ANNUAL HEALTH REPORT

FY 2079/80 (2022/23)

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

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MINISTRY OF HEALTH

Hetauda, Nepal

Ref. No.:

Date:

Message

With the prime focus of delivering top-notch healthcare services, Ministry of Health, Bagamati Province aims to create a comprehensive and equitable health care delivery system that meets the diverse needs of its population. By integrating preventive, promotive, curative, rehabilitative and palliative components into health strategies, policies and practices, the Ministry aims to overcome various health problems and improve the overall well-being of the citizens. The Ministry is determined to translate the aspiration of the National Health Policy 2019, Nepal Health-Sector Strategic Plan 2023-2030, and Sustainable Development Goals (2016-2030) to achieve the goal of "Universal Health Coverage".

I am pleased to know that the Ministry of Health, Bagamati Province, Health Directorate has been releasing its annual report as a comprehensive health report for FY 2079/80 by compiling the reviews and reflections from a series of annual health review workshops held at various levels throughout the province. I am very pleased to note that despite various challenges, from very high rate of morbidity, mortality and poor health indicators we are stepping forward and making several outstanding achievements in health sector. The report reflects a commitment to transparency and accountability, providing valuable insights into the state of healthcare delivery and highlighting areas for improvement. The comprehensive overview provided in the report, including gaps, issues, and challenges, serves as a crucial resource for informed decision-making and policy formulation.

I am confident that this annual health report will be a valuable resource for policymakers, health care managers, researchers, service providers and all stakeholders, facilitating evidence-based decision-making and policy formulation in the province's health sector. I hope that this report will be very helpful in further improvement of health sector. My sincere thanks to Health Directorate, Bagamati Province and all the contributors for their dedication and valuable efforts in compiling the annual health report. Additionally, I would like to extend special thanks to all the health development partners for their remarkable contributions and consistent support in advancing healthcare and improving health services in Bagamati Province.

With warm regards!

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Rameshor Shrestha
Health Minister

Government of Bagamati Province
MINISTRY OF HEALTH
Government of Bagmati Province Ministry of Health Hetauda, Nepal
Hetauda, Nepal

Ref. No.:

Date:

Preface

We are very pleased to behold the release of annual health report of Ministry of Health, Bagamati Province, Health Directorate, for the fiscal year 2079/80. This report includes information on the various health programs and initiatives implemented throughout the year and highlights the achievements and progress made in improving public health and healthcare delivery services at local and provincial level. It aims to provide an in-depth analysis of key health indicators, emerging trends, challenges, and opportunities in the healthcare sector in Bagamati province.

The remarkable achievements in the health sector within Bagamati Province are truly commendable, reflecting the unwavering dedication to fulfilling the objectives outlined in national and provincial policy frameworks. Moreover, the report lays a solid foundation for sustainable development by identifying areas for improvement, setting priorities, and tracking progress towards achieving health goals and targets. The annual report serves as a vital resource for decision-makers, policymakers, and healthcare providers, offering valuable insights and data to guide future planning and resource allocation to improve healthcare delivery and outcomes in the region. The report also serves as a cornerstone for stakeholders, policymakers, healthcare personnel, and community workers for informed decision-making and strategic planning. Also this report will be equally beneficial to researchers and academicians to learn, evaluate and discover emerging areas of improvement for optimizing the health care delivery and improving health outcome of public.

We acknowledge and appreciate the contributions and commitment of provincial institutions, External Development Partners (EDPs), International Non-Governmental Organizations (INGOs), Non-Governmental Organizations (NGOs), the private sectors and health professionals at various levels, including Female Community Health Volunteers (FCHVs), for their mutual and collaborative efforts to improving the health and well-being of the residents of Bagamati Province.

Finally, I would like to express my sincere gratitude and heartfelt congratulations to the Director of Health Directorate, Bagamati province, the annual report preparation committee, and all other personnel involved in compiling and releasing this report.

Thank You!

Badri Bahadur Khadka
Secretary
Ministry of Health, Bagamati Province, Nepal

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Government of Bagamati Province
Ministry of Health
Health Directorate

Hetauda, Nepal

Forward

I am deeply honored to present the annual health report of the Health Directorate, Bagamati Province, for the fiscal year 2079/80. This report comprehensively outlines the status of vital health programs and activities in the province, shedding light on the issues, challenges, shortcomings, with opportunities and solutions for enhancing the healthcare delivery system and achieving optimal public health outcomes at local and provincial level. The report also encompasses the progress of activities conducted by various institutions, including private healthcare facilities and External Development Partners (EDPs).

The report is based on data from the Health Management Information System (HMIS) and other health sector reporting sources as well as annual performance reviews across different levels and institutions. The report offers comprehensive information on health activities, service coverage, and achievements across different programs in the last fiscal year. By including trends and comparisons, the report is able to provide a more meaningful and insightful analysis of the health sector's performance and progress over time. The data-driven insights from the report allow policymakers, health authorities, and other stakeholders to identify key focus areas and priority health needs based on the current situation and trends, allocate resources more effectively by understanding where investments are most needed, design targeted interventions and programs to address gaps and challenges, monitor and evaluate the impact of past initiatives and make evidence-based decisions for improving overall health outcome.

I would like to express my sincere appreciation to program officers, health-workers including Female Community Health Volunteers for their unwavering dedication and hard work in serving the people of Bagamati Province. Their tireless efforts in the nooks and corners of the province have been instrumental in improving public health and achieving remarkable health outcomes.

I would like to express my heartfelt gratitude to honorable Health Minister, Rameshor Shrestha, Ministry of Health for visionary leadership, continued guidance and unwavering commitment in shaping the health initiatives and programs in Bagamati Province. I am also thankful to the Secretary of the Ministry of Health, Badri Bahadur Khadka, for his guidance and direction in enhancing the province's health sector. I would like to appreciate the valuable efforts of annual report preparation committee, team of health directorate and all the involved personnel for preparing and releasing annual health report of Bagamati province. I would also like to acknowledge the significant contribution of World Health Organization (WHO) for their invaluable technical support in the production of this report and their assistance in its printing.

Thank you!

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Dipak Prasad Tiwari
Director

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ACRONYM

Abbreviations	Full Form
AHR	Annual Health Report
ALOS	Average Length of Hospital Stay
AMR	Antimicrobial Resistance
ASRH	Adolescent Sexual and Reproductive Health
BCC	Behavioural Change Communication
BHS	Basic Health Services
BEmONC	Basic Emergency Obstetric and Newborn care
CBIMNCI	Community Based Integrated Management of Newborn and Childhood Illness
CEmONC	Comprehensive Emergency Obstetric and Newborn care
DRTB	Drug-resistant Tuberculosis
EHCS	Essential health Care Services
eLMIS	Electronic Logistic Management Information System
EWARS	Early Warning and Reporting System
FCHVs	Female Community Health Volunteers
FP	Family Planning
FY	Fiscal Year
ICD	International Classification of Diseases
IEC	Information, Education and Communication
IHR	International Health Regulation
IVM	Integrated Vector Management
LBW	Low Birth Weight
LLGs	Local Level Governments
MDGs	Millennium Development Goals
MDR	Multi Drug Resistance
NCDs	Non-Communicable Diseases
NDHS	Nepal Demographic and Health Survey
NTDs	Neglected Tropical Diseases
OCMC	One Stop Crisis Management Centre
OPD	Outpatient
RCCE	Risk Communication and Community Engagement
SCM	Supply Chain Management
SDGs	Sustainable Development Goals
SSU	Social Service Unit
UNICEF	United Nations Children's Fund
UHC	Universal Health Coverage
VPDs	Vaccine Preventable Diseases
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Executive Summary

Bagamati province, established by the constitution of Nepal is the largest province by area and it is the second largest province by population. Bagamati Province has an area of 20,300 km^2 which is about 13.79% of the total area of Nepal. The total population of Bagamati province is 6,116,866 of which 49.8% are male and 50.1% are female. Among 13 districts, population distribution is highest in Kathmandu (2,017,532). After the country's transition to federal setting, the responsibility of health in province was entrusted to the Ministry of Social Development. Later, in 2078, the Ministry of Social Development in Bagamati Province was split to two ministries, one of which is the Ministry of Health.

The Bagamati Provincial Health Directorate directly comes under Ministry of Health of Province which provides technical backstopping and program monitoring to district health systems. Its major objective is to reach the preventive, curative and promotional health services up to the doorsteps of people and monitoring and supervision of health services.

The annual report of Bagamati province, Ministry of Health, Health Directorate, is for the fiscal year of 2079/80. The report has been developed based on the data compiled from DHIS2/HMIS and presentations made at annual review meetings by health offices, development partners, and other stakeholders. The report mainly focuses on performance of different health sector of Bagamati province including health program indicators, major targets, activities conducted and achievements. Similarly, this report also outlines problems, issues, constraints and recommendations that health institutions can take to improve their performance and achieve targets. Below is the meticulous summary of contents within each chapter of annual health report.

Family Welfare

Child Health and Immunization

National Immunization Program is a priority program of government of Nepal which was launched as "Expanded program on Immunization" in 2034 BS. It aims at reducing child morbidity, mortality and disability associated with vaccine preventable diseases. Currently there are 13 antigens-BCG, DPT-HepB-Hib (Penta), Rota, PCV, OPV (bOPV), fIPV, Measles and Rubella (MR), JE, Typhoid and TD provided through 3173 sessions (EPI clinics-2965) in Bagmati province. The vaccination coverage of Bagamati province is higher than the national coverage. The provincial coverage of immunization for all the antigen was over 100% however BCG coverage was decreased by 9% in FY 2079/80 (120%) than FY 2077/78 (129%) and the MR2 coverage was 105.6% in FY 2079/80 which was higher than FY 2078/79 (103%). There was no change in trend of fully immunized children in FY 2079/80 (88%) as compared to FY 2078/79 (88%) nevertheless Lalitpur district (131.3%) followed by Bhaktapur district (129.5%) had the highest coverage of fully immunized children in this Fiscal Year.

Community Based Integrated Management of Neonatal and Childhood Illness (CB-IMNCI)

Community Based Integrated Management of Neonatal and Childhood Illness (CB-IMNCI) program aims to improve new born and child survival promoting healthy growth and development. The program targets the problems associated with under five children which includes comprehensive treatment of five killer disease viz. Pneumonia, Diarrhea, Malaria, Measles and Malnutrition. Likewise it also addresses the major problem of sick

newborn such as birth asphyxia, bacterial infection, jaundice, hypothermia, low birth weight, counseling of breastfeeding. CB-IMNCI program is guided by vision 90 by 2030 viz. 90% institutional delivery, 90% newborn have chlorohexidine gel applied into umbilical stump, 90% under-5 children with diarrhea are treated with ORS and Zinc and 90% of the under five children with pneumonia get the treatment with appropriate antibiotics. In FY 2079/80, the incidence of Pneumonia per thousand under 5 year children in Bagamati province was reduced to 32.3% from 54.9% in previous fiscal year. The incidence of diarrhea per thousand under 5 year children in Bagamati province has been reduced to 78.8% in FY 2079/80 from 310.8% in FY 2078/79. In FY 2079/80, regarding the indicators of CB-IMNCI program there was 100% institutional delivery, 59.3% of newborn were applied CHX gel, 98.7 % of pneumonia cases were treated with antibiotics and 95.1 % of under 5 children with diarrhea were treated with zinc and ORS.

Nutrition program

Nutrition program is a priority program of the government of Nepal. Its main motto is to achieve the nutritional well-being of all people so that they can maintain a healthy life and contribute to the country's socio-economic development. As per NDHS report 2022, prevalence of stunting in children was 18%, prevalence of wasting in children was 4.5% and prevalence of underweight in children was 10.5% while 43% children aged 6-59 months were anemic in Bagmati province. The provincial government has high-level commitment to improve the nutritional status of infant, young children, adolescents and pregnant and lactating mother. In Bagamati province, 155.7% children aged 0- 11 months and 42.5% children aged 12-23 months were registered for growth monitoring in FY 2079/80. The trend for 0-11 months children seems to be increasing while 12-23 months children seems to be decreasing in comparison to previous FY. However average number of visits among children aged 0-23 months registered for growth monitoring has been increased to 3.7 which was 3.1 in previous fiscal year. There is also decreasing trend of underweight children (1.4%) among new growth monitoring visits of children aged 0-23 months than FY 2077/78 (2.1%). There is increasing trend of pregnant women receiving 180 tablets of Iron from 27.6% in FY 2077/78 to 53.8% in FY 2079/80. Regarding the trend of postpartum mothers who received vitamin A supplements, the trend seems to be decreasing (50.2%) than previous FY (58.4%).

Proper IYCF practices can help to prevent malnutrition and other health consequences in children. IYCF program has been running in all 77 districts of Nepal since FY 2072/73. In Bagamati province, 54.4% of newborn had early initiation of breast feeding within 1 hour of birth in FY 2079/80. Similarly, among the children who were registered for growth monitoring 49.2% were exclusively breastfed for 6 months. Also, 27.7% children aged 6-23 months received one cycle (60 sachets) Baal Vita (MNP) while 4.2% of children received 3 cycle (180 sachets) Baal vita (MNP) in FY 2079/80.

Safe Motherhood program

The National Safe Motherhood Program aims to reduce maternal and neonatal morbidity and mortality and improve maternal and neonatal health through preventive and promotive activities by addressing avoidable factors that cause death during pregnancy, childbirth, and the postpartum period. The Safe Motherhood Program initiated in 1997 has made significant progress with formulation of safe motherhood policy in 1998. In Bagamati province there were 491 birthing centers, 26 CEONC service sites and 27 BEONC service sites in FY 2079/80. Also, the provincial level protocol based at least one ANC visit was 105.6% in FY 2079/80 while percentage of pregnant women who had four ANC was 125.9% in FY 2079/80 which decreased slightly from FY 2077/78 (139.1%). Percentage of institutional deliveries in Bagamati province was 100.5% which was higher than the national target (90%) but 41.1% percent of institutional deliveries in the province were conducted by caesarean section. Similarly coverage of birth attended by a skilled birth attendant was 49.6% in Bagamati province in FY 2079/80. The percentage of mothers who received

three postnatal care visits as per protocol at HF among expected live births decreased to 37.2% in FY 2079/80 from 42.1% in FY 2078/79. Similarly, maternal death (20), neonatal death (129) and still birth (87) were reported in this fiscal year in Bagamati province which were all in decreasing trend.

Family Planning

Family Planning program is one of the priority programs of Government of Nepal. It is also considered as a component of reproductive health package and essential health care services. The Contraceptive Prevalence Rate of Bagamati province in FY 2079/80 was 34 which is slightly decreased than previous fiscal year.

Adolescent Friendly Health services

National Adolescent Sexual and Reproductive Health is one of the priority programs which aims to promote the sexual and reproductive health status of adolescents. There were 201 Adolescent Friendly Service Sites in the Bagamati Province in FY 2079/80.

Safe Abortion Services

Many women face unwanted pregnancy including complications due to limited access to family planning information and services. Nepal legalized abortion in 2002 to reduce maternal morbidity and mortality through unsafe abortion. According to Safe motherhood and Reproductive Health Right Act 2075, the law permits abortion with the consent of pregnant women for any indication up to 12 weeks gestation and up to 28 weeks of gestation in special conditions like Rape, insist, fetus abnormalities, mental condition, immune suppression disease. Safe abortion service is in increasing trend in Bagamati Province in three fiscal years where 19225 safe abortion service were provided to women in FY 2079/80. The use of post abortion contraceptives declined from 62.3% in 2078/79 to 61.1% in 2079/80 in Bagamati Province. Similarly the proportion of LARC among post abortion contraception has slightly declined from 13.2 in FY 2078/79 to 13.04 in FY 2079/80.

Epidemiology and Disease Control

Malaria

Malaria is a mosquito-borne infectious disease that possess a public health challenge in Nepal. Government of Nepal has set a vision of malaria elimination by 2025. For assessing the risk areas, malaria micro-stratification process is conducted on annual basis. The total positive cases of malaria is in increasing trend in Bagamati province which was 5 cases in FY 2077/78, 33 cases in FY 2078/79 and 46 cases in FY 2079/80. Similarly, the proportion of Plasmodium Falciparum infections among total malaria positive cases has also been increasing i.e. FY 2077/78 (4), FY 2078/79 (17), and FY 2079/80 (18) in Bagamati province.

Kala-azar

To eliminate kala-azar from Nepal, strategies to improve health status of vulnerable and risk population has been made focusing on endemic areas of Nepal. In Bagamati province, there is increasing trend of kala-azar cases with total 24 cases in FY 2079/80 out of which 10 cases were noted from Kathmandu.

Lymphatic Filariasis

Lymphatic Filariasis, commonly known as elephantiasis, is a neglected tropical disease. Nepal has set a national target to eliminate Lymphatic- Filariasis by the year 2030. Out of 13 districts in Bagamati province, 11 districts have successfully completed the Mass Drug Administration (MDA) campaign. For morbidity mapping and disability prevention, among the survey conducted in 10 districts, a total of 8,830 LF cases were identified with 4,776 hydrocele cases, 3,968 lymphedema cases and 86 cases exhibiting both conditions in FY 2079/80.

Dengue

Dengue, a mosquito-borne disease emerged in Nepal in the form of Dengue Fever (DF), Dengue Hemorrhagic Fever (DHF) and Dengue Shock Syndrome (DSS). The first documented case

of dengue in Nepal was reported in 2004 then after the country has faced multiple dengue outbreaks between 2006 and 2022. There is drastic increase in dengue cases, 42712 cases were seen FY 2079/80 in Bagamati province where Lalitpur (9631) followed by Bhaktapur (6180), Makwanpur (5844) and Kathmandu (4406) had high number of reported cases.

Scrub Typhus

Scrub typhus is an infectious disease transmitted by larval mites infected with the Orientia tsutsugamushi bacterium. After the devastating earthquake in 2015, scrub typhus outbreaks were reported throughout Nepal, resulting in numerous cases of illness and death. Scrub typhus cases are in increasing trend with 159 cases in FY 2077/78, 240 cases in FY 2078/79 and 1290 cases in 2079/80 in Bagamati province.

Tuberculosis

Tuberculosis (TB) remains a major public health problem in Nepal. TB is curable with medicine (nearly 90% cure rates) and preventable. Based on the global and national commitments to reach the set END TB targets, NTCC has developed its National Strategic plan 2021/22-2025/26 for TB3 which envisions for TB Free Nepal by 2050. There are 1075 DOTS center in Bagamati province with 2 centers and 24 sub-centers for MDR treatment. The trend in Case notification rate for all forms of TB per 1 Lakh population is almost same from previous FY i.e. 143.4 per 1 lakh population with similar trend in treatment success rate (92.5%) in FY 2079/80. Out of 8854 TB Case all forms registered, 4690 (53%) were pulmonary bacteriologically confirmed (PBC) cases, 1146 (13%) were pulmonary clinically diagnosed (PCD) cases and 3018 (34%) were extra-pulmonary TB cases in FY 2079/80 in Bagamati province.

Leprosy

The goal of leprosy control program is to end the consequences of leprosy including disability and stigma within the country. The prevalence rate per 10,000 of leprosy in FY 2078/79 was 0.14 which slightly increased to 0.19 in FY 2079/80 in Bagamati province. Out of 13 districts, two districts i.e. Sindhupalchok and Rasuwa had Zero Prevalence rate while all other districts had prevalence rate less than 1 in FY 2079/80.

HIV/AIDS and STI

The first case of HIV was identified in 1988 AD in Nepal. Nepal has embarked on a fast-tract approach towards ending the AIDS epidemic as a public health threat by 2030, through achieving the ambitious target of 95-95-95 by 2026. By 2026, 95% of all people living with HIV (PLHIV) will know their HIV status, 95% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy (ART) and 95% of all people receiving antiretroviral therapy will have viral suppression. In FY 2079/80, 43459 risk population were tested for HIV of which HIV was found positive in 883 cases. In Bagamati Province, second target of 95-95-95 by 2026 has been achieved i.e. 100% people with HIV positive were receiving ART however first (87%) and third (87%) targets are still below 95% which needs to be focused on upcoming years. Similarly, For PMTCT, screening of all pregnant mothers for HIV was done during ANC visit and during delivery.

Curative Services

The aim of curative services (emergency, outpatient, and in-patient) is to reduce morbidity and mortality by ensuring early diagnosis, prompt treatment, and referral through the health network from PHC outreach to the specialized hospitals. According to the updated categorization of health facilities in Bagamati province, there are 13 provincial hospitals, 67 Basic hospital (5-15 beds), 81 General Hospital (25-50 beds), 26 General Hospital (100-300 beds), 12 Specialized Hospitals (100 and above), 15 Super Specialty Hospitals (50+ Beds/Organ) and 13 Academy and Teaching Hospital (300+ Beds).

Minimum Service Standards (MSS) is a comprehensive tool for the service readiness and availability of tool for optimal requirement

of the hospitals to provide minimum services that are expected from them. In FY 2079/80, MSS evaluation was carried out in 9 Primary Level Hospitals, 5 Secondary A Level Hospitals and 2 District Ayurveda Health Centre. In FY 2079/80, Bhaktapur Hospital achieved the highest MSS score (97%) among all assessed.

The percentage of the population utilizing the OPD services was decreased to 78.6% in FY 2079/80 from 99.2% in FY 2078/79. Bed occupancy rate in FY 2079/80 was 52.7% with average length of hospital stay of 4.6 days. Similarly, dermatitis/eczema, diabetes mellitus, abdominal pain, hypertension and arthritis were the top five common inpatient morbidities in FY 2079/80 in Bagamati province.

Social Security and Other Public Health Programs

One-stop Crisis Management Centers (OCMCs)

One-stop Crisis Management Centers (OCMCs), which aim to provide comprehensive and integrated services to survivors of Gender Based Violence. There are 12 OCMCs situated in Bagamati Province. In FY 2079/80, 825 cases were newly registered in OCMC with 236 follow-up cases and 719 number of perpetrators. The most reported cases among the total clients served by the OCMCs were physical violence (304) followed by rape (219) and sexual assault (110) in FY 2079/80.

Social Service Units (SSU)

The concept of Social Service Unit (SSU) was started after pilot program in 8 hospitals for a period of 2 years in FY 2069/70 to FY 2070/71. Currently 12 hospitals provide SSU services in Bagmati province. In Bagamati province in FY 2079/80, 1324 ultra-poor or poor citizens, 206 helpless people, 162 person with disability, 3559 senior citizens, 6 survivors of GBV and 9 FCHVs utilized services from SSUs.

Non-Communicable Diseases (NCDs) & Mental Health

Non-communicable diseases (NCDs) are progressively emerging as an additional challenge for the healthcare system of the country which lead to premature deaths, poverty and threaten national economies. Government of Nepal has endorsed the Package of Essential Non-communicable Disease Interventions (PEN) for primary care in low-resource setting with target to reduce NCDs.

Mental health problems are major challenges which are rapidly increasing in present context. Top five mental health conditions reported in FY 2079/80 in Bagamati province were Depression (31,007), Migraine (18,780), other anxiety (14,440), epilepsy (8579), and Bipolar affective disorders (7704).

Health Education Information and Communication Centre (HEIC)

Health education information and communication is the program under health education information and communication section of provincial health directorate. It aims to plan, implement, monitor and evaluate health promotion programs within a province. It is responsible for developing, producing and disseminating health messages and materials to promote and support health programs and services. Major activities carried by this section in FY 2079/80 in Bagamati province were school health education program, celebration of world health day and other health related days, weeks and months, monitoring and supervision of health promotion programs, development, production and broadcasting of health messages through local mass media.

Ayurveda and Alternative Medicine

Ayurveda is the oldest documented medical system of the world. Ayurveda focuses on the promotive, preventive, curative and rehabilitative services. Ministry of Health of

Bagamati Province is responsible for planning, management, supervision, monitoring and evaluation of Ayurveda and miscellaneous medicines throughout the province. The ministry works through its network facilities of 13 District Ayurveda Health Centers and 50 local level Ayurveda Aushadhalayas, 51 Citizen Ayurveda Health Centers and a Healthy Lifestyle Program (in PHC). The yearly rise in number of client receiving OPD service i.e. 106152, 142361 and 476482 was observed since 2077/78 till 2079/80 respectively. Services received by patients in Ayurveda were acupuncture service (14611), panchakarma service (68876), shalya service (201), yoga service (20922), stanpayi aama service (8102) and patient receiving these services are highly increased in this fiscal year.

Reporting Status

Heath Management Information System (HMIS)

HMIS is one of the key sources for monitoring and evaluation of the health programs and health policy formulation. It is used to manage health sector information in an integrated and comprehensive manner. Reporting forms used in HMIS are 9.1, 9.2, 9.3, 9.4 and 9.5. In FY 2079/80, the completeness and timeliness of reporting status of health facilities (PHCC, HP, BHSU, CHU, UHC) were in decreasing trend in Bagamati province however both completeness (46.4%) and timeliness (19.1%) of reporting of hospitals were increased in fiscal year 2079/80.

Provincial Programs

School Health Nurse Program

School health nurse program is an innovative and unique health program of Bagamati province. It is important to teach and bring awareness in the student from the school level about the overall health cleanliness, nutrition, mental health, sexual and reproductive health, communicable and non- communicable diseases to lead a healthy life. Bagamati province started SHN program in the FY 2075/2076 as a pilot program as one school one nurse program. Currently SHN program is running in all local level (119) of Bagamati province and there are total 519 school health nurses working under Bagamati province.

Free blood bag program for blood transfusion

Bagamati province started the free blood bag program since 2078. The program mainly focuses on economically disadvantaged people who are permanently residing in Bagamati province and the people who need urgent treatment. Free blood bag program for blood transfusion facilitate and organize the work of providing blood transfusion services by providing free blood bags and blood tests. In FY 2079/80, 2725 new recipients received blood transfusion services in Bagmati province while in total 3196 (old+ new) recipients received blood transfusion services. Blood transfusion service was most commonly used for hemodialysis (34%) followed by hemorrhage (25%), anemia (21%) and surgery (16%) patient in FY 2079/80.

Chief Minster Public Health Program

Non-Communicable Disease accounts for more than half of mortality in the Bagamati province. In order to address the rising burden of Non-Communicable Diseases Government of Bagamati Province designed and implemented the Chief Ministers Public Health Program- an exemplary program of the Bagamati Province. This program is being implemented since FY 2076/077 and comprises various programs related to the problem of NCD. In FY 2079/80 altogether 10555 females and 9691 males were screened for NCD through Health office, 3623 females and 2446 males were screened for NCD through Hospital and 3529 females and 2272 males were screened for NCD through Ayurveda Health Centre.

Supporting programs

Health Training Center

Health Training Center, established 2019 AD is the major administrative and technical unit of health training in Bagamati province. It was established in 2019 AD to coordinate and manage all health-related training through

one door under MoH. ASBA and SBA Trainings, MLP, Primary Trauma care, Rural Ultrasound Trainings, Medico-legal Training, Induction Training, Dialysis related trainings, Primary Eye care, Safe abortion Training, OTTM/ICU, NICU training, COFP counselling, VIA/Implant/ IUCD/NSV, Logistic Management/ HMIS, PEN Package / Mental Health, CTS, Training for one school one nurses trainings were provided in the FY 2079/80.

Health Logistic Management Center

Health Logistics Management Center (HLMC) was established in FY 2075/76 as a key wing of Ministry of Health for the management of essential medicines, vaccines, health commodities and biomedical equipment in the province. Logistics management ensures quality and right quantity of medicines and health commodities at the time-of-service delivery. It includes proper procurement, storage, and transportation, delivery of quality medicines and commodities in right quantity to the service delivery points.

Public Health Laboratory Center

Public Health Laboratory Center is one of the entities of Ministry of Health (MoH), Bagamati Province for quality laboratory services, disease surveillance and research. Public Health Laboratory has been functioning since 15th Shrawan, 2076. The laboratory services of all the government and private laboratories have been established to ensure the quality of the public laboratory services by making them reliable. By providing training related to non-communicable diseases, infectious diseases, quality control as a part of skill development of laboratory manpower to provide quality service in complete diagnostic services and disease surveillance. Public Health Laboratory, Bagamati Province, have been now connected with 262 Microscopic Centers within 13 districts of Bagamati Province.

CHAPTER 1. INTRODUCTION

1.1. Background

The Constitution has guaranteed the right to demand and receive information on any matter of his/her interest or of public interest. Good Governance Act 2008, clause 41 vividly mentions every department and other government agencies shall, every year, prepare an annual report and submit it within the described period. In line with the Constitution of Nepal and Good Governance Act, Bagamati Province has published this Annual Report of fiscal year 2079/80 (2022/23). The report has been developed based on the data compiled from DHIS2/HMIS and presentations made at annual review meetings by health offices, development partners, and other stakeholders.

This report mainly focuses on performance of different health Sector of Bagamati province in FY 2079/80 on following areas:

- Major targets activities and achievements.
- Health Programme's indicators.
- Problems, issues, constraints, and recommendations on improving performance and achieving targets.

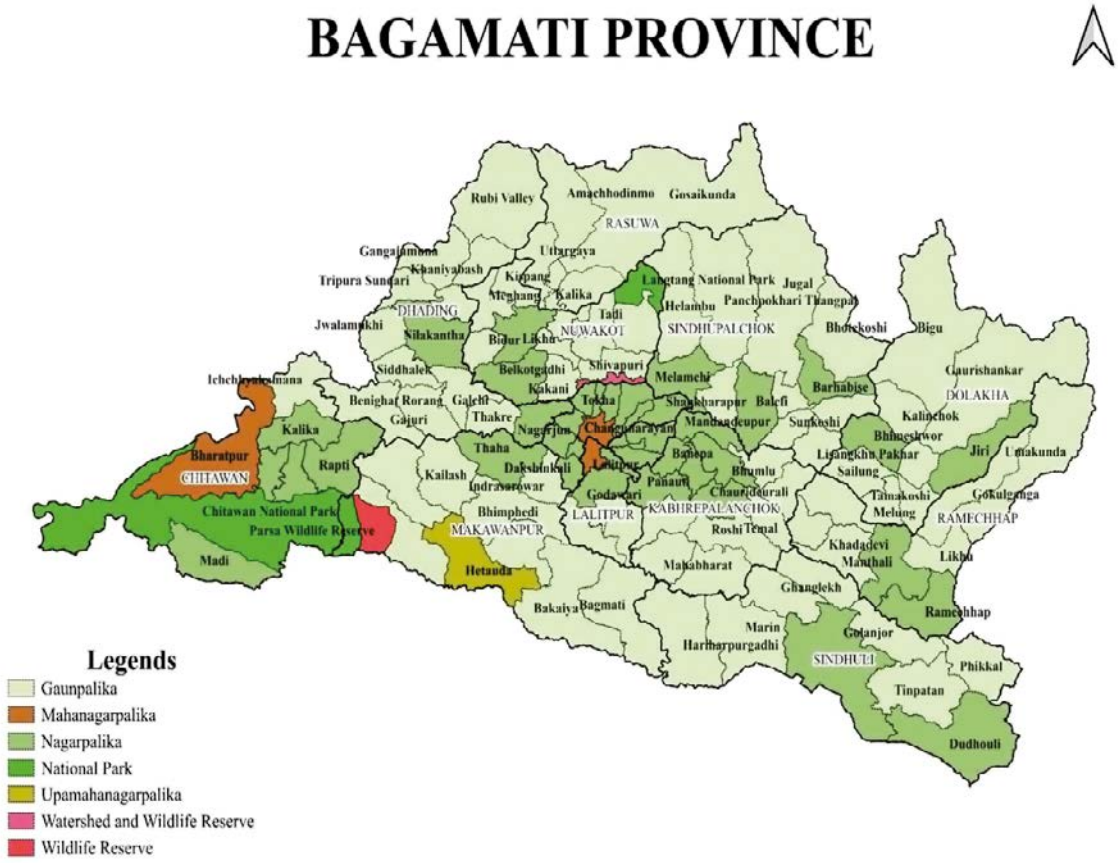


Figure 1.1.1: Diagrammatic Presentation of the Bagamati province

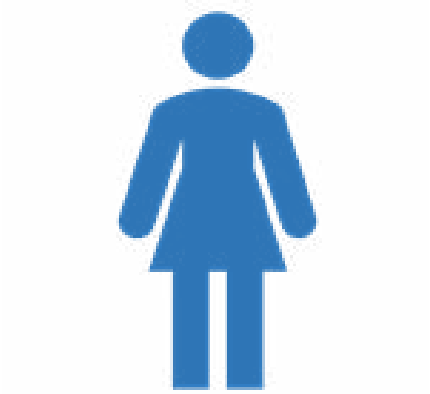
1.2. Introduction of Bagamati Province

Geographic Features

Bagamati Province is one of the seven provinces of Nepal established by the constitution of Nepal. Bagamati is Nepal's second-most populous province and fifth largest province by area. It is bordered by Tibet Autonomous Region of China to the north, Gandaki Province to the west, Koshi Province to the east, Madhesh Province and the Indian state of Bihar to the south. With Hetauda as its provincial headquarters, the province is also the home to the country's capital Kathmandu. Bagmati Province has an area of 20,300 km^2 which is about 13.79% of the total area of Nepal. The elevation of the province ranges from 141 m at Golaghat in Chitwan District to 7,422m at Ganesh Himal.

Demographic Features

3,048,684



3,068,182

District	Metropolitian	Sub-Metropolitian	Municipalities	Rural Municipalities	Number of Local Units	Total Population
Kathmandu	1	0	10	0	11	2,017,532
Kavrepalanchok	0	0	6	7	13	366,879
Chitwan	1	0	5	1	7	722,168
Dolakha	0	0	2	7	9	172,726
Dhading	0	0	2	11	13	322,751
Nuwakot	0	0	2	10	12	262,981
Bhaktapur	0	0	4	0	4	430,408
Makwanpur	0	1	1	8	10	461,053
Rasuwa	0	0	0	5	5	45,554
Ramechhap	0	0	2	6	8	170,620
Lalitpur	1	0	2	3	6	548,401
Sindhupalchowk	0	0	3	9	12	262.852
Sindhuli	0	0	2	7	9	300,117
Bagamati Province	3	1	41	74	119	6,116,866

Total Population =6,116,866

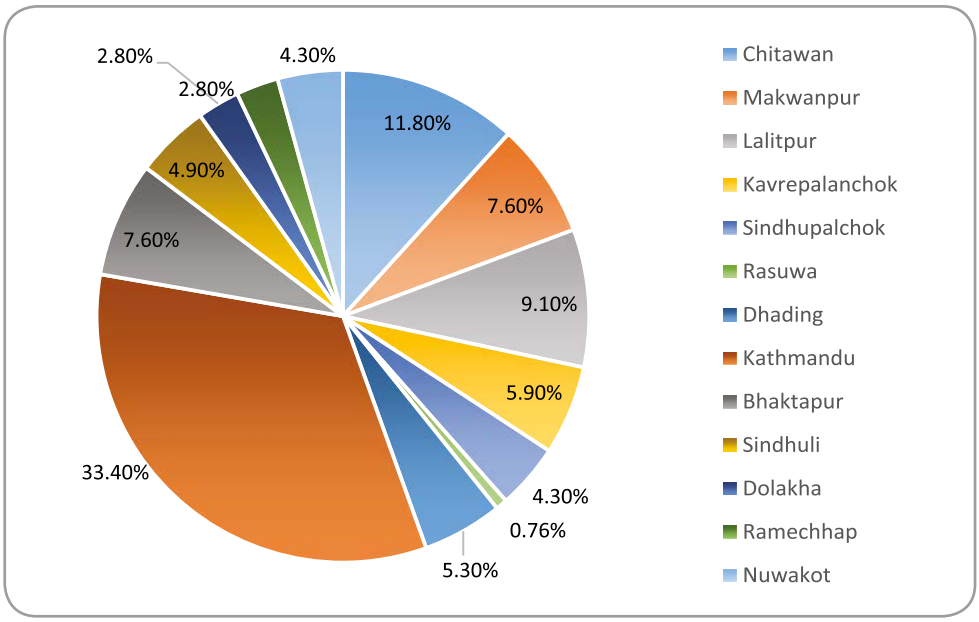


Figure 1.2.2: District wise Population Distribution

Source: NHPC 2021

According to the National Population and Housing Census 2021 the total population of bagamati province was 6,116,866 of which 49.8% were male and 50.1% were female and while looking at the district wise Population Distribution, Kathmandu district has the highest population followed by the Chitwan district.

Population Characteristics of Bagamati Province

The preceding figures illustrates the Sex ratio and Annual growth rate of Bagamati Province. The total population of bagamati province comprises of 99.36 males per 100 females and the annual growth rate was 0.97. While comparing the sex ratio and annual growth rate of bagamati province with national data it was higher than the national.

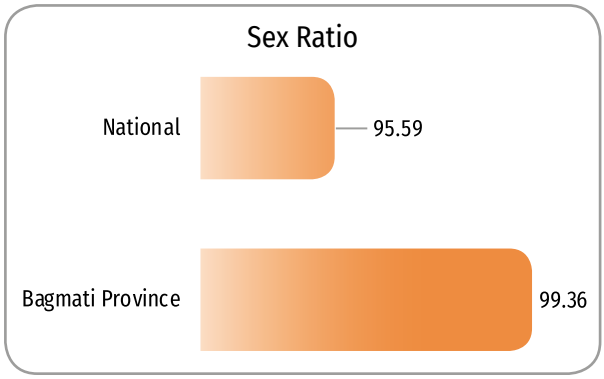


Figure 1.2.3: Sex Ratio (NHPC 2021)

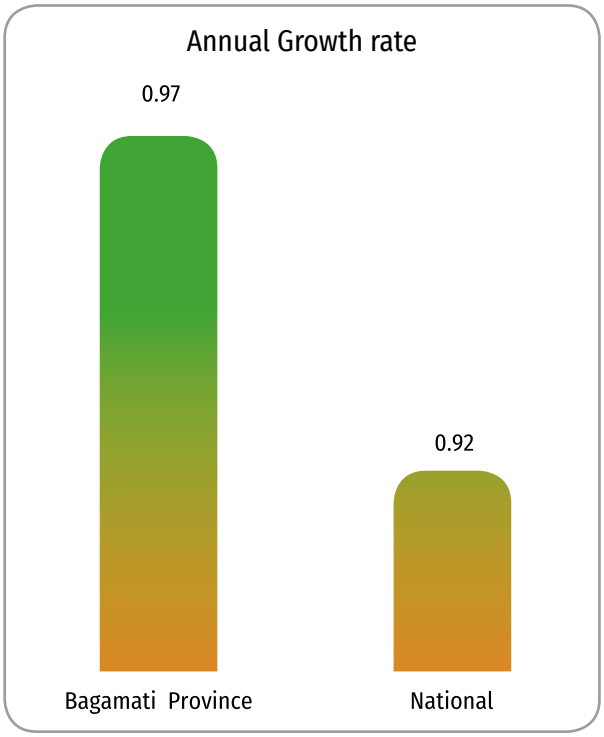


Figure 1.2.4: Annual Growth Rate (NHPC 2021)

1.2.4. Important Vital Statistics

Table 1.2.1: The most important vital Statistics

Indicator	Bagamati P (2016)	Bagamati P (2022)	National
Total Fertility Rate (TFR)	1.8	1.6	2.1
Neonatal Mortality Rate (NMR)	17	18	21
Infant Mortality Rate (IMR)	29	21	28
Under 5 Mortality Rate	36	24	33
Maternal Mortality Rate (MMR)		98 (NHPC 2021)	151

The above table showed the important vital statistics of bagamati province. According to the table the total fertility Rate was 1.6, Neonatal Mortality Rate was 18, Infant Mortality rate was 21, Under 5 Mortality Rate was 24 and Maternal Mortality rate was 98. All the indicators of the bagamati province are lowered than the National.

