/79	National Target	
	076/77	077/78	078/79		2022	2030
% of under 5 years children with Pneumonia treated with antibiotics	93	95	76	100	100	100
Incidence of diarrhea per 1000 under five years children	109	99	13.6	164		
% of under 5 years children with diarrhea treated with ORS and zinc	100	91	92	95	100	100
Safe Motherhood (%)						
Pregnant women who attended first ANC visit (any time)	238	156	197	118		
Pregnant women who attended four ANC visits as per protocol	74	45	85	40	70	90
Institutional deliveries	225	185	288	100	70	90
Deliveries conducted by skilled birth attendant	235	185	289	100	70	90
Mothers who had three PNC check-ups as per protocol*	63	70	113	40	50	90
Family Planning (%)						
Contraceptive prevalence rate (CPR)	254	209	218			
CPR (Spacing methods)	44	44	44			
Female Community Health Volunteers (FCHV)						
Number of FCHVs	207	207	207	460		
Reporting status of FCHV	68	61	63		100	100
Malaria and Kala-azar						
Annual blood slide examination rate (ABER) per 100	NA	NA	0.88	NA	4.0	
Total Malaria positive case	6	1	7	1	0.05	
% of PF among Malaria positive case		0	0	50		
Number of new Kala-azar cases	0	0	0	0		
Tuberculosis						
Case notification rate (all forms of TB)/100,000 pop	127.1	132.7	159	126		
Cure rate	95.2	93.3	91.1	91	>90	>90
Leprosy						
New case detection rate (NCDR) per 100,000 population	7.9	9.2	7.2	6.1	10	7
Prevalence rate (PR) per 10,000	0.79	0.92	0.72	0.61	0.1	0.04
HIV/AIDS and STI						
% of pregnant woman who tested for HIV at an ANC checkup	11	30	35	30		
Curative Services						
% of population utilizing outpatient (OPD) services	155	130	275	106		

Executive Summary

Introduction

In Nepal, basic healthcare is considered a fundamental right of every citizen according to the country's constitution. The government is committed to improving access to quality healthcare through the adoption of universal health coverage. The responsibility for providing basic healthcare services falls under the jurisdiction of local governments in the current federal structure of the country. The public health section is responsible for managing and overseeing activities related to the delivery of these services.

Bharatpur Metropolitan City, located in Chitwan District of Bagmati Province, is the district headquarters of Chitwan and was established as a municipality in 2035 before being upgraded to a Metropolitan City in 2073 Falgun 17. It spans an area of 427.35 square kilometers and is known as the "medical city" of Nepal.

This is the third official annual report of the Public Health Promotion Section of Bharatpur Metropolitan City, which compares important public health indicators over the past three fiscal years. During the FY 2078/79, Bharatpur Metropolitan City had a range of health facilities offering basic health services, including 13 Health Posts, 14 Basic Health Centers, 3 Urban Health Centers, 1 Primary Health Care Center, 6 Ayurveda Ausadhalaya, 1 Community Health Unit, 1 Maternal and Child Health Clinic, and 1 Health Clinic. Additionally, primary health care services were offered by 19 Primary Health Care Outreach Clinic sites, and immunization services were provided by 78 clinics, with the support of 207 Female Community Health Volunteers.

Additionally, Bharatpur Metropolitan City provided specialized health care services to its citizens. This included 5 birthing centers, 10 sites for intrauterine contraceptive device (IUCD) insertion, 9 sites for implant insertion, 2 safe abortion service sites, 10 laboratories, 36 directly observed treatment short-course (DOTS) centers, 12 tuberculosis (TB) microscopy centers, 2 Gene Xpert centers, and 2 sub-centers for multi-drug-resistant TB (MDR-TB). The city also established 3 vaccine sub-centers. Along with the Bharatpur Hospital and the BP Koirala Memorial Cancer Hospital, the city had 2 medical colleges, 24 private hospitals, and over 100 clinics and polyclinics that provided various levels of health care services.

Public Health Program

Immunization

The National Immunization Program (NIP) is a successful public health intervention in Nepal that started in FY 2034/35. It has included several underused and new vaccines in the program, and currently, twelve antigens are provided as per the vaccination schedule, including BCG, DPT-HepB-Hib (penta), Rota, PCV, OPV (bOPV), Measles and Rubella (MR), Japanese Encephalitis and Typhoid Conjugate Vaccine (TCV).

The coverage of all vaccines has increased in FY 2078/79 compared to FY 077/078, with the highest coverage being for BCG at 156%. However, DPT-HepB-Hib1 coverage was the lowest among the antigens for children, with 99.1% coverage in FY 2078/79.

Integrated management of Childhood Illness

This comprehensive package of interventions for child survival addresses major health issues of sick newborns and children under five, including birth asphyxia, bacterial infection, jaundice, hypothermia, low birth weight, breastfeeding counseling, pneumonia, diarrhea, malaria, measles, and malnutrition. The program takes a holistic approach to treating these conditions. The incidence of acute respiratory infection (ARI) and diarrhea among children under five was 372/1000 and 76/1000, respectively. The incidence of pneumonia among children under five was 13.4/1000, and 92% of children with diarrhea were treated with ORS and zinc.

Nutrition

It is encouraging to note that the national nutrition program is a top priority for the government of Nepal, with a focus on achieving optimal nutrition for all citizens and contributing to the country's socio-economic development. The program specifically targets the nutritional well-being of women and young children, and the provincial government has made a strong commitment to improving nutritional status.

In the fiscal year 2078/79, more than 100% of children aged 0-23 months were registered for growth monitoring visits, and on average, each child attended two visits. Moreover, less than 1% of children in this age group were found to be underweight during the monitoring visits. These are positive indicators of the program's success in addressing malnutrition among young children.

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 85 percent in FY 2078/79, which increased significantly by 40 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 2078/79, 3604 women received safe abortion services.

Family planning

The primary objective of the National Family Planning program is to enable individuals and couples to meet their reproductive requirements by voluntarily selecting appropriate family planning methods based on informed choices. To assess the success of the Family Planning Program, the Contraceptive Prevalence Rate (CPR) is a critical indicator used for monitoring and evaluation. In the fiscal year 2078/79, the CPR for modern family planning methods remained at 44%, the same as in FY 2077/78. The most popular modern methods among new users were Depo and pills.

Primary Health Care Outreach Clinics

Primary health care outreach clinics (PHC/ORCs) are held monthly in fixed locations within a half-hour walking distance of the local population, based on their specific needs. These clinics provide basic healthcare services to the community, and in FY 2078/79, around 78% of clinics were conducted. On average, each clinic served 13 clients during the fiscal year.

Malaria

The government of Nepal aims to achieve a Malaria-free Nepal by 2025 and has developed the current National Malaria Strategic Plan (NMSP) 2014-2025 based on the epidemiology of malaria derived from the 2012 micro-stratification. In recent years, Nepal has made significant progress in reducing its malaria burden, with only seven cases identified in FY 2078/79, of which four were 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

In 2005, Nepal saw the emergence of Dengue, an illness transmitted by mosquitoes. The National Dengue Control Program aims to decrease the occurrence of dengue fever, dengue hemorrhagic fever (DHF), and dengue shock syndrome (DSS), which can lead to illness and death. There have been several frequent outbreaks, with the Chitwan experiencing a major epidemic during FY 2076/77. The number of cases rose from 23 in FY 2075/76 to 4803 in 2076/77. In FY 2077/78, there were 247 cases of dengue reported in Chitwan district, and in FY 2078/79, the number of cases decreased to 245.

Leprosy

For many years, leprosy has been a significant public health concern and a priority for the Nepalese government. The National Leprosy Control Program was established in 1966, and Multi-Drug Therapy (MDT) was introduced in 1982. In FY 2078/79, a total of 27 new cases of leprosy were identified and treated with MDT. The registered prevalence rate was 0.72 per 10,000 population, indicating that the disease was in the elimination stage. Furthermore, there were no reports of grade 2 disability during that year.

Tuberculosis

Nepal faces a significant public health issue with the prevalence of Tuberculosis (TB). Directly Observed Treatment Short-course (DOTS) has been implemented successfully nationwide since April 2001, and 29 DOTS treatment centers offer TB treatment services in Bharatpur.

In FY 2078/79, there were 537 registered cases in the National TB program. Among all TB cases, 96.1 percent of incident TB cases (new and relapse) were registered. In comparison to the previous fiscal year, the case notification rate increased from 133/100000 to 159/100000 in FY 2078/79. The treatment success rate was 95 percent, which was lower than the previous year's rate of 93 percent.

HIV/AIDS and STI

Nepal's response to the HIV epidemic began in 1995 with the country's first national policy, following the first identification of an HIV case in 1988. The National HIV Strategic Plan 2016-2021 aims to achieve the global goal of 90-90-90. This means that by July 2021, 90 percent of all people living with HIV (PLHIV) will know their HIV status, 90 percent of those diagnosed with HIV infection will receive sustained antiretroviral therapy, and 90 percent of those receiving antiretroviral therapy will have viral suppression. In FY 2078/79, 35 percent of pregnant women were tested for HIV during the ANC and labor stage to prevent mother-to-child transmission.

Social Health Security

The Social Health Security program in Nepal aims to provide free treatment and management facilities for eight selected diseases to disadvantaged citizens. The "Bipanna Nagarik Aushadhi Upachar Program" funds the treatment of severe health conditions for disadvantaged Nepali citizens. The covered diseases include Cancer, Heart disease, Kidney disease, Traumatic head injury, Traumatic spinal Injury, Alzheimer's disease, Parkinson’s disease, and Sickle cell anemia.

In FY 2078/79, a total of 456 disadvantaged citizens were recommended for the free treatment services scheme. About half of the patients i.e., 217 received treatment for Cancer, followed by 170 patients of heart disease and 51 patients of kidney disease.

Female Community Health Volunteers

Female Community Health Volunteers (FCHVs) play a crucial role in promoting safe motherhood, child health, family planning, and other community-based health services aimed at encouraging healthy behavior among mothers and community members. They receive support from health workers and health facilities to carry out their duties effectively.

FCHVs have made significant contributions to distributing oral contraceptive pills, condoms, and oral rehydration solution (ORS) packets, as well as counseling and referring mothers to health facilities for service utilization. In the Metropolitan area, a total of 207 FCHVs provide health services to the community.

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 275 percent in FY 2078/79.

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 2078/79, 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 2078/79, 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 2078/79.

Initiatives from Bharatpur Metropolitan

Over the last five years, Bharatpur Metropolitan has implemented various initiatives to enhance the health status of its people. Women who delivered in a health facility received free ambulance or transportation incentives. The Bharatpur hospital was given free OPD grants to ensure women, elderly, and people with disabilities had access to free OPD tickets. Emphasis was placed on developing and maintaining health infrastructure, including health facility buildings, and procuring essential medicines and equipment for distribution to health institutions.

Health institutions were established and operated at the ward level, and health workers were recruited on a contract basis to facilitate the provision of health services. Bharatpur Metropolitan is committed to creating a "Clean and Healthy City," with a focus on making the city tobacco-free. Monthly transportation costs and festive allowance were provided to FCHVs to incentivize them and improve the quality of their services.

Bharatpur Metropolitan has taken various initiatives to promote health awareness and ensure the well-being of its citizens. The metropolitan has conducted numerous health-related awareness campaigns, orientations, capacity-building and training programs for health workers, and supportive supervision, monitoring, and evaluation programs. Additionally, the metropolitan has played an active role in vaccination campaigns against COVID-19, ensuring the safety of its citizens by administering vaccines and providing education about the importance of vaccination. The metropolitan's efforts to promote health awareness and provide necessary training and support to health workers have significantly contributed to the overall health and well-being of the community.

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 third 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 Chiild Health Clinic and 1 Health Clinic which all are governed by Bharatpur Metropolitan City.

In addition, basic health service is providing through 78 Immunization (EPI) clinics, 19 Primary Health Care Outreach Clinics (PHC/ORCs) and 207 Female Community Health Volunteers (FCHVs). As the policy to establish one health institutions in each ward, 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 2078/79 (2021/2022). It focuses on performance in 2078/79 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 an altitude of approximately 251 meters above sea level, with latitude ranging from 27°32'58" to 27°45'40" and longitude ranging from 84°09'5" to 84°29'5". It is a local government entity in Nepal that comprises 29 wards to form the entire metropolitan city.

Bharatpur Metropolitan City 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 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 institution 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 BP Koirala Memorial Cancer Hospital.