1.3 Health Service Delivery System of Bagamati Province

Ministry of Health Bagamati Province

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

The MoH provides guidance to Health Directorate as well as local-level governments to deliver promotional, preventive, diagnostic, curative, and palliative health care services and carries out its functions of related policy development, planning, human resource management, financial management and monitoring and evaluation.

Health Directorate

The Bagamati Provincial Health Directorates provide technical backstopping and programmes monitoring to district health systems and come directly under the Ministry of Health of Province. It is the chief technical and administrative unit which ensures proper management of preventive and curative health services through various health institutions in the province.

Objectives:

To reach the preventive, curative and promotional health services up to the doorsteps of people. Monitoring and supervision of health services.

The main responsibility of Health Directorate are as follows:

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

Organogram

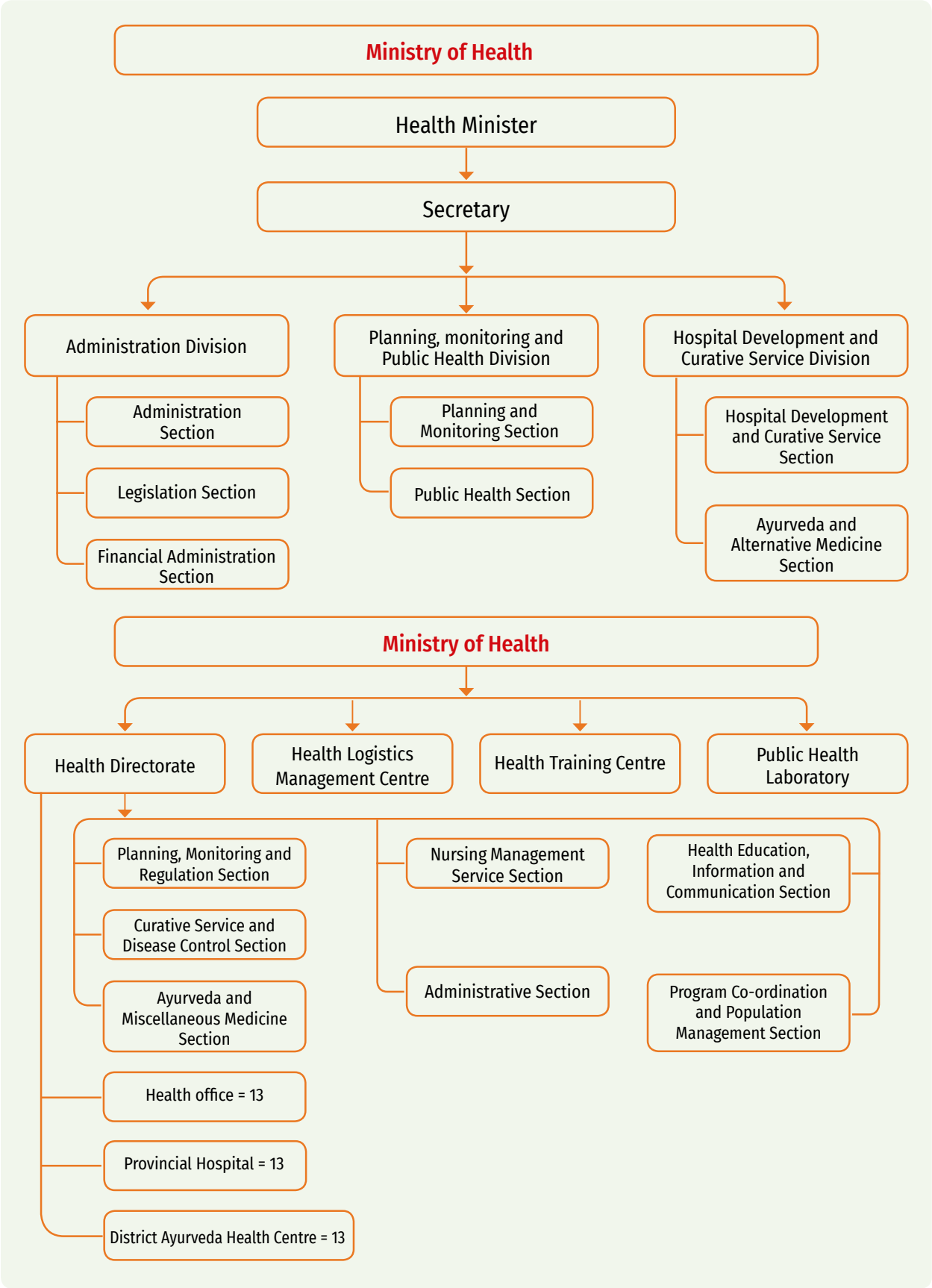


Figure 1.2.5: Organogram of health system of bagamati Province

Health Service Delivery Unit of Bagamati Province

Table 1.3.1: Health Service Delivery Unit of Bagamati Province

Organizational Unit	Dolakha	Sindhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchok	Ramechhap	Sindhuli	Makwanpur	Chitwan	Total
Basic Health Service Center	87	123	29	116	96	148	41	68	159	91	101	107	106	1272
Health Posts	52	75	17	49	63	58	20	38	90	51	51	43	36	643
PHCC	2	3	1	2	3	6	2	3	4	3	4	4	3	40
Community Health Unit	22	38	17	26	6	0	2	3	22	14	40	12	4	206
Urban Health Unit	6	11	1	2	11	60	11	9	16	15	5	17	7	171
Basic Hospitals (5 - 15 Beds)	4	1	1	11	4	21	0	0	7	4	1	4	9	67
General Hospitals (100 - 300 Beds)	1	0	0	0	0	14	3	7	0	0	0	0	1	26
General Hospitals (25 - 50 Beds)	2	1	1	1	1	43	7	6	3	1	1	3	11	81
Specialized Hospitals (100 and above)	0	0	0	0	0	10	0	0	0	0	0	0	2	12
Super Specialty Hospitals	0	0	0	0	0	7	3	3	0	0	0	0	2	15
Academy and Teaching Hospital (300+ Beds	0	0	0	0	0	8	0	2	1	0	0	0	2	13
Ayurveda Health Center	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Non- Public Facilities	10	14	2	20	14	976	69	221	41	5	24	25	107	1528
Birthing Center	53	55	17	72	56	17	2	18	46	43	37	51	24	491
CEONC Site	2	3	1	1	1	3	3	1	3	2	1	1	3	26
BEONC Site	0	1	0	2	3	2	1	3	3	2	0	4	6	27
Safe Abortion Site	21	5	6	30	25	36	5	21	15	30	8	28	20	250
ASRH Site	9	12	14	24	4	5	1	13	27	19	22	45	5	200
FCHV	1254	711	245	464	1123	1658	277	502	943	752	495	464	466	9354

The above table shows the district wise data of health service delivery unit of Bagamati Province. According to the updated categorization of health facilities there are 1272 BHSU,67 Basic hospitals (5-15 beds),81 General Hospital (25-50 beds),26 General Hospital (100-300 beds), 12 Specialized Hospitals (100 and above),15 Super Specialty Hospitals (50+ Beds/Organ) and 13 Academy and Teaching Hospital (300+ Beds).

The table also shows the total number of safe abortion sites, CEONC sites, BEONC sites and birthing centers. All together there are about 491 birthing center, 26 CEONC site, 27 BEONC site and 250 safe abortion sites in bagamati province.

1.4. Sources of Information in the Report

The Health Management Information System (HMIS) provided the main source of information for this report. The data presented in the report were downloaded through the DHIS-2 system which was retrieved after the completion of the national annual review workshop and were summarized to analyze progress of various health programs and activities. Other information systems used in this report include the Logistic Management Information System (eLMIS), Disease surveillance systems, Sentinel reporting, EWARS and the Ayurveda Reporting System (ARS) etc.

The report also included information obtained from the Palika, District and Province during the annual health review meeting undertaken at various levels. Finally, the Annual Health Report Preparation Committee collated, compiled, and examined all relevant data and then organized them into various sections and chapters in this report.

CHAPTER 2. FAMILY WELFARE

2.1. Child Health and Immunization

Background

"Vaccinations are cost effective, vaccines are safe, and vaccines protect lives"

National Immunization Program is considered as a priority 1 program and one of the successful public health interventions in reducing morbidity and mortality among children and mothers from vaccine preventable diseases. In Nepal, routine childhood vaccines include bacille Calmette Guerin (BCG), oral polio vaccine (OPV) or fractional inactivated polio vaccine (fIPV), pentavalent or DPT-HepB-Hib (diphtheria, pertussis, tetanus, hepatitis B, and Haemophilus influenzae type B), pneumococcal conjugate vaccine, rotavirus vaccine, measles-rubella vaccine (MR), and Japanese encephalitis.

Smallpox has now become history due to free status since 2034 BS and global eradication in 2037 BS (8 May 1980 AD). Maternal and neonatal tetanus (MNT) was eliminated in Nepal in 2005 and the elimination status has been sustained since then. The last case of polio in Nepal was in 2010, and along with other countries of the WHO South-East Asia Region, Nepal was certified polio free in 2014 (27 March 2014). This status has been maintained since then. The province has sustained the achievement since then and has a very good track record of meeting the targets for control, elimination, and eradication of vaccine preventable diseases. According to National Demographic Health Survey 2022, 80 percent of children age 12–23 months were fully vaccinated against all basic antigens (BCG, OPV, DPT-HepB-Hib and Measles Rubella) and 52 percent were fully vaccinated according to the national schedule. 4% percent of children did not receive any vaccines.

Guiding Document of National Immunization Program

The "Comprehensive Multi-year Plan for Immunization" (cMYPI) 2017-21 ended in 2021. The National Immunization Strategy development has been initiated to achieve the immunization vision over long term period. To develop "National Immunization Strategy" project to adopt immunization agenda 2030, a two-day workshop was organized by the Family Welfare Division (FWD), Department of Health Services, Ministry of Health, and Population. The NIS 2030 will be guided by national policies, guidelines, and strategies including Nepal Health Sector Strategy 2030.

Target Population for FY 2079/80

Table 2.1.1-Target Population for NIP for FY 2079/80

Particulars	Population
Under 1 year children	83,264
12-23 months population	83,886
0-59 months population	424,621

Source: DHIS-2

National Immunization Schedule

Table 2.1.2- National Immunization Schedule

S.N.	Type of Vaccine	No. of Doses	Schedule
1	BCG	1	At birth or on first contact with health institution
2	bOPV	3	6, 10 and 14 weeks of age
3	DPT-Hep B-Hib	3	6, 10 and 14 weeks of age
4	Rotavirus Vaccine	2	6 and 10 weeks of age
5	fIPV	2	14 weeks and 9 months of age (new schedule implemented in FY 2079/80
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	1	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

Immunization schedule for missed children

Table 2.1.3- Immunization Schedule for missed children

Vaccine	Up to 12 months if missed in routine schedule	>12 months to 23 months if missed	24 months to 5 years if missed
BCG	1 dose - The standard dose of reconstituted vaccine is 0.05 mL for infants aged ≥1 year - TST (Tuberculin Skin Test) not required before vaccination.		
Rotavirus	2 doses with 1-month interval		Rotavirus vaccine should not be given to children above 2 years of age
bOPV	3 doses with interval of 1 month between doses		
fIPV	2 doses with interval of 4 months between doses		
PCV	3 doses with 1-month interval between doses	2 doses with 2 months interval between doses	
DPT-HepB-Hib (Pentavalent)	3 doses with interval of 1 month between doses		3 doses interval of 1 month between 1st & 2nd dose, and 6 months between 2nd & 3rd dose
MR	<u>>9 months to < 15 months of age</u> 1st dose at first contact, and 2nd dose at 15 months of age. There should be at least 1 month interval between doses.		≥ 15months to 5 years of age 2 doses with 1 month interval between doses
JE		1 dose	
TCV			<u>≥ 15months to 5 years of age</u> 1 dose

Major activities conducted in FY 2079/80

- 3 day seminar on full vaccination and regular vaccination and hygiene promotion strategy preparation and micro-planning
- Campaign operation and management of booster dose of Covid-19 vaccine
- Basic 4-day training for new and untrained health workers on complete vaccine assurance, AEFI, surveillance, and sanitation promotion
- District-level on-site coaching in vaccination and cold chain management
- Monitoring of AEFI
- Deployment of technicians for maintenance of cold chain materials, deployment of research teams, epidemic control of vaccine-preventable diseases and
- Program supervision

Immunization Status of Bagmati Province

In line with the National Immunization Program, Bagmati province has included several underused and new vaccines in program. Currently there are 13 antigens-BCG, DPT-HepB-Hib (Penta), PCV, OPV (bOPV), fIPV, Measles and Rubella (MR), JE and Typhoid provided through 3173 sessions (EPI clinics-2965) (service delivery points in health facilities, outreach sessions and mobile clinics. Government of Nepal procures BCG, OPV, Td, JE, MR and co-finances to GAVI supported vaccines DPT-HepB-Hib, PCV and TCV, while IPV is fully supported by GAVI.

Major Achievements

- Planned, secured all the vaccine and logistics requirement, and proper distribution, and stock management at all levels.
- As per national plan, micro-planning activities were completed for the district level on time.
- Updated cold-chain inventory for the immunization supply chain.

Trends in provincial vaccination coverage

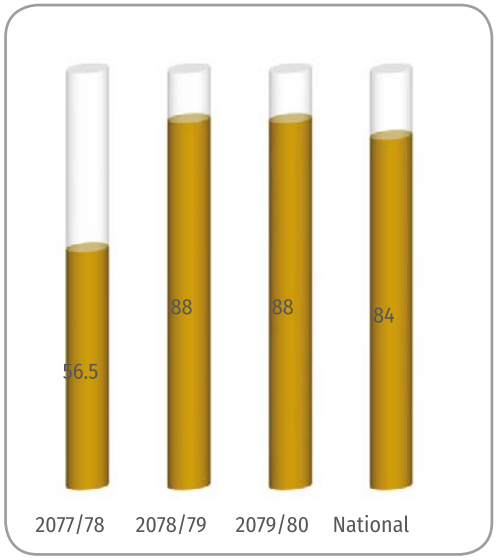


Figure 2.1.1: Trend of fully immunized children (%)

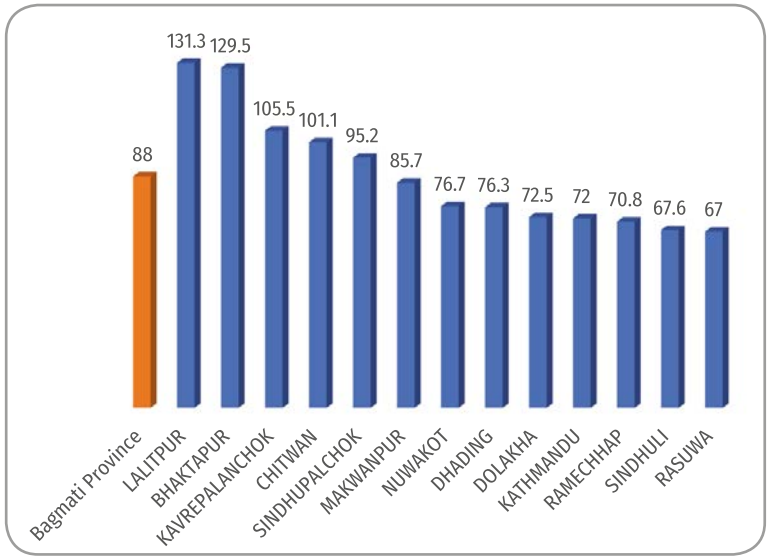


Figure 2.1.2: District wise data of fully immunized children (FY 2079/80)

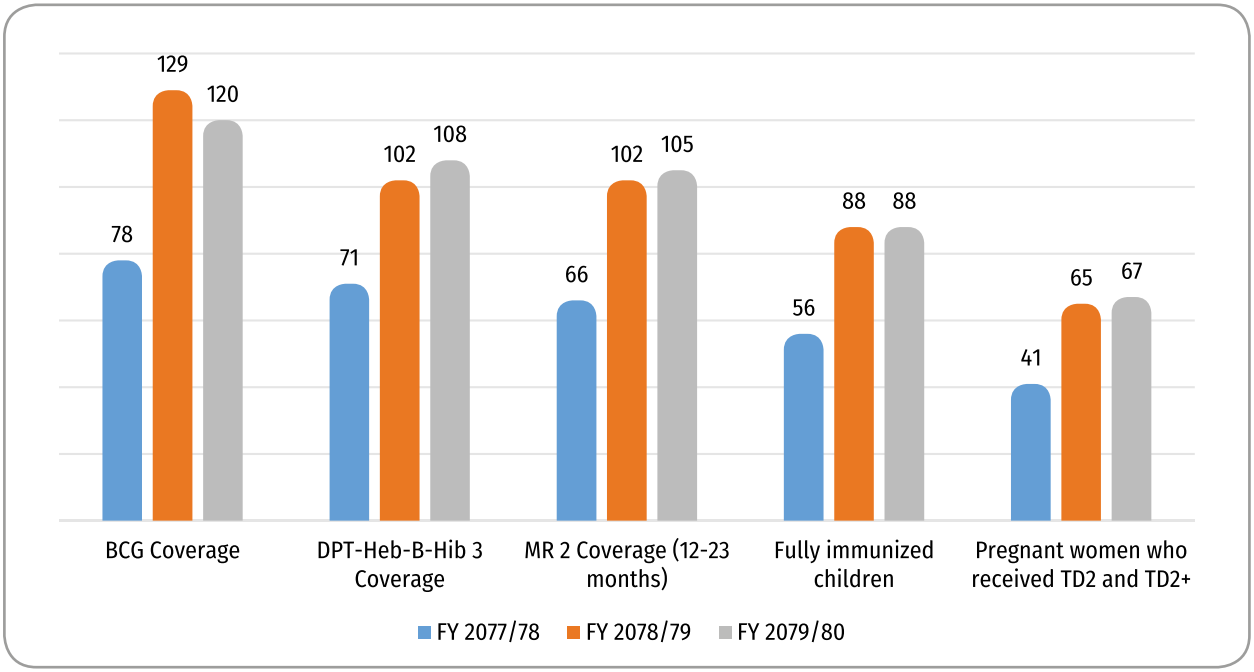


Figure2.1.3: Trends in provincial vaccination coverage

Source: DHIS-2

Figure shows provincial vaccination coverage for selected antigen for three years, from FY 2077/78 to FY 2079/80. Overall, BCG coverage is more than 100% in FY 2079/80 but is has decreased by 9% incompare to last year whereas the coverage of DPT-HepB-Hib3 and MR2 is increased by 6% and 3% respectively in 2079/80. The fully immunized children percentage is same as previous year whereas pregnant women who received TD2 and TD2+ is increased by 2% in FY 2079/80.

Provincial vaccination coverage, FY 2079/80

Table 2.1.4- Provincial vaccination coverage, FY 2079/80

S.N.	Antigens	Target Group	Target Population	Total vaccinated	% Achieved
1	BCG	Under 1 year	83257	99824	120%
2	DPT-HepB-Hib3	Under 1 year	83257	89797	108%
3	Measles-rubella 2nd dose	Under 12-23 months	83877	88560	105%
4	All antigen for children	Under12-23 months	83877	73782	88%
5	Td2 an Td2+	Expected Pregnancy	101838	68325	67%

Source: DHIS-2

District wise BCG coverage

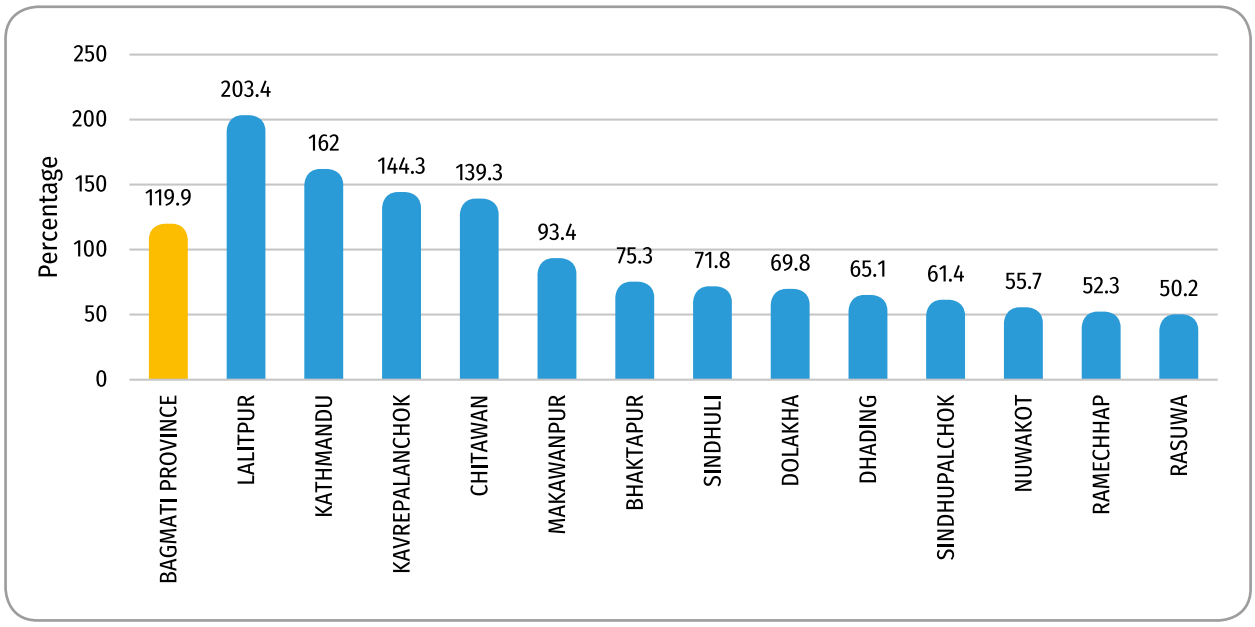


Figure 2.1.4: District wise BCG coverage

Source: DHIS-2

Figure 2.1.4 shows the district wise BCG vaccine coverage. Lalitpur has a higher BCG coverage rate (203.4%) followed by Kathmandu (162%). Rasuwa has lowest BCG coverage (50%) which needs to be improved.

Figure 2.1.5 shows that Lalitpur has the highest coverage (139.1%) followed by Bhaktapur (136.1%) and Rasuwa has the lowest coverage (72.5%) of DPT-HepB-Hib3 vaccine coverage.

District wise coverage (%) DPT-Heb B-Hib 3 in FY 2078/79

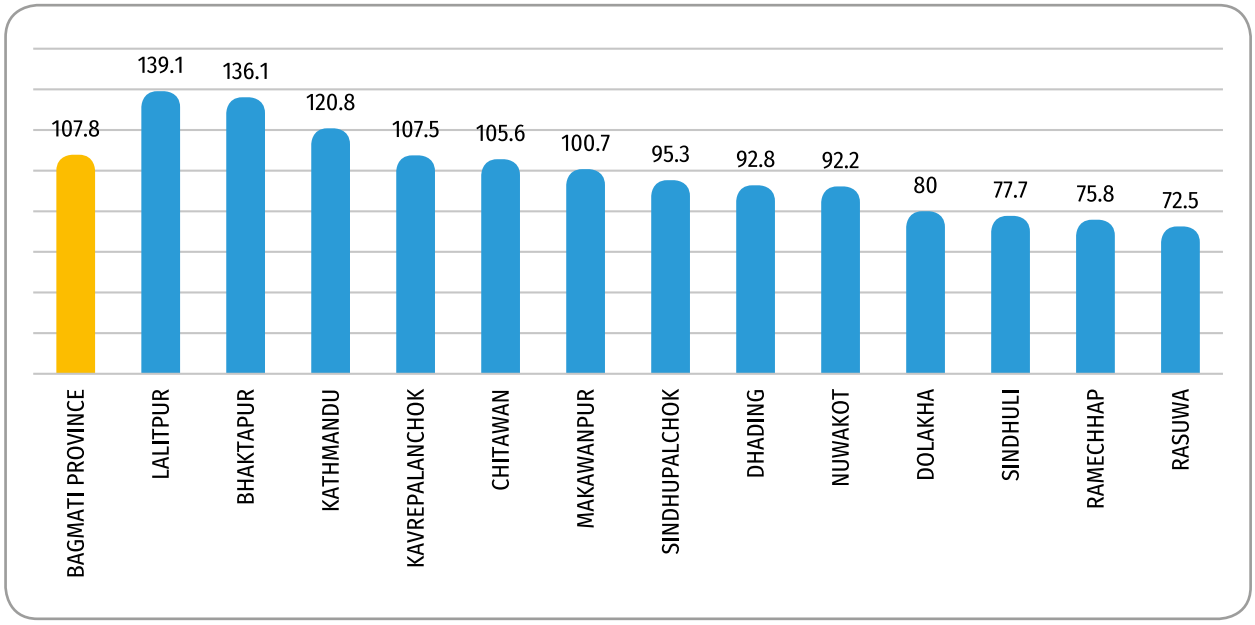


Figure 2.1.5: District wise coverage (%) DPT-Heb B-Hib 3

Source: DHIS-2

District wise MR 2 coverage (12-23 months)

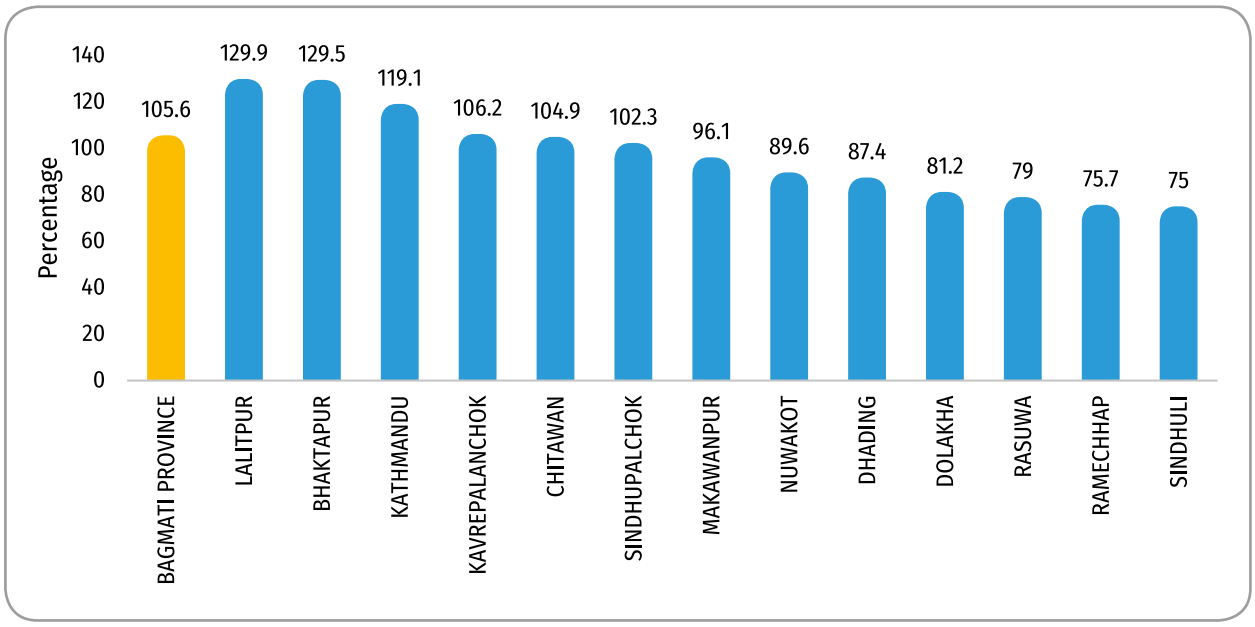


Figure2.1.6: District Wise MR2 Coverage (12-23 months)

Source: DHIS-2

Figure 2.1.6 shows the district wise MR2 coverage among 12-23 months children for the FY 2079/80. Lalitpur (129.9%) has the highest MR2 vaccine coverage followed by Bhaktapur (129.5%). Sindhuli (75%) has the lowest coverage of 12 to 13 months children received the MR2 vaccine.

Figure 2.1.7 shows the district wise vaccine coverage of fully immunized children in FY 2079/80. Lalitpur district (131.3%) followed by Bhaktapur (129.5%) has highest coverage than other districts. All children of Lalitpur, Bhaktapur, Kavrepalanchok, and Chitwan received all vaccines as per schedule. Rasuwa (67%) has the lowest coverage.

District wise coverage (%) DPT-Heb B-Hib 3 in FY 2078/79

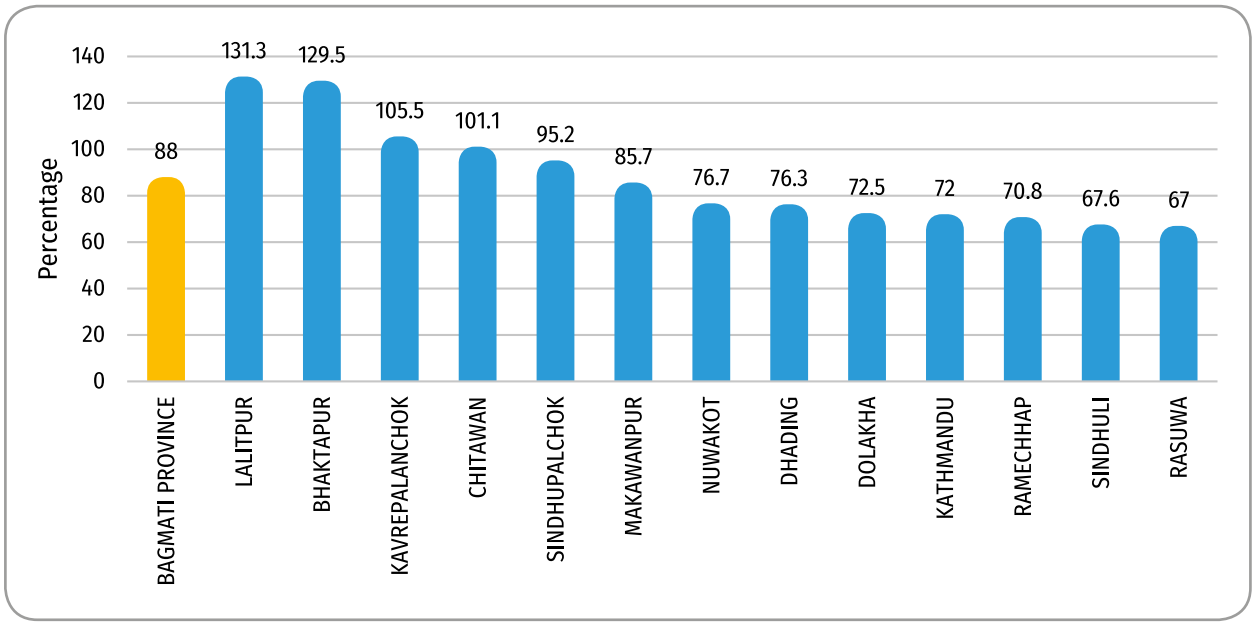


Figure 2.1.7: District Wise Coverage (%) of Fully Immunized Children

Source: DHIS-2

District wise coverage (%) of women who received Td2 and Td2+ in FY 2079/80

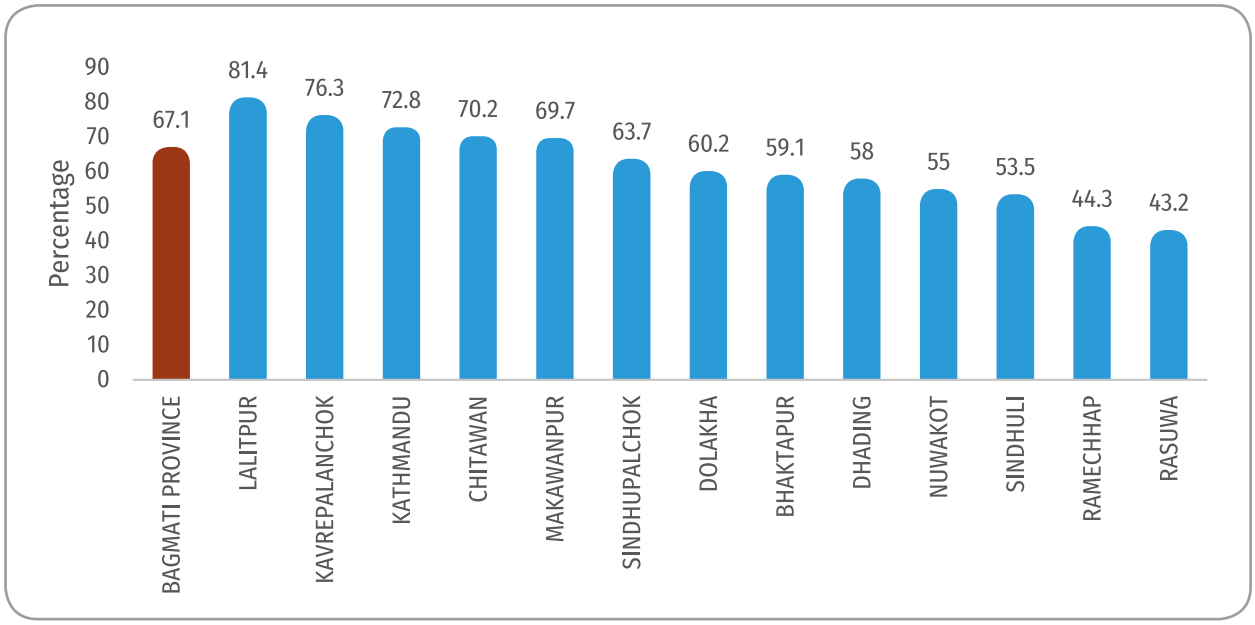


Figure 2.1.8: District Wise Coverage Of Women who received Td2 and Td2+ vaccine

Source: DHIS-2

Lalitpur has highest coverage with 81.4% among targeted women received Td2 and Td2+ vaccine, whereas Rasuwa has the lowest coverage with 43.2% coverage. All district has a coverage of above 40% in Bagmati province in FY 2079/80.

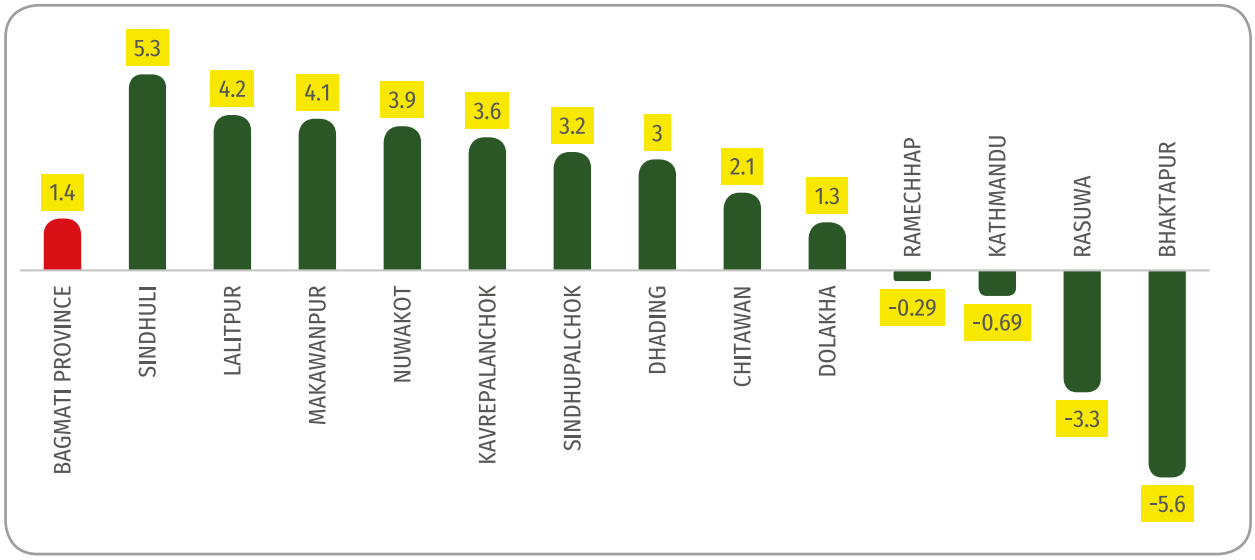


Figure 2.1.9: District Wise Percentage of Drop Out Rate of DPT-HepB-Hib 1 vs 3

Source: DHIS-2

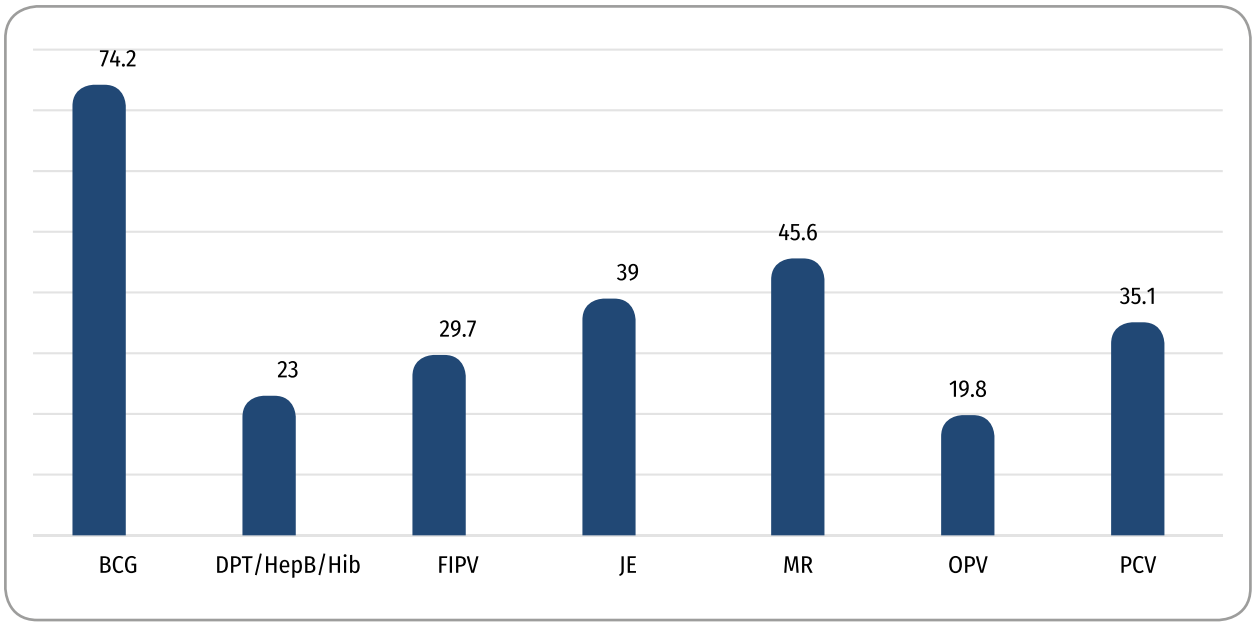


Figure 2.1.10: Vaccine wastage rate in FY 2079/80

Source: DHIS-2

Immunization coverage

Table 2.1.5- Total Immunization Coverage

SN	Antigens	Target Group	Target Population	Total vaccinated in no.	Percent Achieved
1	BCG	under 1 year	83257	99824	120%
2	Rota1	under 1 year	83257	90772	109%
3	Rota2	under 1 year	83257	89354	107%
4	DPT-Hep B HIB1	under 1 year	83257	91065	109%
5	DPT-Hep B HIB2	under 1 year	83257	89813	107%
6	DPT-Hep B HIB3	under 1 year	83257	89797	107%
7	OPV 1	under 1 year	83257	98385	118%
8	OPV 2	under 1 year	83257	90214	108%
9	OPV 3	under 1 year	83257	89645	107%
10	PCV1	under 1 year	83257	91125	109%
11	PCV2	under 1 year	83257	90073	108%
12	PCV3	under 1 year	83257	90797	109%
13	fIPV1	under 1 year	83257	80467	96%
14	fIPV2	under 1 year	83257	59906	71%
15	Measles/Rubella 1st Dose	under 1 year	83257	91690	110%
16	Measles/Rubella 2nd Dose	12-23 months	83877	88560	105%
17	Japanese Encephalitis	12-23 months	83877	91968	109%
18	Td2 and 2+	Expected pregnancy	101838	68325	67%

One of the strategies of the comprehensive multi-year plan of action under the first strategic objective is to increase immunization coverage to reach 100% children. Table 2.1.5 shows the progress made toward this strategy and objective of the cMYP.