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

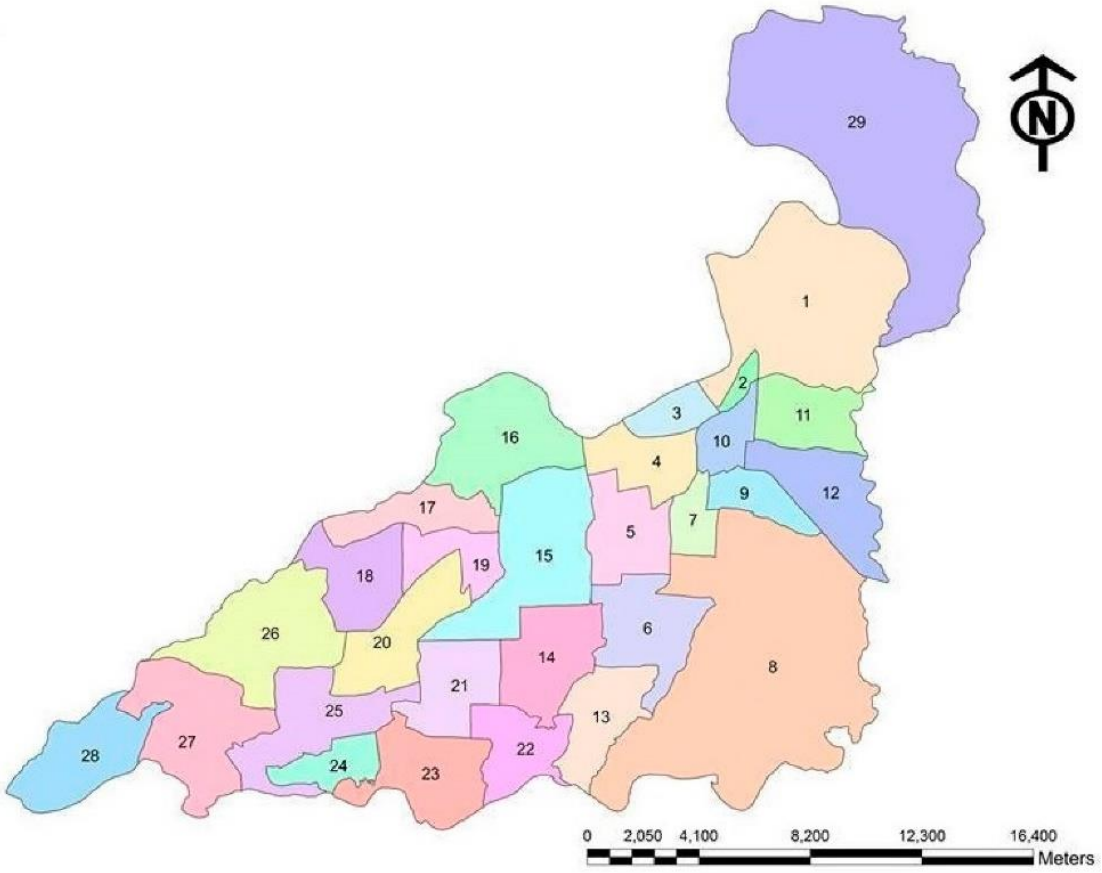

Figure: Map of Bharatpur Metropolitan City

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 ℃ (Lowest: 10℃, Highest: 40℃)
Number of wards	29
Annual Growth Rate	2.06%
Population Density	665/ sq.km.
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
Primary Health Center (PHC)	1		Implant site	10
Health Post (HP)	13		Safe abortion service site	2
Basic Health Center (BHC)	14		Laboratory	10
Urban Health Center (UHC)	3		DOTS center	36
Community Health Unit (CHU)	1		TB microscopy center	12
Ayurved Aushadhalaya	6		Gene xpert center	2
MCH Clinic	1		MDR sub center	2
Health Clinic	1		Vaccine sub-center	3
Immunization clinic	78		Medical college	2
PHC-ORC	19		Private Hospital / Nursing Home	24
FCHV	207		Polyclinic/Clinic/Others	151
Birthing center	5		Ambulance	57

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		Meghauli 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		Meghauli 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	10
5	Kailashnagar BHC	1	0	5
6	Torikhet UHC	1	0	6
7	Shahid Ganesh HP	5	0	6
8	Krishnapur BHC	1	0	6
9	Bharatpur HP	2	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	1	0	5
15	Shivanagar PHC	4	1	7
16	Fulbari HP	4	2	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	3	0	4
22	Bhimnagar BHC	2	0	5
23	Parvatipur HP	5	2	9
24	Patihani HP	3	2	5
25	Jagatpur HP	1	0	4
26	Kasara UHC	1	0	2
27	Dhruba BHC	2	0	3
28	Shukranagar HP	5	4	9
29	Divyanagar HP	5	3	9
30	Meghauli HP	3	0	5
31	Jitpur BHC	2	0	4
32	Kabilas HP	3	0	6
33	Chaukidada CHU	2	0	3
	Total	**78**	**19**	**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		Yes	Process	
4	Durgachowk BHC	Yes	0-1-10-0	Yes	Process	
5	Kailashnagar BHC	Yes	0-1-10-0	Yes	Process	
6	Torikhet UHC	Yes		No	Rent	
7	Shahid Ganesh HP	Yes	0-5-0-0	Yes	Old	No
8	Krishnapur BHC	No		Yes	Process	
9	Bharatpur HP	Yes		Yes	New	Yes
10	Sharadpur BHC	No		No	Rent	
11	MCH Clinic	No		Yes	HO	
12	Jaldevi BHC	Yes	0-1-8-0	Yes	New	Yes
13	Munal BHC	No		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		Yes	Process	
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		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		Yes	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	Process	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	Rent	
40	Daletar AA	No		Yes	New	

Health Service Centers

Laboratory Service

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

Birthing Center

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

IUCD Service

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

Implant Service

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

TB DOTS Center

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

Vaccine Sub-center

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

Service Availability in Health Institution

Description	No of HI
Office telephone	6
Electricity	40
Solar backup	11
Computer	34
Internet	34
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	056-597003
2	B.P. Koirala Memorial Cancer Hospital	450	BMC-07	056-524501
3	Chitwan Medical College Teaching Hospital	750	BMC-10	056-493555
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

Child Health and Immunization

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	14 weeks and 9 months 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	TCV		15 months of age
10	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 2076/77 to 2078/79. Identification of non-immunized children and micro planning is needed to reach those children.

Table: Immunization coverage by antigen doses in 2078/2079

S.N.	Antigens	Target	Achievement	% Achieved
1	BCG	4278	7555	156
2	DPT-Hep B-Hib 1	4278	4790	99.1
3	DPT-Hep B-Hib 2	4278	4860	100.6
4	DPT-Hep B-Hib 3	4278	4917	101.8
5	OPV 1	4278	4803	99.4
6	OPV 2	4278	4875	100.9
7	OPV 3	4278	4926	101.9
8	PCV 1	4278	4803	99.4
9	PCV 2	4278	4848	100.3
10	PCV 3	4278	4844	100.2
11	Rota 1	4278	4779	98.6
12	Rota 2	4278	4766	98.4
11	fIPV 1	4278	4787	99.1
12	fIPV 2	4278	4889	101.2
13	MR 1	4278	4940	102.2
14	MR 2	4251	4920	102.5
15	JE	4251	4919	102.5
16	TD 2 and 2+	5122	4095	70.3

Trends of Immunization Coverage

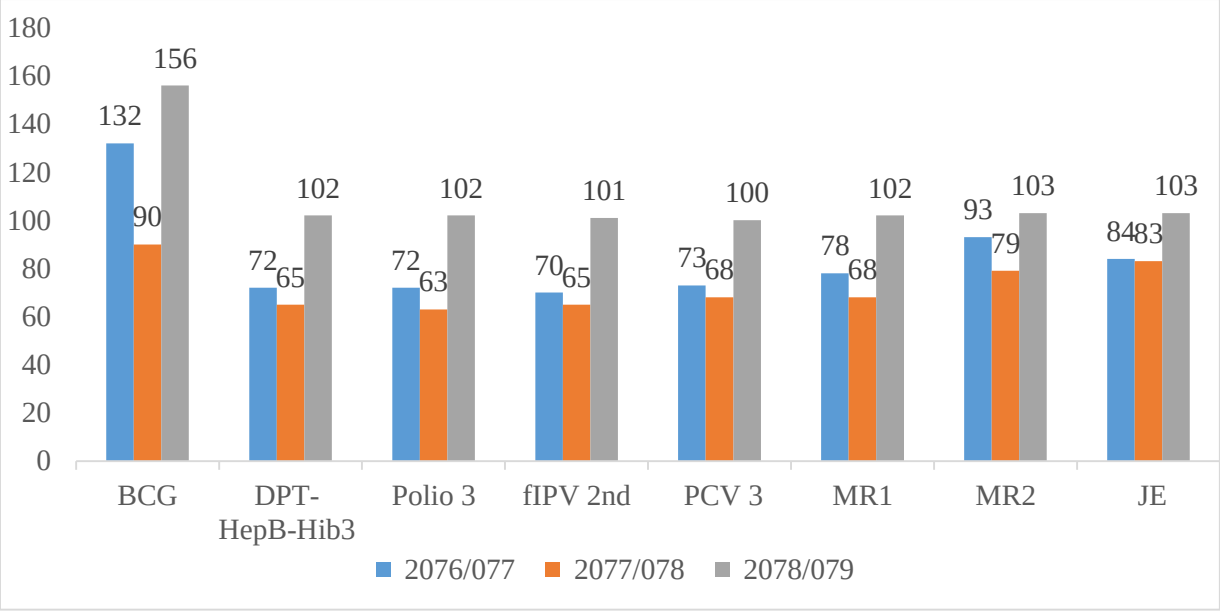

Figure: Trend of Immunization Coverage in percentage.

The vaccine coverage in Bharatpur Metropolitan City from FY 2076/77 to FY 2078/79 is shown in above figure. Coverage of all vaccines has been greatly increased in FY 2078/79 in compare to past fiscal year.

Dropout rates of vaccination

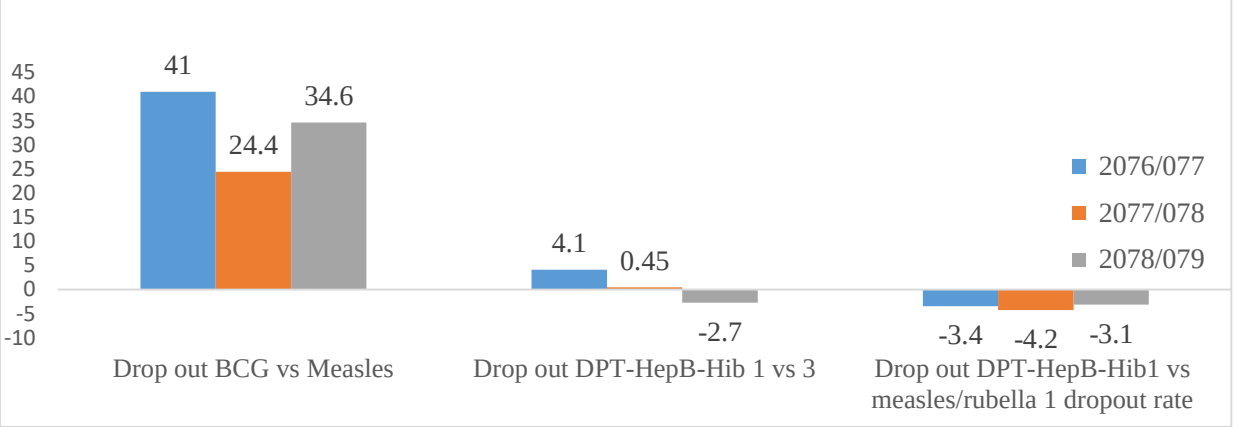

Figure: Dropout rates (%) of different vaccinations.

The figure above shows the dropout rates for BCG Vs MR1, DPT-HepB-Hib1 Vs 3 and DPT-HepB-Hib1 Vs MR1 from FY 2076/77 to FY 2078/79. Dropout rate of BCG Vs Measles has been slightly increased whereas, DPT-HepB-Hib1 Vs 3 and DPT-HepB-Hib1 Vs MR1 has reduced compared to past fiscal year.

Vaccine Wastage Rate

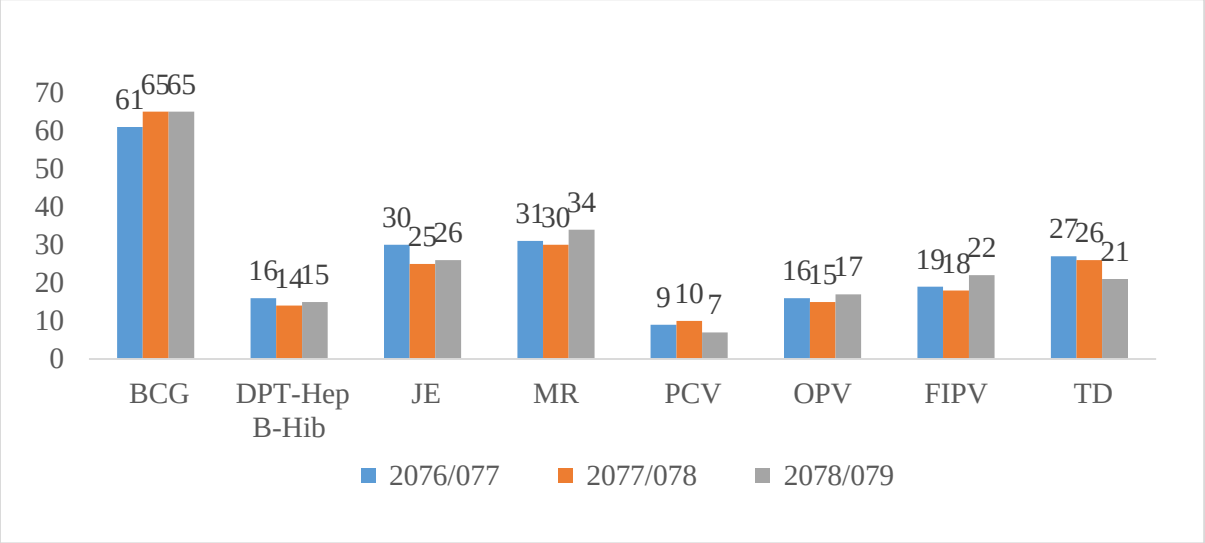

Figure: Vaccine Wastage Rates (%) FY 2076/77 to FY 2078/79

Indicative Wastage rates of BCG vaccine is 50%, JE 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%. According to protocol, BCG, Measles and JE vaccine should not be used beyond 4 hours of reconstitution under any circumstances. Health facilitator must discard vials after 4 hours or reconstitution or at the end of session whichever is earlier. Nepal has "one vial per session" policy for BCG Measles and JE which might be a reason for raised wastage rate.