Integration of Hygiene Promotion through Routine Immunization Program

Hygiene promotion through routine immunization program is being implemented across the country through the national immunization program with the technical support of WaterAid Nepal. It has been more than three years since the hygiene promotion is integrated at national scale and conducted through vaccination session and this will be continued through the immunization program on a routine basis. Following are the key reflections and learnings of the program:

- Out of the 35792 immunization sessions conducted in FY 2079/80 at Bagmati Province among them, only 23641 hygiene promotion sessions had conducted and still 12151 of the immunization sites did not include hygiene promotion sessions in their plans. Notably, a significant number of unplanned hygiene promotion sessions occurred in urban areas where immunizations take place on a daily basis, particularly in private hospitals lacking the infrastructure to accommodate of mothers.
- Reproduction of Hygiene Materials: Bakkaiya Rural Municipality of Makawanpur district has reproduced hygiene promotion materials (Mirror as a Flex) and distributed to the all immunization clinic. Health worker use the flex to conducted hygiene promotion session.
- Refresher training and regular monitoring/ onsite coaching support health workers in conducting hygiene promotion sessions smoothly at the immunization clinics. In order to address the above issues, Family Welfare Division has allocated hygiene integration activities in their Annual Work Plan and Budget (AWPB) programs of the federal, province, district and local level for upcoming Fiscal Year.

Hygiene Promotion Session Implementation Status

Table 2.1.6- Hygiene Promotion Session Implementation Status of FY 2079/80

Province & district name	Hygiene sessions planned	Hygiene sessions conducted	People benefitted multiple times from hygiene session	Immunization Sessions-Planned	Immunization Sessions-Conducted	Variation between immunization sessions vs hygiene sessions conducted
Bagmati Province	26212	23641	288326	37844	35792	12151
DOLAKHA	1348	1249	11247	1938	1828	579
SINDHUPALCHOK	2158	1922	17411	2954	2828	906
RASUWA	438	352	5577	634	575	223
DHADING	2542	2490	34037	2778	2716	226
NUWAKOT	2152	2051	18117	2772	2615	564
KATHMANDU	2651	2465	42186	5275	4888	2423
BHAKTAPUR	2236	1179	18252	2417	2234	1055
LALITPUR	1622	1541	16781	3185	2981	1440
KAVREPALANCHOK	4024	3859	32675	4883	4799	940
RAMECHHAP	1710	1654	11576	2294	2271	617
SINDHULI	1889	1790	21647	2688	2551	761
MAKWANPUR	1798	1696	30723	3150	2952	1256
CHITWAN	1644	1393	28097	2876	2554	1161

Source: DHIS-2

Issues, action to be taken and responsibilities

Issues/Challenges	Action to be taken	Responsibilities
Irregular update the stock report of vaccine and other accessories	Effective management/ operations of e-LMIS Regular update the stock report	District Local Government
Congested warehouse building for the storage at province level	Need to establish/build vaccine storage & warehouse at provincial level as per EVM standard.	Provincial Government (MoHPSW), PHLMC, MoHP
Sustaining full Immunization in Low coverage districts/ Municipalities	Yearly Verification and validation of fully immunized children and routine immunization Coverage monitoring system should be in place	Health Office, Health Section, Local Government
Replacement of cold chain equipment over 10 years	Replacing of ageing cold-chain equipment	PHLMC, MoHP/ Management Division
No clear policy to expand sub-centre and its management in ongoing federal structure	Guidelines for the local level's cold chain strengthen and expansion for the strategic location based on the EVM standard.	Provincial Government, Management Division/ MoHP
Lack of dedicated human resources for cold chain / immunization supply chain at districts and palikas level vaccine store	Provision for dedicated HR required for immunization section of district/vaccine sub-centre Provision of refrigerator technician at province (PHLMC)	Provincial Government (Health Directorate/ MoHPFW)) MoHP
Cold chain management training to cold chain dedicated staffs	Providing training to cold chain dedicated staffs of palikas and districts	PHLMC, PHD
Problem in regular reporting on eLMIS and other real consumption	Timely reporting of vaccine stock should be implemented from district level Need to arrange information reporting of cold-chain equipment in eLMIS system	Local Government Health Office

2.2. Community Based Integrated Management of Neonatal and Childhood Illness (CB-IMNCI)

Community-Based Integrated Management of Neonatal and Childhood Illness (CB-IMNCI) program is an integrated package of CB-IMCI and CB-NCP Program initiated on 2071/6/28. The program addresses the major issues associated with sick newborns including birth asphyxia, bacterial infection, jaundice, hypothermia, and low birth weight. The program also targets the problems associated with under five children including Pneumonia, Diarrhoea, Malaria, Measles and Malnutrition. CBIMNCI also covers the services like management of infection, Jaundice, Hyperthermia, and counseling on breastfeeding for newborn & young infants less than 2 months of age. This interventions support SDG-3.2 ending preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to 12 per 1000 live births and under-5 mortality to 25 per 1000 live births.

Targets:

Indicators (per 1000 live births)	SDG, By 2030	NENAP, By 2035
Neonatal Mortality Rate	12	11
Under-five Mortality Rate	25	21

Goal:

Improve new born and child survival and healthy growth and development.

Key interventions include:

Newborn Specific Interventions

- Promotion of birth preparedness plan
- Promotion of essential newborn care practices and postnatal care to mothers and newborns
- Identification and management of non-breathing babies at birth
- Identification and management of preterm and low birth weight babies
- Management of sepsis among young infants (0-59 days) including diarrhea

Child Specific Interventions

- Case management of children aged between 2-59 months for 5 major childhood killer diseases (Pneumonia, Diarrhoea, Malnutrition, Measles and Malaria)

Cross Cutting Interventions

- Behavior change communications for healthy pregnancy, safe delivery and promote personal hygiene and sanitation
- Improved knowledge related to Immunization and Nutrition and care of sick children
- Improved inter personal communication skills of HW sand FCHVs

CB-IMNCI Program Monitoring Key Indicators

- % of institutional delivery
- % of newborn who had applied chlorhexidine gel immediately after birth
- % of infants (0-2 months) with PSBI receiving complete dose of injection Gentamycin
- % of under five children with pneumonia treated with antibiotics
- % of under five children with diarrhea treated with ORS and Zinc
- Stock out of 5 key CB-IMNCI commodities at health facility (ORS, Zinc, Gentamycin, Amoxicillin, CHX

Major activities conducted in FY 2079/80

- Review of free newborn care program with provincial hospitals and other associated supporting stakeholders
- Supervision and monitoring of IMNCI program
- Conducted onsite coaching
- Routine data quatilty assessment

Major Achievements

CB-IMNCI Program Monitoring Indicators

Table 2.2.1- CB-IMNCI program monitoring indicators by district (FY 2079/80)

District	% of institutional deliveries	% of new-borns applied chlorhexidine (CHX) gel	% of PSBI cases received complete dose of gentamycin	% of pneumonia cases treated with antibiotics	% of children under five years with diarrhoea treated with zinc and ORS
Dolakha	69.7	98.8	0	97.7	94.1
Sindupalchowk	45.7	101.1	0	100.1	101.3
Rasuwa	22.6	96.9	0	97	95.4
Dhading	57.7	98.2	100	99.1	98.9
Nuwakot	36.3	86.7	75	102.6	91.3
Kathmandu	140.5	17.9	0	92.4	96.8
Bhaktapur	56	99.5	0	88.8	75.9
Lalitpur	109.9	89.7	20	100.7	84.9
Kavrepalanchowk	106.9	99.5	14.3	101.4	99.2
Ramechhap	41.2	89.6	14.3	98.3	94.7
Sindhuli	38.3	98.1	6.7	104.9	96.4
Makwanpur	75.7	86.5	94.1	90.1	100.2
Chitwan	171.8	85.5	33.3	100.3	94.5
Bagmati	100.5	59.3	40.04	98.7	95.1

Source:DHIS-2

In fiscal year 2079/80, provincial average for institutional deliveries exceeded 100% with Rasuwa district having the lowest rate (22.6%) and Chitwan district having highest rate (171.8%). Of all reported live births, 59.3% of newborn umbilical cords had chlorhexidine administered to them. There was a variance in CHX use by district, with Sindhupalchowk district having the highest use (101.1%) and Kathmandu district having the lowest (17.9%). Likewise, 40.04% of PSBI cases among under two month old infants received a complete dose of Gentamycin at provincial level where only Dhading district has administered a complete dose of Gentamycin in cent percent PSBI cases whereas five districts i.e. Dolakha, Sindhupalchowk, Rasuwa, Kathmandu and Bhaktapur district have not administered a complete dose of Gentamycin in PSBI cases.

Almost all cases of pneumonia i.e. 98.7% were treated with antibiotics in provincial level with at least 88% in all 13 district. The provincial coverage of children suffering from diarrhea treated with ORS and Zinc was 95.1%, highest observed in Sindhupalchowk district (101.3%) and lowest in Bhaktapur (75.9%).

Key achievements for management of < 2months newborn

Table 2.2.2: Classification of treatment of <2months newborn cases by district from FY 2077/78 to FY 2079/80

Indicators	Year	Dolakha	Sindhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchowk	Ramechhap	Sindhuli	Makwanpur	Chitwan	Bagmati Province
Possible Severe Bacterial Infections (PSBI)	2077/78	16	34	5	58	16	1	1	5	17	7	32	9	33	234
	2078/79	13	49	5	108	20	17	0	5	30	5	31	9	36	328
	2079/80	10	26	4	32	23	13	2	5	25	6	10	20	23	199
Jaundice	2077/78	1	19	1	65	6	15	1	6	11	5	10	10	12	162
	2078/79	11	10	1	96	9	9	1	5	19	2	12	28	34	237
	2079/80	4	14	6	58	14	39	4	19	4	1	18	24	54	259
Low Birth Weight/Breast-Feeding Problem ≤ 28 days (HF only)	2077/78	25	15	2	26	17	11	0	8	22	5	8	8	21	168
	2078/79	15	20	9	53	10	18	0	9	27	3	25	13	27	229
	2079/80	0	1	0	20	0	1	0	4	4	2	8	5	6	51
Referred	2077/78	13	18	0	41	5	15	0	19	25	3	36	13	31	219
	2078/79	19	37	3	50	13	36	1	13	37	2	13	19	21	264
	2079/80	10	23	5	27	14	30	2	20	40	7	15	40	41	274
Deaths	2077/78	1	2	0	7	3	2	0	0	0	0	0	2	0	17
	2078/79	0	0	0	1	3	0	0	0	0	0	0	1	0	5
	2079/80	0	1	1	0	0	0	0	0	1	0	0	0	0	3

Source:DHIS-2

A total of 199 PSBI cases and 51 low birth weight or breastfeeding problem cases were classified and registered in FY 2079/80 at provincial level which shows remarkable reduction from previous year by 129 PSBI cases and 178 low birth weight or breastfeeding problem cases. The PSBI cases were highest in Dhading district (32 cases) and least in Bhaktapur (2cases) in FY 2079/80. However there is slight increase in Jaundice cases in FY 2079/80 from 237 to 259 as compared to last year.

A total of 274 under two month old infants were referred in FY 2079/80. Likewise death of under two month old infants has been reduced by 2 as compared to last year. i.e. from 5 death cases to 3 death cases.

Key achievements for management of diarrhea in 2-59 months children

For health care practitioners, CB-IMNCI initiative has produced an environment that facilitates improved diagnosis, categorization, and management of diarrheal illnesses. Three categories have been established for diarrhoea according to IMNCI protocol: "No Dehydration," "Some Dehydration," and "Severe Dehydration." The reported number and classification of total new diarrhea cases has presented in Table below.

Table 2.2.3-Classification of diarrheal cases by district (2-59 months children)

Indicators (service unit)	Year	Bagmati Province	Dolakha	Sindhupalchowk	Rasuwa	Dhading	Nuwakot	Kathmandu	Bhaktapur	Lalitpur	Kavrepalanchowk	Ramechhap	Sindhuli	Makwanpur	Chitwan
FCHV Program-CBIMNCI-(2-59 months)-Total Diarrhoea Cases	2077/78	101660	5557	7855	2639	5694	6868	13298	3343	8046	10377	8198	8154	13849	7782
	2078/79	101009	5020	7434	2117	5387	7177	16332	4526	7536	9207	7903	7498	13044	7828
	2079/80	82190	4051	4672	1799	3677	6647	12683	3777	7172	6933	6149	6506	11239	6885
CBIMNCI-(2-59 Months)- Classification-No dehydration	2077/78	31028	2259	3946	1088	3305	1856	1865	704	1699	3029	1579	2799	3468	3431
	2078/79	27110	1599	2918	790	3011	1491	2003	776	1479	2940	1181	2397	3126	3399
	2079/80	30693	1708	2877	772	3482	1411	2855	1338	1780	3169	1236	2583	3780	3702
CBIMNCI-(2-59 Months)- Classification-Some dehydration	2077/78	3651	417	503	30	519	169	197	31	198	341	115	582	305	244
	2078/79	2935	195	264	30	448	140	272	32	88	257	106	531	315	257
	2079/80	2791	113	189	21	438	197	271	118	45	220	106	476	222	303
CBIMNCI-(2-59 Months)- Classification-Severe dehydration	2077/78	54	6	2	2	7	8	0	1	5	2	0	8	5	8
	2078/79	42	5	2	0	3	10	0	0	0	0	2	1	14	5
	2079/80	53	3	1	1	8	1	0	30	0	0	0	6	1	2

Source:DHIS-2

Table 2.2.4- Trends in classification of diarrhoeal cases by incidence (2077/78-79/80)

District	Estimated <5 years population that are prone to diarrhoea			Incidence of diarrhoea/1000 <5years population		
	FY 2077/78	FY 2078/79	FY 2079/80	FY 2077/78	FY 2078/79	FY 2079/80
Bagmati Province	652626	424621	424621	213.3	310.8	78.8
Dolakha	18678	13234	13234	449.2	513.5	137.8
Sindupalchowk	29515	18421	18421	429	572.6	166.5
Rasuwa	4525	4800	122504	846.6	632.1	165.3
Dhading	35518	26056	20723	280.8	344.1	150.7
Nuwakot	28847	20723	26056	318.9	434.5	77.7
Kathmandu	229403	122504	4800	67.5	151	25.5
Bhaktapur	37719	25706	25706	108.3	205.1	57.8
Lalitpur	58495	159991	31898	172.7	287.2	57.2
Kavrepalanchowk	40472	28212	28212	347.3	451.4	120.1
Ramechhap	20898	13734	13734	477.7	660.4	97.7
Sindhuli	31236	30168	30168	382.2	355.2	101.6
Makwanpur	46629	38235	38235	384	431.1	104.7
Chitwan	70691	50931	50931	164	226	78.7

Source:DHIS-2

The incidence of diarrhea per thousand under 5 years children in Bagmati province was 78.8 (Health facility only) in fiscal year 2079/80, being highest in Sindhupalchowk (166.5) and lowest in Kathmandu district (25.5).

IMNCI Program Status

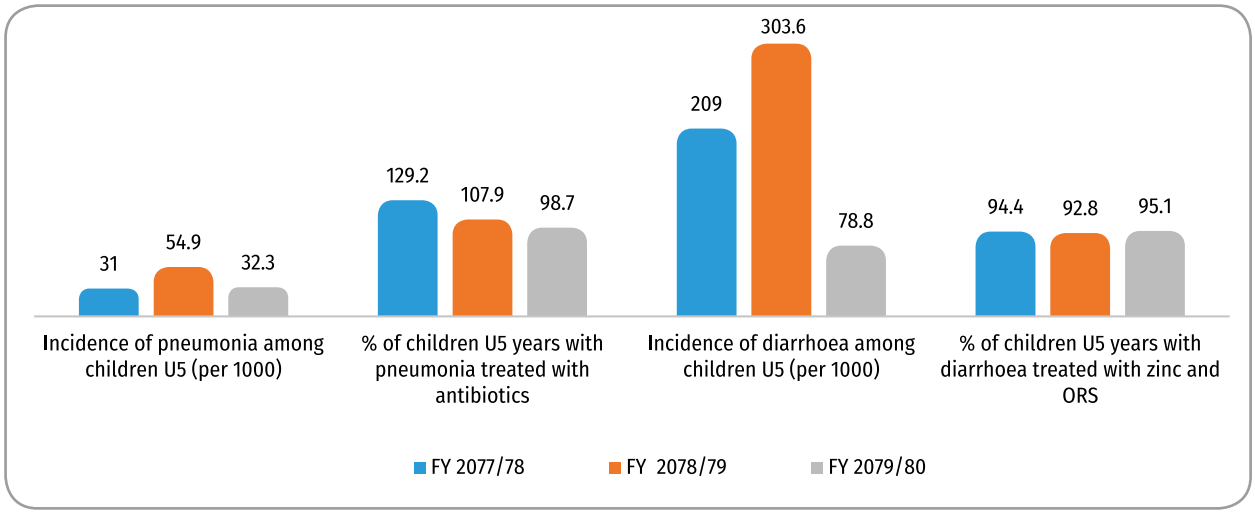


Figure 2.2.1: Program status of IMNCI

Source: DHIS-2

The figure 2.2.1 represents the provincial status of IMNCI of last three fiscal years from 2077/78 to 2079/80. The data shows that incidence of Pneumonia and Diarrhea has decreased in FY 2079/80. The percentage of children U5 years with Pneumonia treated with antibiotics has decreased to 98.7% compared to last fiscal years and percentage of children under 5 with Diarrhea treated with ORS and Zinc at province level increased to 95.1% in FY 2079/80.

The figure 2.2.2 and 2.2.3 shows highest incidence of diarrhea in Sindhupalchowk district (166.5) followed by Rasuwa (165.3) and lowest in Kathmandu district (25.5). Likewise, the highest % of children under five years with diarrhea treated with zinc and ORS observed in Sindhupalchowk district (101.3%) and lowest in Bhaktapur (75.9%)

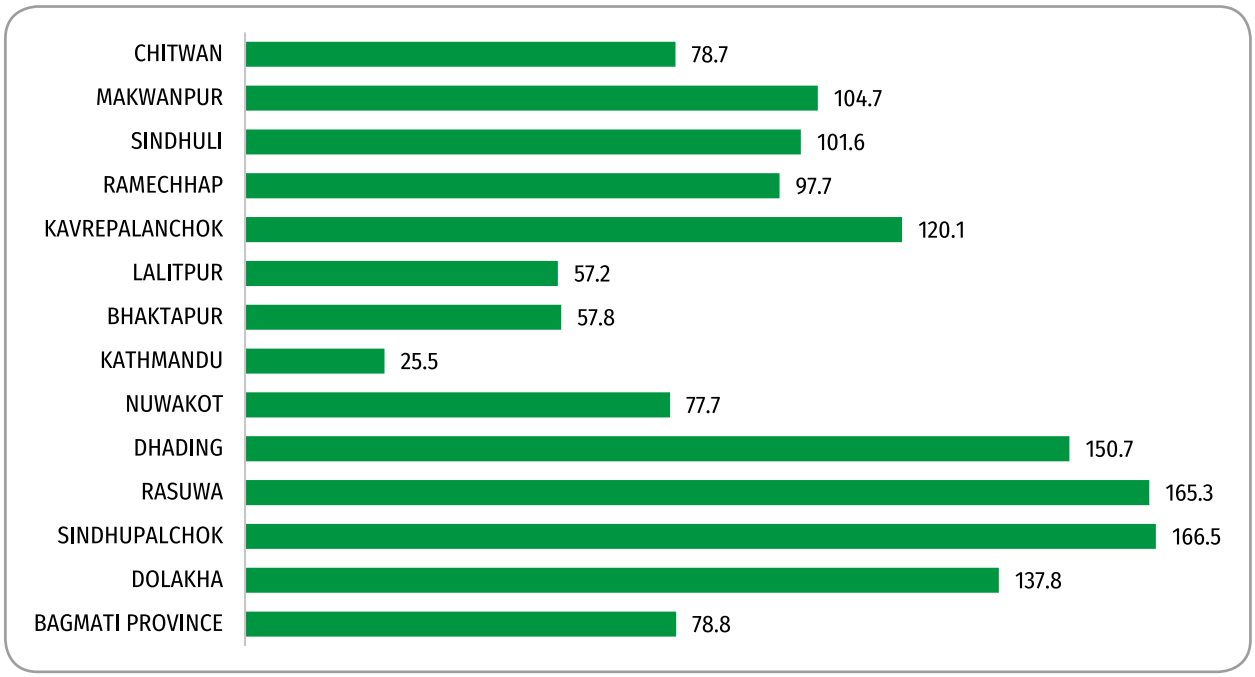


Figure 2.2.2: Incidence of diarrhea per 1000 U5 years children in FY 2079/80

Source: DHIS-2

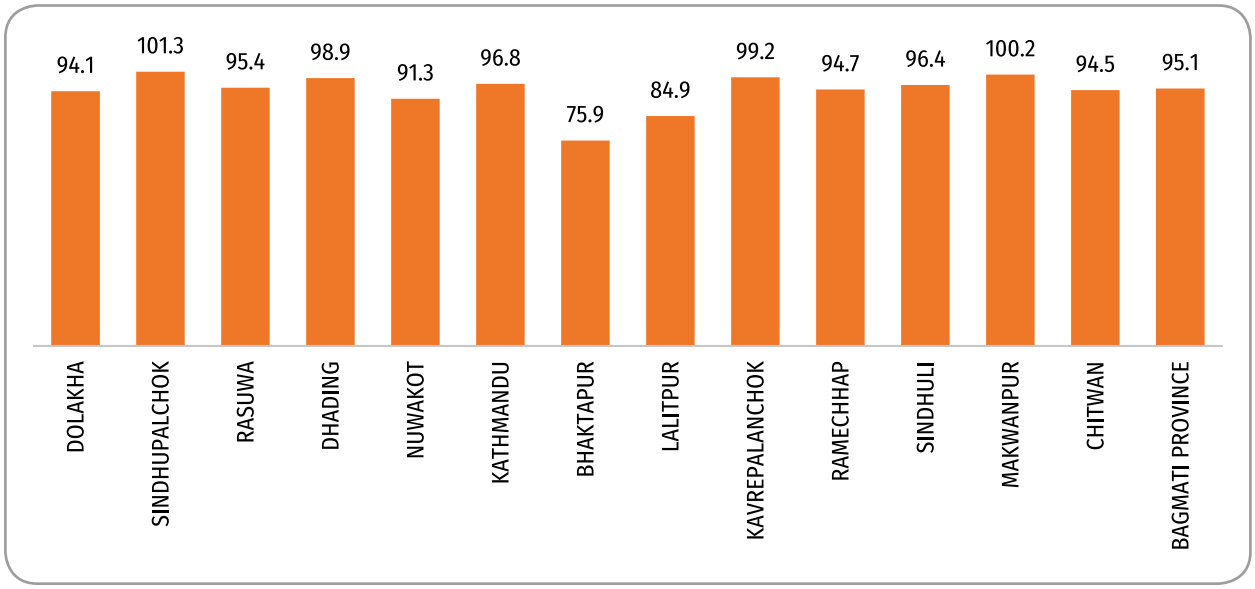


Figure 2.2.3: % of children under five years with diarrhea treated with zinc and ORS

Source: DHIS-2

Incidence of pneumonia cases

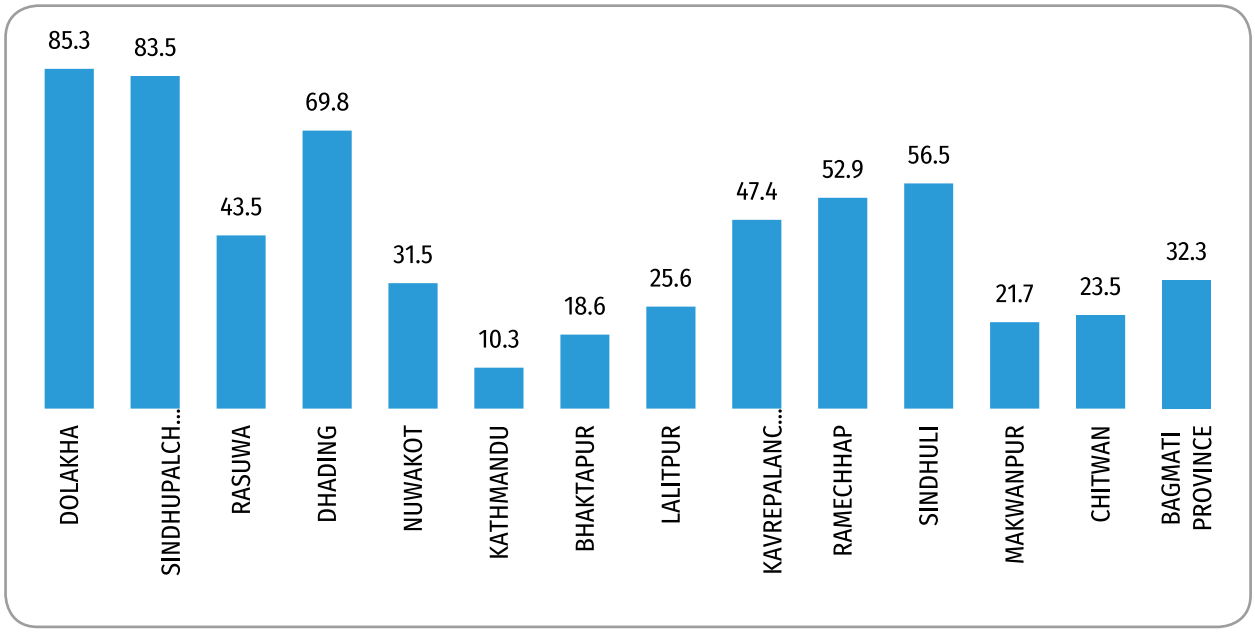


Figure 2.2.4: Incidence of pneumonia among under five children per 1000

Source: DHIS-2

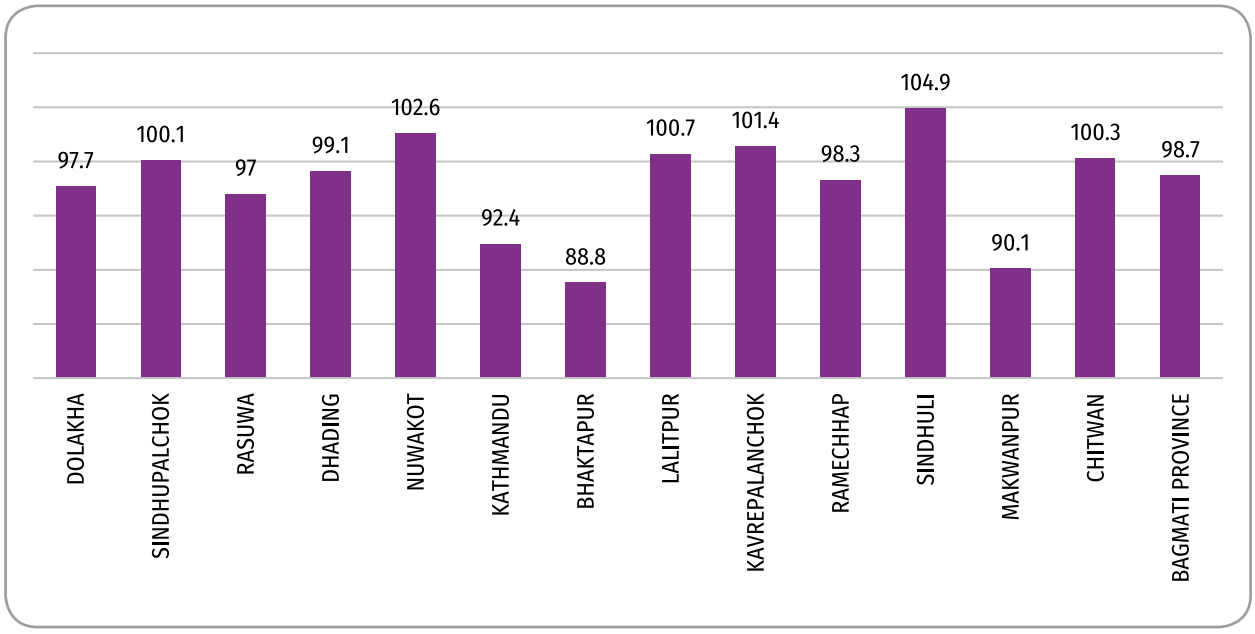


Figure 2.2.5: % of children U5 years with Pneumonia treated with antibiotics (Amoxicillin)

Source: DHIS-2

The figure 2.2.4 and 2.2.5 shows highest incidence of Pneumonia among under five children in Dolakha district (85.3) followed by Sindhupalchowk (83.5) and lowest in Kathmandu district (10.3). Likewise, the highest % of children U5 years with Pneumonia treated with antibiotics (Amoxicillin) observed in Sindhuli district (104.9%) and lowest in Bhaktapur district (88.8%)

Problems, constraints and action to be taken and responsibilities

Issues/Challenges	Action to be taken	Responsibilities
Improper recording and reporting	Proper management of recording and reporting	MOH, Health Directorate
Poor data quality	Carry out RDQA-online/offline Strengthen regular feedback mechanisms and supervision and monitoring	Health Directorate
No provision of CB-IMNCI dedicated officer at province and local level	Assign focal person for CB-IMNCI program	MOH, Health Directorate
Lack of equipment to deliver newborn and chid health services at service delivery points	Timely procurement and supply of equipment	MOH, Health Directorate
Limited engagement of private sectors	Ensure and encourage involvement of private sector to ensure quality services are provided with proper follow up of childhood treatment protocols at each level	MOH, Health Directorate

2.3. Nutrition program

Nutrition is a globally recognized development agenda, also a base of survival, growth and development, a prerequisite of accelerated attainment of all the Sustainable Development Goals (SDGs) and can foster socio- economic development. Good Nutrition is a key driver of development and economic growth whereas undernutrition incurs significant productivity losses for individuals and ultimately for the nation. The Government of Nepal (GoN) is committed to ensuring that all its citizens have access to adequate nutritious food, healthcare and other social services that impact nutrition outcomes. The Constitution (2015) ensures the right to food, health and nutrition to all citizens in Nepal. Malnutrition continues to be a significant impediment to health, social and economic development. Nutrition program is a priority program for the government of Nepal. Its main motto is to achieve the nutritional well-being of all people so that they can maintain a healthy life and contribute to the country's socio-economic development.

Nepal has made significant progress in reducing stunting among children under 5 years. The prevalence of stunting decreased from 57 percent in 2001 to 25 percent in 2022 NDHS and according to the recent Multiple Indicator Cluster Survey (MICS 2019), stunting has reduced to 32 percent. Similarly, wasting among children under 5 years was 11 percent in 2001, 8 percent in 2022 according to NDHS data and the MICS 2019 shows wasting at 12 percent. However, the prevalence of overweight remained constant i.e.1 percent from 2001 to 2022 NDHS. In Bagmati province, stunting was 18% percent in the NDHS 2022, 22.9 percent in MICS 2019. Wasting among children under 5 years was 4.7 percent in MISC 2019.

The province government has a high-level commitment and has given top priority to nutrition programs to improve the nutritional status of children, pregnant women, lactating mothers, and adolescents of Bagmati province. The Ministry of Health and Health Directorate is accountable to provide nutrition services in the province in coordination and collaboration with federal & local governments and supporting

development partners. The province has been developing policies, strategies, and guidelines of nutrition programs in the context of the province in alignment with National policies and strategies.

Key Policy documents

The National Nutrition Strategy, 2077

The National Nutrition Strategy 2077 is the ten year nutritional strategy from 2077-2087(2020-2030) that will be modified as per required. After The Constitution of Nepal 2072 BS, national strategy on nutrition is needed to be revised and updated as per existing National Health Policy 2076. This strategy has been prepared to incorporate the nutrition related strategies included in the fifteenth plan 2076/77-2080/81. The main aim of the strategy is to address all forms of malnutrition by implementing nutrition-specific and sensitive interventions through the health sector and providing strategic and programmatic direction for nutrition interventions in Nepal through health sectors.

Basic principles and concepts:

i. Federally structured nutrition plan and activities
ii. Gender equality and social inclusion
iii. Program expansion to underserved groups and communities
iv. Transparency, responsibility, and accountability
v. Good governance
vi. Evidence-based nutrition service
vii. Private sector engagement
viii. Mobilization of local resources
ix. Community participation.

Vision

To prepare well-nourished, healthy, happy and capable citizens.

Mission

To build a nutrition friendly society

Goal

To reduce the current problem of malnutrition in line with the SDGs by 2030

Objectives:

1. Improve the nutritional status of infant, young children, adolescent girls and women by increasing access to nutrition specific and nutrition sensitive services.
2. Improve the quality of nutrition specific and nutrition sensitive interventions and build capacity of the service providers.
3. Increase the demand of nutrition specific and nutrition sensitive interventions through public awareness
4. Promote good nutrition behaviors and inhibit harmful behaviors.
5. To increase the scope of nutrition services in accordance with time

Strategies

1. Update and expand multi-sectoral nutrition program
2. Adopt short-term, medium-term and long-term measures to improve micro-nutrition
3. Strengthening and development of school health programs and nutrition education
4. Promoting domestics production by encouraging the consumption of nutritious and healthy foods.

Multi-sector Nutrition Plan (MSNP-II 2018-2022) - which is a broader national policy framework for nutrition, within and beyond the health sector, coordinated by the National Planning Commission (NPC), provides national policy guidance for nutrition-specific and nutrition-sensitive interventions as well as creating an enabling environment for nutrition interventions throughout the country.

The National Health Policy, 2076- focuses on improving nutrition through the effective

promotion of quality, nutritious foods produced locally.

Strategies

i) promotion of dietary diversification

ii) food fortification

iii) micronutrient supplementation and

iv) public health measures.

The first two are the Food-based Approach and the other two are Non-Food Based Approach. Nepal, being an early riser of the Scaling-up Nutrition (SUN) movement has initiated the multi-sector approach in nutrition interventions with formulation and effective implementation of Multi-sector Nutrition Plan (MSNP). It envisions the reduction of childhood stunting with the scaling- up of nutrition-sensitive and nutrition-specific intervention. Under the MSNP framework, the health sector is responsible for nutrition-specific interventions.

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

Nutrition interventions

The Ministry of Health Population and Family Welfare Division has been implementing several nutritional specific interventions to address maternal, adolescent and child malnutrition. The major National Nutritional Program that are implemented as follows:

A. Nationwide programme

i. Maternal, Infant and Young Child Nutrition (MIYCN)

ii. Growth Monitoring and Promotion (GMP)

iii. Control and Prevention of Iron Deficiency Anemia

iv. Control and Preventions of Vitamin A Deficiency Disorders

v. Control and Prevention of Iodine Deficiency Disorders

vi. Control of Intestinal Helminths Infestations

vii. School Health and Nutrition Program (Adolescent IFA distribution)

viii. Nutrition in emergency

B. Scale up programme

i. Integrated Infant and Young Child Feeding and Multiple Micronutrient Powder (Balvita) Community Promotion Program

ii. Integrated Management of Acute Malnutrition (IMAM) Program

iii. Maternal and Child Health and Nutrition (MCHN) Program

iv. Maternal Baby Friendly Hospital Initiative (MBFHI)

v. Nutrition Rehabilitation Home (NRH)

Major activities conducted in FY 2079/80

- Celebration of National Nutrition Days/Months (Breastfeeding Week, School Health and Nutrition Week, Iodine Month etc.)
- Advocacy meeting on nutrition programs between local level chiefs, deputy chiefs and public representatives and nutrition officials
- Monitoring and supervision of nutrition programs
- Expansion of MBFHI to provincial hospitals
- Annual Review of Provincial Level Nutrition Program
- Capacity Building and Onsite Coaching for Hospitals with Inpatient Treatment Center

Major achievements in Nutrition program

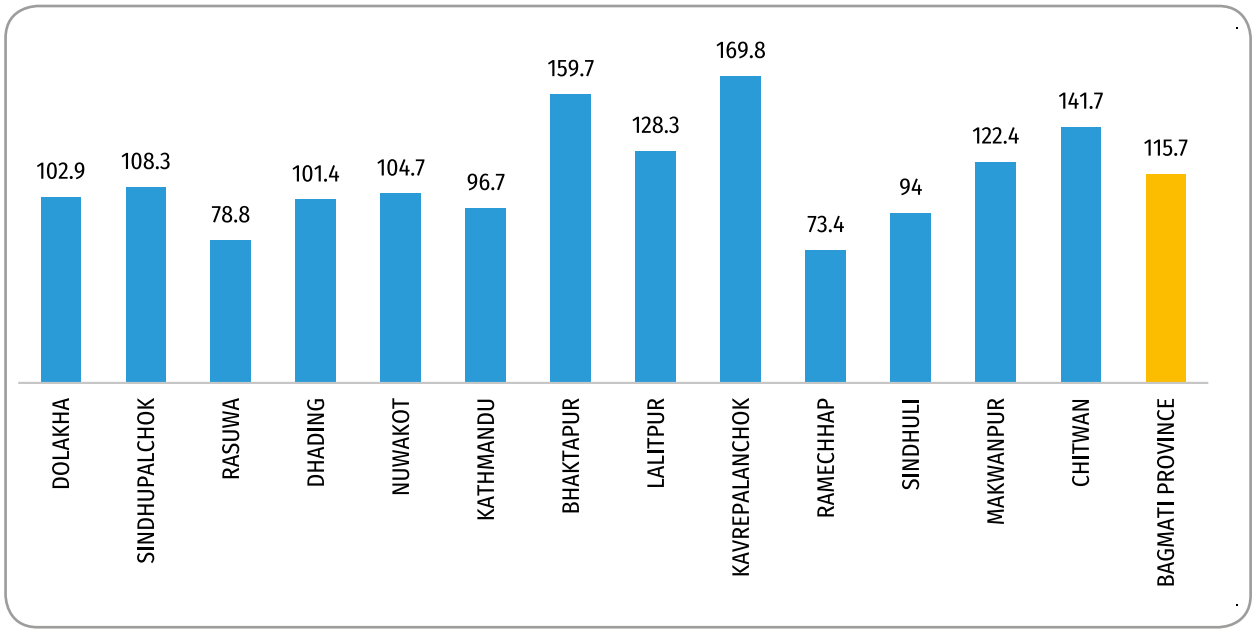


Figure 2.3.1: Percentage of children aged 0-11 months registered for growth monitoring

Source: DHIS-2

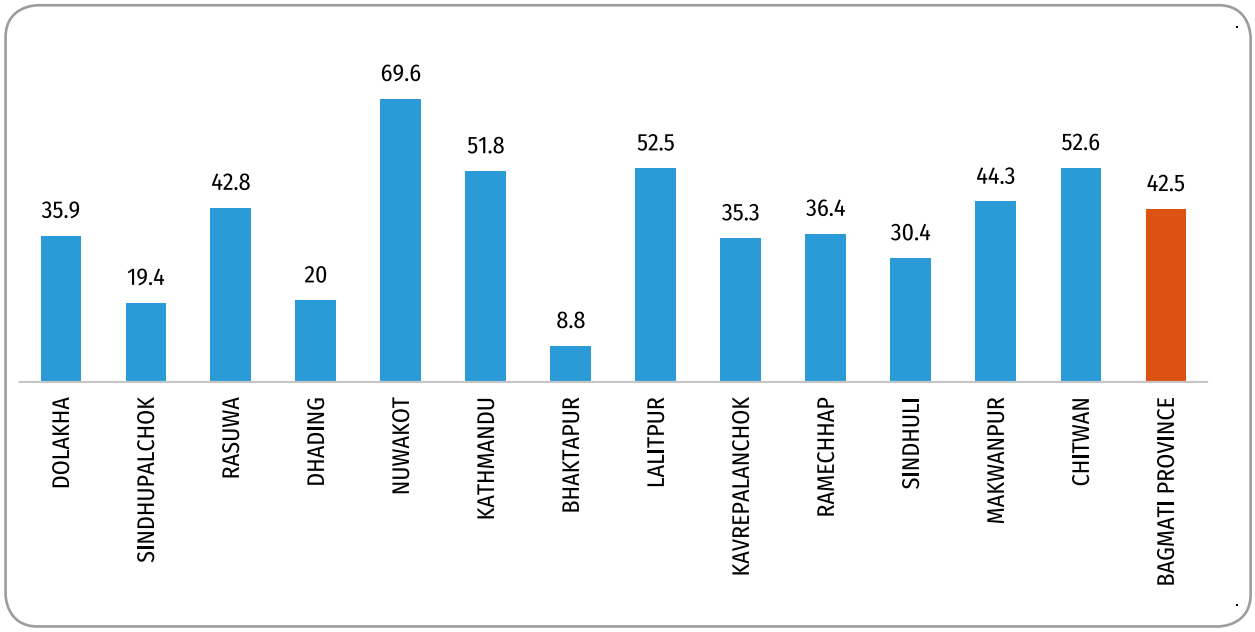


Figure 2.3.2: Percentage of children aged 12-23 months registered for growth monitoring

Source: DHIS-2

The above figures 2.3.1 and 2.3.2 illustrates district wise nutritional status indicators of Bagmati Province in the fiscal year 2079/80. Accordingly, the highest percentage of children aged 0-11 months registered for growth monitoring was in Kavrepalanchok district (169.8) and the least in Ramechhap district (73.4) in that fiscal year. Likewise, the proportion of children aged 12-23 months registered for growth monitoring with the highest percentage was of Nuwakot district (69.6) while the lowest was of Bhaktapur (8.8).

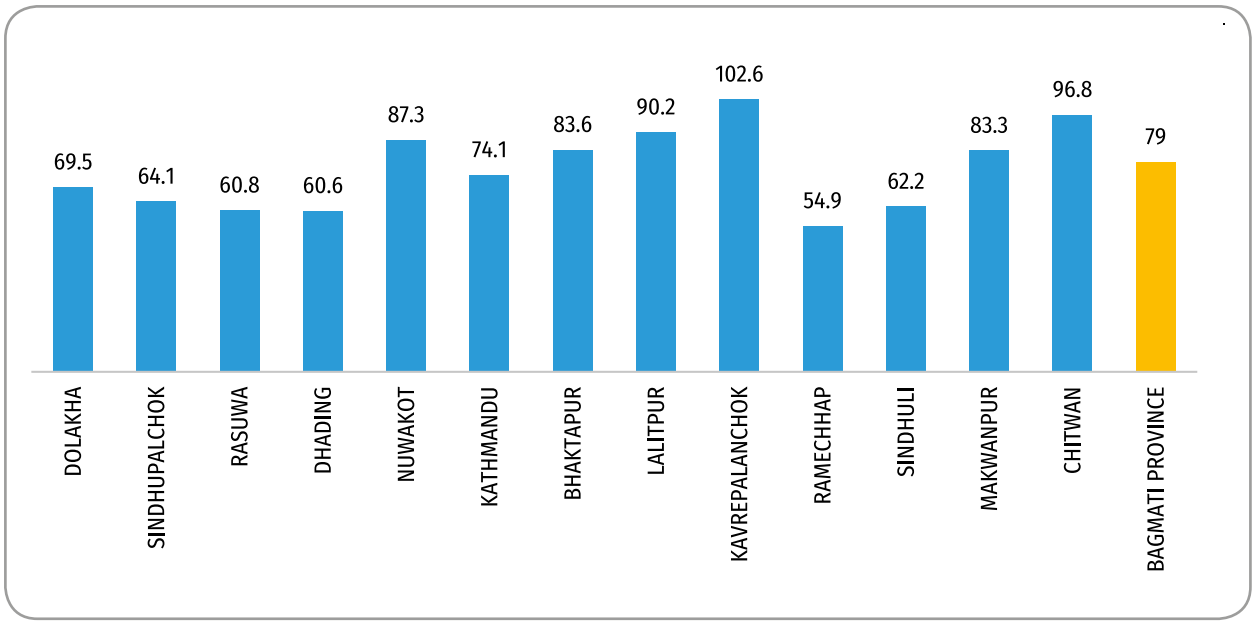


Figure 2.3.3: Percentage of children aged 0-23 months registered for growth monitoring

Source: DHIS-2

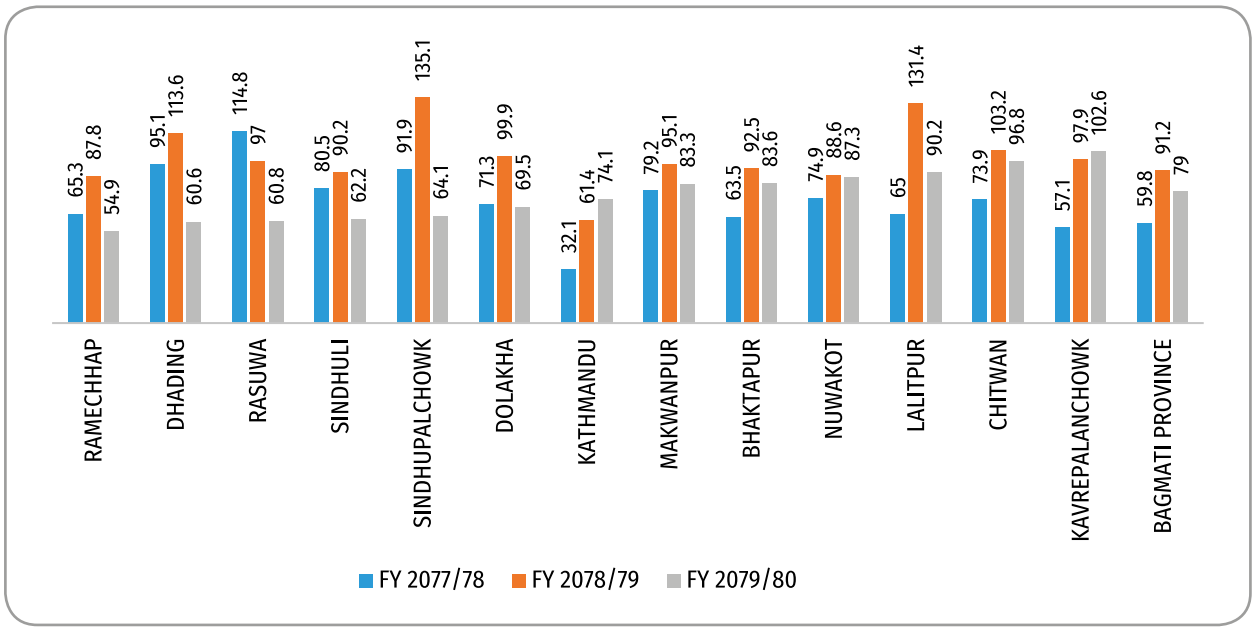


Figure 2.3.4: Trends in % of children aged 0-23 months registered for growth monitoring(FY 2077/78-79/80)

Source: DHIS-2

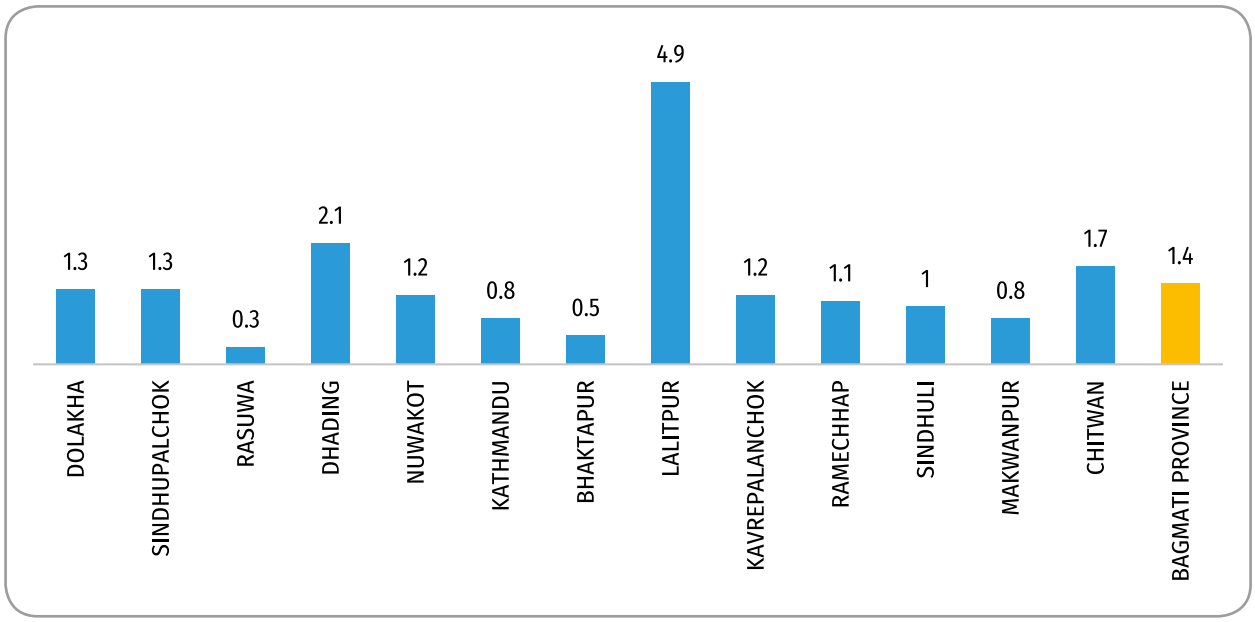


Figure 2.3.5: Percentage of children aged 0-23 months registered for growth monitoring (new) who are underweight

Source: DHIS-2

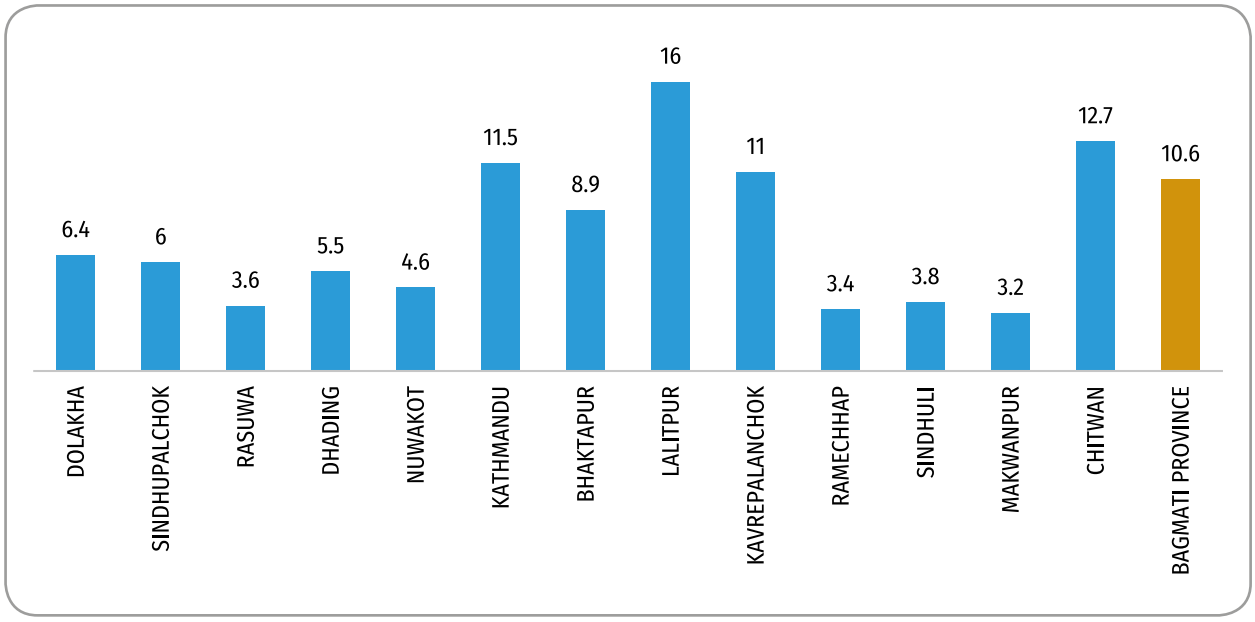


Figure 2.3.6: Percentage of newborns with low birth weight (<2.5kg) among total delivery by HWs

Source: DHIS-2

The above figures 2.3.3,2.3.4, 2.3.5 and 2.3.6 highlights that the percentage of children aged 0-23 months registered for growth monitoring was highest in Kavrepalanchok district (102.6) and the least in Ramechhap (54.9). Likewise the trend is decreasing since last fiscal year in registering growth monitoring of children aged 0-23 months. Similarly, the highest percentage of children aged 0-23 months registered for growth monitoring (new) who were underweight was of Lalitpur district (4.9) and the least of was Rasuwa district (0.3). Furthermore, the highest and the lowest percentage of low birth weight (<2.5kg) among total delivery by health workers was of Lalitpur district (16) and Makawanpur (3.2) respectively.

Infant and Young Child Feeding (IYCF)

Infant and young child feeding is the practice of feeding infants and young children from birth to two years of age which is a critical aspect of child survival, growth, and development. Infant and young child feeding practice includes early initiation of breastfeeding; immediately after birth, within one hour, exclusive breastfeeding for the first six months, timely introduction of complementary foods after the age of six months and continued breastfeeding for 2 years or beyond. Proper IYCF practices can help to prevent malnutrition and other health consequences in children. IYCF program has been running in all 77 districts of Nepal since FY 2072/73.

The table below provides data on the percentage of newborns who initiated breastfeeding within one hour of birth in different districts of Bagmati Province. The data shows the percentage of newborns who initiated breastfeeding within one hour of birth having the highest percentage and the lowest percentage were of Rasuwa (38.5) and Bhaktapur (0.25) respectively.

The figure 2.3.8 highlights the highest and lowest percentage of children below 6 months exclusively breastfed among registered for growth monitoring were of Makawanpur district (79) and Chitwan district (28.8) respectively.

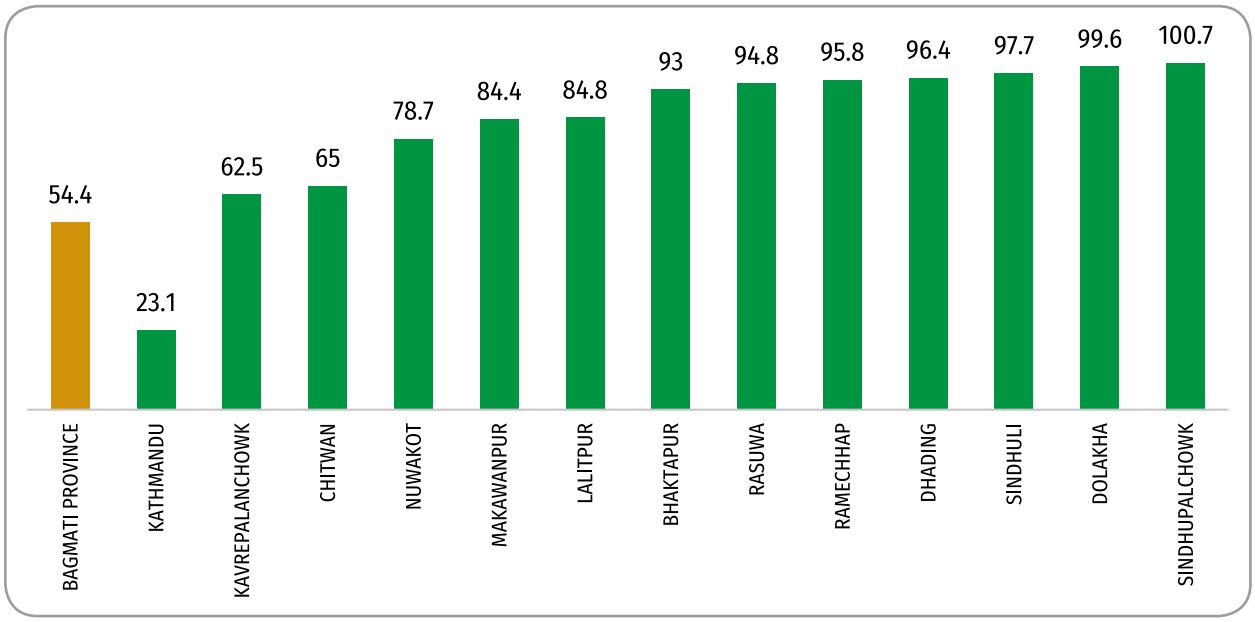


Figure 2.3.7: Percentage of newborns who initiated breastfeeding within 1 hour of birth

Source: DHIS-2

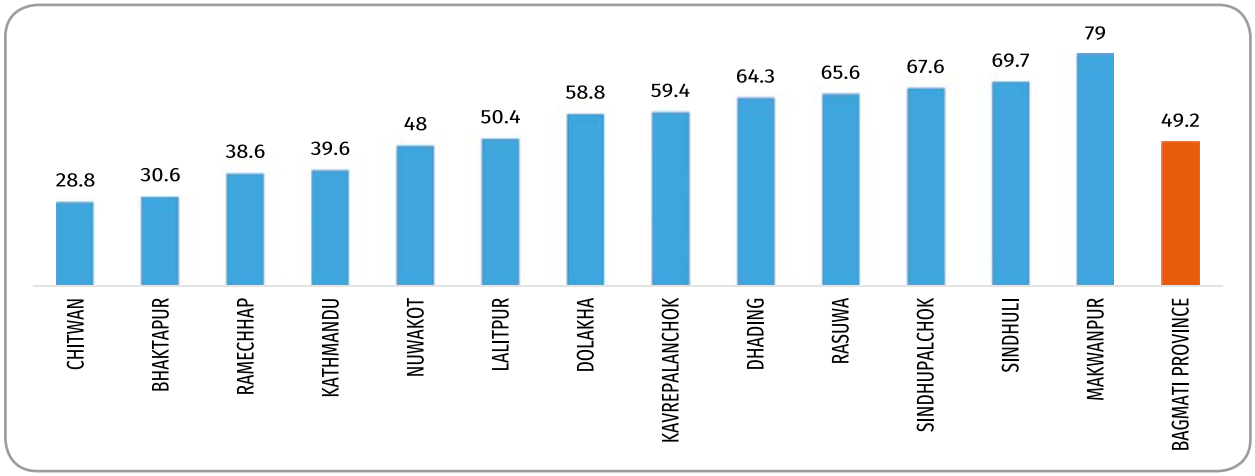


Figure 2.3.8: % of children below 6 months exclusively breastfed among registered for growth monitoring (FY 2079/80)

Source: DHIS-2

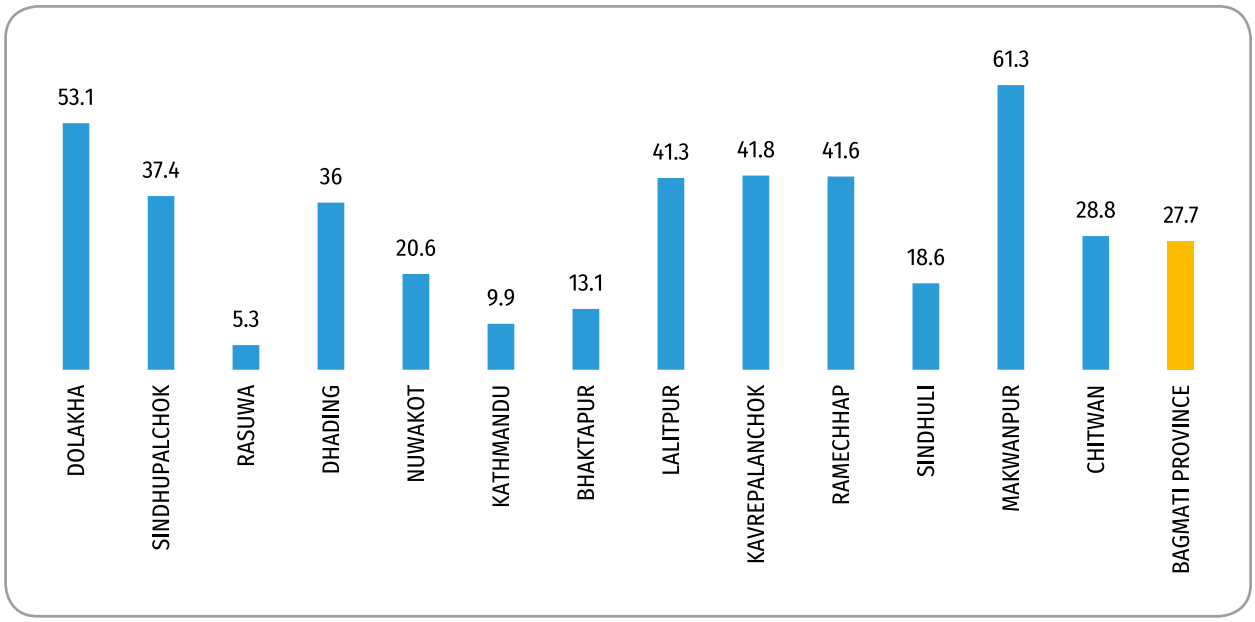


Figure 2.3.9: Percentage of children aged 6-23 months who received at least one cycle (60 sachets) Baal Vita (MNP)

Source: DHIS-2

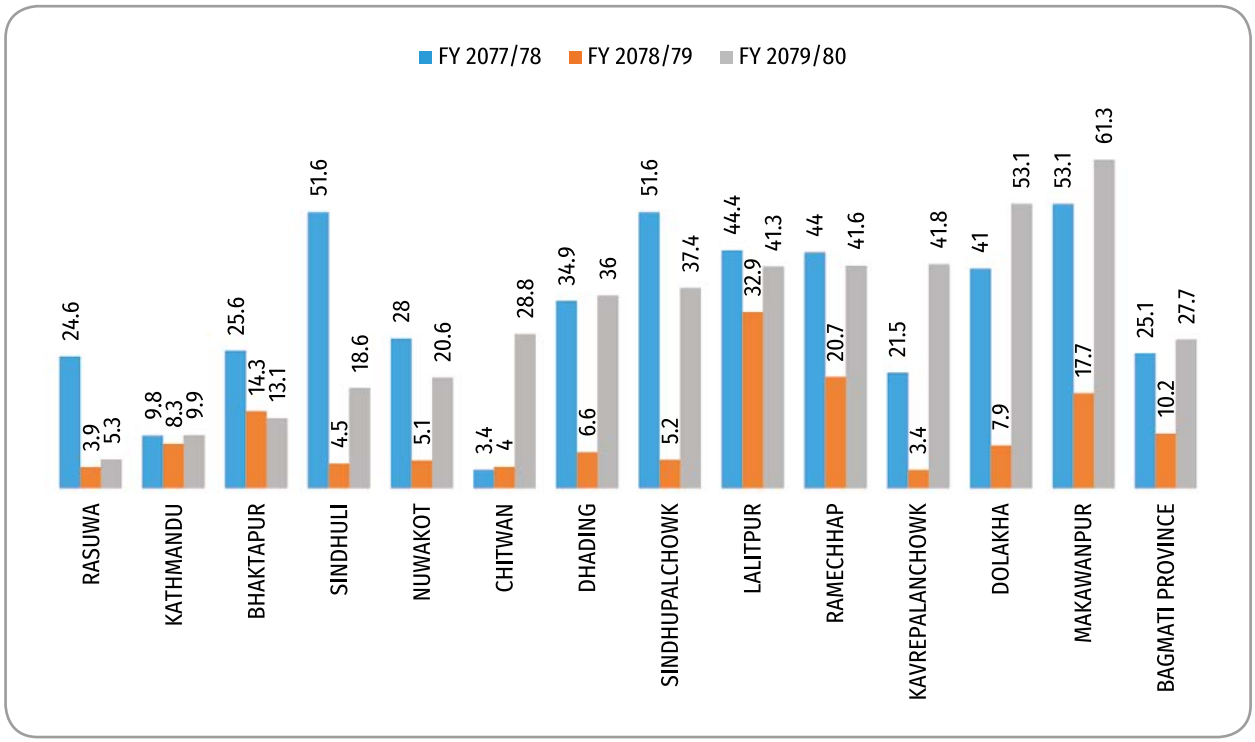


Figure 2.3.10: District Wise Trends of % of children aged 6-23 months who received at least one cycle (60 Sachets) Baal Vita (MNP) (FY 2077/78-2079/80)

Source: DHIS-2

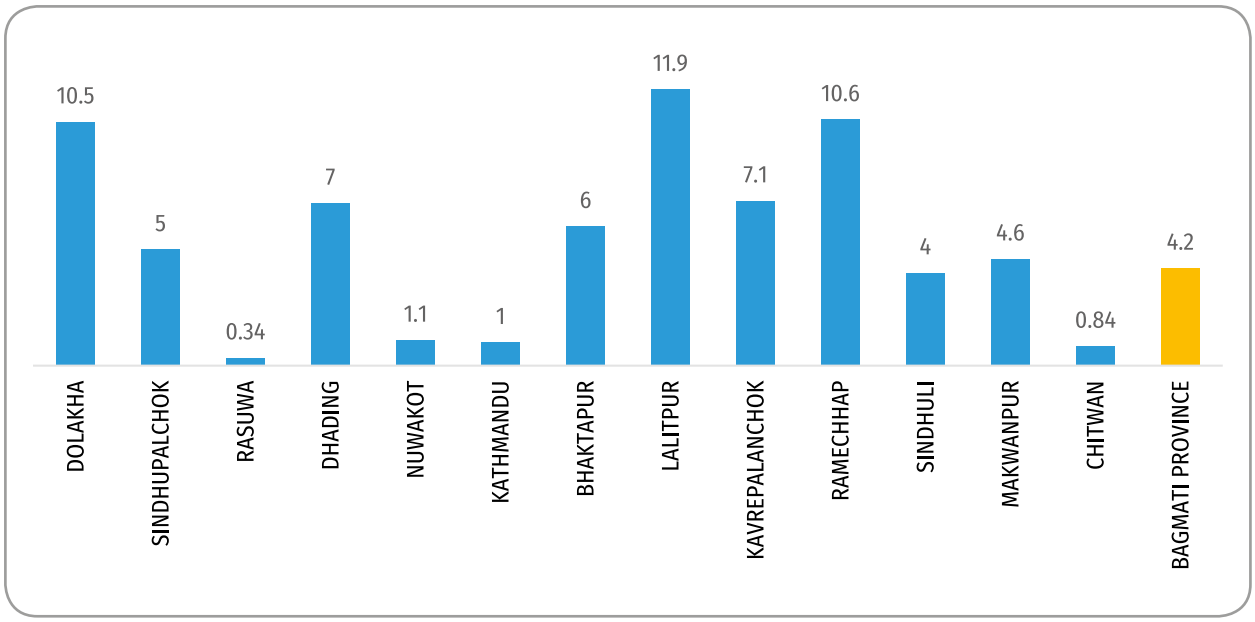


Figure 2.3.11: Percentage of children aged 6-23 months who received 3 cycle (180 sachets) Baal Vita (MNP) in last 18 months

Source: DHIS-2

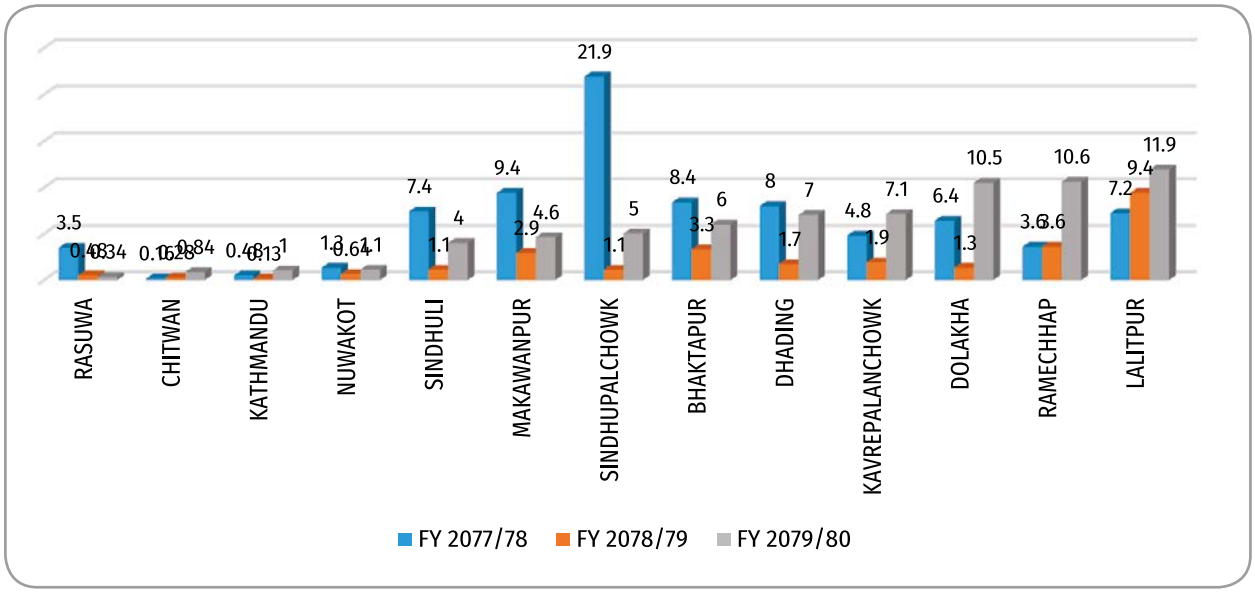


Figure 2.3.12: District Wise Trends of % of children aged 6-23 months who received at least 3 cycle (60 Sachets) Baal Vita (MNP) (FY 2077/78-2079/80)

Source: DHIS-2

The figure 2.3.9,2.3.10,2.3.11 and 2.3.12 highlights the highest and lowest percentage of children aged 6-23 months who received at least one cycle (60 sachets) Baal Vita (MNP) were of Makawanpur district (61.3) and Rasuwa district (5.3) respectively. Similarly, the highest percentage of children aged 6-23 months who received three cycle (180 sachets) Baal Vita (MNP) in last 18 months was in Lalitpur district (11.9) and the lowest was in Rasuwa district (0.34). Likewise, the increasing trend in receiving Baal Vita were observed since last fiscal year in almost all district.

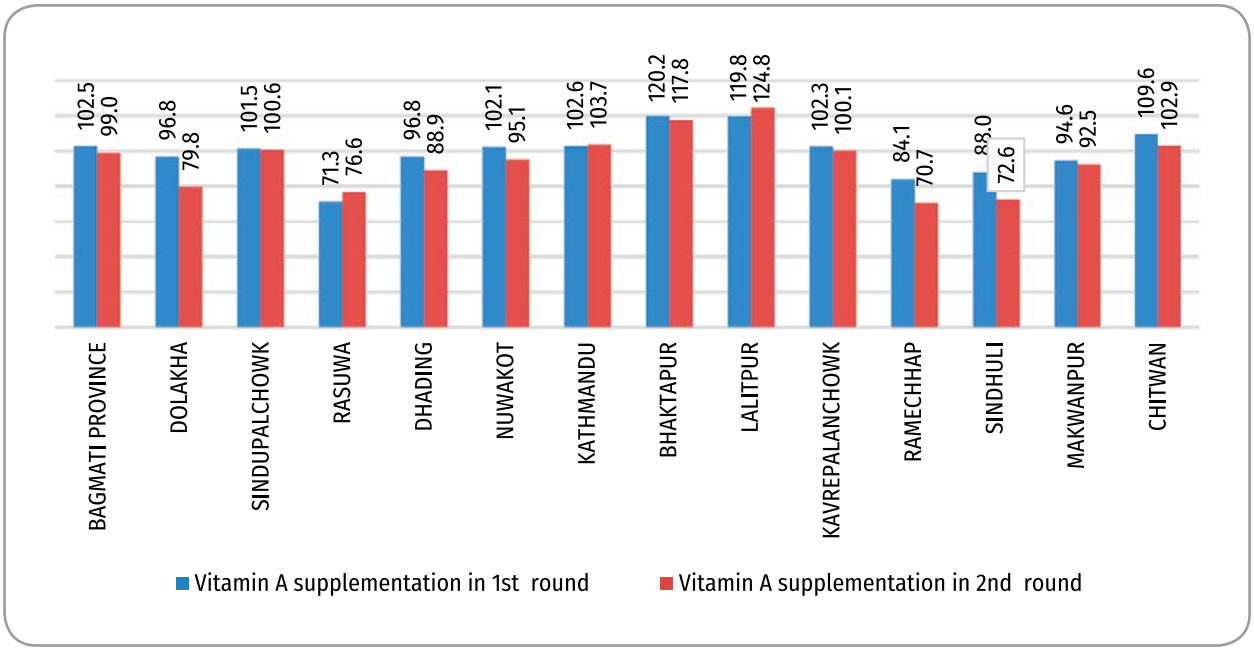


Figure 2.3.13: Status of children aged 6-59 months receiving Vit A in 1st and 2nd round (FY 2079/80)

Source: DHIS-2

The figure 2.3.13. shows increased percentage of children aged 6-59 months receiving vitamin A in 2nd round as compared to 1st round in Lalitpur,Kathmandu and Rasuwa district. Likewise other district shows significant reduction in percentage of children aged 6-59 months receiving vitamin A in 2nd round as compared to 1st round.

Issues, recommendation and responsibilities of Nutrition program

Provincial Annual Review 2079/80 identified following issues and recommended actions to be taken with clear responsibility at different level of authority and health entities.

Issues/Challenges	Action to be taken	Responsibilities
Lack of quality and updated data of nutrition services	Conducting onsite coaching / RDQA for nutrition data quality strengthening. Activating the District Data Management Committee to increase the coverage	MOH, HD, Health Office
Unable to get records and reports of malnourished children from private and community hospitals.	Developing a system for recording and reporting malnourished children from private and community hospitals	MOH/HD/Health office

Issues/Challenges	Action to be taken	Responsibilities
Lack of regular supply of necessary materials for the nutrition program (Seca Scale, MUAC Tap, height board, Iron, Vitamin "A", Albendazole, Micro Nutrient Powder, ORS, ARI Timer, Zinc Tablet etc)	Providing the necessary materials for the effective operation of the nutrition program on time.	FWD/ MOH/ HD/ PHLMC/ Health Office
Lack of disaster nutrition preparedness and response plan of province and district.	Making district level disaster nutrition preparedness and response plan. Making province level disaster nutrition preparedness and response plan Providing necessary materials for the effective operation of the nutrition program on time.	MOH/PHEOC/HD/ Health Office
No significant increase in growth monitoring rate	Conducting community level growth monitoring program by mapping local levels where growth monitoring is low. Finding malnourished children at the community level and making arrangements for treatment and referral. Arrangements for weighing children who come to seek services for other reasons.	Health office/Local Level
Distribution of iron tablet to adolescent girls could not be expanded to the community level.	Strengthening school health and nutrition programs. Encouraging active participation of school nurse	HD/Health office/Local Level
Lack of coverage of children who are fully in breastfeeding and complementary feeding	Advocacy to promote exclusive breastfeeding and to ensure full breastfeeding by working women.	HD/Health office/Local Level
Baalvita not being supplied in sufficient quantity Strengthen supply management of baby food.	To orient the health workers regarding the distribution of baalvita	HD/PHLMC/Health office

Issues/Challenges	Action to be taken	Responsibilities
Failure to establish and operate breastfeeding rooms in health institutions and other offices	Setting standards for breastfeeding rooms Establishment and operation of breastfeeding rooms in various offices including health institutions	FWD/HD/Health Office
Ineffective referral system from the community to the nutrition rehabilitation center	Orienting health service providers and female community health volunteers regarding referral system Arranging contact tracing of defaulter malnourished children.	HD/Health office/Local Level
Lack of community-based nutrition programs for marginalized and underserved communities	Designing and implementing targeted community focused nutrition programs.	HD/Health office/Local Level
Widespread access and consumption of food that harms the body in the community	Promotion of nutrition to discourage the consumption of harmful foods in coordination with the concerned agencies related to agriculture and nutrition.	Local level
Unable to expand and operate OTC as required	Initiative to develop OTC as required Providing necessary materials to actively operate O.T.C, I.T.C.	HD/PHLMC/Health office/Local Level
Lack of training for local health workers on time	Conducting capacity building programs regularly to health workers Providing CNSI training to physicians	PHTC/HD/Health Office/ Local Level
Lack of distribution of iron and vitamin A to postnatal mothers who had institutional delivery and received PNC services in the same hospital.	Arranging distribution of iron and vitamin A to postnatal mother under the special nutrition program of hospital	FWD/DOHS/MOH/HD/ Health Office
Lack of modified nutrition registers in urban health clinics	Capacity building of service providers working in urban health clinics Providing a modified nutrition register and arranging record reporting.	HD/Health office/Local Level

Issues/Challenges	Action to be taken	Responsibilities
Delay in Budget release for nutrition programs at local levels by the federal government	Arranging the disbursement of the program budget on time	MOHP/FWD
Lack of technical supervision and on-site coaching	Integrated technical supervision and on-site coaching program	FWD/HD/Health office

2.4. Safe Motherhood and Newborn Health

Introduction

The fundamental right of citizens to free basic health services from the State is included in the constitution of Nepal, 2015 and Maternal and Newborn Health(MNH) has always been given high priority in Nepal. The Right to safe motherhood and reproductive health act 2018 and its regulation respect, preserve and commit to fulfilling the right of women to safe motherhood and reproductive health services and ensure their safety,quality and accessibility. The Public Health Service Act 2018 and its regulation 2020 has consider safe motherhood and newborn health service as basic health services.

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

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

The Safe Motherhood Program initiated in 1997 has made significant progress with formulation of safe motherhood policy in 1998. The national maternal mortality rate of nation is 151/100000 live birth (NDHS,2022). The Sustainable Development goal has committed to one of the important target to reduce the maternal mortality ratio to less than 70 per 100000 live births and reduce the newborn mortality rate to less than 12 per 1000live births by 2030. The Nepal Health Sector Strategy (NHSS) identifies equity and quality of care gaps as areas of concern for achieving the maternal health sustainable development goal (SDG) target, and gives guidance for improving quality of care, equitable distribution of health services and utilization and universal health coverage with better financing mechanism to reduce financial hardship and out of pocket expenditure for ill health.

Strategies of the Safe Motherhood Program

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

1. Strengthening and expanding delivery by skilled birth attendants and providing basic and comprehensive obstetric care services at all levels. Interventions include:

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

2. Strengthening community-based awareness on birth preparedness and complication readiness through FCHVs and increasing access to maternal health information and services.
3. Supporting activities that raise the status of women in society.
4. Promoting research on safe motherhood to contribute to improved planning, higher quality services and more cost-effective interventions.