Likewise, wastage rate of DPT-HepB-Hib, OPV FIPV and TD shoes increasing trend though they still remained under indicative wastage rate which needs to be monitored closely.

Access and Utilization of Immunization Services

Table: Access and utilization of immunization services in F/Y 2078/79

Category 1 (Less Problem) High Coverage (≥90%) Low Drop-Out (<10%)	**Category 2 (Problem)** High Coverage (≥90%) High Drop-out (≥10%)	**Category 3 (Problem)** Low Coverage (<90%) Low Drop-out (<10%)	**Category 4 (Problem)** Low Coverage (<90%) High Drop-out (>10%)
Shahid Ganesh HP Bharatpur HP Mangalpur HP Gunjanagar HP Shardanagar HP Parbatipur HP Patihani HP Jagatpur HP Shukranagar HP Dibyanagar HP Meghauli HP Shivanagar PHC Krishnapur BHC	Kabilas HP 13 No BHC MCH Clinic	BHC Thimura BHC Aaptari BHC Durgachowk BHC Kailashnagar UHC Torikhet BHC Jaldevi BHC Sharadpur BHC Munal UHC Suryanagar BHC Shasinagar BHC Bhimnagar UHC Kasara BHC Dhurba	BHC Jitpur CHU Chaukidada

Integrated Management of Neonatal and Childhood Illness

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 it all 77 districts 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	2077/78	2078/79
% of PSBI among registered 0-2 months infant (sick baby)	12.5	3.5	2.75
% of PSBI cases among expected live births	0.99	0.08	0.08
Incidence of ARI among children U5 years (per 1000)	258	237	372
Incidence of pneumonia among children U5 years (per 1000) (*HF and PHC/ORC only)	27	7.3	13.4
% of severe Pneumonia among new cases	0.34	0.04	0.01
% of children U5 years with Pneumonia treated with antibiotics	93	95	76
Diarrhoea incidence rate among children under five years	109	99	136.6
Diarrhoea mortality rate among children under five years (per 1000)	1.3	0.03	0
Percentage of children under five years with diarrhoea suffering from Severe dehydration	1.1	0.4	0.41
Percentage of children under five years with diarrhea treated with zinc and ORS	100	91	92
Percentage of children under five years with diarrhoea treated with IV fluid	0.11	0.04	0

FY 2078/79 data indicates decrease in the percentage of PSBI cases. In case of registered Infants who are 0-2 months old, the identified percentage of PSBI is 2.75%. In general, the percentage of PSBI cases among expected live birth is 0.08%.

However, Incidence of ARI among U5 children was 372 and for Pneumonia was 13.4 in FY 2078/79 which has been increased in compared to past fiscal year. This grabs the attention of prompt evaluation of treatment regime. Likewise, Incidence rate of Diarrhoea also raised in FY 2078/79

Table: CBIMNCI Program- achievement in Numbers 2078/2079

< 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	2959 days	≤ 28 days	29-59 days
Health facility	95	50	3	1	18	15		8	3	12	2
PHC-ORC	0	0	0	0	0	0		0	0	0	0

< 2 months Children	Treatment							
	Amoxicillin		Ampicillin		Gentamycin (only severe disease)			Other antibiotic
	≤ 28 days	29-59 days	≤ 28 days	29-59 days	First dose	Complete dose		
Health facility	7	4	20	3	0	0		7
PHC-ORC	0	0	0	0	0	0		0

< 2 months Children	Other					
	Refer		Follow up	Death		
	≤ 28 days	29-59 days		0-7 days	≤ 28 days	29-59 days
Health facility	1	0	12	0	0	0
PHC-ORC	0	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	2915	324	1	604	125	3	12	242

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	1	566	1225	36	25	1827
PHC-ORC	0	0	0	0	0	0	0	0	2

2 -59 months Children	**Treatment**					**Refer**		
	Severe/ Pneumonia	**ORS and Zinc**	**IV Fluid**	**Albendazole**	**Vitamin A**	**ARI**	**Diarrhea**	**Other**
	Amoxycillin							
Health facility	246	464	10	86	19	12	3	133
PHC-ORC	1	2		1	0	0	0	0

Issues

- High Incidence of ARI and Pneumonia among under five children.
- Indistinct service from FCHV in urban area.
- 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 multisectoral 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 anemia (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.

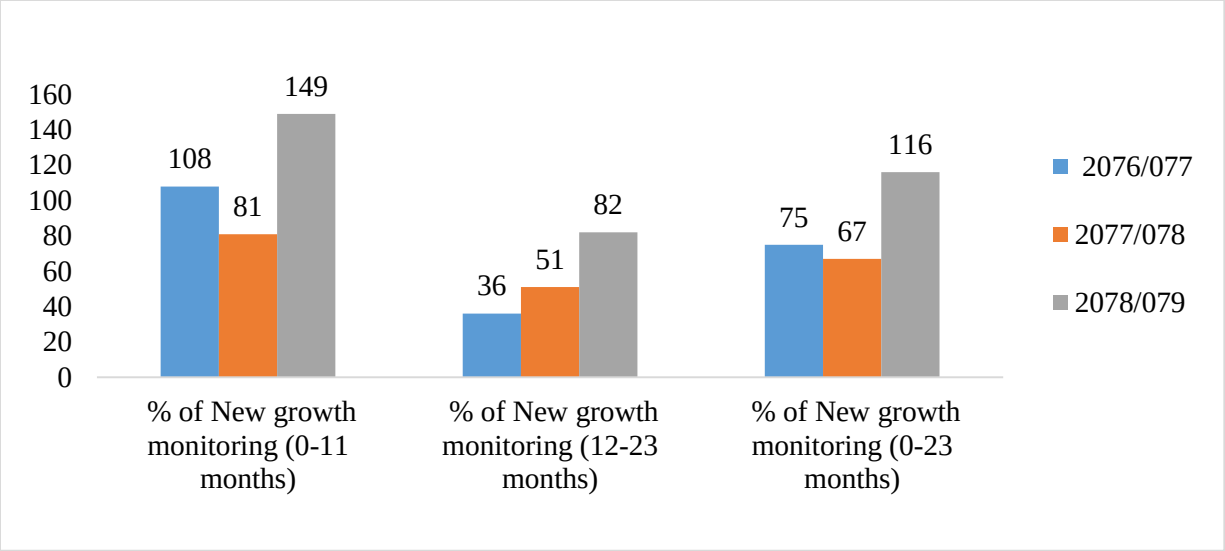

Figure: Percentage of children registered for growth monitoring

Growth monitoring among 0-11 months children was in decreasing trend till the FY 2077/078 but in the FY 2078/079 there was a significant increment. The percentage of the growth monitoring among 12-23 was in increasing trend throughout the years. For the percentage of growth monitoring among 0-23 months There was a significant increase in the percentage in the FY 2078/079.

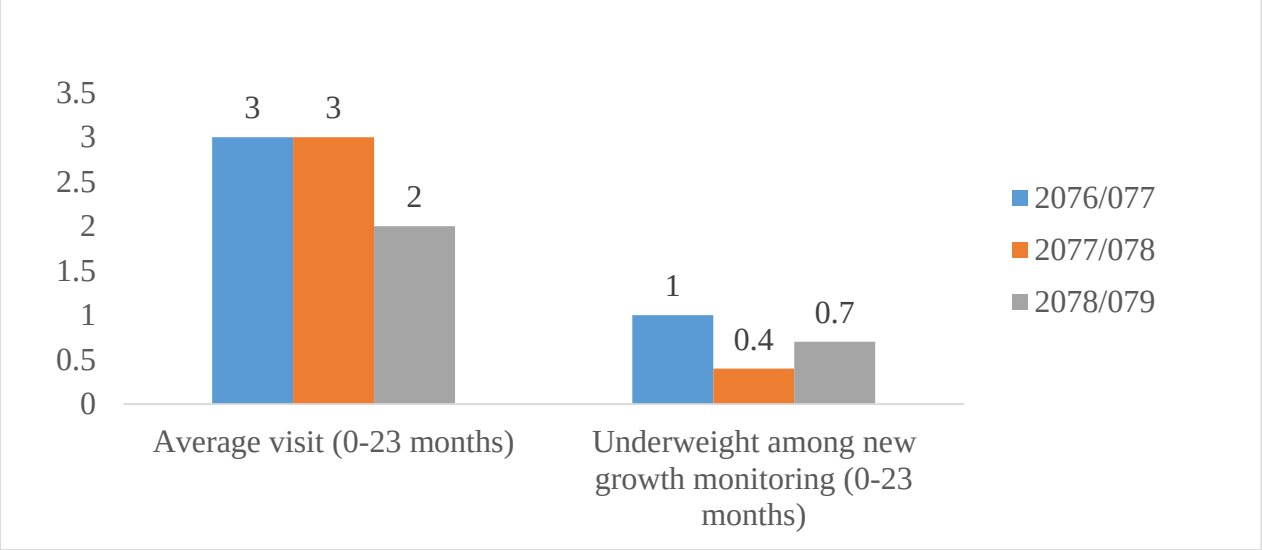

Figure: Average no. of growth monitoring visits per child (0–23 months)

The average growth monitoring visits among 0-23 months has slightly decreased to 2% in the FY 2078/079. Also, percentage of underweight among them was 1% in the FY 2076/077, which slightly decreased to 0.4% in 2077/078 and 0.7% in 2078/079.

Infant and young child feeding

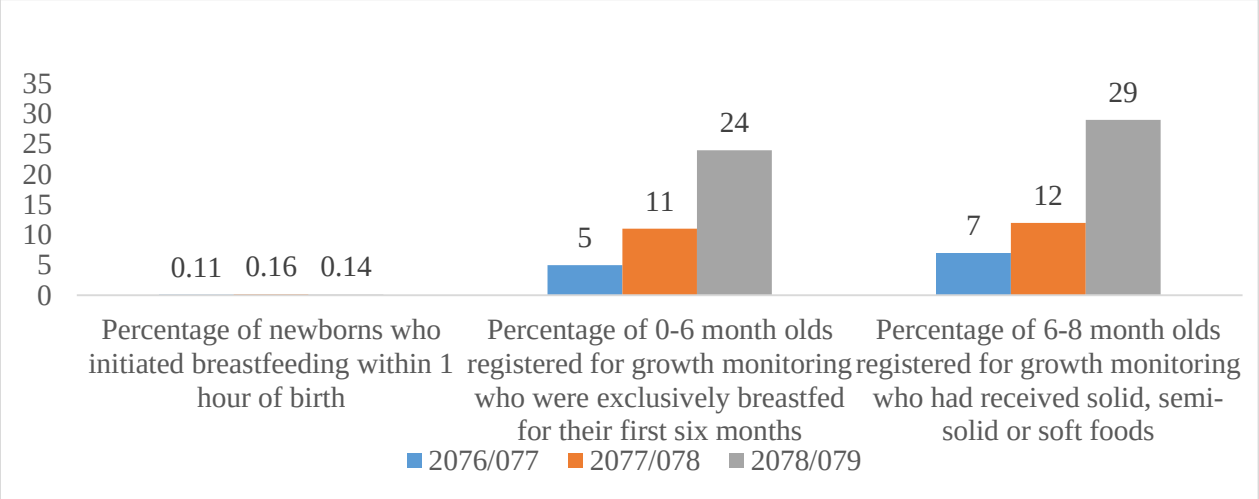

Figure: Early and exclusive breastfeeding and complementary feeding

Past three years trends shows that the reported percentage of new born who were breastfed within 1 hour of birth is very low (less than 1%). Among 0–6-month-old registered for growth monitoring who were exclusively breastfed for their first six months was in increasing trend throughout the 3 years and reached to 24% in the FY 2078/079. Percentage of the 6–8-month-olds registered for growth monitoring who had received solid, semi-solid or soft foods has shown a significant increment over the last three fiscal years and reached upto 29% in FY 2078/079.

Prevention and control of iron deficiency anemia

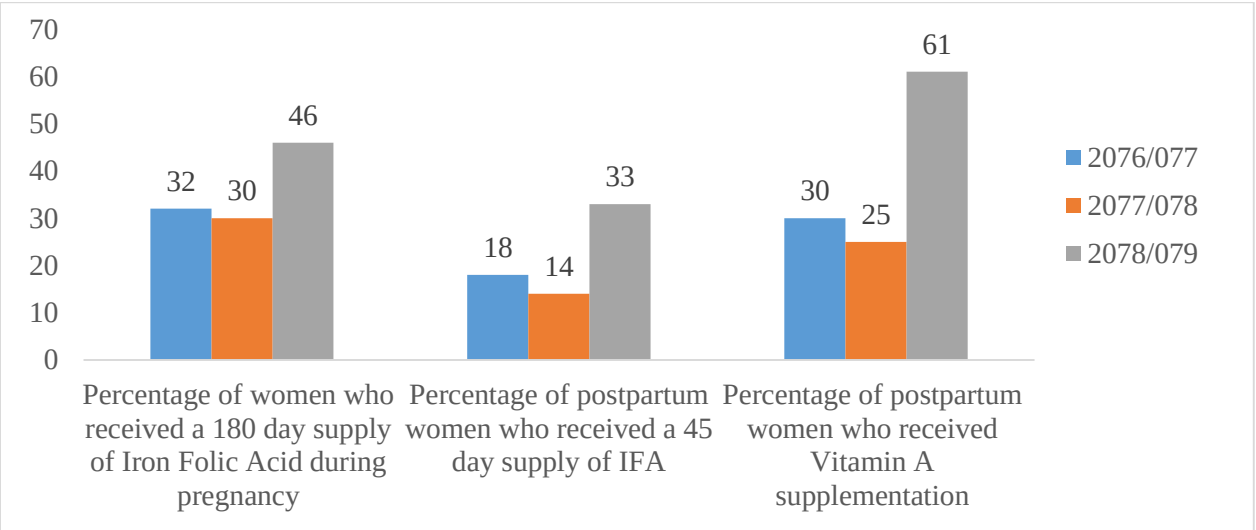

Figure: Percentage of pregnant and lactating women receiving IFA tablets and Vitamin A

With a slight increment in the FY 2078/079 the percentage of women who received a 180-day supply of Iron Folic Acid during pregnancy reached to 46%. Also, the percentage of postpartum women who received a 45-day supply of Iron Folic Acid increased to 33% in the FY 2078/079. Percentage of women receiving vitamin A supplementation has significantly increased to 61% in the FY 2078/079.