Major activities of FY 2079/80

Table 2.4.1- Major activities done in Bagmati Province FY 2079/80

S.N.	Programme	Place	No.of participant	Remarks
1	SNCU/NICU onsite coaching	Bhaktpur hospital	25	Medical officer and Nursing staff of NICU/PICU
2	SBA/Non-SBA onsite coaching	Chautara hospital, Tirshuli hospital, Dhading hospital, Ramechhap hospital, Sindhuli hospital and Bhajrabarahi Hospital	30	Nursing staff of maternity ward
3	MPDSR onsite coaching	TUTH hospital, KIST medical collage, Dhulikhel Hospital, Patan Hospital and Civil Hosital	20-25	Hospital director, Gynecologist, Pediadiatrician, Nursing Administrator, Maternity ward- incharge, medical officer and nursing staff of maternity ward
4	Reproductive Health Screening via camp conducted	Bakaiya Rural Municipality, Nagarjun Municipality and Godawari Municipality	779	
5	Reproductive Health vaginal hysterectomy was done.	Chautara hospital, Pashupati Chaulagain Memorial Hospital, Tirshuli hospital, Dhading hospital, Ramechhap hospital, Sindhuli hospital, Hetauda Hospital and Bharatpur Hospital	157 cases	
6	RMNCAH orientation programme	Participant from 13 health office		Data officer

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

Table 2.4.2- Emergency Obstetric and Newborn Care (EONC) Services distribution in health facilities

District	Birthing Center	BEONC	CEONC
Chitwan	24	6	3
Makwanpur	51	4	1
Sindhuli	37	0	1
Ramechhap	43	2	2
Kavrepalanchowk	46	3	3
Lalitpur	18	3	1
Bhaktapur	2	1	3
Kathmandu	17	2	3
Nuwakot	56	3	1
Dhading	72	2	2
Rasuwa	17	0	1
Sindhupalchowk	55	1	3
Dolakha	53	0	2
Bagmati	491	27	26

Source:DHIS-2

Antenatal Care

The MOHP in Nepal recommends four ANC visit at the 4th month (12-16weeks of gestation), 6th month (20-24 weeks of gestation), 8th month (28-32 weeks of gestation) and 9th month (36-40 weeks of gestation) (Family Health Division 2016). The World Health Organization (WHO) has changed its earlier recommendation of four ANC visits to minimum of eight ANC contacts in its 2016 ANC model.

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

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

ANC visit according to national protocol	2016 WHO ANC model
First trimester	
Visit 1: 12-16 weeks (4 month)	Contact 1: up to 12 weeks
Second trimester	
Visit 2: 20-24 weeks (6 month)	Contact 2: 20 weeks Contact 3: 26 weeks
Third trimester	
Visit 3: 28-32 weeks (8 month) Visit 4: 36-40 weeks (9 month)	Contact 4: 30 weeks Contact 5: 34 weeks Contact 6: 36 weeks Contact 7: 38 weeks Contact 8: 40 weeks
Return for delivery at 41 weeks if not given birth	

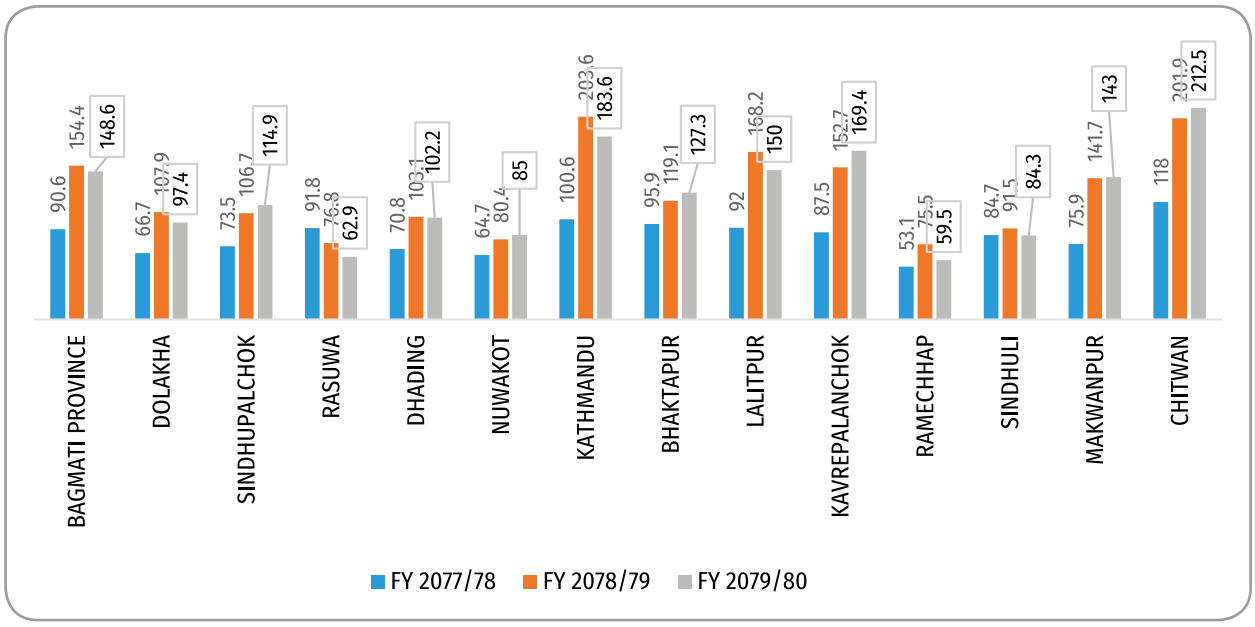


Figure 2.4.1: District and provincial trends in percentage of pregnant women with at least one ANC

Source: DHIS-2

As given in figure 2.4.1, the proportion of pregnant women who received their at least one antenatal care according to protocol decreased slightly from 154.4% in FY 2078/79 to 148.6% in FY 2079/80 in Bagmati Province. Chitwan had the highest coverage in the protocol-based at least one ANC visit (212.5%), followed by Kavrepalanchok, Makwanur, Bhaktpur and Sindhupalchok in FY 2079/80. In Rasuwa the proportion of women attending their at least one ANC appointment was found in decreasing trend from FY 2077/78 to FY 2079/80 .

As given in figure2.4.2, the proportion of pregnant women who received their first antenatal care visit according to protocol decreased slightly from 113.6% in FY 2078/79 to 105.6% in FY 2079/80 in Bagmati Province. Chitwan had the highest coverage in the protocol-based first ANC visit (173.8%) in FY 2079/80. In Rasuwa the proportion of women attending their at first ANC appointment was found in decreasing trend in FY 2077/78 to FY 2079/80 .

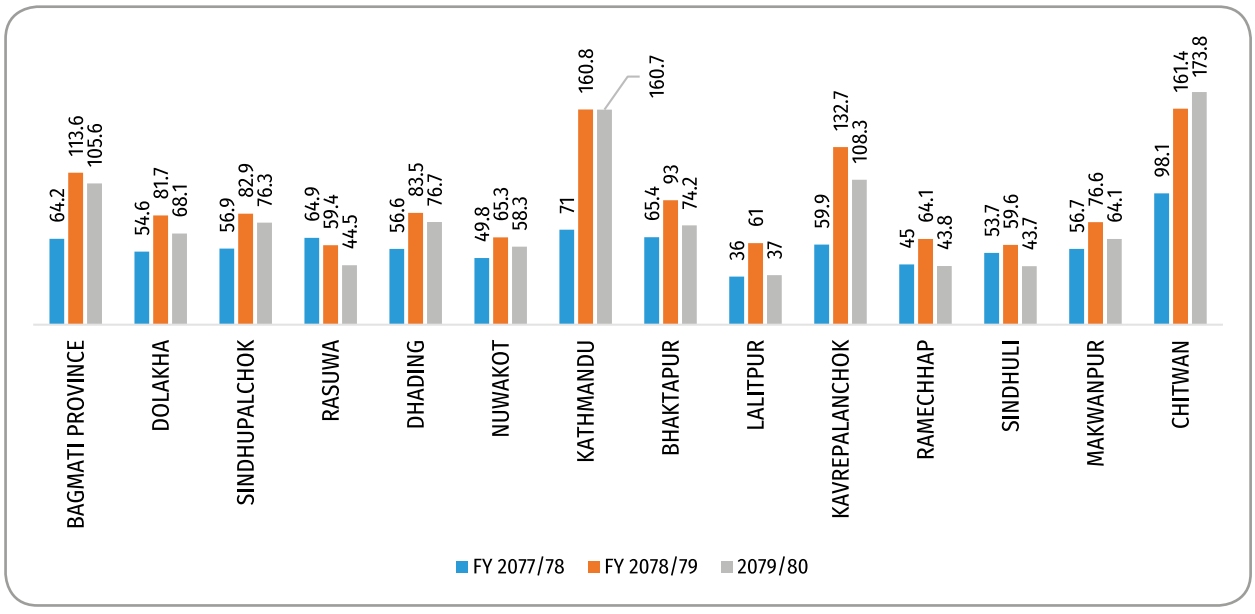


Figure2.4.2: District and provincial trends in percentage of pregnant women who had first ANC

Source: DHIS-2

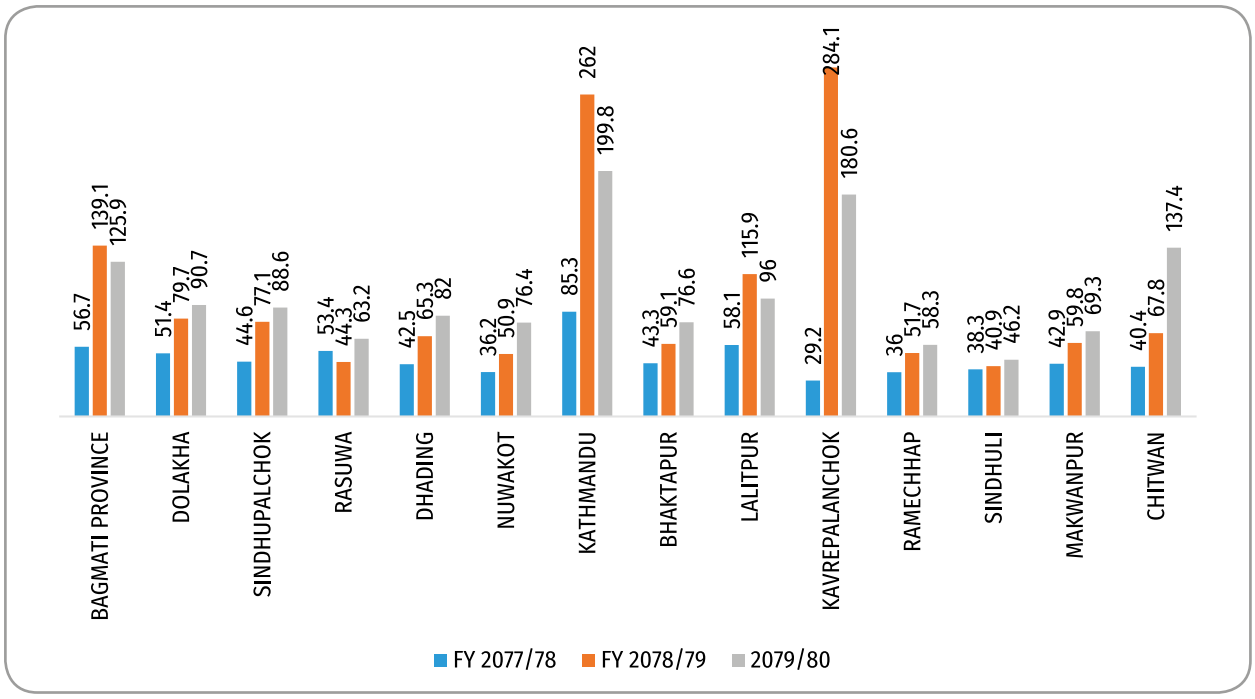


Figure 2.4.3: District and provincial trends in percentage of pregnant women who had four ANC

Source: DHIS-2

As given in figure 2.4.3, the proportion of pregnant women who received their all four antenatal care visit according to protocol decreased slightly from 139.1% in FY 2078/79 to 125.9% in FY 2079/80 in Bagmati Province. In Chitwan the proportion of women attending their all four ANC appointment was found in increasing trend from FY 2077/78 to FY 2079/80 followed by Sindhupalchok, Nuwakot, and Dhading. In Kathmandu, Kavrepalanchok and Lalitpur the proportion of women attending their all four ANC visit was found in decreasing trend in FY 2078/79 to FY 2079/80 .Safe Delivery

Safe delivery care includes:

- Skilled birth attendance at home and institutional deliveries,
- Early detection of complicated cases and management or referral (after providing

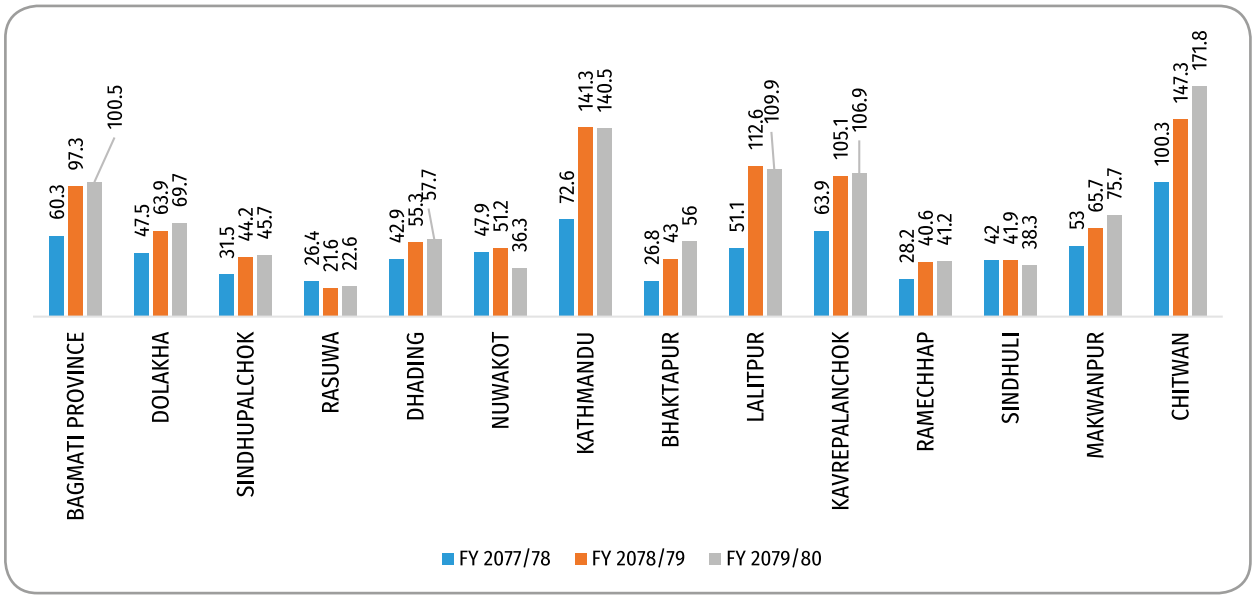


Figure 2.4.4: Coverage of institutional deliveries

Source: DHIS-2

obstetric first aid) to an appropriate health facility with 24-hour emergency obstetric services, and

- Registration of births and maternal and neonatal deaths.

Although women are encouraged to give birth in a facility, home delivery with clean delivery kits, misoprostol to prevent post-partum hemorrhage, and early detection of danger signs and complications are important components of delivery care in settings where institutional delivery services are not available or are not used by the women.

In figure, Caesarean section use continues to gradually rise in Bagmati Province. In FY 2079/80 41.1% percent of institutional deliveries in the province were conducted by caesarean section. The highest rates of CS delivery were reported in Chitwan (72.5%) followed by Kathmandu and Lalitpur.. Most of the district in Bagmati province, deliveries by CS method are increasing trend then previous years. In Nuwakot and Sindhuli the proportion of women who had caesarean section was found in decreasing trend in FY 2078/79 to FY 2079/80.

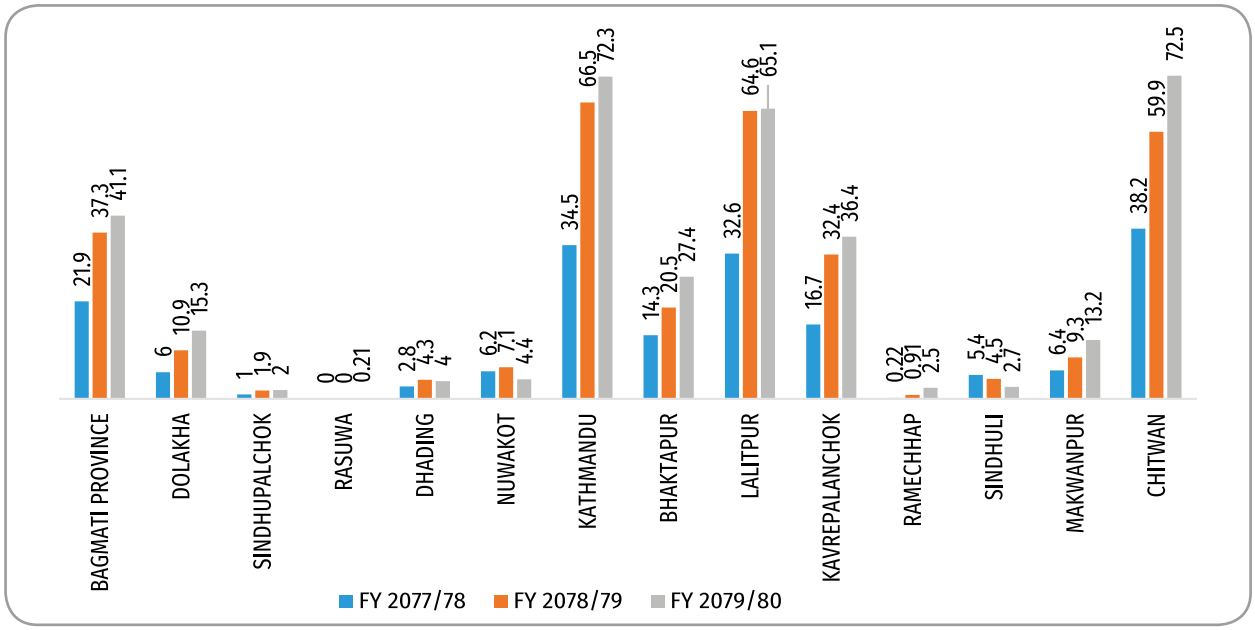


Figure 2.4.5: Coverage of caesarean section

Source: DHIS-2

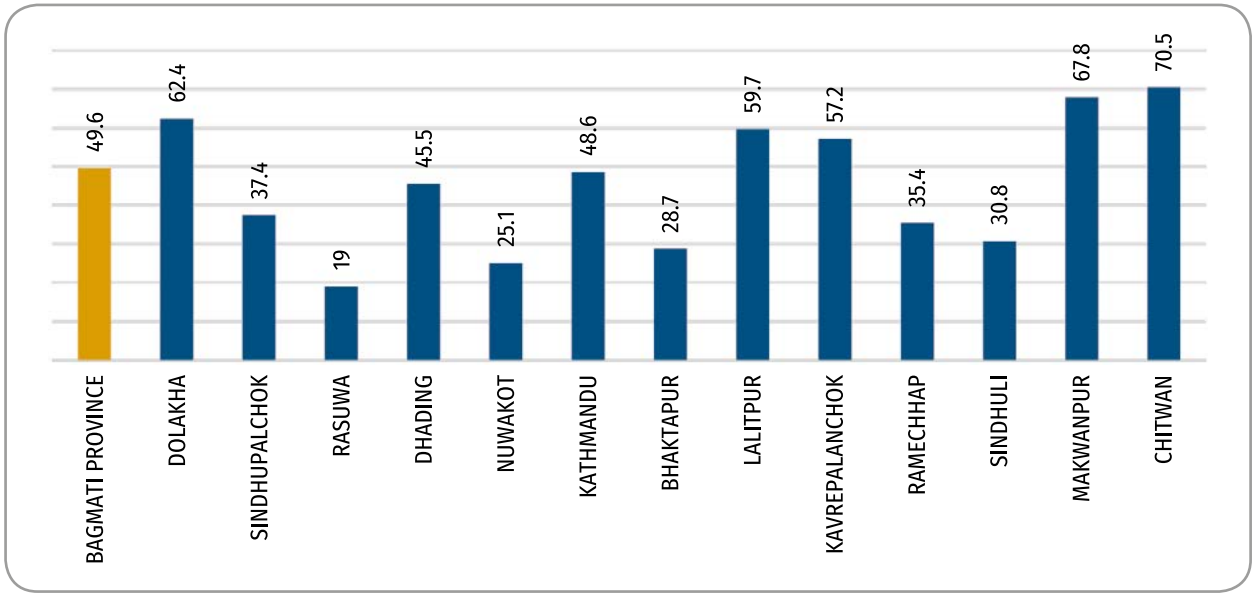


Figure 2.4.6: Coverage of birth attended by a skilled birth attendant (FY 2079/80)

Source: DHIS-2

As given in figure 2.4.6, the proportion of births attended by a skilled birth attendant was found increased 49.6% in FY 2079/80 in Bagmati Province. In Chitwan, the proportion of births attended by a skilled birth attendant was found in increasing followed by Makwanpur, Dolakha, Lalitpur and Kavrepalanchok.

Trends in number of women with obstetric complications

Obstetric complications include abortion complication, antepartum haemorrhage, eclampsia, pre-eclampsia, ectopic pregnancy, hyperemesis gravidarum, obstructed labor, postpartum haemorrhage, pregnancy induced hypertension, prolonged labor, puerperal sepsis, and retained placenta contributing to maternal death. FY 2079/80 shows progressive reduction in women with obstetric complications as compared to FY 2078/79.

Table 2.4.3-Trends in number of women with obstetric complications

Province/District	No. of woman with obstetric complications		
	FY 2077/78	FY 2078/79	FY 2079/80
Dolakha	108	116	323
Sindhupalchowk	229	3700	400
Rasuwa	20	13	19
Dhading	545	517	570
Nuwakot	440	252	181
Kathmandu	4597	6144	5976
Bhaktapur	683	493	366
Lalitpur	390	508	367
Kavrepalanchowk	372	343	405
Ramechhap	45	57	88
Sindhuli	223	170	239
Makawanpur	312	402	327
Chitwan	2206	3803	3344
Bagmati Province	10170	16518	12605

Source: DHIS-2

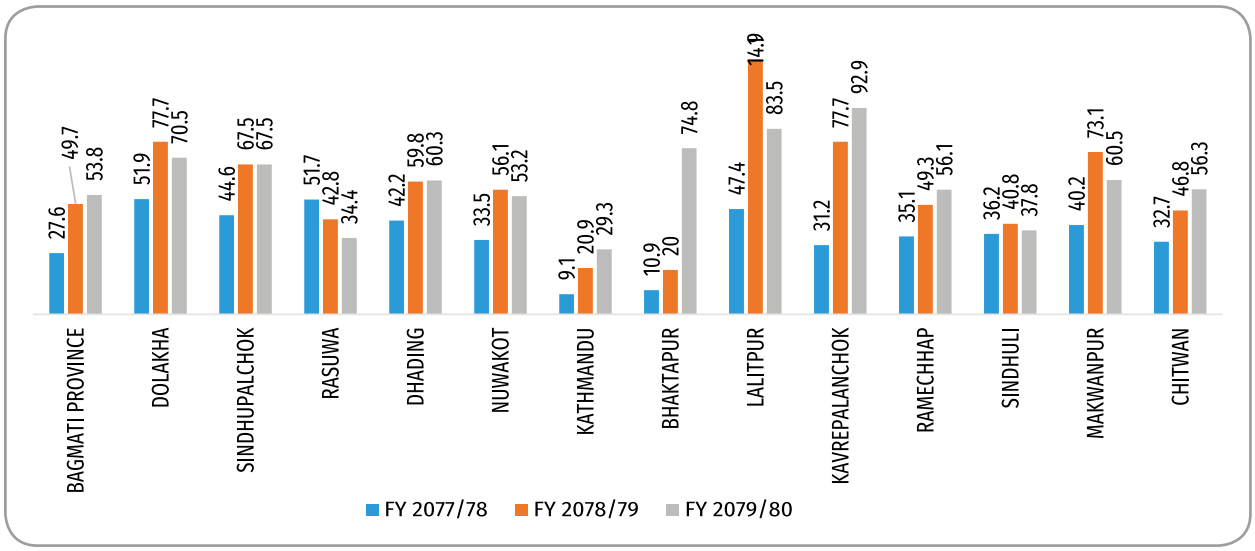


Figure 2.4.7: Percentage of women who received a 180 day supply of Iron Folic Acid during pregnancy

Source: DHIS-2

As given in figure 2.4.7, the proportion of women who received a 180 day supply of Iron Folic Acid during pregnancy was found increased 53.8% in FY 2079/80 in Bagmati Province. In Kavrepalanchok the proportion of women who received a 180 day supply of Iron Folic Acid during pregnancy was found in increasing trend from FY 2077/78 to FY 2079/80 followed by Bhaktpur, Chitwan, Ramechhap and Kathmandu. In Rasuwa the proportion of women who received a 180 day supply of Iron Folic Acid during pregnancy was found in decreasing trend from FY 2077/78 to FY 2079/80.

Postnatal Care (PNC)

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

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

As per figure 2.4.8, the number of mothers who received their first postnatal care at a health facility within 24 hours of delivery is almost similar to the number of institutional deliveries in Bagmati Province (i.e. 95.1%). In Kathmandu, there was highest coverage found 136.5% in FY 2079/80 fallowed by Latitpur and Kavrepalanchok. In Rasuwa there was decreasing trend of caverage.

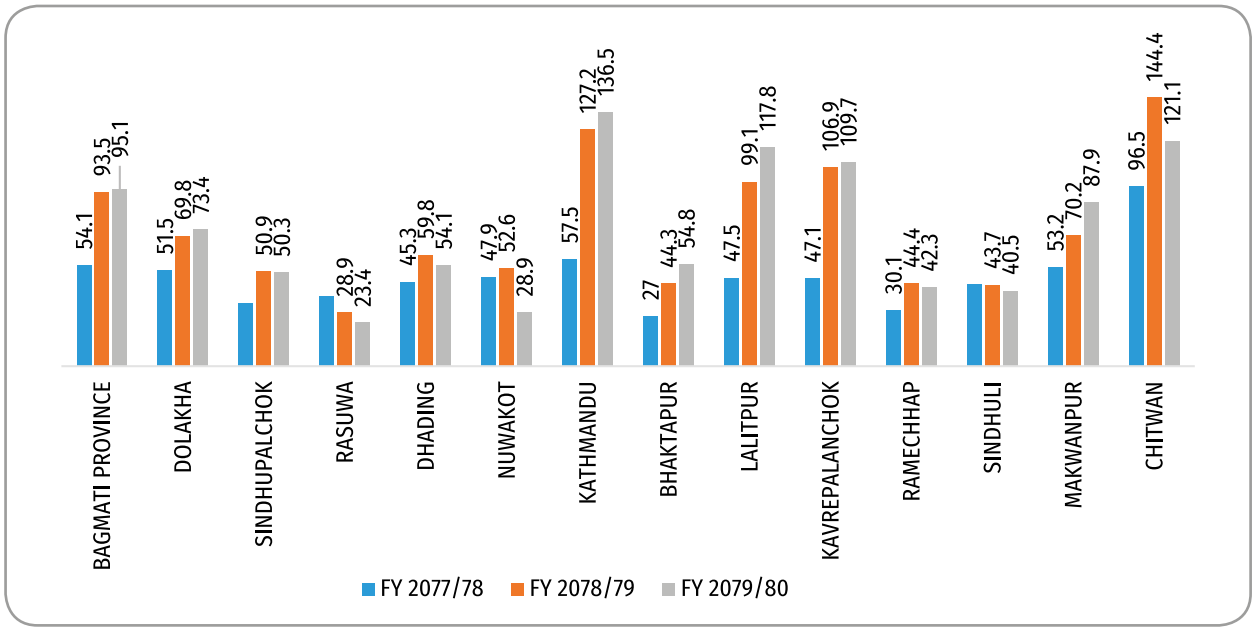


Figure 2.4.8: Coverage of PNC check -up within 24 hours of delivery

Source: DHIS-2

As per figure 2.4.8, the number of mothers who received their first postnatal care at a health facility within 24 hours of delivery is almost similar to the number of institutional deliveries in Bagmati Province (i.e. 95.1%). In Kathmandu, there was highest coverage found 136.5% in FY 2079/80 fallowed by Latitpur and Kavrepalanchok. In Rasuwa there was decreasing trend of caverage.

Figure 2.4.9 shows that the proportion of mothers attending three PNC visits as per protocol decreased in Bagmati province from 42.1 percent in FY 2078/79 to 37.2 percent in FY 2079/80. This indicator is decreasing trend only in three districts,Kathmandu, Chitwan and Rasuwa. However, while comparing with PNC visit within 24 hours, decreased by 59.72% in third ANC visit. The coverage was reported to be higher in Lalitpur district (69.8%) in FY2079/80.

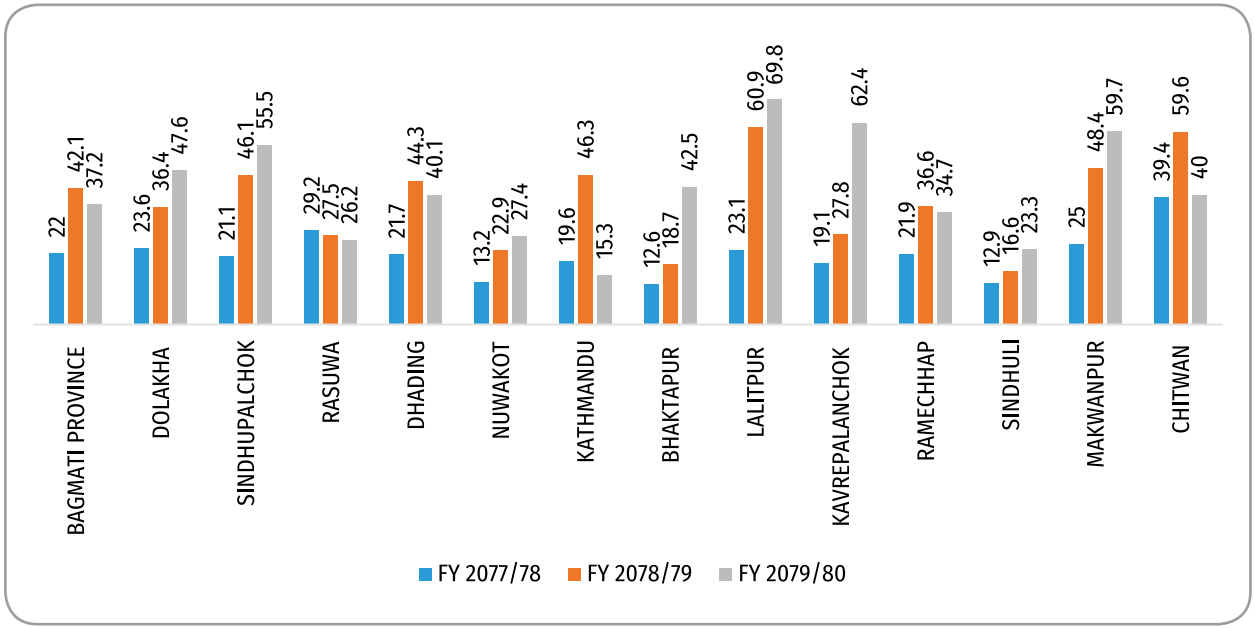


Figure 2.4.9: Percentage of women who had 3 PNC checkups

Source: DHIS-2

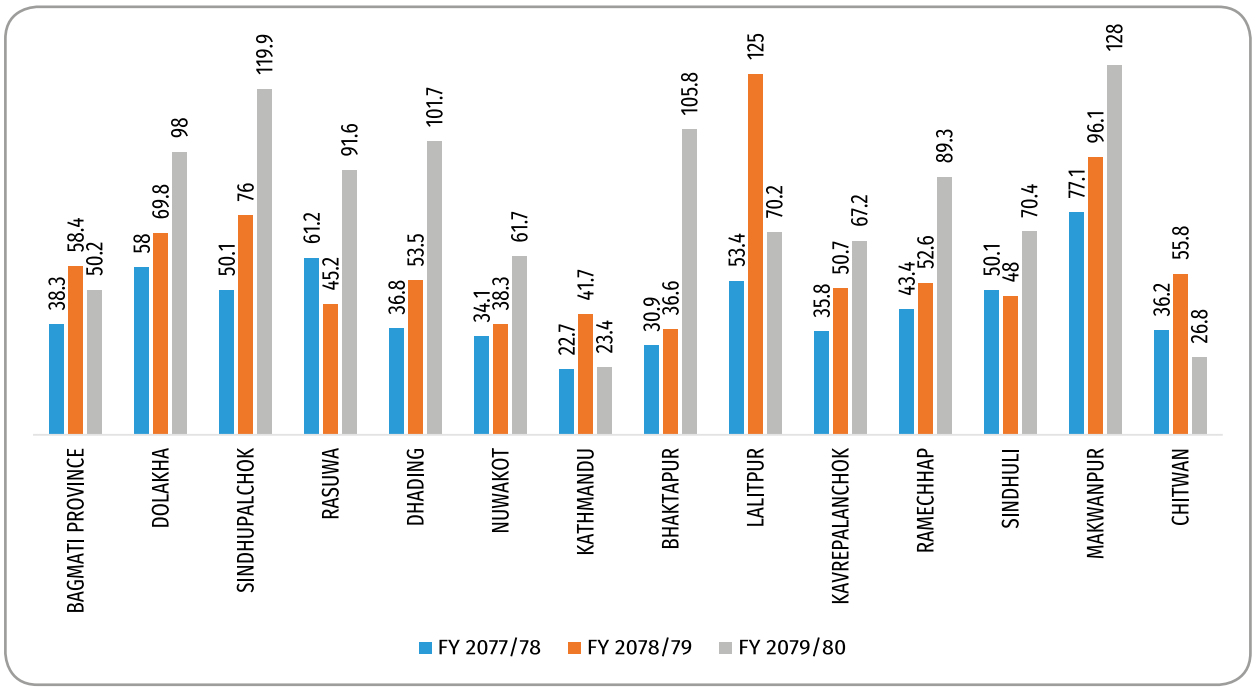


Figure 2.4.10: Percentage of postpartum women who received Vit A supplementation

Source: DHIS-2

Figure 2.4.10 shows that the proportion of postpartum mothers received Vit. A decreased in Bagmati province from 58.4 percent in FY 2078/79 to 50.2 percent in FY 2079/80. This indicator is decreasing trend only in three districts,Kathmandu, Chitwan and Lalitpur.. The coverage was reported to be higher in Makwanpur district (128%) in FY2079/80.

Maternal death, Neonatal Death and Stillbirth

Table 2.4.4-District wise Maternal death, Neonatal Death and Stillbirth

District	Maternal Death			Neonatal Death			Still Birth		
	2077/78	2078/79	2079/80	2077/78	2078/79	2079/80	2077/78	2078/79	2079/80
Dolakha	3	1	0	6	1	1	9	3	17
Sindhupalchowk	5	4	1	32	30	4	29	13	4
Rasuwa	0	0	0	7	3	0	0	8	5
Dhading	1	1	1	23	8	10	6	10	4
Nuwakot	3	3	0	18	10	3	15	8	7
Kathmandu	20	5	0	72	161	22	3	1	3
Bhaktapur	0	0	0	10	6	1	0	0	0
Lalitpur	4	9	4	16	22	25	9	10	1
Kavrepalanchock	3	1	2	16	14	28	9	5	2
Ramechhap	3	0	0	22	11	1	15	3	4
Sindhuli	2	0	1	203	13	4	41	16	8
Makwanpur	2	0	2	26	54	1	18	15	23
Chitwan	11	10	9	41	49	29	5	14	9
Bagmati Province	57	34	20	492	382	129	159	106	87

Source: DHIS-2

Issues, Action to be taken, and Responsibilities of Safe Motherhood program

Issues/ Challenges	Action to be taken	Responsibilities
Lack of 8 -Contact of Antenatal care	Awareness programme should be lunched.	MOH, HD, HO and all local levels
Post-natal care is still low in ratio.	Romming ANM programme should be encourage for home visit.	MOH,HD
Drop out of Medical officer and nursing staff of remote areas Birthing center/ CEONC.	Along with quality training best reward should be managed for the staff.	MOH,HD
Lack of SBA trained staff .	SBA trained staff should mobilized in all district and the SBA training site should be started.	MOH, PHTC,HD
Lack of Blood bank in some district hospital.	The hospital should tie-up with Red-cross and provide emergency obstetric care.	MOH,HD
Poor data entry system related to neonatal and maternal morbidity and mortality.	RMNACH web based system should be activated by all district hospital/office.	MOH,HD,Provincial/ district hospital.
Lack of MPDSR review.	MPDSR committee should be organized and the report should be done in MOH and HD after any maternal and neonatal death.	MOH,HD,Provincial/ district hospital

2.5. Family Planning and Reproductive Health

Introduction

Modern Family planning (FP) refers to a conscious effort by a couple to limit or space the number of children through the use of contraceptive methods. Modern methods include female sterilization (e.g., minilap), male sterilization (e.g., no-scalpel vasectomy), Intrauterine Contraceptive Device (IUCD), implants (e.g., Jadelle), injectables (e.g., Depo Provera), the pill (combined oral pills), condoms (male condom), Lactational Amenorrhea Method (LAM) and Standard Day's Method (SDM).

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

Major Achievements in the Family Planning Program

Contraceptive Prevalence Rate (unadjusted) among WRA

Contraceptive prevalence rate of Family Planning Methods among women of reproductive age (WRA) at Bagmati Province has slightly increased from 32 to 34 percent from FY 2078/79-2079/80. Rasuwa has the highest CPR (57%) while Bhaktapur has the lowest (21%). The CPR of Lalitpur has decreased from 73 percent to 44 percent in this year. 3 districts have CPR below the Province Average, 8 districts have CPR between 35-50 percent and 3 district (Bhaktapur, Kathmandu, and Chitwan) have CPR less than 30 percent indicating the low CPR districts under Bagmati Province.

Contraceptive Prevalence Rate

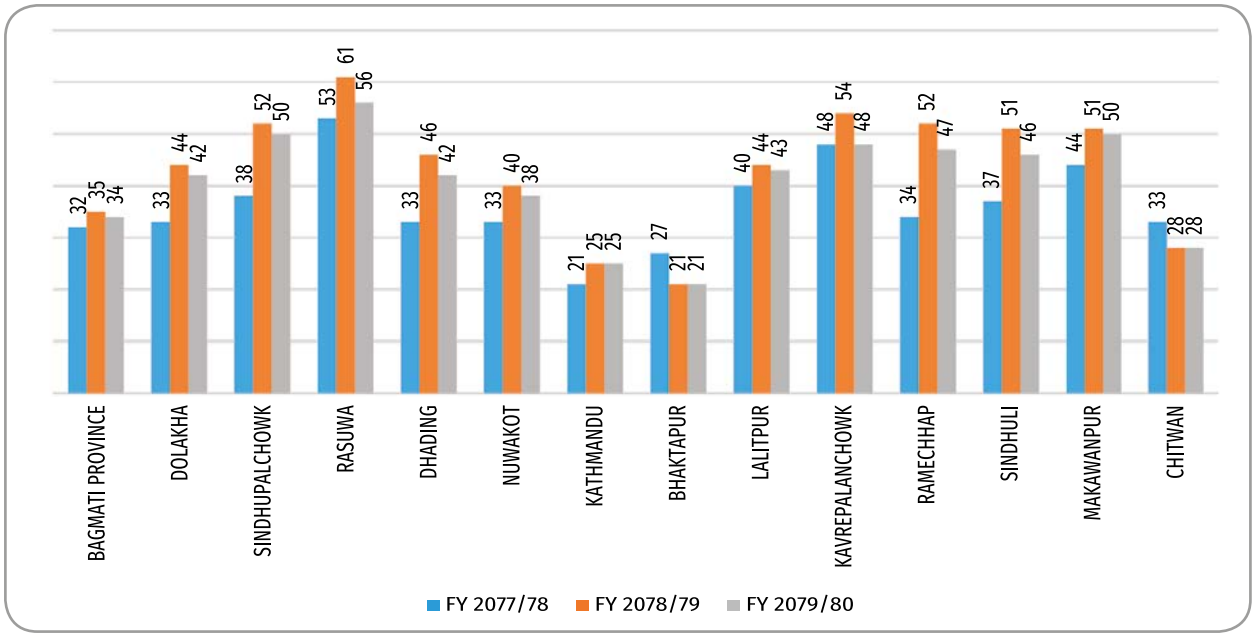


Figure 2.5.1: Trends in district wise CPR in Bagmati Province

Source: DHIS-2

The figure 2.5.1 presents the district status of contraceptive prevalence rate in last three fiscal years from 2077/78 to 2079/80. The data show that there was gradual increment in situation of contraceptive prevalence rate in province over last two years. The status of contraceptive prevalence rate of Bagmati Province in fiscal year 2079/80 was much lower than that of national average.