Table: Nutrition program achievement

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	7169	32	6	3913	36	3
Follow up visit	9230	54	2	3876	25	2

Pregnant women receiving			PP mother receiving	
Iron tablets at first time	180 iron tablets	Deworming tablets	45 Iron tablets	Vitamin A
4231	2265	3632	1613	1926

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.

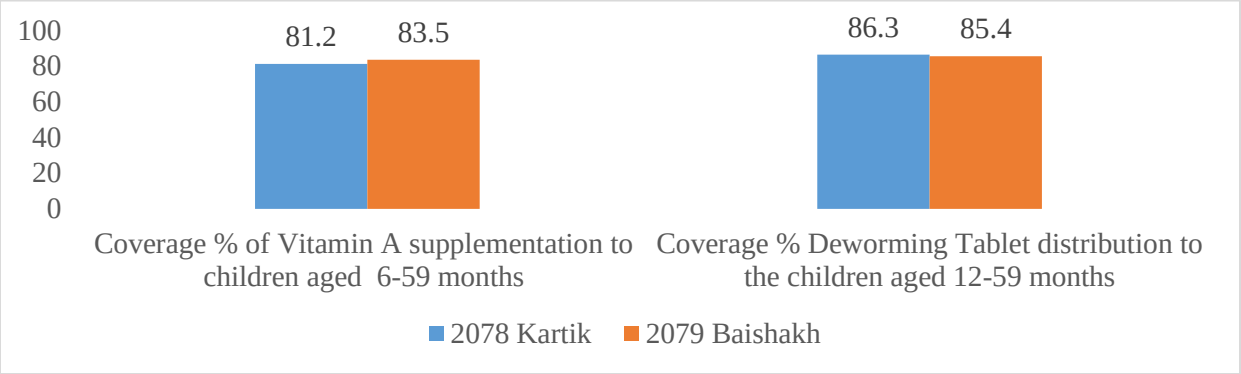

Figure: Coverage of Vitamin A and Deworming campaign

The data of Kartik and Ashadh on Vitamin A supplementation and deworming tablet distribution campaign has remained sustained in FY 2078/79 and is above 80%.

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 is 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 introduce 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 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:

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, height 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.

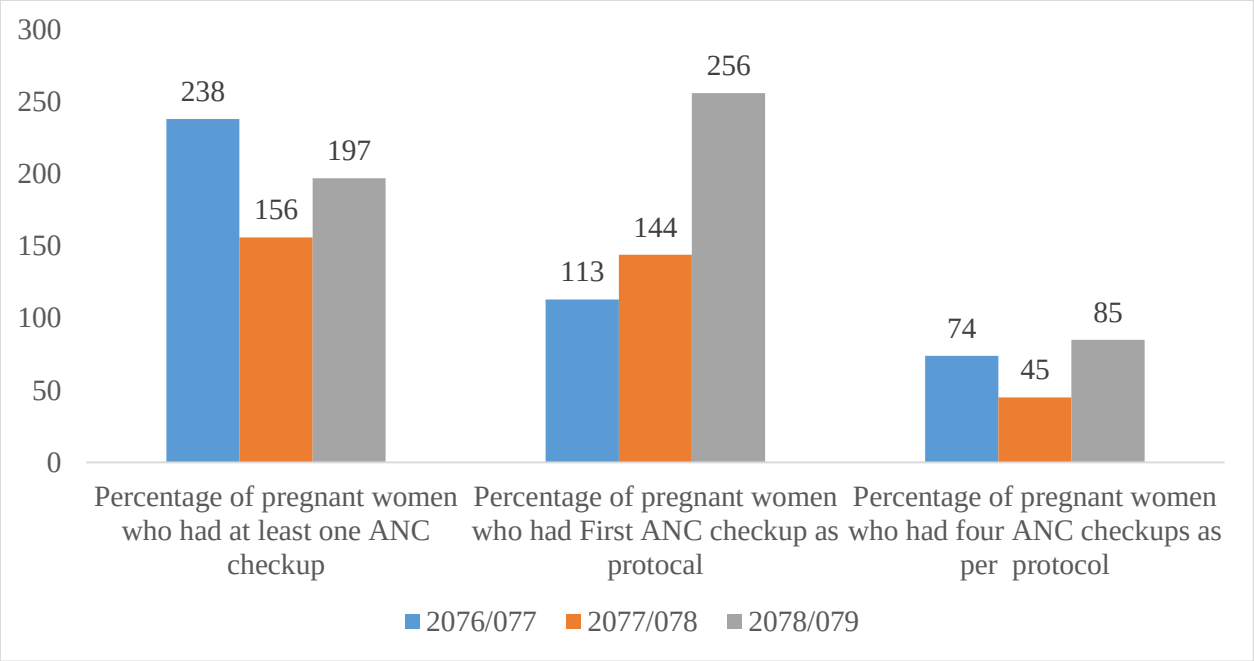

Figure: Percentage of pregnant women having ANC visits.

Comparison of three year data on ANC visit show high Increment on FY 2078/79. As protocol, pregnant women having atleast one ANC checkup increased from total of 156 to 197, 4 ANC checkups per protocol has increased from 45 to 85. Likewise percentage of pregnant women who had first ANC checkup as protocol increased from 144 to 256 in FY 2078/79.

Delivery Care

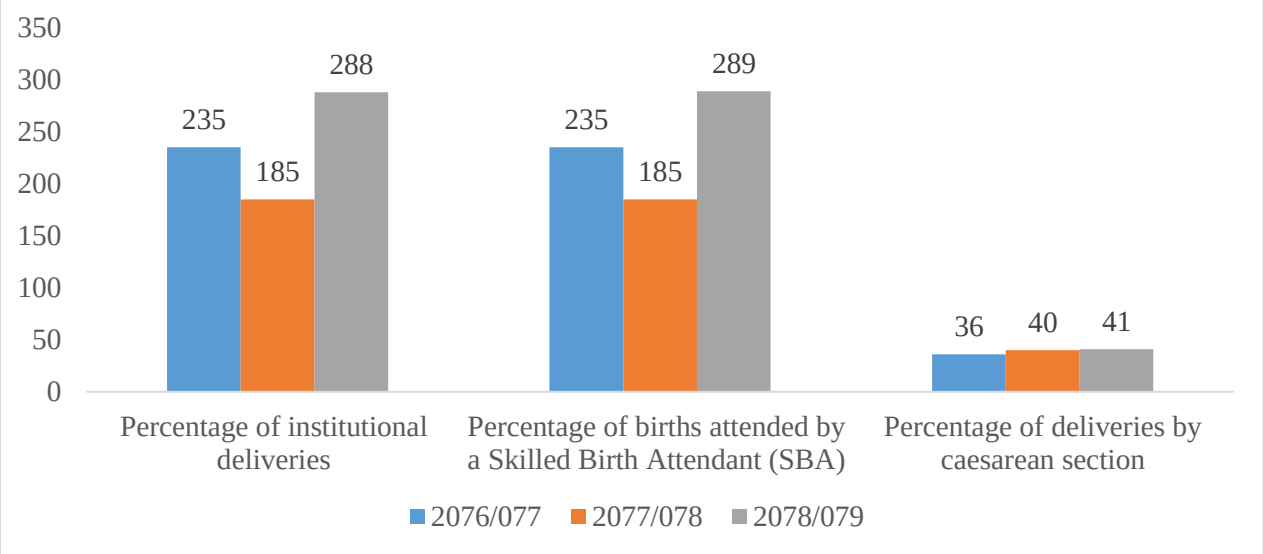

Figure: Percentage of institutional deliveries, births attended by Skilled Birth Attendant (SBA) and deliveries by caesarean section

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.

Institutional Delivery has increased from 185 to 288 and deliveries attended by skilled manpower has increased from 185 to 289 in FY 2078/79. Only slight increment by 1% of deliveries by caesarean section in FY 2078/79.

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.

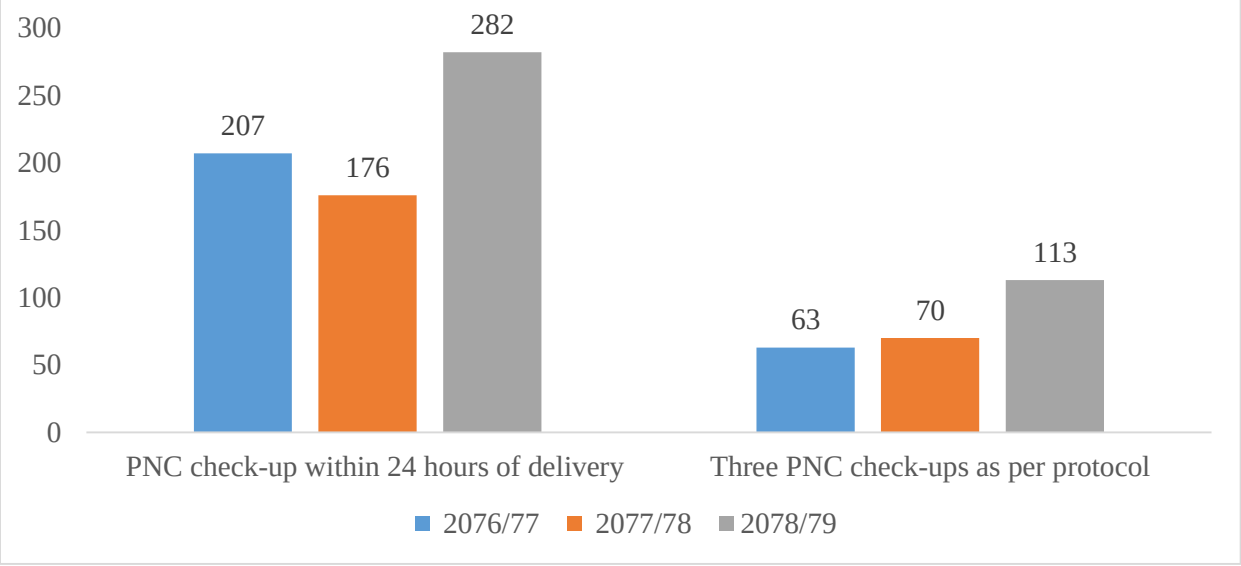

Figure: Percentage of pregnant women having PNC visits.

Postnatal Checkup within 24 hours delivery remained high in compare to three postnatal checkups. Though, total three Postnatal checkup has increased from 70 to 113 in FY 2078/79 and 1st postnatal checkup also raised from 176 to 282 in FY 2078/79.

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 abortion

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	**2076/77**	**2077/78**	**2078/79**
Proportion of <20 yrs women receiving abortion service	17.3	9.5	7
Total CAC Services	4119	3107	3604

Safe motherhood program – achievement in numbers 2078/79

Antenatal Checkups	<20 Years	≥ 20 years	Total
First ANC Visit (any time)	1926	12729	14655
First ANC visit as per protocol	1684	10986	12670
Four ANC visits as per protocol	770	3429	4199
Total	**4380**	**27144**	**31524**

Delivery service	Facility	Home	Total
Skilled birth attendant	14234	25	14259
Other health workers	15	0	15
Total	**14249**	**25**	**14274**

Type of delivery	Presentation		
	Cephalic	Shoulder	Breech
Normal	8405	1	51
Vacuum/Forceps	292	0	0
C/S	5640	24	429

Gestation and delivery outcome		Single	Multiple	
			Twins	≥ Triplets
No of mothers		15134	119	2
No of live births	Female	6427	105	0
	Male	7497	103	4

Aama program		No of women	
		Eligible	Received
Incentives	Transport	12552	12323
	ANC	671	667

Birth weight	Live birth		
	Total	Asphyxia	Defect
Normal (≥ 2.5 kg)	11698	290	26
Low (1.5 to < 2.5 kg)	1725	129	10
Very low (< 1.5 kg)	180	37	5

Still birth		Chlorhexidine Applied	Blood transfusion	
Fresh	47	12141	Mother	271
Macerated	175		Pint	622

PNC visit	Within 24 hours	13926
	3 PNC visit as per protocol	5582

Safe abortion services		Medical	Surgical
No of women	<20 years	110	143
	≥ 20 years	1612	1739
Post abortion FP methods	Short term	875	746
	LARC	262	263
Complication after abortion		1	1
Post Abortion Care (PAC)		384	

Issues

- Fourth ANC as per protocol was lower as compared to First ANC checkup.
- Inadequate SBA training to nursing staff.

Family Planning

Background

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 basic health care services. 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 labor migrants and adolescents.
- To increase and sustain contraceptive use, and reduce unmet need for FP, unintended pregnancies and contraception discontinuation.
- To create an enabling environment for increasing access to quality FP services to men and women including adolescents.
- To increase the demand for FP services by implementing strategic behavior change communication activities.

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

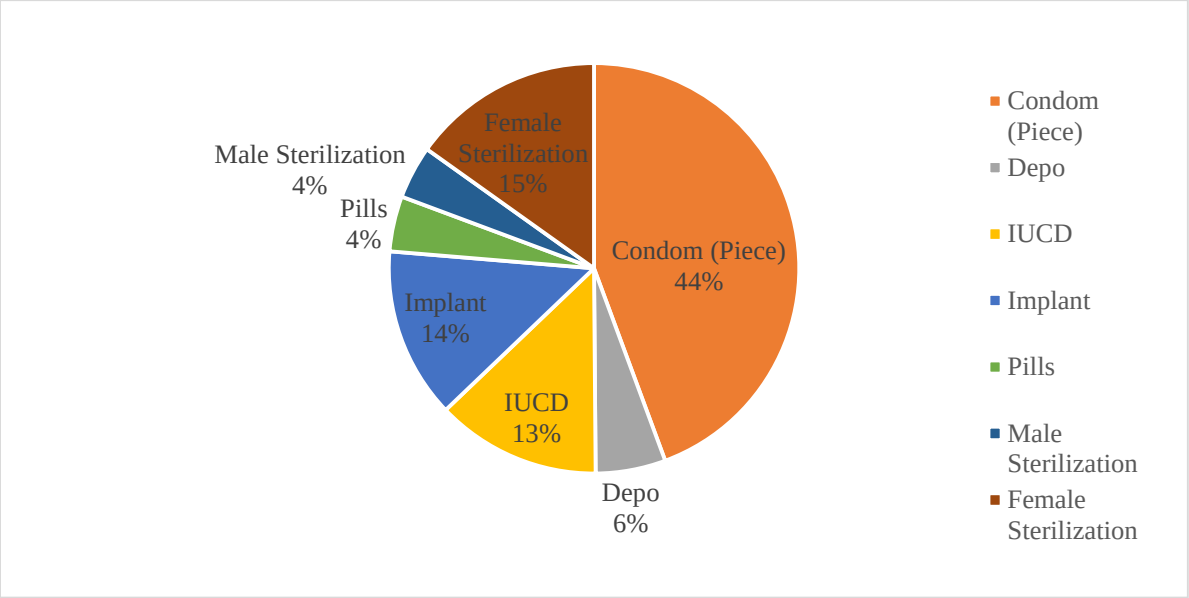

Figure: Proportion of FP current users (method mix)

Among current users, Condom (44%) was highly preferred Family planning method along with female sterilization (15%), Implants (14%), IUCD (13%), Depo (6%), Pills (4%) and Male sterilization (4%).

Family Planning New Acceptor and Contraceptive Prevalence Rate

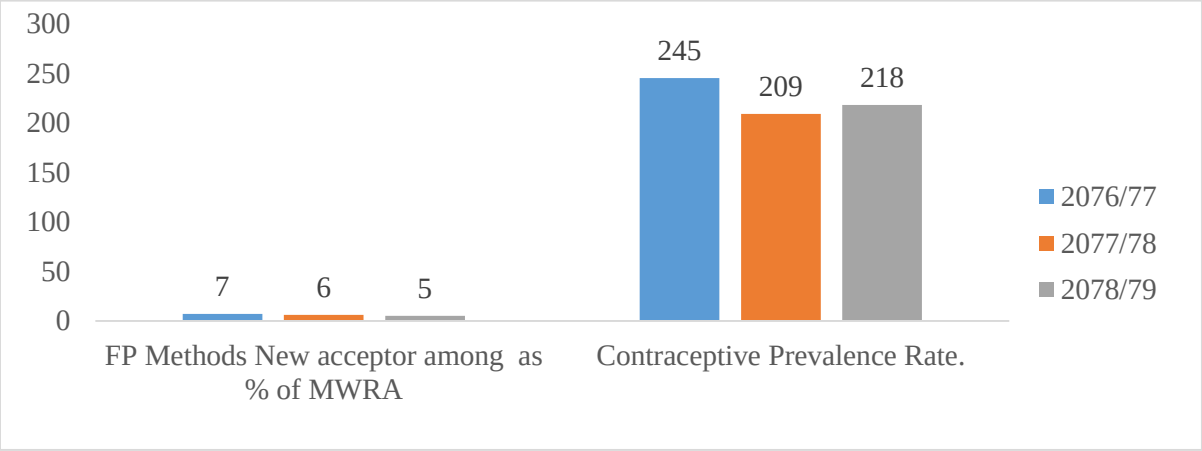

Figure: FP new acceptors as % MWRA and CPR

Trend of Family Planning New Acceptors

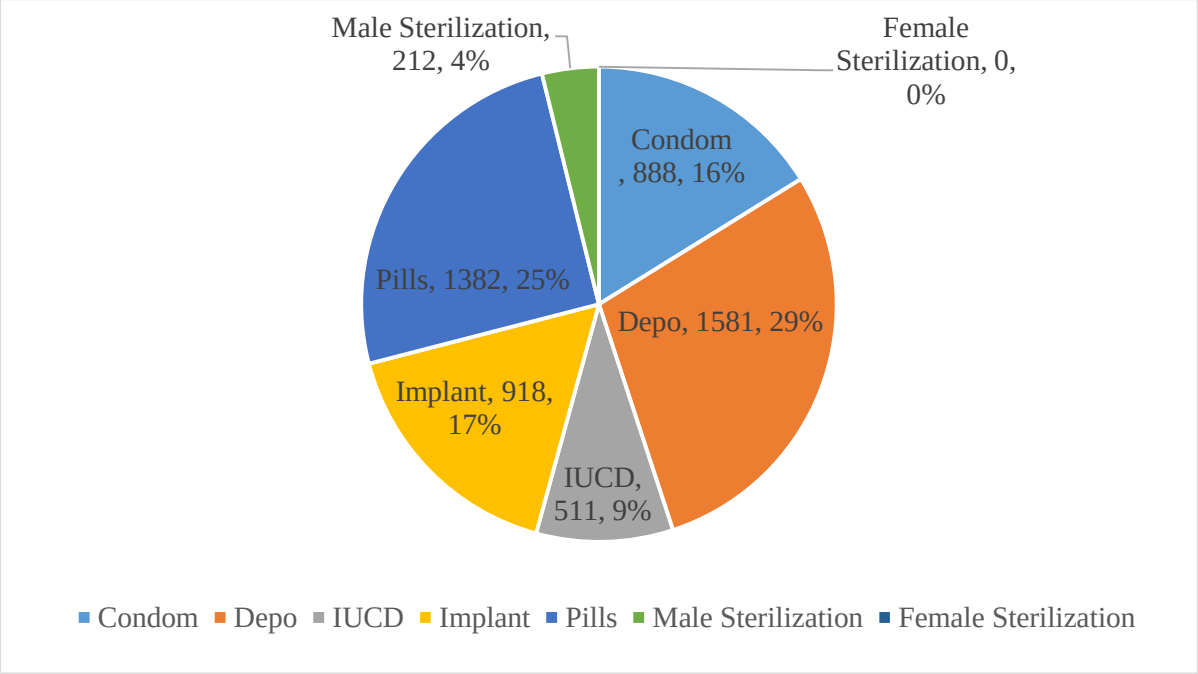

Figure: Proportion of FP new users (method mix)

Table: Number of FP new acceptors

Contraceptives	Family Planning New Acceptor (number)		
	2076/77	2077/78	2078/79
Condom (qty/150)	902	760	888
Pills	1497	1309	1382
Depo	1653	1445	1581
Implant	763	789	918
IUCD	459	492	511

Past three years data shows that, new acceptor numbers are increasing for temporary family planning methods in FY 2078/79.

Family planning program- achievement in numbers 2078/79

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	133208
Pills	76	1306	13081	1480	Cycle	10591
Depo	100	1481	16560	1639	Dose	5116
IUCD	5	506	39015	185	Set	462
Implant	32	886	40419	487	Set	952
Permanent FP methods	**New users**				**Current users**	
	Health Facility		**Camp**			
	Female	**Male**	**Female**	**Male**	**Female**	**Male**
Government	0	92	0	17	12548	45475
Non-government	0	101	0	2		
Postpartum FP users (Within 48 hours of delivery)			IUCD	Implant	Tubectomy	
			48	0	108	

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 Clinic

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 organizations (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 different outreach clinics

Achievements

Service coverage

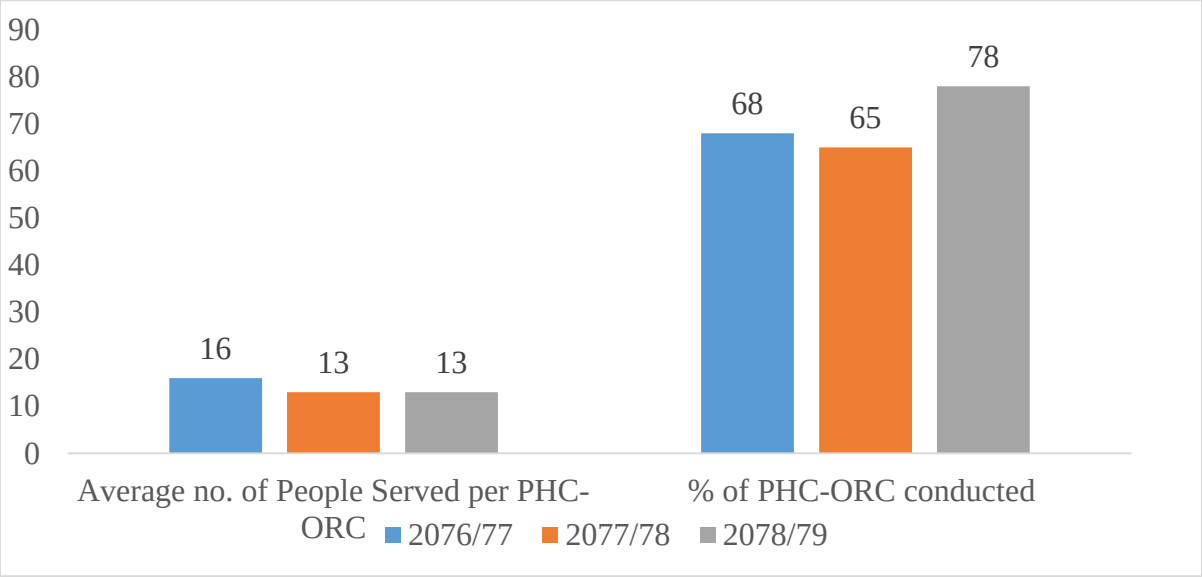

Figure: PHC-ORC reporting status and people served.

Average number of people served per PHC-ORC has remained constant in compared to last year data whereas, overall percentage of PHC-ORC conducted in Bharatpur Metropolitan City has increased by 78% in FY 2078/79.

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	2076/77	2077/78	2078/79
Annual blood examination rate (ABER) of malaria in high-risk district	NA	NA	0.88
Malaria annual parasite incidence (per 1000 population in high-risk district)	NA	NA	0.02
Percentage of Plasmodium falciparum (PF) cases in high-risk districts	0	0	50
Percentage of imported cases among positive cases of malaria	100	100	100
Total Malaria indigenous cases	0	0	0
Total Malaria PF cases	0	0	4
Total Malaria PF indigenous	0	0	0
Total Malaria positive cases	6	1	7
Total Malaria PF imported	0	0	4
Total malaria slide collection	4341	1256	3083
Slide positivity rate of Malaria	0.14	0.08	0.26

Malaria Program-Achievements in numbers 2078/79

Blood sample collection		Diagnosis and Result	Microscopy only	RDT only	Microscopy and RDT	Treatment	
ACD	118	Examined	663	2246	174	Total	18
PCD	2965	Positive	0	2	6	Pregnant	0

Issues

- Discontinuation of supply of MMIN through EDCD.
- 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 Culexquinque fasciatus, 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) classifed 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 EDCD 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 transmissng the disease in Nepal. Studies carried out in 2006 by EDCD 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.