The figure 2.5.2 illustrate the district wise status of contraceptive prevalence rate of Bagmati Province in the fiscal year 2079/80. Accordingly, the highest percentage of contraceptive prevalence rate was in Rasuwa district (56) and the least in Bhaktapur district (21) in this fiscal year.

The figure 2.5.3 illustrate the district wise status of new accepter of FP methods among MWRA in the fiscal year 2079/80. Accordingly, the highest percentage of new acceptor of contraceptive methods for spacing was in Rasuwa district (16.7%), Bhaktapur has the lowest new accepter among other districts of Province (4.7%). Four district has below the 10% of new accepter and nine district have more the 10% new accepter for spacing.

District Wise CPR in Bagmati Province (FY 2079/80)

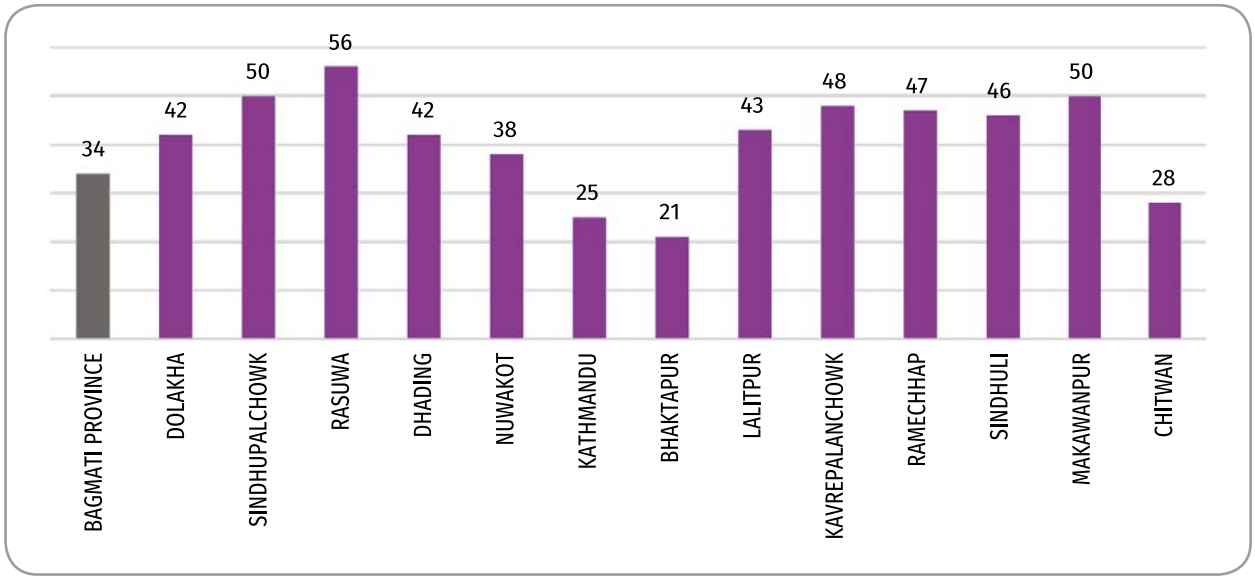


Figure 2.5.2: District Wise CPR in Bagmati Province (FY 2079/80)

Source: DHIS-2

New acceptor of FP methods among MWRA (FY 2079/80)

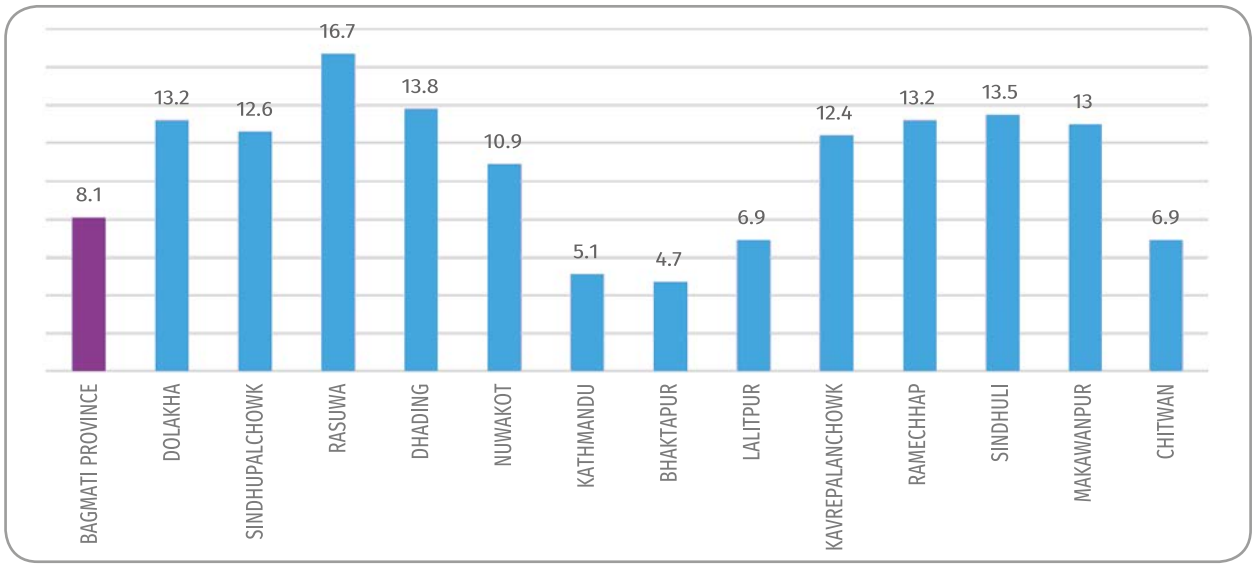


Figure 2.5.3: District wise status of new accepter of FP methods among MWRA (FY 2079/80)

Source: DHIS-2

Safe Abortion Services

Background

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

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

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

According to Safe motherhood and Reproductive Health Right Act 2075, the law permits abortion with the consent of pregnant women for any indication up to 12 weeks gestation and up to 28 weeks of gestation in special conditions like Rape, insist, fetus abnormalities, mental condition, immune suppression disease. Similarly, this Act has adopted that only licensed health worker who has fulfilled the prescribed standards and qualification and is listed as safe abortion service provider shall have to provide the pregnant woman with safe abortion service pursuant.

Safe abortion services received

Safe abortion services increased from 14623 in FY 2077/78, 18463 in FY 2078/79 to 19225 in FY 2079/80. Rasuwa district has low safe abortion service due to lack of listed service site and service providers. Kathmandu had highest safe abortion services out of 13 districts. The table below displays the three fiscal year trend in safe abortion services received by women at 13 districts of Bagmati province. Kathmandu had the largest number of safe abortion service users followed by Chitwan in the last three FY.

Table 2.5.1- Safe abortion services by district in last 3 fiscal year

District	2077/78	2078/79	2079/80
Dolakha	278	310	275
Sindhupalchowk	151	300	263
Rasuwa	53	23	19
Dhading	828	726	919
Nuwakot	218	226	181
Kathmandu	3972	6057	6041
Bhaktapur	464	485	611
Lalitpur	1661	2314	2298
Kavrepalanchowk	1261	1612	1317
Ramechaap	415	371	336
Sindhuli	288	349	449
Makawanpur	1193	1415	1563
Chitwan	3842	4275	4953

Source:DHIS-2

Trends of post abortion contraceptive in three fiscal years

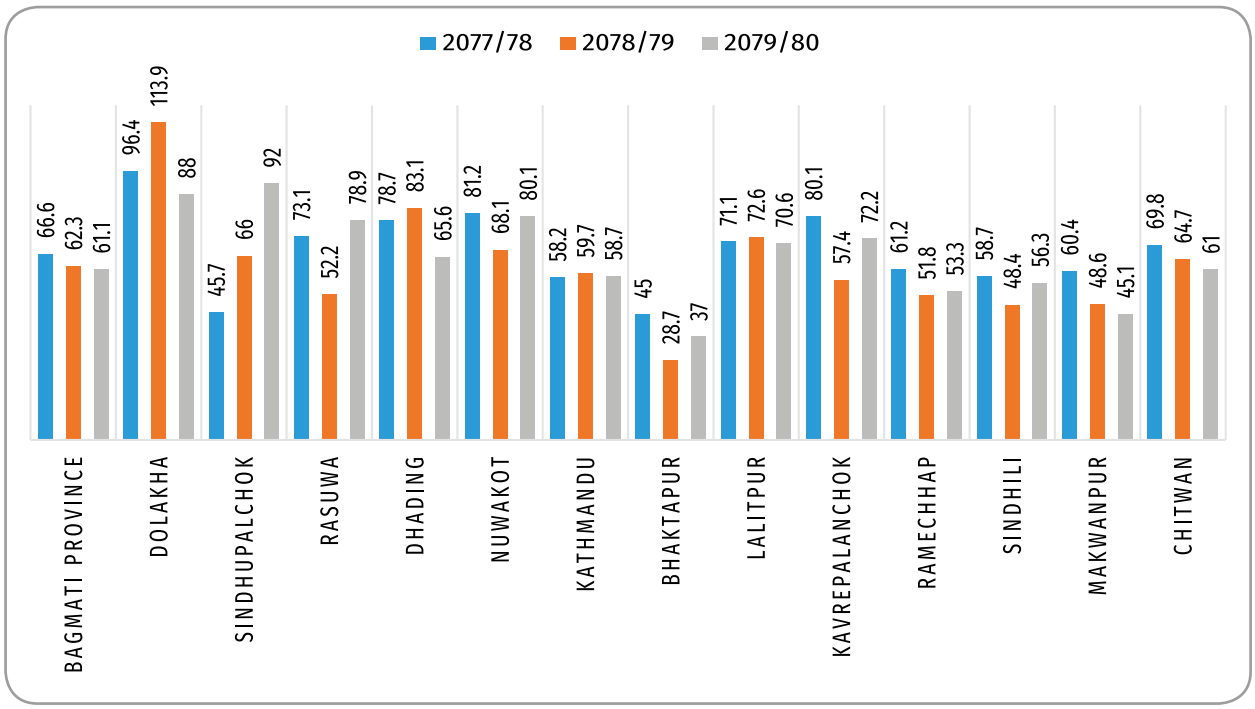


Figure 2.5.4: Use of post abortion contraceptives

Source: DHIS-2

Figure 2.5.4 shows that use of post abortion contraceptives had declined from 66.6 in 2077/78, 62.3 in 2078/79 to 61.1 in 2079/80 in Bagmati Province. However, this year, percentage of clients who received post abortion contraceptives have been increased in Dhading, Makwanpur, Sindhuli, Bhaktapur, Chitwan and decreased in Sindhupalchowk, Rasuwa, Dolakha, Nuwakot, Kathmandu, kavrepalanchowk, Ramechhap, and Lalitpur.

Proportion of LARC among post abortion contraception in three fiscal years

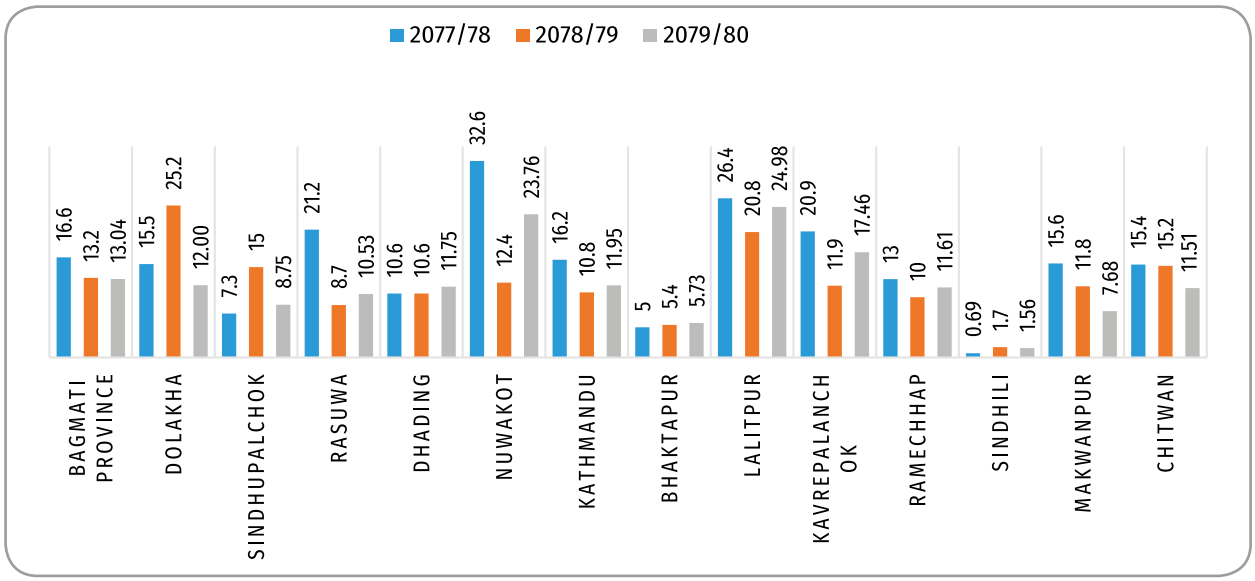


Figure 2.5.5: Proportion of LARC among post abortion contraception used

Source: DHIS-2

Figure 2.5.4 shows that proportion of LARC among post abortion contraception used had declined from 16.6 in FY 2077/78, 13.2 in FY 2078/79 to 13.04 in FY 2079/80. However, this year, it has increased in Rasuwa, Dhading, Nuwakot, Kathmandu, Bhaktapur, Lalitpur Kavrepalanchok, Ramechhap and decreased in Dolakha, Sindhupalchowk, Sindhuli, Makawanpur and Chitwan.

RH related training sites in Bagmati Province

Table 2.5.2-RH related training sites in Bagmati Province

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

2.6. Adolescent Sexual and Reproductive Health

Background

National Adolescent Sexual and Reproductive Health is one of the priority programs of Family Welfare Division (FWD), Department of Health Services. The criteria of adolescent-friendly services (AFS) include, among others, the availability of trained staff as well as information materials on adolescent sexual and reproductive health, the delivery of services in a confidential way, adolescent-friendly opening hours, the display of the AFS logo as well as the inclusion of two adolescents in the HFOMC. According to NDHS 2022, the Adolescent Fertility Rate (AFR) is 71 per 1000 women aged 15 to 19. The SDG aims to bring the rate of teenage pregnancies down to 30 per 1000. Nepal is one of the countries in South Asia in developing and endorsing the first National Adolescent Health and Development (NAHD) Strategy 2000. To address the needs of emerging issues of adolescents in the changing context, the NAHD strategy was revised and endorsed in 2018.

Goal

The overall goal of the National ASRH Program is to promote the sexual and reproductive health status of adolescents.

Objectives

- To increase the availability of and access to quality information on adolescent health and development, and provide opportunities to build the respective knowledge and skills of adolescents, service providers and educators.
- To increase accessibility and utilization of adolescent health and counseling services.
- To create safe and supportive environment for adolescents in order to improve their legal, social and economic status, and
- To create awareness through BCC campaigns and at national, districts and community level through FCHVs and mothers groups.

Key Interventions Area for ASRH program

- School health nurse program
- ASRH site certification
- Capacity building of health workers
- Scale up and strengthen health facilities for Adolescent Friendly Services
- Establishment of Adolescent Friendly Information Corners (AFICs) in schools
- ASRH training to health workers
- Menstrual Hygiene management
- Comprehensive Sexuality Education (CSE) in School
- Advocacy

ASRH sites in Bagamati Province

Table 2.6.1- AFS sites according to district

AFS sites according to district	
District	**Number**
Dolakha	9
Sindhupalchowk	12
Rasuwa	14
Dhading	24
Nuwakot	4
Kathmandu	5
Bhaktapur	1
Lalitpur	14
Kavrepalanchowk	27
Ramechhap	19
Sindhuli	22
Makawanpur	45
Chitwan	5
Bagmati Province (Total)	201

Service utilization

Family Planning Services

Table 2.6.2- New users of contraceptive according to district

District	New users of Depo-provera among <20years age	New users of IUCD among <20years age	New users of Implant among <20years age	New users of Pills among <20years age
Dolakha	100	0	8	29
Sindhupalchowk	181	0	15	39
Rasuwa	55	0	6	14
Dhading	353	4	42	126
Nuwakot	139	0	28	34
Kathmandu	539	1088	280	918
Bhaktapur	107	0	17	22
Lalitpur	84	1	45	33
Kavrepalanchowk	253	2	73	113
Ramechhap	64	2	26	24
Sindhuli	188	1	76	61
Makawanpur	388	3	61	84
Chitwan	609	6	64	151
Bagmati Province	3060	1107	741	1648

Source:DHIS-2

The table 2.6.2 shows the mix method of new users of the contraceptives. Depo-provera is the most preferred contraceptive method among adolescents and pills is the second preferred method. It is to be noted that among adolescents, the number of new LARC acceptors is declining.

Safe abortion services

Table 2.6.3- Trends of safe abortion services by adolescents (2077/78-79/80)

Trends of safe abortion services received by adolescents			
District	**FY 2077/78**	**FY 2078/79**	**FY 2079/80**
Dolakha	26	17	17
Sindhupalchowk	9	91	5
Rasuwa	6	3	0
Dhading	57	28	46
Nuwakot	8	3	6
Kathmandu	641	603	699
Bhaktapur	16	3	23
Lalitpur	140	120	84
Kavrepalanchowk	105	167	58
Ramechhap	18	18	21
Sindhuli	22	28	34
Makawanpur	72	46	61
Chitwan	324	280	307
Bagmati Province	1444	1407	1361

Source:DHIS-2

The decrease in trends of safe abortion services by adolescents can be observed. The greatest decrease can be observed in kavrepalanchowk district. However, this fiscal year has seen an increase in number of service users in Kathmandu, Chitwan, Makawanpur, Sindhuli, Ramechhap, Bhaktapur, Nuwakot and Dhading district.

Safe motherhood services

Table 2.6.4- Number of ANC visit by pregnant women

District	First ANC Visit (Any time)	First ANC Contact (within 12 weeks) as per Protocol	Eight ANC contact as per Protocol
Dolakha	231	186	68
Sindhupalchowk	519	356	136
Rasuwa	57	41	21
Dhading	739	549	316
Nuwakot	448	294	116
Kathmandu	2469	763	346
Bhaktapur	311	117	42
Lalitpur	378	170	73
Kavrepalanchowk	758	768	279
Ramechhap	182	121	65
Sindhuli	863	501	155
Makawanpur	1025	505	182
Chitwan	2617	2071	815
Bagmati Province	10597	6442	2614

Source:DHIS-2

The above table 2.6.4 reports the number of pregnant adolescents who received antenatal care services. Chitwan district has the highest number of adolescents who received first ANC services (first ANC contact as per protocol) and eight ANC contact as per protocol. Rasuwa and Ramechhap district have fewer adolescents who have received eight ANC contact as per protocol.

Issues, action to be taken and responsibilities of ASRH Program

Issues / Challenges	Action to be taken	Responsibilities
High prevalence of early marriage and teenage pregnancy	Intensify community awareness activities and comprehensive sexuality education in schools	MOHP (Federal, Provincial), Local Level
Less priority and inadequate resource allocation for ASRH program.	Sensitization/advocacy with decision makers at province level and local level for increased investment in adolescents and youths	MOHP (Federal, Provincial), Local Level and ASRH partners
Low CPR and high unmet need for contraception among vulnerable populations including adolescents	Intensify information and awareness programs targeted to adolescents. Strengthen Adolescent Friendly Service Sites and information corners. Capacitate health workers regarding adolescent responsive service provision.	MOHP (Federal, Provincial), Local Level
Declining trends in the utilization of sexual and reproductive health services by adolescents in many districts	Strengthen adolescent friendly service sites Ensure functional integration of ASRH issues and services in the school nurse program Intensify adolescent-focused community and school awareness activities and comprehensive sexuality education	FWD, Province, Local Level and ASRH partners
Inadequate trained human resources on ASRH in health facilities	Strengthen ASRH clinical training sites and develop the capacity of service providers with behavioral and skill focused competency based ASRH training" at all health facilities and specially AFS sites	FWD, MOHPFW, Local Level

2.7. Primary Health Care Outreach Clinic

Primary health care outreach clinics (PHC-ORC) was 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 ANMs and paramedics. FCHVs and local NGOs and community based organizations (CBOs) support health workers to conduct clinics including recording and reporting. Based on the local needs, PHC/ORCs are conducted every month at fixed locations of the VDC on specific dates and time. The clinics are conducted within half an hour's walking distance for the population residing in that area.

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

Safe motherhood and new-born care

- Antenatal, postnatal, and new-born 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 new-born care
- Child health
- STI, HIV/AIDS
- Adolescent sexual and reproductive health

First aid

- Minor treatment and referral of complicated cases.

Achievements

Table 2.7.1- Trends in client served by PHC ORC (2077/78-79/80)

District	Trends of client served by PHC ORC		
	2077/78	2078/79	2079/80
Dolakha	15379	14375	15823
Sindhupalchowk	35612	37575	39276
Rasuwa	3725	3639	3771
Dhading	30825	31329	35516
Nuwakot	23167	21682	31020
Kathmandu	18925	21166	19829
Bhaktapur	2281	3998	3342
Lalitpur	12212	13606	18353
Kavrepalanchowk	48694	53139	65805
Ramechhap	24654	21112	22186
Sindhuli	29366	29535	28556
Makawanpur	33039	32950	38451
Chitwan	13562	12090	11029
Bagmati Province	291441	296196	332957

Source:DHIS-2

The table 2.7.1 shows the district wise changes in the client flow compared to its preceding year. In FY 2079/80, the change in client flow increased significantly in most of the district.

The table 2.7.2 shows the outreach clinic conduction percentage by district for the last three fiscal years (2077/78 - 2079/80). The highest percentage (97.1) can be seen in Ramechhap district whereas the least (70.6) in Bhaktapur district out of total planned clinics in FY 2079/80.

Table 2.7.2- Trends in percentage of planned PHC ORC conducted

District	Trends in percentage of planned PHC ORC conducted		
	2077/78	2078/79	2079/80
Dolakha	89.8	87.4	83.9
Sindhupalchowk	84.4	89.2	90.1
Rasuwa	69.5	79.7	78.8
Dhading	87.6	88.2	95.4
Nuwakot	71.1	80.5	89.9
Kathmandu	65.8	80.2	85.9
Bhaktapur	43.5	49.2	70.6
Lalitpur	78.2	87.3	92.6
Kavrepalanchowk	88.6	95.6	97
Ramechhap	95.9	98.8	97.1
Sindhuli	83.3	89	89.2
Makawanpur	88	91	92.5
Chitwan	71.3	81.9	85.9
Bagmati Province	82	88.2	91.3

Source:DHIS-2

CHAPTER 3. EPIDEMIOLOGY AND DISEASE CONTROL

3.1. Malaria

Background

Malaria is a mosquito-borne infectious disease that possess a public health challenge in Nepal. The disease is primarily transmitted to humans through the bites of infected female Anopheles mosquitoes. Malaria is endemic in certain parts of Nepal, with the Terai region (southern plains) being the most affected area. However, the cases have also been reported in the hilly and mountainous regions. Malaria in Nepal exhibits seasonality, with the peak transmission occurring before and after the rainy season.

To better understand and combat malaria, Nepal has adopted a micro-stratification approach. Nepal's "malaria micro-stratification process" began at the district level in 2066/67 (2010). To enhance community level risk stratification and accurately define the total population at risk, micro-stratification was performed at the ward level within LLGs.

The methodology used malaria risk stratification is based on the malaria burden, information on the spatial distribution of key determinants of transmission risk including climate, ecology, and the presence or abundance of key vector species and vulnerability in terms of human population movement. The method is explained in the 2018 micro-stratification study report and it was recommended by Epidemiology and Disease Control Division (EDCD) and Malaria Technical Working Group (TWG). Based on this method, micro stratification 2022 was updated and the wards were designated as high, moderate, and low risk wards as shown in the table below:

In Bagmati Province, there are no high-risk or moderate-risk wards, with 364 wards classified as low risk, while the remaining wards were considered risk-free.

Major activities carried out in 2079/80.

- The case-based surveillance system, including a web-based recording and reporting system for districts, continues to be a primary intervention. The Malaria Disease Information System (MDIS) is now fully operational in the Kathmandu districts.
- Integrated vector surveillance activities were conducted in the different areas of the province.
- Private sector engagement activities have commenced, with health workers being oriented in malaria diagnosis and treatment, as well as recording and timely reporting to DHIS2.
- Detailed case-based investigations and fever surveys have been carried out around positive index cases.
- Supportive supervision visits to SDPs have been conducted.

Table 3.1.1: Distribution of Malaria Risk Ward

Province	High Risk ward	Moderate Risk Ward	Low Risk Ward	No Risk Ward
Bagamati	0	0	364	757

Nepal's National Malaria Strategic Plan (NMSP, 2014–2025 updated)

National Malaria Strategic Plan (NMSP 2014 – 2025) which was developed in 2013 with pre-elimination focus was updated in 2021 based on the WHO Global Technical Strategy for malaria elimination 2016 – 2030 and framework for malaria elimination, federalization of the health system, disease epidemiology and midterm malaria program review-2017.Nepal is also part of the global E-2025 countries with aim to attain "Malaria Elimination in Nepal by 2025".

Vision: Malaria Elimination in Nepal by 2025.

Mission: Ensure universal access to quality assured malaria services for prevention, diagnosis, treatment, and prompt response in outbreak.

Goal:

- Reduce the indigenous malaria cases to zero by 2022 and sustain thereafter.
- Sustain zero malaria mortality.

Objectives:

To ensure proportional and equitable access to quality assured diagnosis and treatment in health facilities as per federal structure and implement effective preventive measures to achieve malaria elimination.

Status of Malaria Program
Malaria epidemiological trend of Major Indicator (FY 2077/78–2079/80)

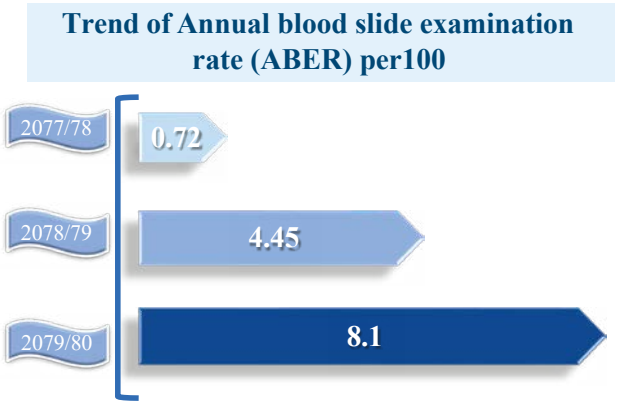


Figure 3.1.1: Annual Blood Slide Examination Rate (ABER) per 100

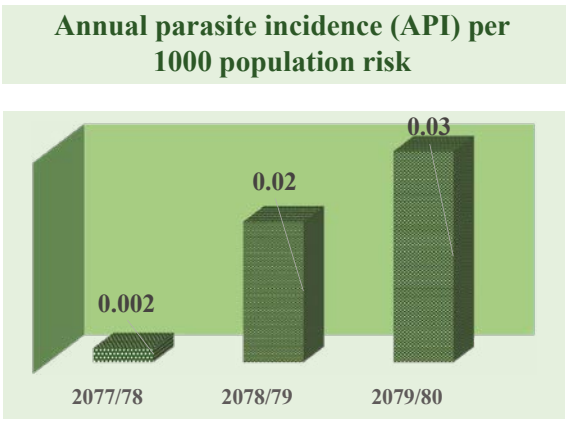


Figure3.1.2: Annual Parasite Incidence (API) per 1000 Population risk

Parasite Incidence. In 2079/80, the annual blood examination rate (ABER) was increased (8.10) compared to FY 2078/79 based on the malaria risk population. The Kathmandu district has highest annual blood examination rate (1785.1), followed by Lalitpur (35.1), Ramechhap (7.6) and Bhaktapur (6.5). Primarily due to their respective malaria risk population constraints and while looking at the API in 2079/80, it was increased (0.03) compared to 2078/79 (0.02) calculated based on denominator set after micro-stratification, 2022/HMIS.

Malaria Epidemiological Trend (FY 2077/78- 2079/80)

Table 3.1.2: Malaria epidemiological trend (FY 2077/78–2079/80)

Items /indicators	2077/78	2078/79	2079/80
Total population	1,788,831	1,813,183	1,739,994
Total slide examined	12815	80726	140876
Total positive cases	5	33	46
Total indigenous cases	2	0	0
Total imported cases	3	33	45
Total P. *falciparum* (Pf) cases *	4	17	18
% of Pf of total cases*	80	52	39
Total indigenous *Pf* cases *	2	0	1
Total imported *Pf* cases *	2	17	17
Total P. *vivax* (Pv)cases+Ovale**	1	16	28
Total indigenous *Pv* cases+Ovale**	0	0	0
Total imported *Pv*cases +Ovale**	1	16	28
Annual *Pf* incidence	0.00	0.01	0.01
Slide positivity rate	0.04	0.04	0.03
Slide *Pf* positivity rate *	0.03	0.02	0.01
Death from Malaria	0	0	0
Probable/clinical suspected malaria cases	26	102	82

Source: DHIS/MDIS

The above table shows the percentage of the Pf positive cases is decreasing due to increasing number of the Plasmodium ovali and Plasmodium vivax cases and also the number of probable/clinically suspected malaria cases has shown a slight decline with 82 reported in FY 2079/80 compared to 102 in the FY 2078/79.

Issues/Challenges and Action to be taken.

Issues/ Challenges	Action to be taken	Action taken
• Lack of reporting from private sectors	• Orientation to private sector on testing and reporting system of malaria. • Quarterly review with private sector.	• Established regular follow up and feedback mechanism. • Established coordination and supportive supervision mechanism.
• Malaria case reporting and case investigation	• Orient district and peripheral staff on case investigation and reporting	• District and peripheral level staff oriented on case investigation, surveillance, foci investigation and reporting
• Imported Malaria cases increasing from the private hospitals	• Programme should address to all hospitals (Private and public)	• Programme will be added next year so that we can target the private sector

3.2. Kala-azar

Background

Leishmaniasis is a disease caused by an intracellular protozoan parasite, with 20 different Leishmania species capable of causing human infections. These parasites are transmitted through the bites of infected female phlebotomine sandflies, which require a blood meal to reproduce. Leishmaniasis manifests in three primary clinical forms:

I. Visceral leishmaniasis (VL) or kala-azar with its dermal Sequel –post kala azar dermal leishmaniasis (PKDL).

II. Self–healing or Chronic cutaneous leishmaniasis (CL)

III. Mutilating mucosal or mucocutaneous leishmaniasis

Kala-azar is characterized by persistent symptoms such as prolonged fever, weight loss, weakness, anemia, and enlarged liver and spleen. If left untreated, patients typically succumb to intercurrent infections within approximately two years.

In Nepal, efforts are being made to eliminate Kala-azar. The elimination of Kala-azar is defined as achieving an annual incidence of less than 1 case per 10,000 population at the district level, with a Kala-azar-related case fatality rate of less than 1%. The governments of Nepal have committed to the WHO regional strategy for Kala-azar elimination and have signed a memorandum of understanding (MoU) to enhance collaboration in regional elimination efforts, in conjunction with Bangladesh and India

Major activities carried out in 2079/80.

- Assistance was extended to districts for the implementation of indoor residual spraying (IRS).
- Coordination and support were provided by the provincial health directorate to the diagnostic and treatment center.
- Supervision and monitoring of vector borne and neglected tropical disease and necessary support provided to the hospitals.
- Integrated annual review meeting conducted at all districts and hospitals with an aim to review the progress update on NTDs/VBDs in district.
- IEC and BCC activities were conducted at different levels.

Kala-azar Elimination Program

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

Objectives

Reduce the incidence of kala-azar in endemic communities with special emphasis on poor, vulnerable and unreached populations.

Reduce case fatality rates from kala-azar to ZERO.

Detect and treat post-Kala-azar Dermal Leishmaniasis (PKDL) to reduce the parasite reservoir.

Prevent and manage Kala-azar HIV–TB co-infections.

Strategies

Nepal has adopted the following strategies for the elimination of Kala-azar.

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

Status and trend of kala-azar cases (2077/78 to 2079/80)

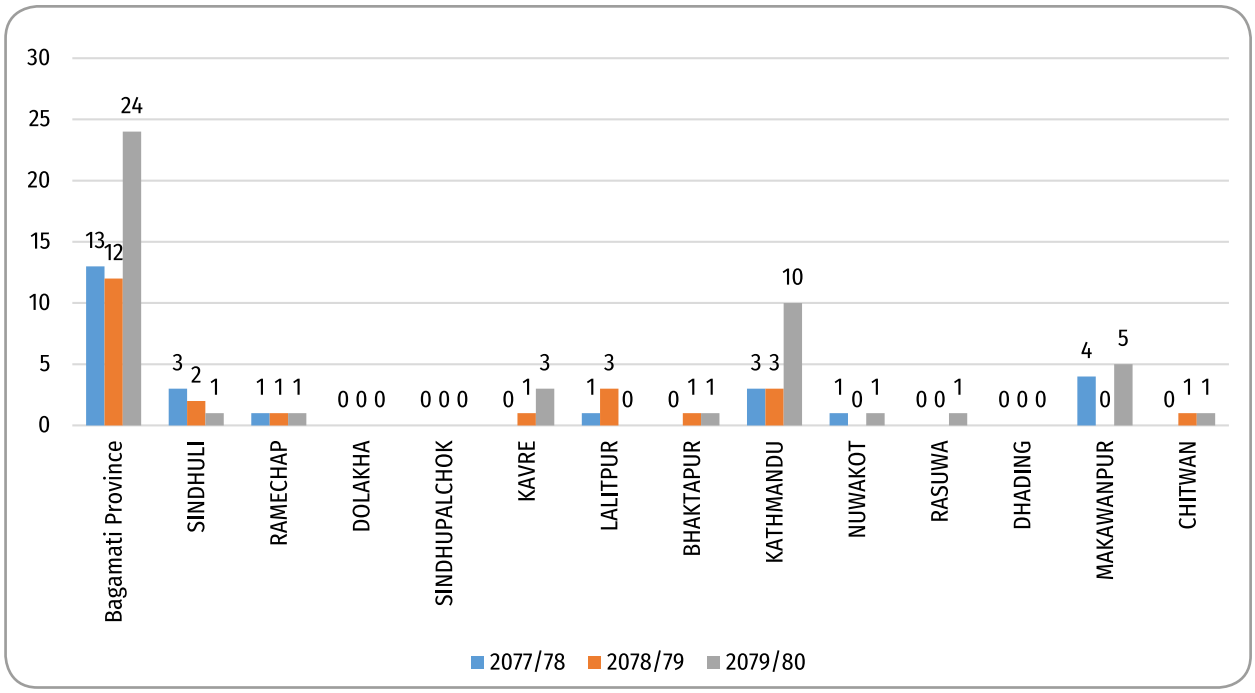


Figure 3.2.1: Status and trend of kala-azar cases (2077/78 to 2079/80)

The number of kala-azar cases have been increasing in Bagamati province, however geographical expansion of the cases has been observed in recent years at the national level. The districts of Kavre, Makwanpur, and Sindhuli have been identified as endemic districts based on the transmission assessment survey. In Kathmandu district, the cases of Kala-azar have been gradually increasing in year of 2079/80. All cases referred from outside the VL endemic districts of Nepal for the treatment were subsequently reported in Kathmandu.

Strengths, Issues/Challenges, and Recommendations

Strengths

- Implementation of Health Management Information System (HMIS) and Early Warning and Reporting System (EWARS) for surveillance of Kala-azar.
- Availability of free of costs drugs and diagnostics for early case detection and timely treatment of kala-azar cases.
- Availability of recently revised standard national guidelines for kala-azar elimination program in Nepal including regular trainings to health professionals on kala-azar prevention, diagnosis, and management
- Use of multi-disciplinary approach to overcome the challenges for elimination of Kala-azar.
- Implementation of active case detection of kala-azar through index case-based approach.
- Effective partnerships and collaboration with academics, researchers, and other stakeholders.

Issues/Challenges

- Lack of effective implementation of indoor residual spraying especially in endemic districts.
- Increasing number of other forms of leishmaniasis such as cutaneous leishmaniasis which needs further evaluation.

- Inadequate awareness about disease among the communities.
- Epidemiological sifting of the VL cases.

Recommendations

- Verification of endemicity status of kala-azar in endemic doubtful districts consistently reporting new cases of kala-azar.
- Improve disease and vector surveillance.
- Dissemination of educational message to public, public health professionals and policy makers related to kala-azar.
- Improving active case detection and investigation and management of outbreaks.
- Increase clinical and implementation research.
- Start the entomological activities as a regular basis.

3.3. Lymphatic Filariasis

Background

Lymphatic filariasis (LF), commonly known as elephantiasis, is one of the mosquito-borne parasitic diseases. It's a painful and highly disfiguring neglected tropical disease, often associated with areas that have poor sanitation and housing quality. The infection may be acquired during childhood, while its visible manifestations may occur later in life, causing temporary or permanent disability, pain, and social stigma.

The infection, transmitted by different species of mosquitoes (Culex, Anopheles, & Aedes), is caused by thread-like filarial worms (nematodes). Globally, the majority of LF infections (90%) are caused by Wuchereria Bancrofti, and the remainder by Brugia Species (Brugia Malayi & Brugia Timori). However, Wuchereria Bancrofti is the only known pathogen, and Culex quinquefasciatus mosquito is the only recorded vector for LF infection in Nepal.

National Lymphatic Filariasis Elimination Program

Goal: Elimination of Lymphatic Filariasis from Nepal by the year 2030 as a public health problem by reducing the level of the disease in population to a point where transmission no longer occurs.

Objectives:

- To interrupt the transmission of lymphatic Filariasis
- To reduce and prevent morbidity.
- To provide de-worming benefit using Albendazole to endemic communities
- To reduce mosquito vectors through application of suitable and available vector control measures (Integrated Vector Management)

Indicators

- Proportion of endemic districts that started with MDA.
- Number/Percentage of endemic districts stopped MDA.
- Proportion of endemic districts pass Post MDA surveillance.
- Proportion of districts completing morbidity Mapping.
- Number of districts implemented package of essential care through at least one MMDP care and support center.

Strategies

Interruption of Transmission by Mass Drug Administration (MDA): Initially, two-drug regimens, Diethylcarbamazine (DEC) and Albendazole (ALB), known as DA MDA, were administered yearly for six years. Now, in newly endemic and Transmission Assessment Survey failure districts, a three-drug regimen— Ivermectin, DEC, and Albendazole, known as IDA MDA—is used annually for 2-3 years. Given that humans are the sole reservoir of this filaria, MDA stands out as the most effective strategy for elimination.

Morbidity Management and Disability Prevention (MMDP): Morbidity management involves self-care supported by intensive yet simple, effective, and locally tailored hygiene techniques.

Integrated Vector Management: This strategy focuses on comprehensive approaches to vector control and reduction.

LF burden in Nepal

Nepal was one of the 72 countries listed by WHO as being endemic for lymphatic filariasis. Initially, the LF vector was identified between 300 and 5800 feet. However, in 2014, reports extended its presence up to 6890 feet in Nepal. A series of LF mapping initiatives conducted between 2001 and 2012, utilizing Immunochromatography Test cards (ICT), revealed that the average baseline prevalence of LF in Nepal was 13 percent, ranging from less than 1 percent to as high as 39.8 percent in certain districts. Based on the ICT survey, along with morbidity reporting, vector density, sanitation status, and geo-ecological considerations, 64 out of 77 districts were considered endemic, with an initial at-risk population totaling 25 million.

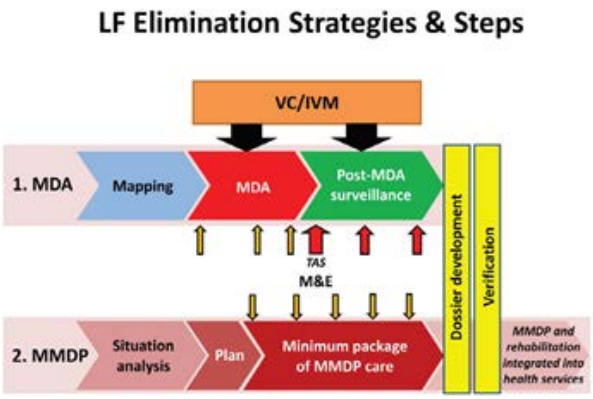


Figure 3.3.1: LF Elimination Strategies and Steps

Coverage of MDA in 2079/80 in Bagamati Province

Bagamati province has 13 districts, out of these 11 districts have successfully completed the Mass Drug Administration (MDA) campaign, achieved the set targets and passed the Transmission Assessment Survey. Additionally, Dolakha district conducted a survey, revealing no Lymphatic Filariasis (LF) transmission in the area.

The LF MDA campaign for the year 2079/80 took place in 5 Municipalities/Rural Municipalities of Rasuwa district starting from the 11th of Falgun, 2079. The Rasuwa health office organized coordination meetings, media orientations, and advocacy efforts. Simultaneously, municipalities conducted MDA (IDA) planning meetings, health worker training sessions, FCHV orientations, and community-level interactions. Medications were administered to eligible populations through health workers with the support of Female Community Health Volunteers (FCHVs). The MDA campaign of 2079/80 saw the mobilization of all health workers and FCHVs.

The LF MDA/IDA campaign in Rasuwa district achieved a coverage rate of 82%, as indicated in Table 3.1.3.

Table 3.3.1: LF MDA/IDA campaign in Rasuwa district

Number of the District	Total Population	Eligible Population	Target Population	Coverage %
Rasuwa	46689	45230	37094	82 %

Table 3.3.2: District-wise LF morbidity report as of 2079/80

S.N.	Districts	Hydrocele	Lymphedema		Both	Total
			M	F		
1	Ramechhap	115	47	44	2	208
2	Sindhupalchok	396	205	311	26	938
3	Kavrepalanchok	345	57	192	0	594
4	Nuwakot	1562	210	487	0	2259
5	Dhading	1342	194	630	28	2194
6	Kathmandu	281	156	497	10	944
7	Lalitpur	115	52	204	6	377
8	Bhaktapur	126	119	345	4	594
9	Chitwan	247	55	44	3	349
10	Makwanpur	247	34	85	7	373
Grand Total		4776	1129	2839	86	8830

Morbidity mapping and disability prevention

The LF elimination program's second strategy focuses on morbidity mapping and disability prevention. The LF Morbidity and Disability Prevention (MMDP) survey in Bagamati province, which comprises 10 districts, was successfully completed. The survey findings indicate that Bagamati province has identified a total of 8,830 LF cases. Among these, 4,776 cases were identified as hydrocele, 3,968 as lymphedema, and 86 cases exhibited both conditions. Detailed information is listed in Table 3.1.4.

3.4. Dengue

Background

Dengue is a disease that is transmitted to humans through the bites of infected mosquitoes, namely Aedes aegypti and Aedes albopictus, making it a vector-borne illness. Dengue is prevalent in most provinces of Nepal and has witnessed a surge in cases in recent years. The first documented case of dengue in Nepal was reported in 2004, involving a foreign individual in Chitwan district. Since then, Nepal has seen a gradual increase in dengue cases, primarily in the tropical lowlands and subtropical hilly regions, including the capital city, Kathmandu. The country has faced multiple dengue outbreaks between 2006 and 2022.

Dengue virus has emerged as a major public health concern in Nepal due to its widespread presence throughout the year, with cases reported from all 77 districts in the country. Entomological surveillance conducted in three cities (Kathmandu, Lalitpur and Dang) in 2022 also showed the presence of Aedes aegypti in all three areas and Aedes albopictus in Lalitpur and Ghorahi, Dang. However, the density of the albopictus vector was negligible in Kathmandu.

Major activities carried out in 2079/80.

- Regular communication and collaboration with the relevant levels, partners, and stakeholders to enhance the recording, reporting and dengue response.
- Prevention and control, which is regularly distributed through online and social media channels.
- Dengue test diagnostic kits are being supplied to hospitals and districts on a need basis.
- A joint program review of vector borne disease, including dengue, was undertaken by a team of national experts.
- Routine surveillance of Dengue through EWARS
- Vector surveillance activities conducted at provincial/ Districts levels.
- Regular logistic supply

Dengue Control Program

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

Objectives:

- To develop an integrated vector management (IVM) approach for prevention and control.
- To develop capacity on diagnosis and case management of dengue fever, DHF and DSS.
- To intensify health education and IEC activities.
- To strengthen the surveillance system for prediction, early detection, preparedness, and early response to dengue outbreaks.

Strategies:

- Early case detection, diagnosis, management, and reporting of dengue fever.
- Regular monitoring of dengue fever surveillance through the EWARS
- Mosquito vector surveillance in municipalities
- The integrated vector control approach where a combination of several approaches is directed towards containment and source reduction

Annual trend of dengue cases (2077/78-2079/80)

Dengue cases in Number

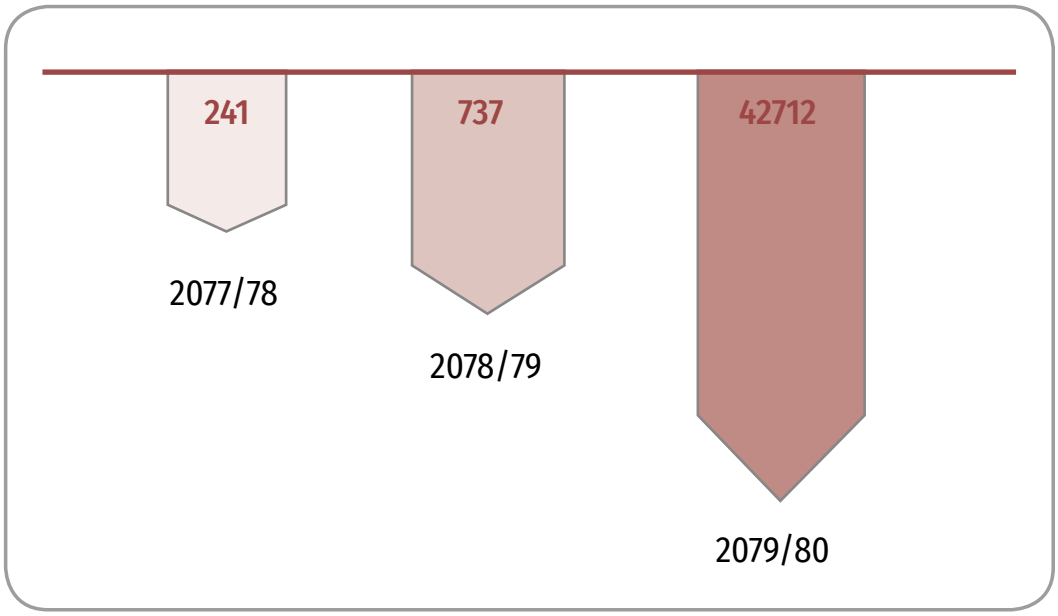


Figure 3.4.1: Annual Trend of dengue Cases (N)

The figure shows the three-year trend of dengue cases in Bagamati Province. While looking at the trend there is drastic increase in dengue cases in FY 2079/80 compared to previous FY 2078/79 and 2077/78.

District wise annual trend of dengue cases (2077/78- 2079/80)

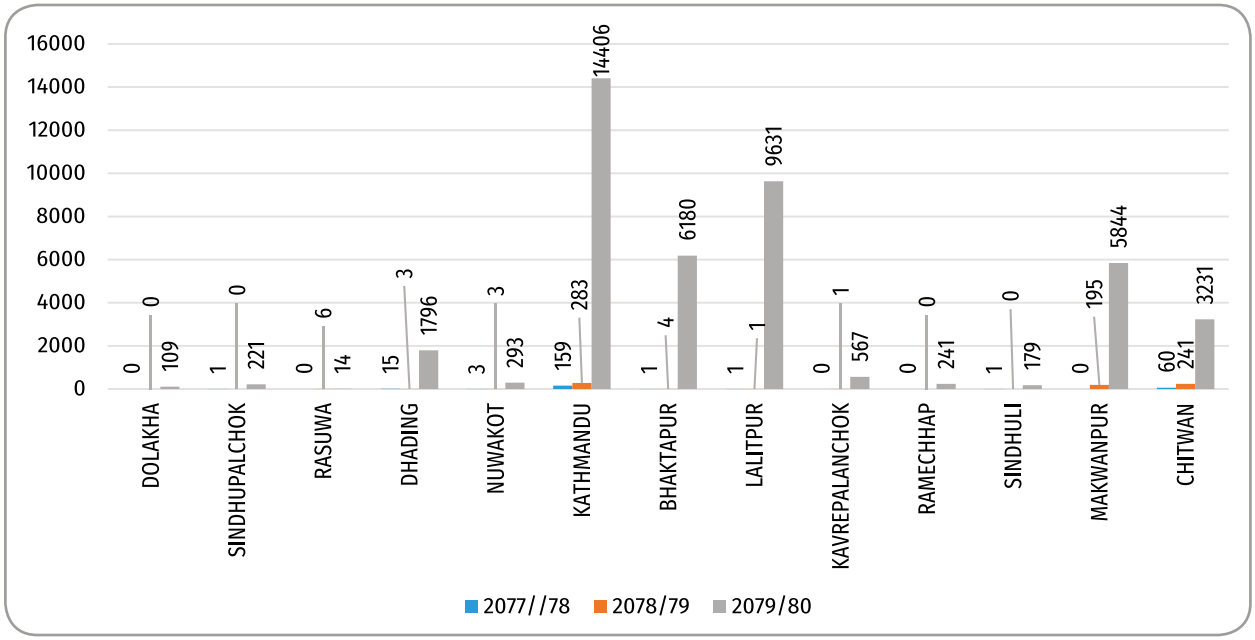


Figure 3.4.2: District wise annual trend of Dengue Cases

Source: DHIS-2/EWARS

The number of reported dengue cases reported have increased from 214 in FY 2077/78 to 42712 in FY 2079/80. The gradual rise in cases throughout FY 2079/80. In 2079/80, the highest number of cases was recorded in Bagmati province and high of the cases were reported from Kathmandu and followed by Bhaktapur, Lalitpur, Makwanpur and Chitwan districts.

It is important to note that the number of Dengue cases reported from Hospitals, Health Offices, and PHCCs via Early warning and Reporting System (EWARS) may differ from what is reported through the HMIS/DHIS2, and direct case reports to the program. The HMIS typically receives aggregate data that is consolidated from various hospitals and health facilities, whereas the program actively gathers data directly from Hospitals through EWARS. District verifies this information by using a line listing report of all cases.

Strengths, Weaknesses, Opportunities and Challenges of Dengue Control Program

Strengths	Weakness
▪ Availability of National Guidelines on Prevention, Management and Control of Dengue in Nepal. ▪ Surveillance system in place to track dengue cases. Establishment of online reporting system through EWARS on DHIS2. ▪ Availability of dengue register for better recording and reporting. ▪ Availability National Guidelines on Integrated Vector Management (IVM)	▪ Low priority for the dengue control program at Local levels ▪ Inadequate training and orientation for newly recruited health workers and refresher training for focal persons and managers. ▪ Under/over reporting of dengue in HMIS. ▪ Inconsistent, incomplete, and untimely reporting from the EWARS system ▪ Limited capacity for early detection and response to outbreaks ▪ Limited entomological capacity and vector surveillance due to the unavailability of resources
Opportunities	**Challenges**
▪ The need for Standard Operating Procedure (SOP) for Integrated Vector Surveillance and Vector Control recognized by the national and planned for development in FY 079/80. ▪ Collaboration with regional and international organizations for dengue control efforts. ▪ Prospects for integration of technology in surveillance and response systems, such as Epidemic Intelligence from Open Sources (EIOS)	▪ Climate change and its impact on mosquito populations and dengue transmission with shift of disease from low land regions to higher elevations. ▪ Difficulty in controlling the spread of dengue in densely populated urban areas. ▪ Limited engagement of other concerned ministries besides the Ministry of Health and Population in the prevention and control of mosquitoes. ▪ Insufficient community and multi-stakeholder engagement in dengue control efforts at local levels

3.5. Scrub Typhus

Background

Scrub typhus is an infectious disease transmitted by larval mites infected with the Orientia tsutsugamushi bacterium. These mites, commonly referred to as chiggers, are extremely tiny, measuring only 0.15–0.3 mm in length and can only be observed through a microscope or magnifying glass. The bite of an infected mite may result in a distinctive black eschar, which is a valuable clinical indicator for diagnosing scrub typhus. It's important to note that scrub typhus does not spread from person to person.

Nepal has seen various studies that confirm cases of scrub typhus infection. For instance, in 1981, an examination of 188 samples from eastern Nepal revealed that 19 individuals had antibodies to scrub typhus. In 2004, an analysis of blood samples from fever-afflicted patients in Patan Hospital, located in the Kathmandu Valley, showed that 3.2% of the cases tested positive for scrub typhus through serology. Furthermore, after the devastating earthquake in 2015, scrub typhus outbreaks were reported throughout Nepal, resulting in numerous cases of illness and death. While the surveillance system for scrub typhus is not yet well-established, data from the early warning and reporting system (EWARS) indicated a certain number of scrub typhus cases. In Kathmandu, Scrub typhus cases have been reported in different local levels as detailed in figure 3.1.6.

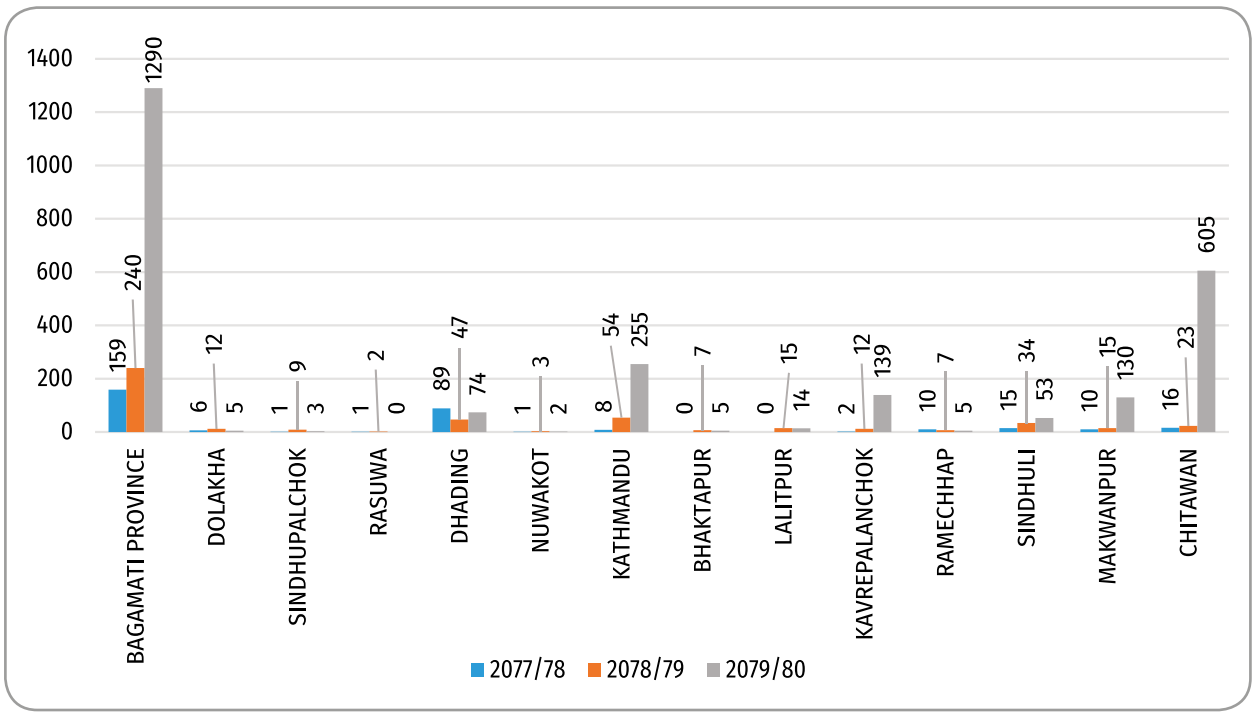


Figure 3.5.1: Trend of scrub typhus cases reported to EWARS from 2077/78 -2079/

Source: DHIS-2/EWARS

According to the above figure, there has been raised in scrub typhus cases in Bagmati Province. In the fiscal year 2079/80, there was a significant increase in cases compared to previous years. Notably, Chitwan district reported the highest number with 605 cases, followed by Kathmandu district with 255, Kavre district with 139, Makwanpur district with 130, Dhading with 74, and Sindhuli district with 53 cases. During the same period, the remaining districts reported fewer than 10 cases each.

SWOT analysis for Scrub Typhus

Strengths	Weakness
▪ Update national guidelines on diagnosis, management, and prevention of Scrub typhus in Nepal has been endorsed. ▪ Sensitizing communities about transmission risks and prevention methods. ▪ Capacity building for health workers in timely diagnosis and management is focused.	▪ Strengthening surveillance system for accurate recording and reporting is vital for effective response and control
Opportunities	**Challenges**
▪ Absence of a well-established national surveillance system for scrub typhus	▪ Consistent rise in reported cases annually across various districts.

3.6. Tuberculosis

Background

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

TB can affect anyone anywhere, but most people who develop the disease are adults, there are nearly twice as more cases among men than women, and 30 high TB burden countries account for almost 90% of those who fall sick with TB each year. TB is a disease of poverty, and economic distress, vulnerability, marginalization, stigma, and discrimination are often faced by people affected by TB. TB is curable with medicine (nearly 90% cure rates) and preventable. With access still falling short of universal health coverage (UHC) for all forms of TB, many still have also missed out (nearly 58% in Nepal) on diagnosis and care. Preventive treatment is scaling up among contact.

Status of TB epidemic

In Nepal, an estimated 70,000 fell ill with TB in FY 2079/80. National Tuberculosis Programme (NTP) registered 37,445 all forms of TB cases (38% female and 62% male). Out of 37,445 all forms of TB cases, 36,817 (98.3%) cases were incident TB cases, 21,456 (57%) were pulmonary bacteriologically confirmed (PBC) cases, 5691 (15%) were pulmonary clinically diagnosed (PCD) cases and 10298 (28%) were extrapulmonary TB cases. Geographically, most people who reported TB were from terai region (60%).

In Bagmati Province in FY 2079/80 total TB Cases all forms registered 8854 (nearly 38% missing vs the projection) all forms of TB cases (60% male and 40% female). Out of 8854 TB Case, 4690 (53%) were pulmonary bacteriologically confirmed (PBC) cases, 1146 (13%) were pulmonary clinically diagnosed (PCD) cases and 3018 (34%) were extrapulmonary TB cases.

Drug-resistant TB continues to be a public health threat. Globally, the estimated annual number of people who developed MDR-TB or RR-TB (MDR/RR-TB) was relatively flat between 2020 and 2022. In 2022, the estimated proportion of people with TB who had MDR/RR-TB was 3.3% among new cases and 17% among those previously treated. In 2022, an estimated 410,000 people fell ill with MDR/RR-TB around the globe, while people who started on treatment were 1,75,650.

In Nepal, nearly 2,900 people were estimated to develop MDR/RR-TB in FY 2079/80, but only 693 were detected (i.e. 76% were missed) and out of those diagnosed, NTCC was able to put 546 on DR TB treatment. In Bagmati Province in FY 2079/80 only 298 were detected and out of those diagnosed, Bagmati Province two DR centres was able to put 81 on DR TB Treatments and as Bagmati Province is diagnosis sites of all provinces they may have enrolled in other provinces.

Preventive therapy was provided to children under the age of five who were in close contact with individuals diagnosed with tuberculosis. Out of the total of 4,725 children identified in household contact tracing, 92% were eligible for TPT. Among the eligible ones, 84% (3658 children) were enrolled in TPT during the 2022 TB period. In Bagmati Provinces out of 464 children identified in household contract tracing, 97% were eligible for TPT. Among the eligible ones, 86% (334 children) were enrolled in TPT during the FY 2079/80.

Progress towards the End TB Strategy and SDGs

Globally, an 8.7% reduction in TB incidence rate and 19% reduction in TB deaths in between 2015 and 2022 was observed. Though, the incidence rate and deaths are declining, but are not as expected to meet the global END TB and SDG targets also, 49.0% of people with TB faced catastrophic costs. As per the Global TB Report, 2023, Nepal showed a 15.0% reduction in TB incidence rate and 1.9% reduction in TB deaths between 2015 and 2022, however Nepal is still far behind to track in reaching the END TB targets. Furthermore, Nepal does not have the data on TB affected people facing catastrophic cost. Based on the National TB prevalence survey report, there has been a 3.0% decline in annual incidence rates in TB in Nepal.

Global declarations and commitments for TB program

Based on the global and national commitments to reach the set END TB targets, NTCC has developed its National Strategic plan 2021/22-2025/26 for TB3 which envisions for TB Free Nepal by 2050. The milestones, and targets set by Tuberculosis NSP 2021-2026 were to reach SDG and end TB targets as mentioned below.

Progress towards service coverage and disease burden of TB

Institutional Coverage in Bagamati Province

Nepal adopted the DOTS strategy in 1996 and achieved nationwide coverage in 2001. All DOTS centres are integrated into public health services or run through NTP partner organizations in the public and private sectors. In 2079/80, 1075 institutions were offering TB diagnosis and treatment DOTS-based TB control services in Bagmati Provinces. To increase access to treatment services, NTP has developed partnerships with different organizations including private nursing homes, polyclinics, I/NGO health clinics, prisons, refugee camps, police hospitals, medical colleges, and municipalities.

Indicators, Milestones and Targets:

Table 3.6.1 : Indicators, Milestones and Targets

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

Institutional coverage of TB in FY 2079/80

Table 3.6.2: Institutional coverage of TB in FY 2079/80

Name of centres/ Institutes	Total numbers
DOTS Centre	1075
MDR Treatment Centres	2
MDR Treatment Sub-Centres	24
DR Homes	-
DR Hostel	1
Microscopy Centres	231
GeneXpert Facility	23
Culture Labs and DST	2
Line Probe Assay (LPA)	2

TB Indicators

Case Notification Rate

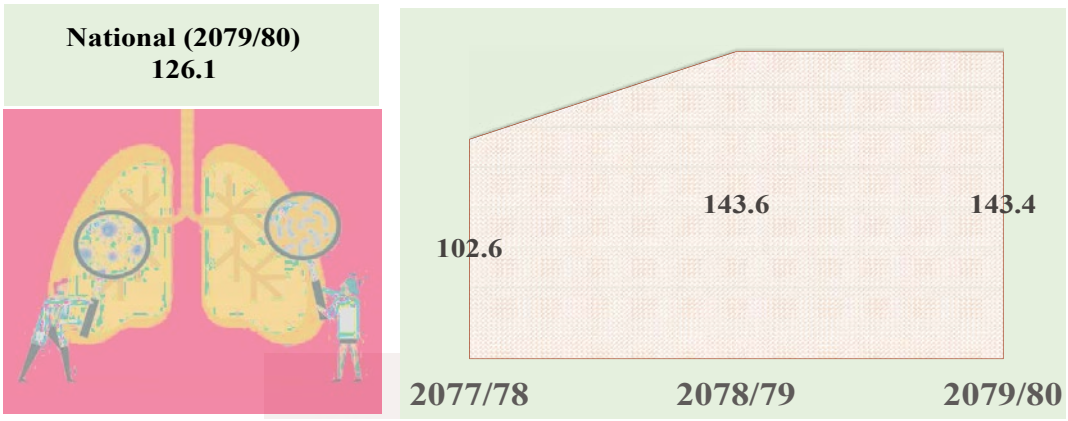


Figure 3.6.1: Trend of Case Notification Rate (all forms of TB/100,000 Population)

The above figure describes the status of case notification rate. While looking at the figure the case notification rate of all forms of TB per 100,000 population is in decreasing trend from FY 2078/79 to FY 2079/80. i.e. 143.6 per 1 lakh population in FY 2078/77 followed by 143 per 1 Lakh population in FY 2079/80.

Treatment Success Rate

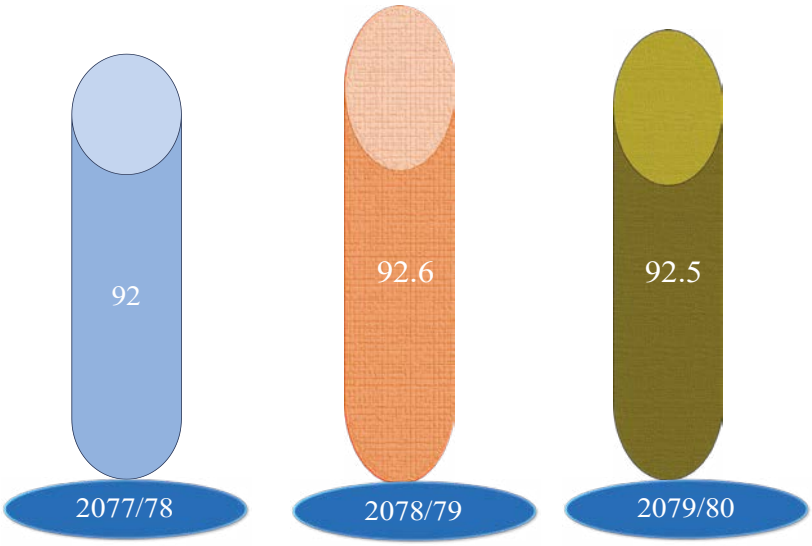


Figure 3.6.2: Trend of Treatment Success Rate

The above figure describes the status treatment success rate of three years. In case of Treatment success rate three trends show that it is in increasing trends which denotes in Bagmati Province DOTS is proper functioning status and proper care of TB patient.

District wise Status of TB Indicators

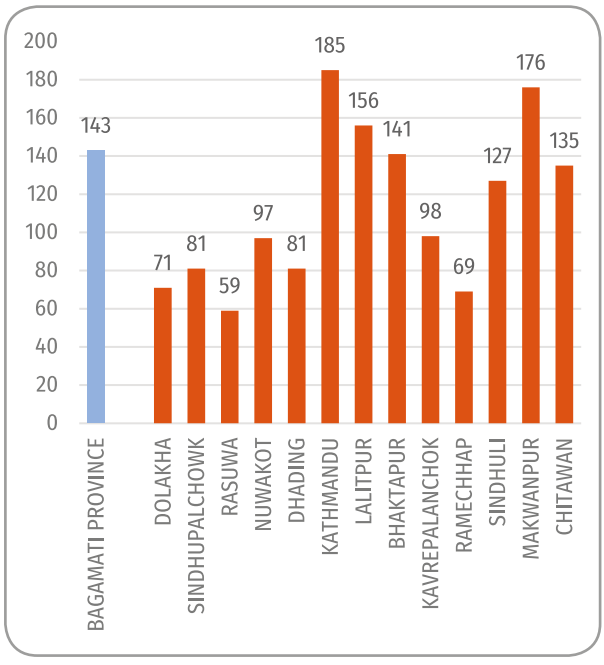


Figure 3.6.3: District wise status of case notification rate (all forms of TB)/100,000 pop

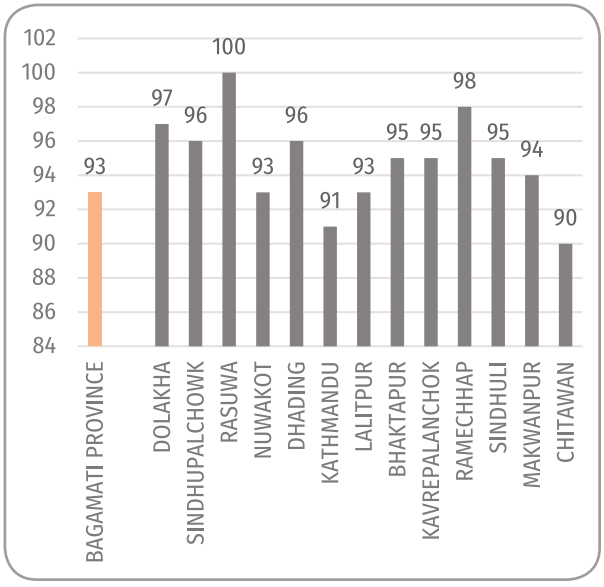


Figure 3.6.4: District wise status of Treatment Success Rate (%)

The above figure shows the district wise status of case notification rate and treatment success rate of FY 2079/80. In this figure it is clearly shown that Case notification rate of Kathmandu is better than other district and Dolakha district case notification is very low which shows that we need to focus on all district to increase case notification as per Prevalence survey 2018. In cases of success rate of district wise all are above 90% which is as per the national target of sustaining the treatment success rate above 90%.

Gap in TB Program district wise in Bagmati Province on basis of Target Vs Achievement

In Bagmati Province there is 38% case gaps which need to be met by increasing Active case finding, OPD Presumptive, contact tracing and conducting different types of Active case finding camps. In all districts there is gap but need to more focus in Dolakha, Ramechhap, Kathmandu valley, Chitwan, Sindhuli, Makwanpur and all remaining to meet the Bagmati Province target.

As per estimated TB cases we are unable to meet our target due to which there is huge gap and most of gap seen in non-Sub Recipients districts.

Issues, recommendation, and responsibilities

Provincial Annual Review 2078/79 identified following problems/constraints and recommended actions to be taken with clear responsibility at different levels of authority and health entities.

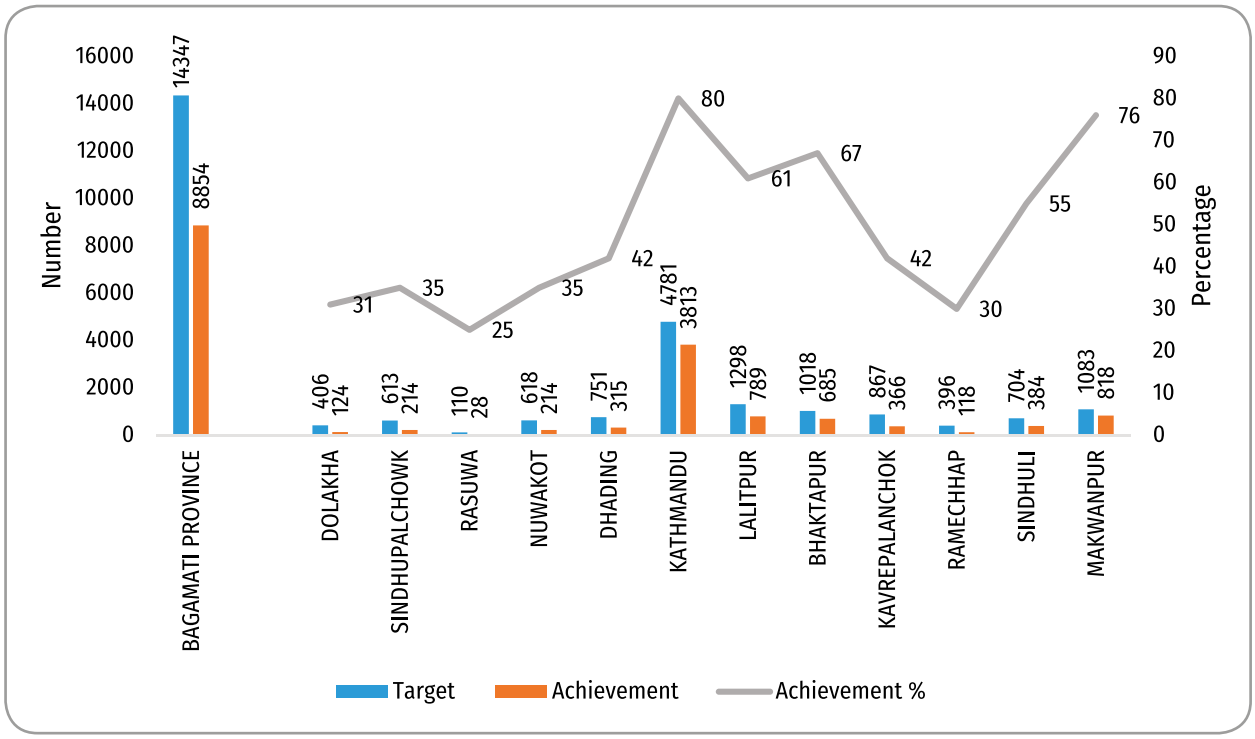


Figure 3.6.5: Gap in TB Program district wise in Bagmati Province on basis of Target Vs Achievement

Issues, recommendation, and responsibilities

S. N	Issues	Recommendation	Responsibilities
		Service delivery related	
1.	High gap between estimated case and notified cases	• Active case detection in target, vulnerable population and hard to reach population with access to gene x-pert testing facilities. • Initiation of screening of TB presumptive cases using x ray facilities • Increasing referral of TB presumptive from non-testing sites to testing sites	NTCC MoH PHD Local government
2.	Increased rifampicin resistant (RR) primary loss to follow up cases.	• Proper documentation of contacts of RR cases at diagnostic sites and regular follow up for enrollment. • Regular review and follow up of the cases to ensure enrollment status in support of gene xpert sites, DR centers and implementing partners. • Case based quarterly review system in DR TB review	NTCC, MoH, PHD, Local Government,
3.	Decreasing trend of Pulmonary Clinically diagnosed cases.	• Conducting effective and regular CME program in private and governments institutions • Review with private sectors on trimester basis.	NTCC, MoSD PHD, Local Government NTCC, PHLM,
4.	Shortage of Cartridge and not properly management of Logistic Supply	• Discuss with NTCC and Province Health Logistic and sort out the issue and manage the channel for distribution and cartridge shortage management.	PHD, PHL, PHD
5.	Health Laboratory Management due to shortage of Laboratory Human resources.	• Request with Province Health Laboratory to manage lab human resources in needed place.	
		Information related	
1.	Error in internal consistency of data in DHIS 2, eTB, Gene Xpert online and Online DR TB entry.	• Regular desk review on quality of data by implementing partners and PHD. • Follow up to palika for increasing the quality and internal consistency of data. • Onsite coaching and joint monitoring from PHD team • Visit Gene Xpert and DR sites.	PHD/NTCC

S. N	Issues	Recommendation	Responsibilities
		Governance related	
1.	Lack of monitoring and evaluation from central and NTCC team	• Improve the monitoring visit as per need	MoHP, NTCC
2.	Lack of proper coordination between local government	• Capacity development of health office as technical expert for TB program • Increasing onsite coaching and technical support from health office to local government	PHD, Health Office, Local level

3.7. Leprosy

Introduction

Leprosy, or Hansen's disease, is caused by Mycobacterium leprae, an acid-fast, rod-shaped bacillus. With ancient roots, it is likely transmitted through droplets during prolonged contact with untreated patients. Primarily affecting the skin, peripheral nerves, respiratory mucosa, and eyes, leprosy is curable. Early diagnosis and treatment in the initial stages can prevent disability. Apart from physical deformity, persons affected by leprosy also face stigmatization and discrimination.

National Leprosy Strategy (2021 -2025)

The National Leprosy Strategy (2021 -2025) highly considered the previous National Leprosy Strategy (2016 -2020), findings and recommendations from the In-depth Review of the National Leprosy Program 2019, National Roadmap for Zero Leprosy- Nepal (2021-2030) as well as the different health policies and plans of Nepal. It also considers The World Health Organization's Global Guidelines on: Towards Zero Leprosy: Global Leprosy (Hansen's Disease) Strategy (2021-2030).

Goal: Elimination of leprosy (interruption of transmission of leprosy) at the subnational level (municipality) (interruption of transmission is defined as zero new autochthonous child leprosy cases for consecutive five years at the municipality level)

Objectives

- To eliminate leprosy transmission at the subnational level (province, district, local level).
- To strengthen clinical case management at district and municipal levels and improve referral system.
- To enhance capacity building through training of health staff particularly at the peripheral health facilities.
- To enhance prevention of leprosy.
- Reduction of stigma and discrimination.
- To strengthen leprosy surveillance system and regular monitoring, supervision, and periodic evaluation at all levels.
- To strengthen partnerships among different stakeholders.

Targets of National Leprosy Strategy

S.N.	Targets	2019* (baseline)	2025
Target 1	Mapping of districts/municipalities including human resources	√	updated
Target 2	Number of municipalities with zero new child autochthonous cases over consecutive 5 years period	605**/753	700/753
Target 3	Number of municipalities with zero leprosy cases	65	377
Target 4	Number of annual new leprosy cases reduced to	3282	2462 (25 % reduction from baseline)
Target 5	Rate of new leprosy cases with G2D (per million population)	5.3	< 1
Target 6	New child leprosy case detection rate (per million child population)	30	< 6
Target 7	Number of child cases among new leprosy cases reduced to	260 (7.9 % child case proportion among new leprosy cases)	50 (2% child case proportion among new leprosy cases)
Target 8	Number of child G2D among new child leprosy cases	2 of 260 new child cases	0
Target 9	Discriminatory laws	Discriminatory law exists	Zero discrimination as a result of no discriminatory laws and complaints reporting system in place
Target 10	Roll out of preventive chemoprophylaxis	-	50 % coverage among eligible contacts
Target 11	Household contact examination of an index case within 3 months of case detection	-	75 % of index case

* 2019 is taken as the baseline because of impact of COVID-19 pandemic on leprosy cases diagnosis & treatment.
** For baseline only one year data of 2019 is taken due to unavailability of municipality level data of the past 5 years.

Current leprosy situation

Following the continuous efforts from the Leprosy Control Program, MoHP, and the support from WHO and other partners, leprosy was declared elimination as a public health problem at the national level in 2010.

In the fiscal year 2079/80 (2022/2023), the registered prevalence remained below the elimination threshold with the national registered Prevalence Rate of 0.85/10,000 population. Out of 77 districts, 14 districts reported PR, more than 1.

Major activities carried out in 2079/80.