Objectives:

- To develop an integrated vector management (IVM) approach for prevention and control.
- To develop capacity on diagnosis and case management of dengue fever.
- 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
- Search and destroy campaign

Achievements

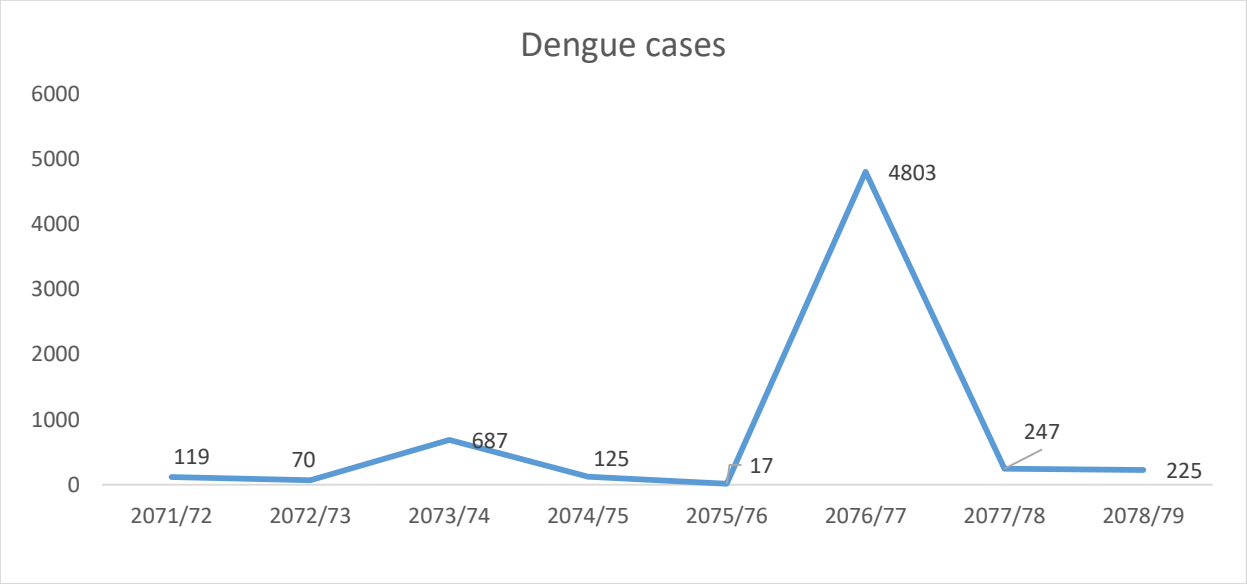

Figure: Dengue Cases in Chitwan (FY 2071/72 to FY 2078/79)

The number of reported cases has significantly increased from 17 to 4803 in FY 2075/76 to FY 2076/77. The major cause of increasing the reported case is the impact of global dengue outbreak. In In 2077/78 Chitwan experienced a severe Dengue outbreak along with many other districts. 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. Similarly, in FY 2078/79 dengue cases dropped slightly from 247 to 225 which gives a hint of progressive effectiveness of prompt preventive measure in outbreak sites.

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

- 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

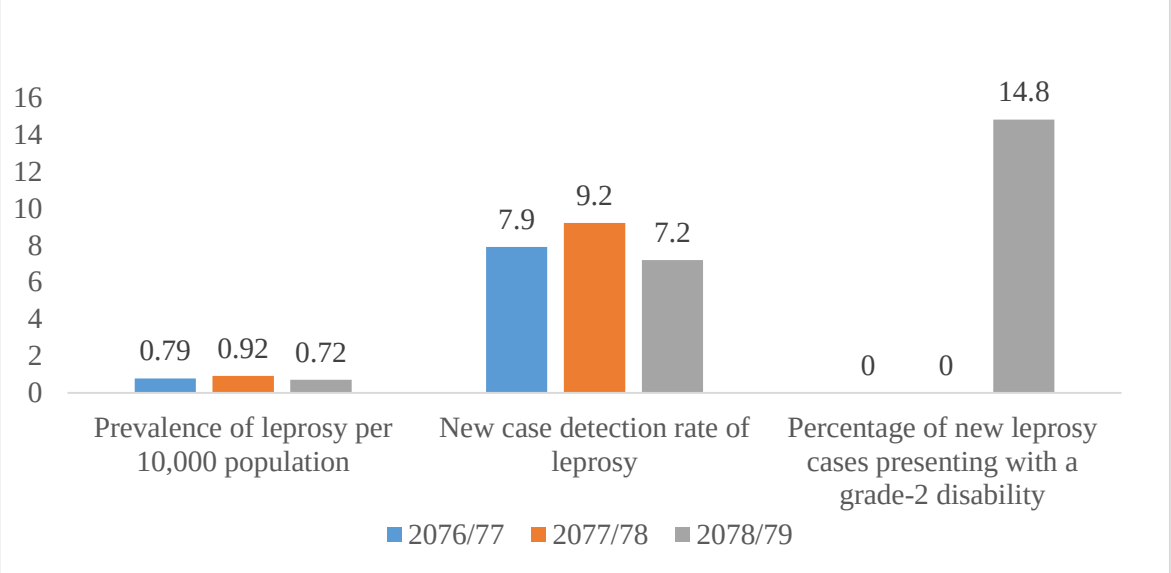

Figure: Prevalence rate, new case detection rate and Percentage of Grade 2 disability

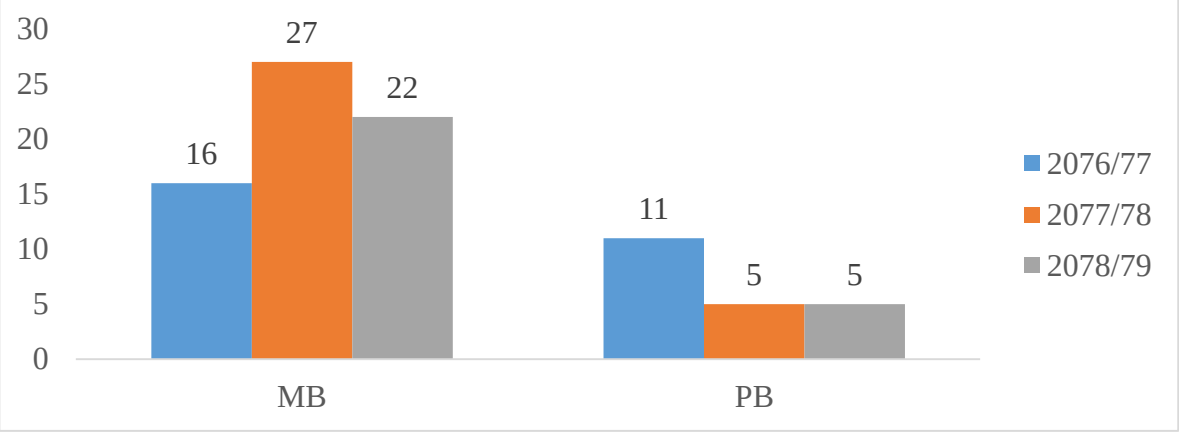

Figure: Number of new leprosy cases

Table: Leprosy control program indicators

Program indicators	2076/77	2077/78	2078/79
Child proportion among New Leprosy cases	0	0	3.69
Female Proportion among New Leprosy cases	48.1	34.4	33.3
Prevalence of leprosy per 10,000 population	0.79	0.92	0.72
New case detection rate of leprosy	7.9	9.2	7.2
Percentage of PB and MB cases who started treatment but defaulted	1.3	0.54	0
Percentage of leprosy cases released from treatment (RFT)	41.8	7.3	7.8
Percentage of new leprosy cases presenting with a grade-2 disability	0	0	14.8
Percentage of new leprosy cases that are MB	59.3	84.4	81.5
Percentage of relapse cases of leprosy	0	0	0.26
Proportion of defaulted leprosy cases who started treatment	3.5	5.9	0

Issues

- 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 causes of death in the country. WHO estimates that around 42,000 (incidence rate of 151 per 100000) 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 ids 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.

National Strategic Plan 2016-2021

Vision of TB Free Nepal by 2050: "Ending TB" is defined as less than 1 TB patient per 1,000,000 population.

Goal: The goals are to decrease the TB Incidence Rate by 20%, from 2015 to 2021 i.e. to identify additional 20,000 new TB cases by the in 5 years.

The 9 key objectives:

Objective 1: To increase case notification through improved health facility-based diagnosis; increase diagnosis among children.

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

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

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

Objective 5: To gradually scale up the Community System Strengthening Program (CSS) to 100% of the administrative units by 2021.

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

Objective 7: To develop comprehensive Monitoring and Evaluation system

Objective 8: To develop plans so that NTP can function even at times of crises like natural disasters or public health emergencies.

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 2078/79, a total of 537 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.

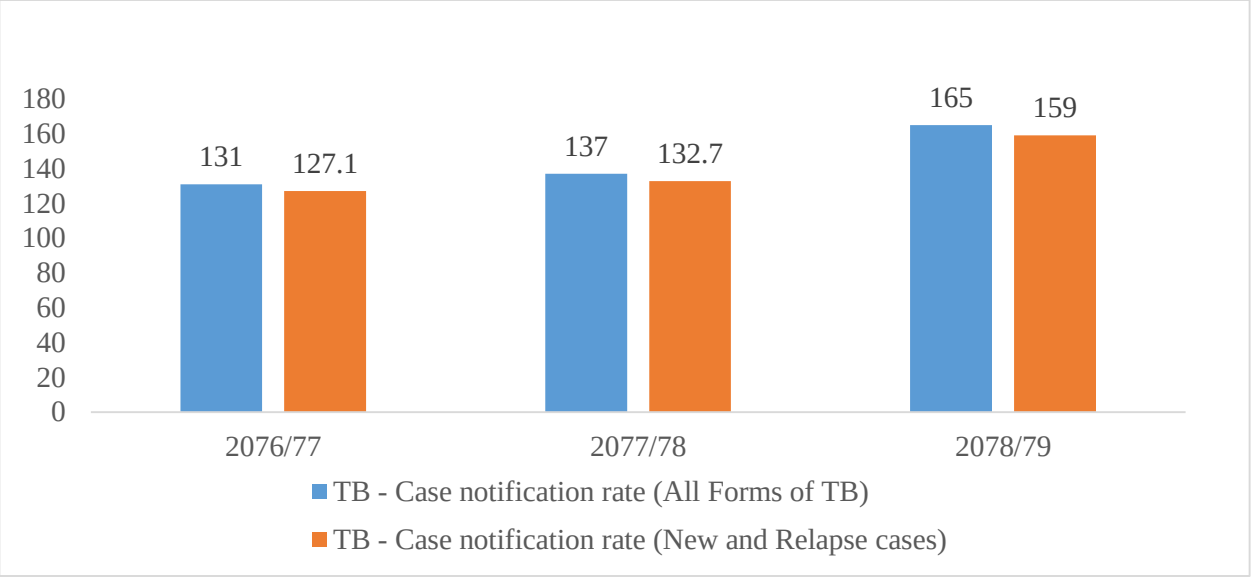

Figure: Tuberculosis – Case notification rate

Table: Tuberculosis program achievement

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)	106	208	12	34	3	7	0	4	1	2	1	0
Pulmonary (CD)	44	60	0	8	0	1	0	0	0	1	0	0
Extra pulmonary (BC or CD)	70	49	4	3	0	0	0	0	0	0	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	0	6	7	62	68	49	51	27	47	20	45	20	45	34	56
Relapse (all)	0	0	0	0	4	2	3	4	2	10	2	12	1	8	3	8
Others (all)					1	2	1	2		6	3	2		2	1	2

Index TB cases	No of family members		Members investigated		Diagnosed with TB	Eligible for TBPT	Enrolled on TBPT
	Child	Adult	Child	Adult			
142	92	392	39	154	4	27	23

Age group	2HRZE +4HR	2HRZE +7HRE	6HRZE	6HRZE +Lfx	TB cases	Xpert MTB/ RIF	LPA
Presumptive TB							
Sex	**Presumptive TB cases**	**Screened by**		**Diagnosed**		**Enrolled**	
		X-ray	**Symptoms**	**DS TB**	**DR TB**	**DSTB**	**DR TB**
Female	311		281	18		16	
Male	371		326	33	1	31	

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**	**In-determined**
Female	57	883	Female	198	2107	129	4	260	0
Male	120	1237	Male	401	2797	153	17	482	5

TB HIV status				
Sex	**HIV test result of TB patient**		**TB HIV patients on**	
	Positive	**Negative**	**ART**	**CPT**
Female	1	185	1	0
Male	2	287	2	0

Registration category			**No of registered cases**		**Cured**		**Completed**		**Failed**		**Died**		**Lost to follow up**		**Not evaluated**	
			F	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**
PBC	New															
	Relapse															
	TAF															
	TALF															
	OPT											1				
	UPTH															
PCD & EP	New	PCD	32	57			30	53	0	1	2	2	0	0	0	1
		EP (BC or CD)	52	59			50	59	0	0	2	0	0	0	0	0
	Others	PCD		2			0	1	0	0	0	0	0	1	0	0
		EP (BC or CD)	3	3			3	2	0	0	0	0	0	0	0	0
HIV infected TB patient (all forms)							0	0	0	0	0	0	0	0	0	0

Issues

- 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 2021-2026 is recently launched to achieve ambitious global goals of 95-95-95. By 2020, 95% of all people living with HIV (PLHIV) will know their HIV status, 95% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART) and, 95% of all people receiving antiretroviral therapy will have viral suppression.

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

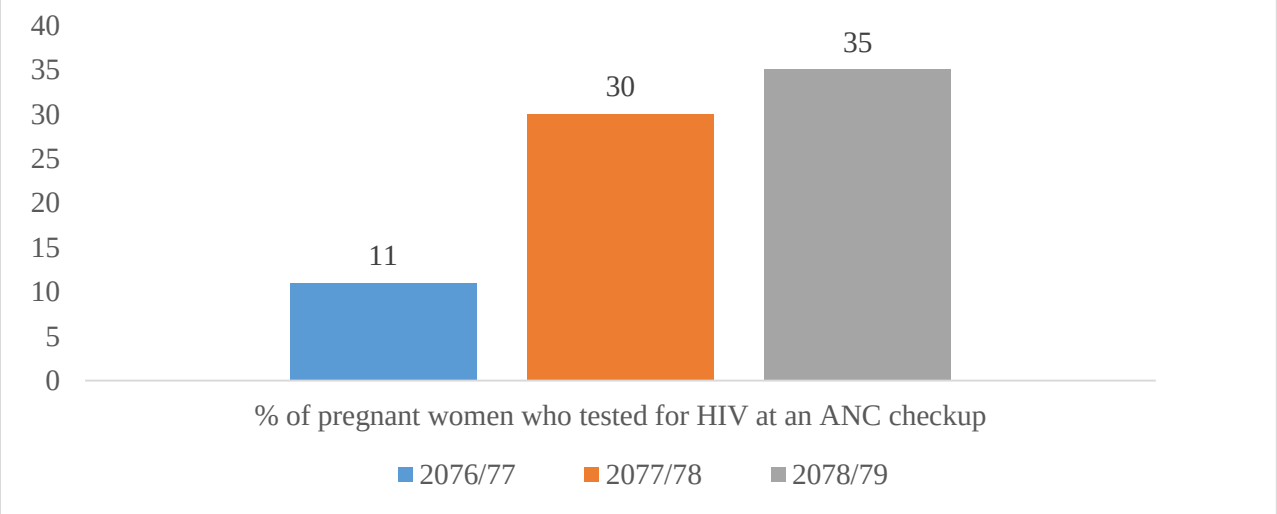

Figure: Pregnant women tested for HIV

Table: Service statistics HIV testing and counseling for the period of FY 2076/77-2078/79

Indicators	2076/77	2077/78	2078/79
Total tested for HIV	2163	1854	8553
Total HIV positive reported	136	337	98

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

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 2078/79

- Since the beginning of 2020, the world is experiencing a 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.
- Dengue outbreak was one of the major areas of concern in Chitwan District in year 2078/79 where government has adopted various strategies for dengue control and treatment with prompt protocol.

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 Aaushadi 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 include 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 Aaushadi 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 2078/79 to recommend impoverished citizen, who had listed 8 diseases, for free treatment

Achievements

Table: Achievement of recommendation to impoverished citizens for free treatment

S.N.	Name of the disease	Number of Recommendations		
		Female	**Male**	**Total**
1	Cancer	128	89	217
2	Heart Disease	76	94	170
3	Kidney Disease	16	35	51
4	Head Injury	2	11	13
5	Spinal Injury	1	3	4
6	Alzheimer's Disease	0	1	1
7	Parkinson's Disease	0	0	0
8	Sickle Cell Anaemia	0	0	0
	Total	**223**	**233**	**456**

Ward-wise Distribution of Impoverished Citizen under Bipanna Program

Table: Ward-wise distribution of impoverished citizen in FY 2078/79

Ward No	Cancer	Heart Disease	Kidney Disease	Head Injury	Spinal Injury	Alzheimer's Disease	Total
1	7	5	2		1		15
2	8	11	2				21
3	6	4					10
4	9	13	5	1			28
5	8	3	3		1		15
6	8	4	1				13
7	8	7	1	2			18
8	4	5	0				9
9	7	3	2				12
10	12	15	2	1			30

Ward No	Cancer	Heart Disease	Kidney Disease	Head Injury	Spinal Injury	Alzheimer's Disease	Total
11	21	12	4				37
12	11	4	3				18
13	4	10		1	1		16
14	9	8	1	2			20
15	11	12	3	1			27
16	18	11	2				31
17	7	3	1				11
18	9	7	4				20
19	7	2					9
20	2	5	1	1			9
21	2	3	3	1	1		10
22	4	2	1	1			8
23	6	3	2	1			12
24	3	2	2				7
25	3	6	1				10
26	9	4	1	1			15
27	10	4	4				18
28	4	2				1	7
29	0						0
Total	**217**	**170**	**51**	**13**	**4**	**1**	**456**

Female Community Health Volunteer

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 2078/79 as follows:

- Different allowance and travel cost provided to FCHVs
- Implementation of biannual Vitamin A program
- 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

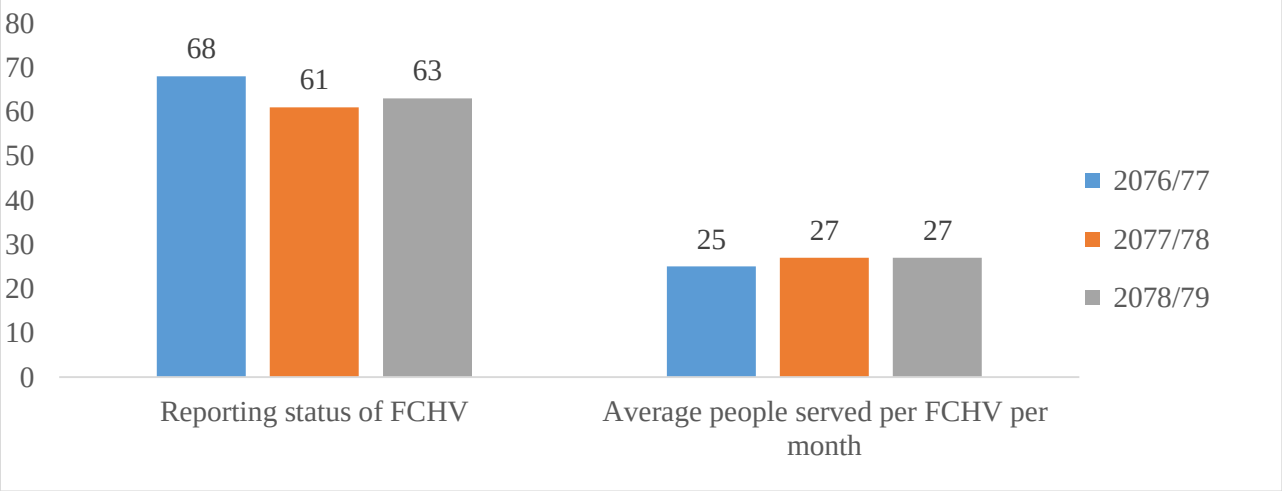

Figure: Reporting status and average people served per FCHV

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 provides 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	2076/77	2077/78	2078/79
Outpatient (OPD) new visits	No.	527695	452189	1038399
% of outpatient (OPD) new visits among total population	%	155	130	275
Proportion of female patients among total new OPD visits	%	53	54	36
Proportion of elder population (≥ 60 years) among total new OPD visit	%	20	31	

OPD Top Ten Diseases

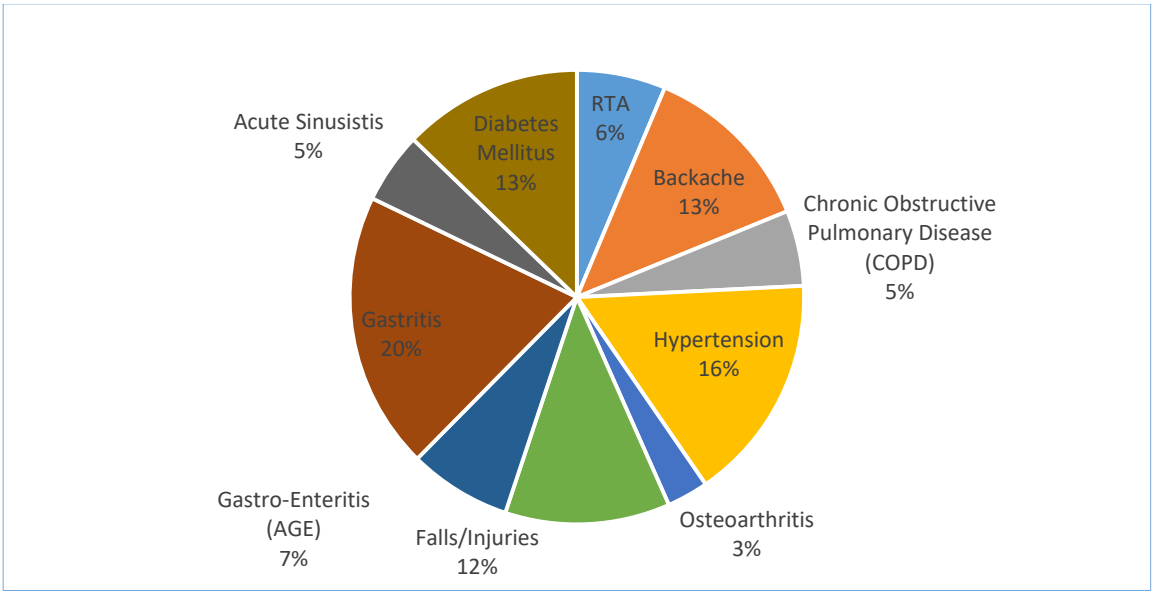

Figure: OPD Top Ten Diseases

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 functios 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.

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

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Health Service Management

Background

Health service management incudes 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 fort 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

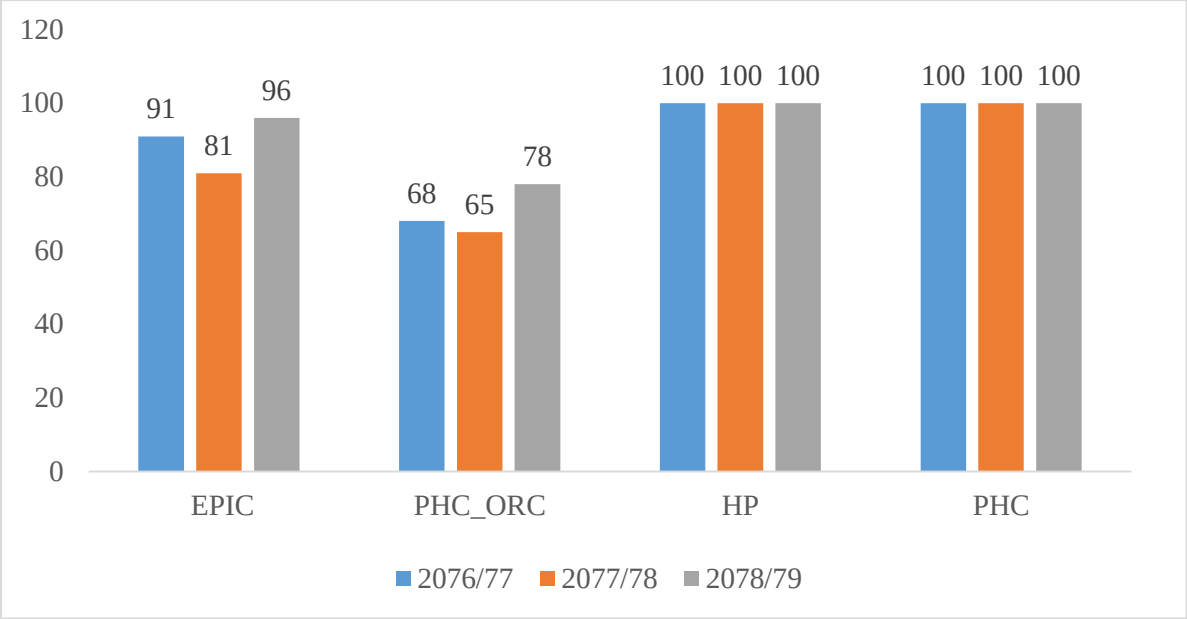

Figure: Reporting status of health institutions

Number of service users and report received

Table: Number of clients served by health institutions

Age Group	New Clients Served		Total Clients Served		Referred	
	Female	Male	Female	Male	Female	Male
0 - 9 Years	38607	44283	51863	62125	399	335
10 - 19 Years	55851	74532	74532	74643	524	535
20 - 59 Years	297037	217811	460246	316061	5632	3430
≥ 60 Years	105987	99360	161927	157094	1453	1167

Table: Number of reports 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	366	287	3754
EPI Clinics	923	887	39384

EPI Sessions	1159	888	
FCHVs	2484	2388	67201

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 2078/79 was as below:

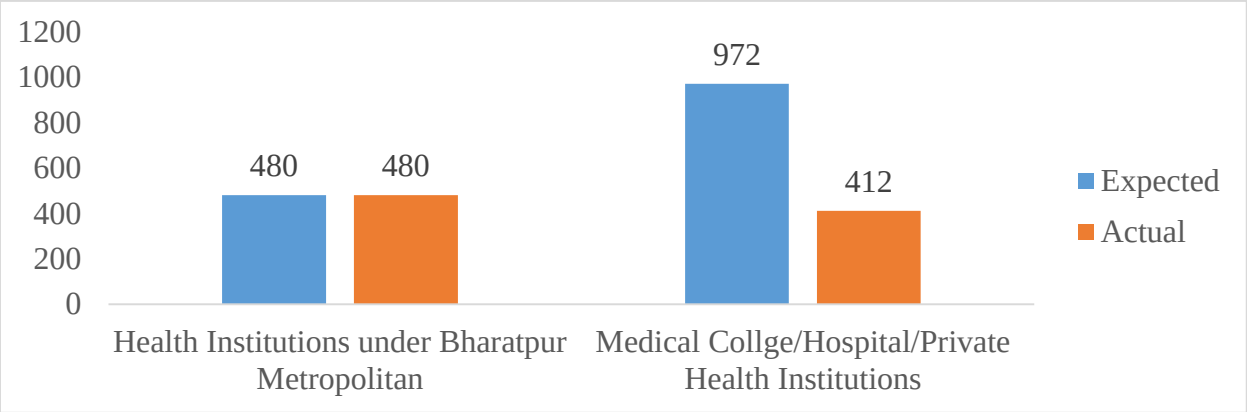

Figure: Expected Vs actual report submitted

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

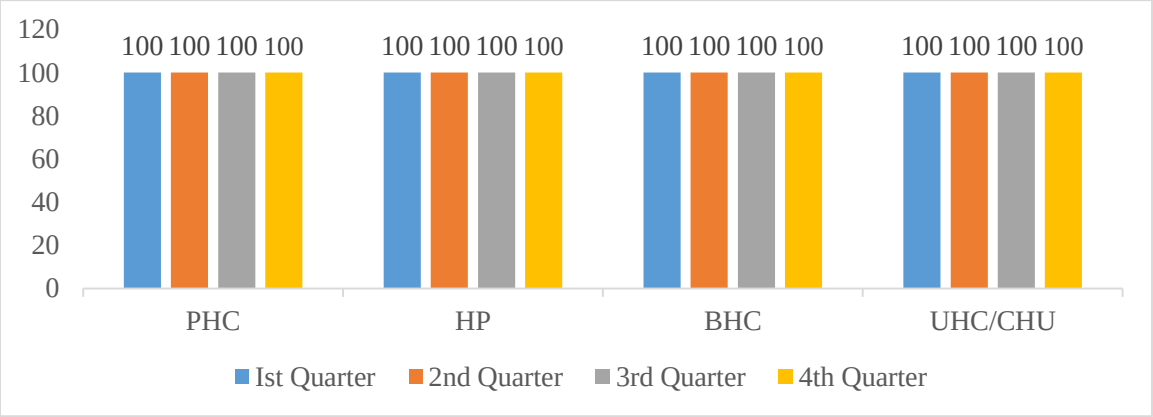

Figure: Reporting status of LMIS

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	Meghauli 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	1	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	2	
8	Office Assistant		14	14	

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/Baiddya	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 galactogogue 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. Strirog (Gynecological diseases)
8. Twak Bikar (Skin disease)
9. Gud bikar (Ano-rectal disease)
10. Mutrabikar (Urinary diseases)

Table: Service Statistics for fiscal year 2078/2079

S. N.	Diseases	Daletar	Devghat	Pathani	Gunja-nagar	Shivaghat	Meghauli	Grand Total
1	Jwar (Fever)	52	23	11	0	45	27	158
2	Swas/Kash (Respiratory disease)	89	29	190	160	170	220	858
3	Amlapitta (Gastritis)	455	630	416	533	181	453	2668
4	Atisar/Grahani (Diarrhea)	37	20	75	94	50	160	436
5	Udar Rog (Abdominal Disease)	541	370	563	475	1105	113	3167
6	Prameha/madhumeha (Diabetes)	29	18	20	22	20	84	193
7	Kamala (Jaundice)	17	0	3	0	5	17	42
8	Pandu (Anaemia)	5	0	10	0	6	19	40
9	Hridaya Rog (Cardiac disease)	0	0	0	0	10	24	34
10	Raktachap (Hypertension)	127	22	67	76	130	102	524
11	Soth (Oedema)	0	11	20	0	27	12	70
12	Krimi (Worms)	0	23	50	0	5	14	92
13	Twak Bikar (Skin disease)	61	41	80	90	71	69	412
14	Brana (Wound Abscess)	5	11	50	61	139	19	285
15	Aaghat (Traumatic Disease)	1	0	0	0	45	15	61
16	Baatbyadhi (Vataha Disease)	188	282	379	487	473	23	1832
17	Aambat (Rh. Arthritis)	32	178	60	320	87	213	890
18	Baatrakta (Gout)	32	9	0	138	41	229	449
19	Raktabikar (Blood Disorder)	0	22	40	0	34	241	337
20	Mutrabikar (Urinary Disorder)	48	24	67	87	29	101	356
21	Prasutibikar (Obstetric Disease)	58	10	0	0	15	16	99
22	Strirog (Gynecological Disease)	137	24	38	146	111	180	636
23	Gud Bikar (Ano-rectal Disease)	94	18	20	227	99	77	535
24	Netra Rog (Ophthalmic Disease)	0	6	10	4	10	201	231
25	Karna Rog (ENT Disease)	0	14	30	86	18	4	152
26	Sheer Rog (Headache)	5	11	0	20	87	4	127
27	Manas Bikar (Mental Disease)	0	0	0	0	15	39	54
28	Balrog (Pediatric Disease)	147	44	0	31	20	10	252
29	Jarajanya (Geriatric Disease)	97	19	50	139	80	14	399
30	Others	43	30	86	149	64	4	376
31	Panchakarma and others	0	0	423	0	0	0	423
	Total	**2300**	**1889**	**2758**	**3345**	**3192**	**2704**	**16188**

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	0	0	26	18	1034	811	1052	837	1889
2	Shivaghat AA	14	13	64	42	1426	1633	1502	1690	3192
3	Gunjanagar AA	1	3	13	19	1354	1955	1368	1977	3345
4	Patihani AA	3	0	8	8	1137	1602	1148	1619	2767
5	Meghauli AA	4	13	1	3	64	83	1137	1567	2704
6	Daletar AA	25	33	38	52	984	1152	1001	1293	2294
	Total	**47**	**62**	**150**	**142**	**5999**	**7236**	**7208**	**8983**	**16191**

Issues

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

Chapter VI: Other Major Programs in FY 2078/79

COVID 19 Prevention, Control and Management

Background

The first case of COVID-19 was reported in Hubei Province, China, in December 2019, and the World Health Organization (WHO) declared it a Public Health Emergency of International Concern (PHEIC) on January 30, 2020, and a pandemic on March 11, 2020. Nepal's first case was reported on January 23, 2020, in a man returning from Wuhan. The Nepalese government suspended international flights and implemented a complete nationwide lockdown from March 23, 2020. The first COVID-19 case in Chitwan was reported on April 17, 2020, and the first death case was reported on May 20, 2020.

Bharatpur Metropolitan city in Nepal has taken significant steps to prevent and control the spread of COVID-19. They have adopted standards and directives from provincial governments and coordinated with various stakeholders, including federal and provincial institutions, non-government and private sectors, corporate organizations, and the community. They have carried out awareness-raising programs, established and operated health desks and fever clinics, and initiated contact tracing and diagnostic tests. Elected representatives, officials, and health workers have played an important role in managing quarantine facilities and isolation services.

In addition, Bharatpur Metropolitan has established coordination with sisterhood cities of China and conducted a series of coordination meetings with various stakeholders such as Bharatpur Hospital, District Administration office Chitwan, Health Office Chitwan, and other medical associations. A multisectoral approach is essential for preventing and controlling the spread of COVID-19, and Bharatpur Metropolitan city has implemented effective measures to contain the virus.

By the end of FY 2078/79 there were 23950 COVID 19 positive cases in Bharatpur Metropolitan City. Among them 11403 were Female and 12546 were male. Among the total positive cases 23647 were recovered and 286 person died by the end of FY 2078/79.

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

- Case Investigation and Contact Tracing Team (CICTT)
- Establishment of COVID 19 isolation Hospital in Shivanagar and Sharadanagar
- COVID 19 Antigen test
- Free Ambulance Services to COVID 19 patients
- Case management
- PPE and medical equipment procurement, receive and supply
- Commodities supply to health facilities

Vaccination program against COVID 19

As part of the national vaccination campaign against COVID-19, Bharatpur Metropolitan City has also conducted vaccination program. The campaign has been carried out in coordination with the

national government and local health authorities. The campaign has been conducted in phases, with healthcare workers and the elderly being the first to receive the vaccines. Subsequently, people with underlying medical conditions, frontline workers, and the general public have been vaccinated.

Vaccination centers have been set up in various locations within the city, and mobile vaccination units have also been deployed to reach target group. The elected authorities have been actively involved in raising awareness about the importance of vaccination and encouraging people to get vaccinated. The vaccination campaign is an important step towards achieving herd immunity and preventing the spread of the virus in Bharatpur Metropolitan City. By the end of F/Y 2078/79 vaccination service provide as:

Table: Vaccination service against COVID 19

Age group	Target group	First dose		Second dose		Booster dose	
		Number	%	Number	%	Number	%
≥ 18 Years	236384	208285	88.1%	218015	92.2%	100128	42.4%
12-17 Years	38616	34621	89.7%	33194	86.0%	24274	63.0%
5-11 Years	45040	35240	78.3%	0	0	0	0

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 women 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, 187 persons were benefitted from the free ambulance/ transportation incentives in FY 2078/79.

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 was compromised. The status of health infrastructure construction is given below in detail:

Table: Health building construction FY 2078/79

S.N.	Health Institution	Ward No	Building Type	Status	Budget source
1	Devghat Ayurveda	1	AA	Under construction	BMC
2	Daletar Ayurveda	29	AA	Completed	BMC
3	Nagarban BHC	3	BHC	Completed	BMC
4	Rammandir BHC	4	BHC	Completed	BMC
5	Kailashnagar (Bhimlal) BHC	5	BHC	Under construction	BMC
6	13 No. BHC	13	BHC	Under construction	BMC
7	Bhimnagar BHC	20	BHC	Under construction	BMC
8	Dhurba BHC	24	BHC	Under construction	BMC
9	Jitpur BHC	28	BHC	Under construction	BMC

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, 89 different positions of staffs were hired in FY 2078/79. Among those 2 were Medical officer, 1 was Public Health Officer, 17 was HA/AHW, 21 were SN/ANM, 4 were School health nurse 11 were Lab technician/assistant, 4 were immunization assistant, 1 was computer operator and 30 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 USG machine in Shivanagar PHC

USG 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 USG 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, elderly and people having disability

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 2078/79, Bharatpur Metropolitan provided about 3 million rupees grants to Bharatpur Hospital to provide free OPD service to women and elderly.

Tobacco control and regulation

Nepal ratified the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) in 2006 and enacted the Tobacco Product (Control and regulation) Act 2011 as the primary law for tobacco control. Bharatpur Metropolitan City has also committed to becoming a tobacco-free city and has taken several initiatives, including stakeholder meetings, distributing "No Tobacco" signage, and advocating for a tobacco-free city campaign in different settings. However, there is a need to focus more on the implementation of existing policies and strategies to maximize tobacco control efforts.

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 2078/79, 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 2078/79, 6 FCHVs were given farewell with cash incentives of 50 thousand each.

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 2078/79 following acts and directives were approved in health sector.

- Procedures for providing free ambulance/transportation expenses to women delivered at health institution 2076
- 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
- Procedures for providing festival allowance to Female Community Health Volunteers, 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 2078/79

Ward	Total Population	Exp. Live Births	00 - 11 Months	12 - 23 Months	00 - 23 Months	6 – 23 Months	00 - 59 Months
BMC 1	12433	164	161	160	321	241	808
BMC 2	19083	251	247	246	493	369	1240
BMC 3	17016	224	221	219	440	329	1106
BMC 4	17040	224	221	219	440	330	1108
BMC 5	9244	122	120	119	239	179	601
BMC 6	12709	167	165	164	328	246	826
BMC 7	12361	163	160	159	319	239	803
BMC 8	8054	106	104	104	208	156	524
BMC 9	10726	141	139	138	277	208	697
BMC 10	25703	338	333	331	664	498	1671
BMC 11	24715	325	320	318	639	478	1607
BMC 12	12871	169	167	166	333	249	837
BMC 13	7028	93	91	91	182	136	457
BMC 14	10026	132	130	129	259	194	652
BMC 15	13853	182	180	178	358	268	900
BMC 16	16113	212	209	208	416	312	1047
BMC 17	7895	104	102	102	204	153	513
BMC 18	8258	109	107	106	213	160	537
BMC 19	7266	96	94	94	188	141	472
BMC 20	7855	103	102	101	203	152	511
BMC 21	7655	101	99	99	198	148	498
BMC 22	6200	82	80	80	160	120	403
BMC 23	8093	107	105	104	209	157	526
BMC 24	5080	67	66	65	131	98	330
BMC 25	9480	125	123	122	245	184	616
BMC 26	9806	129	127	126	253	190	637
BMC 27	9154	121	119	118	237	177	595
BMC 28	7494	99	97	97	194	145	487
BMC 29	6842	90	89	88	177	132	445
Bharatpur	330053	4346	4278	4251	8528	6389	21454
Chitwan	681387	9893	9737	9718	19448	14582	49290

Estimated Target Population for FY 2078/79

Ward	06 - 59 Months	12 - 59 Months	00 - 14 Years	10-19 Years	MWRA 15-49 Years	Expected Pregnancy	60 & + Years
BMC 1	728	647	2498	1868	3151	193	1351
BMC 2	1117	993	3835	2856	5051	296	2074
BMC 3	996	886	3419	2566	4136	264	1850
BMC 4	997	887	3424	2541	4674	264	1852
BMC 5	541	481	1858	1377	2559	143	1005
BMC 6	744	661	2554	1892	3532	197	1381
BMC 7	723	643	2484	1846	3344	192	1344
BMC 8	471	419	1619	1202	2196	125	875
BMC 9	628	558	2156	1600	2948	166	1166
BMC 10	1504	1338	5165	3854	6667	399	2794
BMC 11	1446	1286	4967	3691	6681	384	2686
BMC 12	753	670	2587	1924	3441	200	1399
BMC 13	411	366	1412	1047	1959	109	764
BMC 14	587	522	2015	1489	2861	156	1090
BMC 15	811	721	2784	2061	3885	215	1506
BMC 16	943	839	3238	2399	4501	250	1752
BMC 17	462	411	1587	1171	2279	123	858
BMC 18	483	430	1659	1225	2387	128	898
BMC 19	425	378	1460	1078	2089	113	790
BMC 20	460	409	1579	1167	2234	122	854
BMC 21	448	398	1538	1135	2203	119	832
BMC 22	363	323	1246	920	1786	96	674
BMC 23	474	421	1626	1202	2302	126	880
BMC 24	297	264	1021	758	1388	79	552
BMC 25	555	493	1905	1409	2694	147	1031
BMC 26	574	510	1971	1456	2806	152	1066
BMC 27	536	476	1840	1357	2663	142	995
BMC 28	439	390	1506	1112	2157	116	815
BMC 29	400	356	1375	1021	1850	106	744
Bharatpur	19316	17176	66328	49224	90424	5122	35878
Chitwan	44429	39561	149836	106607	182487	11645	74131

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