- Conducted coordination meeting with stakeholders related to leprosy and disability.
- Conducted orientation program regarding rapid identification of disabilities, counseling, and referral services.
- Procurement and distribution of aid for persons with disabilities due to leprosy and other disabilities.
- Celebrated World Leprosy Day and Disability Day.

Status of key indicators of Leprosy Program in Bagamati Province

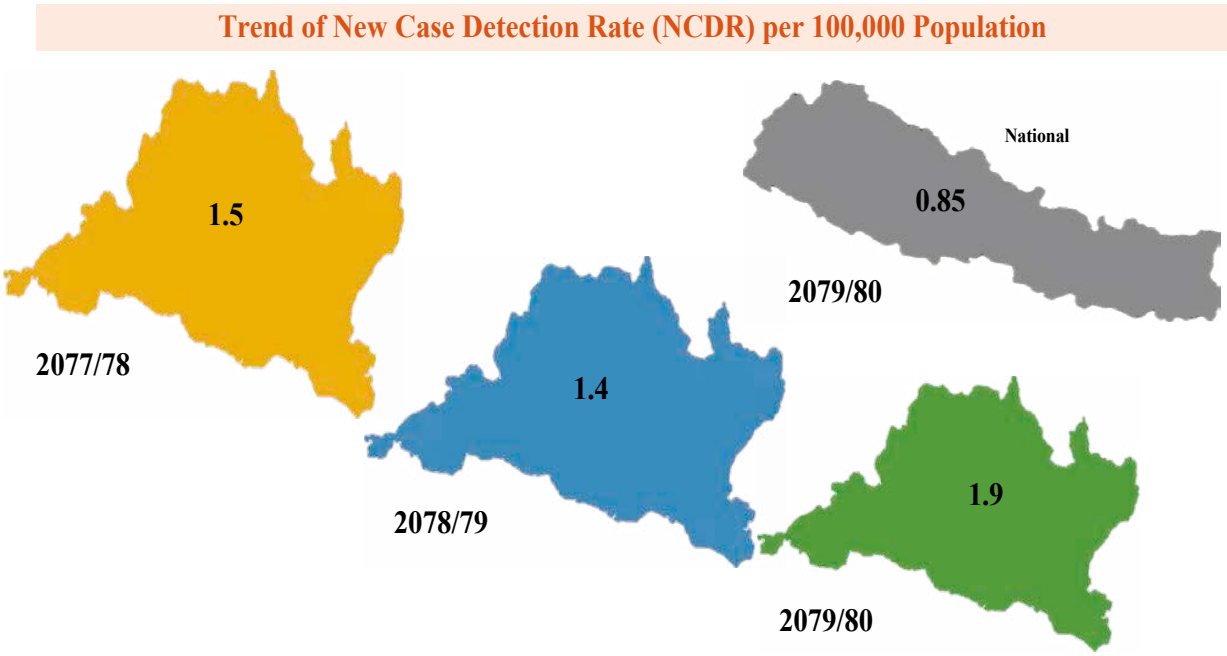


Figure 3.7.1: Trend of New case Detection Rate (NCDR)

District wise status of new case detection rate (NCDR)

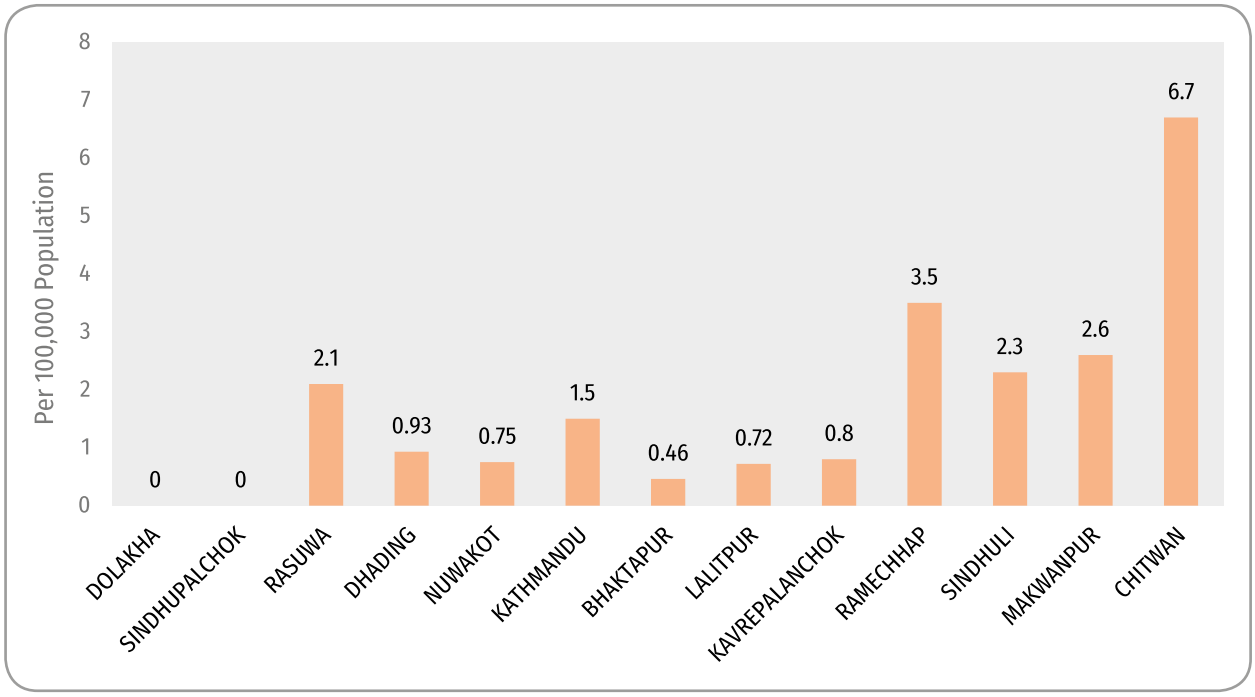


Figure 3.7.2: District wise status of new case detection rate (NCDR)

The above figure shows the district wise trend of new case detection rate. In FY 2079/80 the new case detection rate was higher in Chitwan district followed by the Ramechhap district while Dolakha and Sindhupalchok district reported zero NCDR.

Trend of prevalence rate of leprosy per 10,000 population

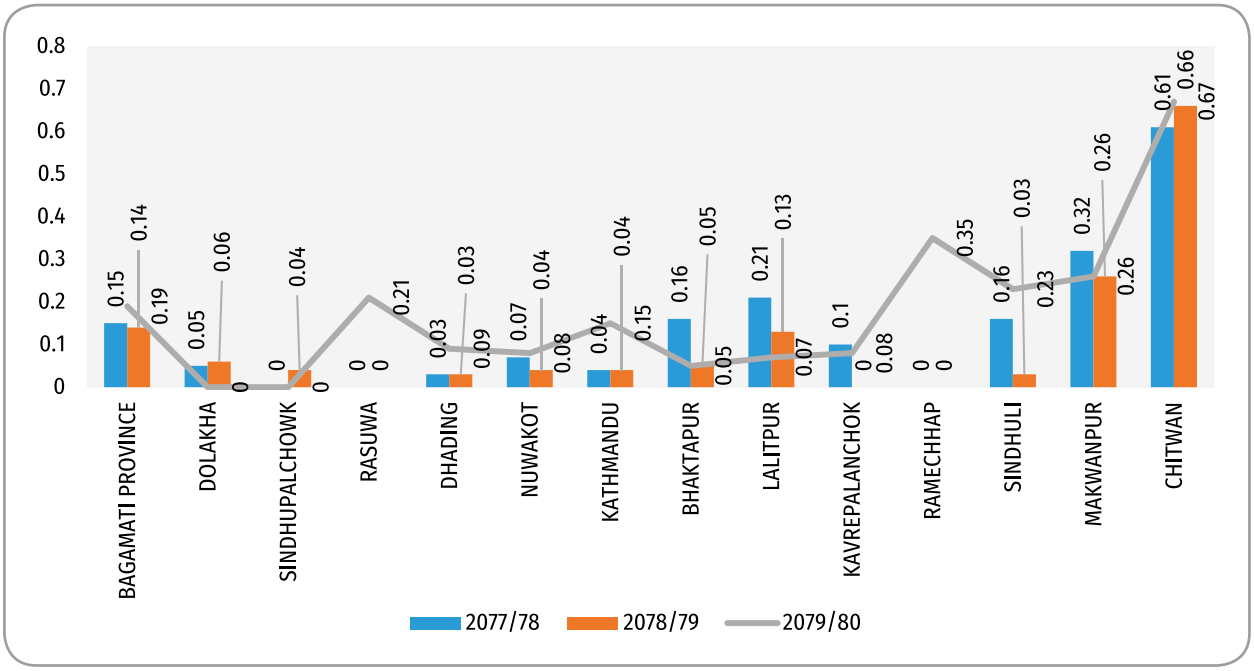


Figure 3.7.3: Trend of prevalence rate of leprosy per 10,000 population

The above figure shows the district wise trend of prevalence rate of leprosy per 10,000 population. Out of 13 districts, two districts i.e. Sindhupalchok and Rasuwa have Zero Prevalence rate while all other districts have prevalence rate less than 1.

Issues, recommendation, and responsibilities

Issues/Challenges	Recommendation	Responsibilities
Issues related to accuracy and under reporting of leprosy cases in DHIS system	Encourage and supervise the health worker for accurate reporting of leprosy cases.	MoH, HD, HO Local Government
Insufficient training for newly recruited health workers and lack of refresher trainings	Yearly training on updated treatment protocol.	MOHP, DOHS
Challenges in reaction and complication management at the periphery	Recruited of qualified health worker and arrangement of proper referral system.	MoHP, DOHS, MoH
Poor motivation of health workers	Refresher Training, Onsite Coaching	MoH, HD, Local Government

3.8. HIV & AIDS and STI

Introduction

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

Pursuant to its goal of achieving universal access to prevention, treatment care and support, HIV Testing Services (HTS) has been a strategic focus in the national response to HIV ever since Nepal started its response to HIV. The first ever HTS began in 1995 with the approach of voluntary Client- Initiated Testing and Counseling (CITC). Moving further from its previous approach of voluntary CITC, the national HIV testing and counselling program has been later widened to include Provider-Initiated Testing and Counseling (PITC), as well as CITC as crucial components of the nation's fight against HIV. With the expansion of HIV Testing and Counseling (HTC) sites across the country, there has been parallel development. National Guidelines on HTC was formulated in 2003 and updated in 2007, 2009 and 2011 and later the separate guidelines are merged as a comprehensive guideline on treating and preventing HIV in 2014. The community-based testing approach has also been initiated in key population and as suggested by National HIV Testing and Treatment Guidelines, 2017 Nepal has also moved forward to implement the community-led testing and self-testing approach in order to maximize HIV testing among key populations of HIV. For this approach, National Guidelines on Community Led HIV Testing in Nepal 2017' is also endorsed and currently CLT services is implemented in 20 districts targeting MSM and TG, 27 districts targeting PWID and 17 districts targeting FSW.

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

Vision, Mission, Goal & Objectives

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

Vision
Ending AIDS epidemic in Nepal by 2030.

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

Goals

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

Targets by 2026

1. Identify 95 % of the estimated PLHIV
2. Treat 95 % of people diagnosed with HIV
3. Attain viral load suppression for 95 % of PLHIV on ART
4. Reduce 90% of new HIV infections (baseline as of 2010)
5. Eliminate vertical transmission of HIV
6. Achieve case rate of congenital syphilis of ≤50 per 100 000 live births.

Priorities

1. Accelerating HIV prevention services among key populations.
2. Expanding innovative and effective testing approaches with universal access to comprehensive treatment, care, support, VL testing and suppression services.
3. Elimination of vertical transmission and syphilis.
4. Scaling up of HIV-sensitive social protection services to key and vulnerable populations.
5. Addressing human rights and gender in HIV response.
6. Strengthening effective, inclusive, and accountable HIV governance.

ART sites in Bagamati Province

Table 3.8.1: ART sites in Bagmati Province

S. N	District	Municipality	City	Name of site in HMIS
1	Kathmandu	Kathmandu Metropolitan City	Teku	Sukraraj tropical Hospital Kathmandu
2	Lalitpur	Lalitpur Metropolitan City	Sanepa	Sparsha Nepal
3	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Kanti Children Hospital
4	Chitwan	Bharatpur Metropolitan	Chitwan	Bharatpur Hospital, Chitwan
5	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Maiti Nepal
6	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Bir Hospital, Kathmandu
7	Kavre	Dhulikhel Municipality	Kavre	Dhulikhel Hospital, Kavre
8	Kathmandu	Kathmandu Metropolitan City	Maharajgunj	Teaching Hospital, Maharajgunj
9	Nuwakot	Bidur Municipality	Trishuli	Trishuli Hospital, Nuwakot
10	Makwanpur	Heatuda Sub-Metropolitan	Makwanpur	Hetauda Hospital, Makwanpur
11	Bhaktapur	Bhaktapur Municipality	Bhaktapur	Bhaktapur Hospital, Bhaktapur

S. N	District	Municipality	City	Name of site in HMIS
12	Dhading	Nilkantha Municipality	Dhadingbesi	Dhading Hospital
13	Sindhupalchowk	Chautara Sangachokgadhi Municipality	Chautara	Sindhupalchock Hospital
14	Sindhuli	Kamalamai Municipality	Sindhulimadi	Sindhuli Hospital
15	Kathmandu	Kathmandu Metropolitan City	Kathmandu	Maternity Hospital, Thapathali
16	Dolakha	Bhimeshwor Municipality	Charikot	Charikot Hospital

List of OST sites in Bagmati Province

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

List of Dispensing sites of OST

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

Major Achievement

HIV testing and Counseling at HTC:

The table given below presents the three years trend of HIV testing and Positive cases reported at HTC in Bagmati Province. In 077/78, low number of testing was associated with the lockdown of COVID and then gradual increase in testing has been observed. Effort of different implementation organization after the COVID situation has increased the testing almost by two folds in FY 078/79 in comparison to FY 077/78. In FY 079/80, 43459 risk population were tested of which 883 HIV positive cases were diagnosed. The yield rate seems to be 2%. Increased testing at HTC sites is supporting the strategy of identify, reach, recommend, test, treat and retain (IRRTTR).

District wise HIV testing and counselling at HCT center:

The increase in the number of tests at HTC sites in FY 079/80 is attributed to Kathmandu, Chitwan, Lalitpur, Sindhuli, Makwanpur and Bhaktapur. These districts have tested 16395, 14012, 4984, 2796, 2124 and 2106 tests respectively. Zero test in Rasuwa and Ramechhap is because of no availability of ART associated HTC sites. In these districts, good number of testing in the risk group and less than 3% of yield explains the epidemic of HIV in risk groups only. The below graph shows the status of HIV testing, positive cases, and yield rate by district in FY 079/80.

Table 3.8.2: HIV and AIDS Indicators SN Indicator Fiscal year wise status

SN	Indicator	Fiscal Year		
		2077/78	2078/79	2079/80
1.	HIV testing in HTC	14416	30155	43459
2	HIV found positive in HTC	1211	951	883

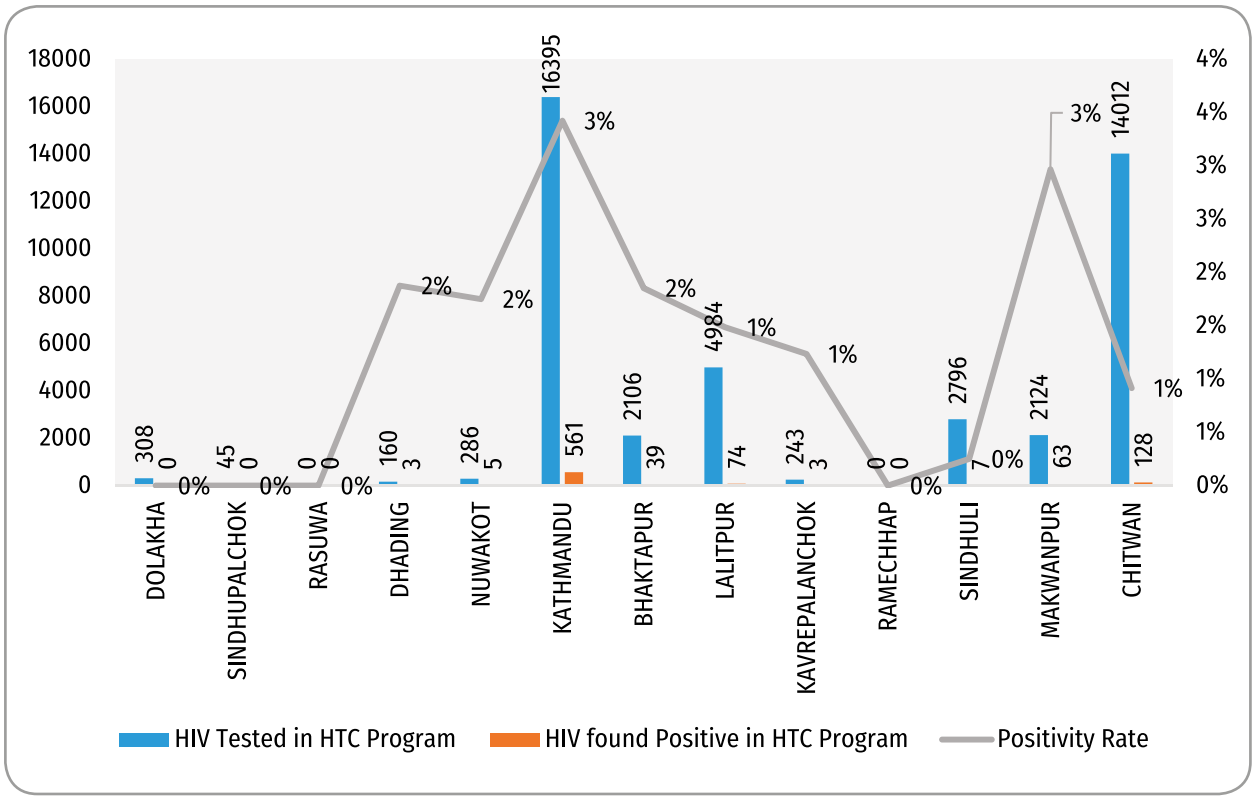


Figure 3.8.1: District wise HIV testing and counselling at HTC center.

Prevention of Mother to child Transmission:

With a target to meet zero vertical transmission of HIV, PMTCT program is being implemented from majority of the service delivery points of Bagmati province. There has been screening of all pregnant mothers with determine test kit for HIV during ANC visit and during delivery. Counselling and HIV testing of pregnant women visiting for ANC checkup has remarkably increased in FY 079/80. Reactive cases have remarkably decreased in comparison to the previous year which can be linked with the preventive measure and approaches adopted by program and decreased prevalence of HIV. Yet there is a gap of almost 20% between counselling and testing which needs to be addressed.

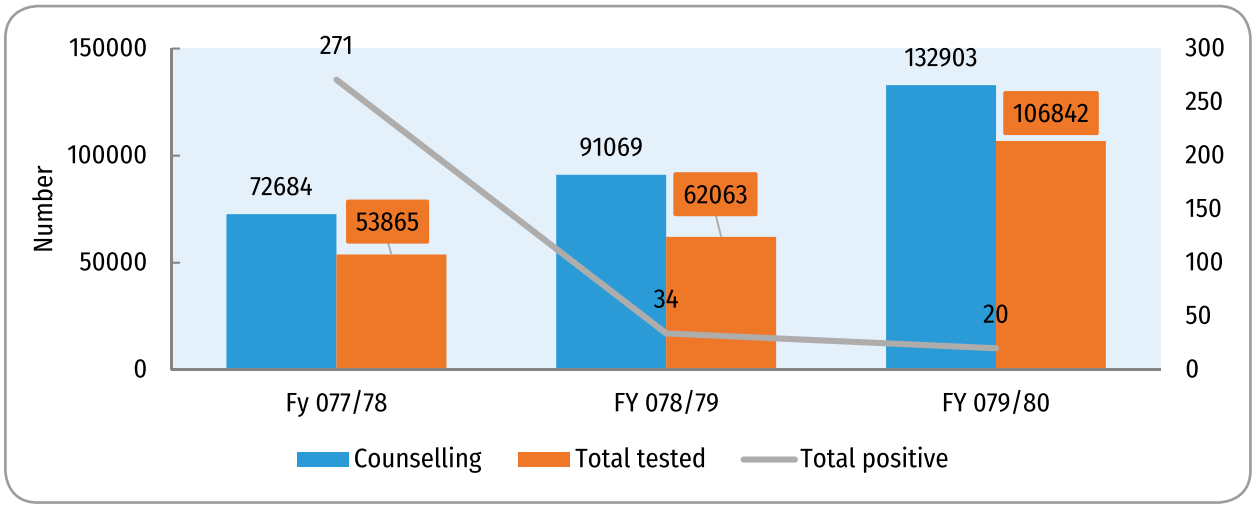


Figure 3.8.2: HIV testing and number of HIV Positive in PMTC in FY 2079/80

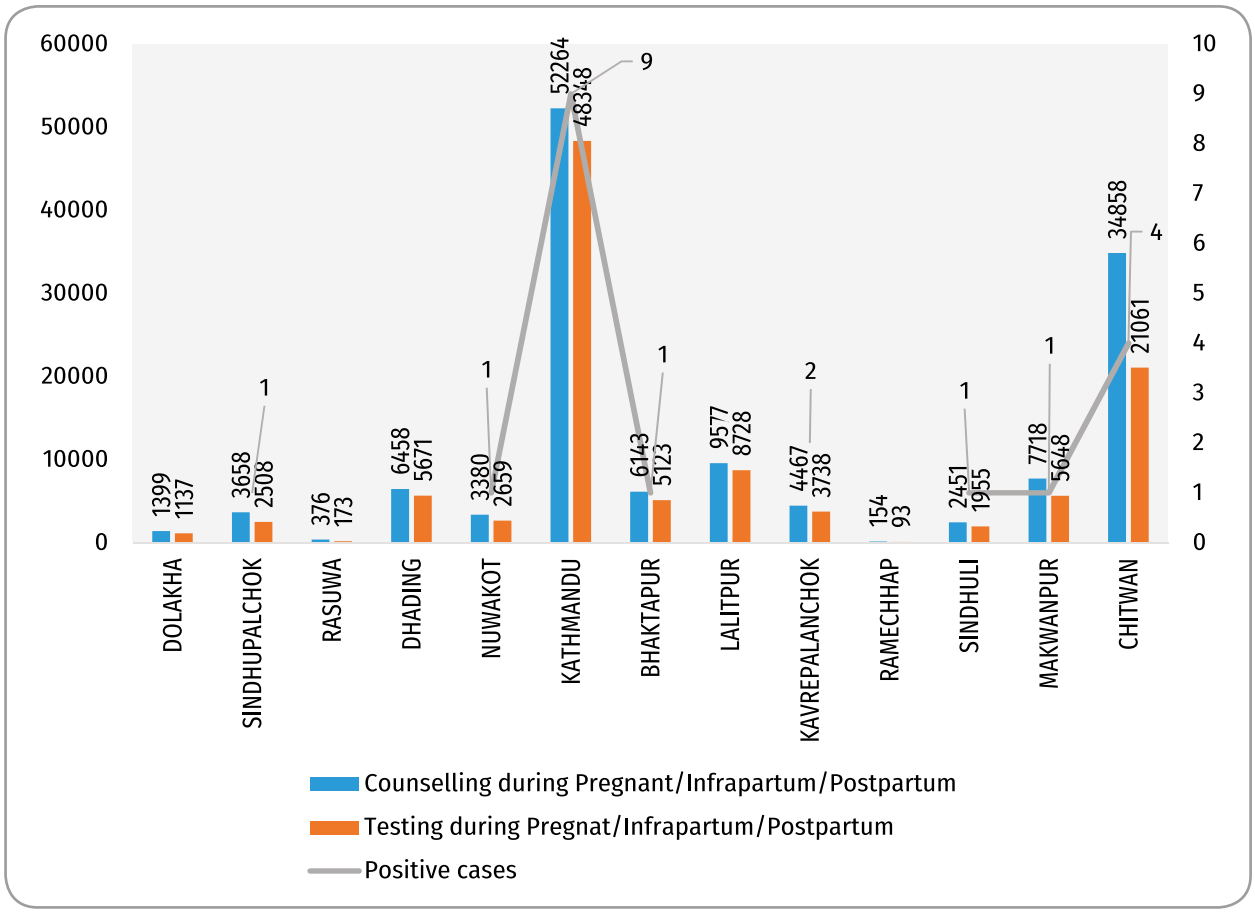


Figure 3.8.3: District wise PMTCT coverage in FY 2079/80

PMTCT coverage by district:

District- wise coverage of testing of HIV in pregnant mothers is tabulated here below. The table shows maximum number of tests has been performed in Kathmandu district followed by Chitwan, Lalitpur, Makwanpur and Bhaktapur. Against the number of tests, highest number of reactive cases has been identified in Kathmandu followed by Chitwan and Kavrepalanchok district. Besides increased number of testing during pregnancy, antepartum and postpartum, the gap between counselling and testing are high in Chitwan which need to be addressed.

Achievement against the 95-95-95 strategy:

The country HIV program is majored based on set targets under the National HIV Strategy Plan 2026 and the sustainable development goal. By 2026 it is estimated to reach at least 95% of the estimated PLHIV, treat at least 95% of the identified PLHIV and get a viral load suppression below 1000 copies of at least 95% of the PLHIV under treatment. Majoring the achievement of FY 079/80, it shows that Bagmati province has achieved second 95 while achieving the first and the third 95s should be the priority of the upcoming years. The below **table** shows the achievement against the set targets.

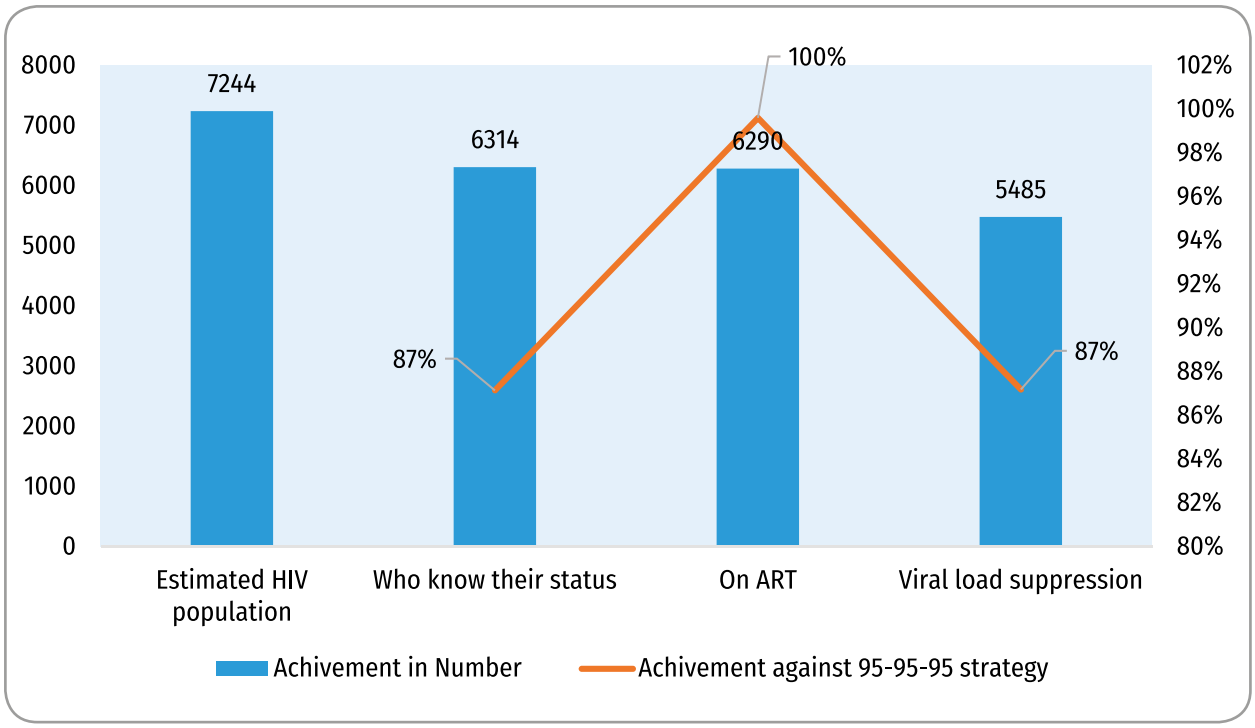


Figure 3.8.4: Achievement against the 95-95-95 strategy.

PLHIV currently on treatment

The below figure shows number of people living with HIV (PLHIV) in the province. At the end of FY 2079/80, 6290 PLHIV were on treatment in different 16 ART sites of Bagmati province. Kathmandu accounts for 3705 PLHIV followed by 1139 in Chitwan. Least number of PHLIV cases under treatment is 20 in Dolakha followed by 70 in Sindhuli. There are no ART sites in two districts, namely Rasuwa and Ramechhap, which should be the priority of the government.

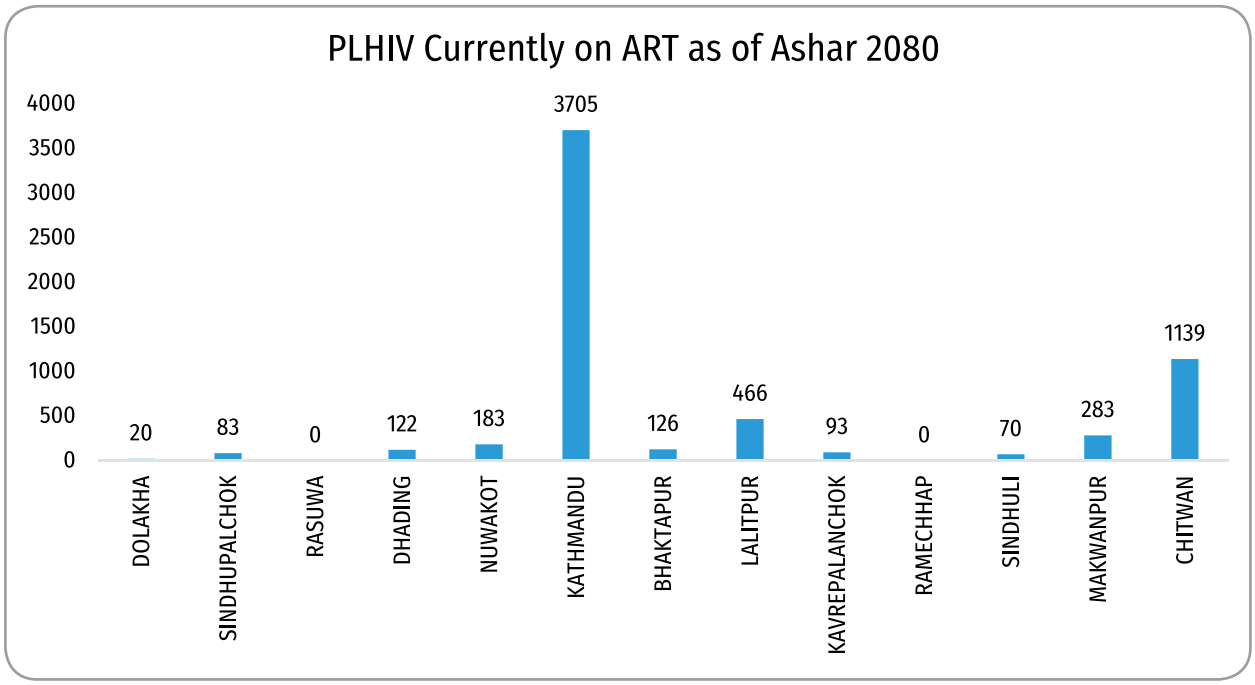


Figure: PLHIV currently on treatment as of Ashar 2080

Issues, recommendation, and responsibilities

Provincial Annual Review 2079/80 identified following problems/constraints and recommended actions to be taken with clear responsibility at different levels of authority and health entities.

Issues/Challenges, recommendation, and responsibilities

S. N	Issue/ Challenges	Recommendation	Responsibilities
Service delivery related			
1.	Unable to reach the first and third 95 of the 95-95-95 target	• Expansion of viral load testing facilities (at least in the districts where there are more than one thousand clients under ART • Regular collection of blood samples for viral load sample testing • Managing storage facility at ART sites for viral load sample • Increase testing of risk population specially the migrant population	PHD/MoH/NCASC
2	Inadequate intervention to deal with coinfection like hepatitis	• Develop guideline and protocol to deal with the hepatitis cases of PLHIV (linking with better service sites, transportation support to PHLIV to reach the sites)	NCASC
3	Limited and nonfunctioning HIV testing and counseling sites	• Expansion of HTC site at PHC level with three tier testing kits availability.	MoH NCASC PHD
4	Inadequate coverage of PMTCT	• Ensure regular supply of determined test kits at PMTCT sites. • Review of PMTCT program in the annual or semi-annual review of palika and district	NCASC, PHD and PHLMC
Information related			
1.	Majority of cases are being reporting under other category which is the issue of risk classification	• Onsite coaching to the ART sites for proper classification of the PLHIV • Including the risk groups like spouse of migrants and prison inmates in reporting system of HMIS	NCASC
2.	Data quality in different reporting portal	• Timely review of data through the data management committee feedback to the district and service sites	PHD/Health office/ Service sites

CHAPTER 4. Curative Service

4.1. Background

The provincial government of Bagamati Province is committed to raise the health status of rural and urban people by delivering high quality health services at the province, district, and local level throughout the province. Curative services (emergency, outpatient, and in-patient) are a highly public demanded component of health services. The policy regarding curative health is aimed at providing appropriate diagnosis, treatment, and referral through the health network from PHC outreach to the specialized hospitals.

4.2. Updated Categorization of Health Service of Bagamati Province

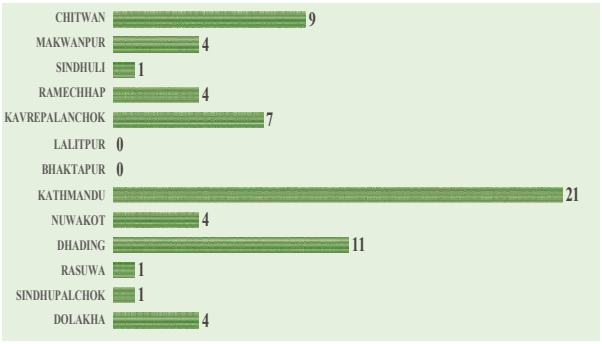


Figure 4.2.1: Basic Hospital (5-15 Beds)

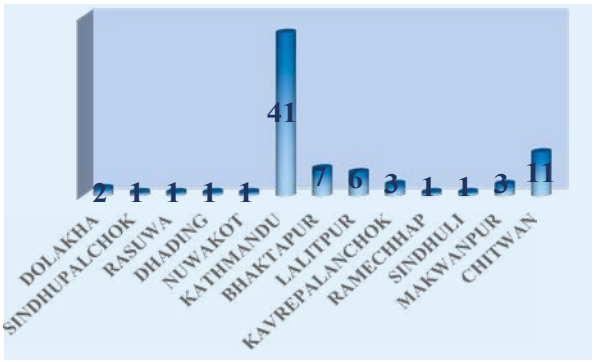


Figure 4.2.2: General Hospital (25 -50 beds)

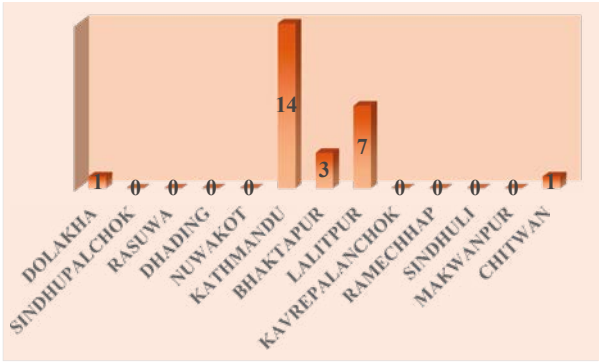


Figure 4.2.3. General Hospital (100-300 beds)

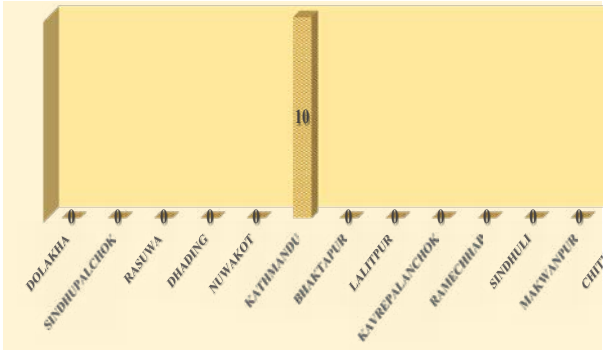


Figure 4.2.4. Specialized Hospital (100 beds and above)

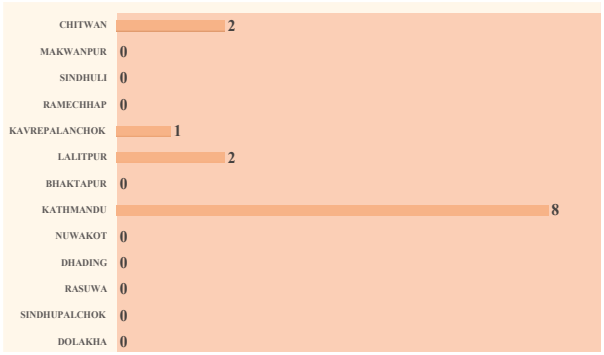


Figure 4.2.5: Academy and Teaching Hospital (300+ Beds)

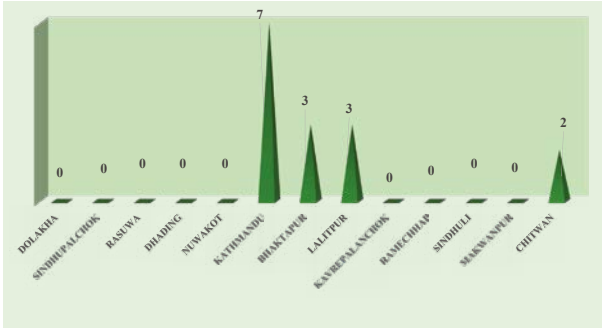


Figure 4.2.6: Super Specialty Hospital (50 + Beds)

The above figure shows the district wise data of health service delivery unit of Bagamati Province. According to the updated categorization of health facilities there are 1272 BHSU,67 Basic hospital (5-15 beds),81 General Hospital (25-50 beds),26 General Hospital (100-300 beds), 12 Specialized Hospitals (100 and above),15 Super Specialty Hospitals (50+ Beds/Organ) and 13 Academy and Teaching Hospital (300+ Beds).

Activities Carried Out in fiscal year 2079/80.

- Curative health services were provided through the existing health facilities through inpatient including emergency services and outpatient services.
- Essential drugs and other logistic materials were provided to all public health institutions.
- Strengthened capacity of hospitals by providing training, onsite coaching, follow-ups, equipment supply and logistic support.
- Conducted Hospital Management strengthening program (Minimum Service Standard).
- Supportive supervision & monitoring of public & non-public hospitals.

4.3 Major Activities Carried Out in fiscal year 2079/80.

- **Assessment of Minimum Service Standards (MSS) of Hospitals**

  Minimum Service Standards (MSS) ensure the readiness by assessing the availability of equipment and infrastructure to deliver minimum health services that are expected from the health facilities. These tools entail preparation of service provision and elements of service utilization that are deterministic towards functionality of hospital to enable working environment for providers and provide resources for quality health service provision. The primary aim of Minimum Service Standards is to improve the readiness of health facilities through self and joint assessment using " Minimum Service Standards" using the information to identify existing gaps, develop action plan for improvement, and in providing management grants to implement the action plan based on contextual priority.

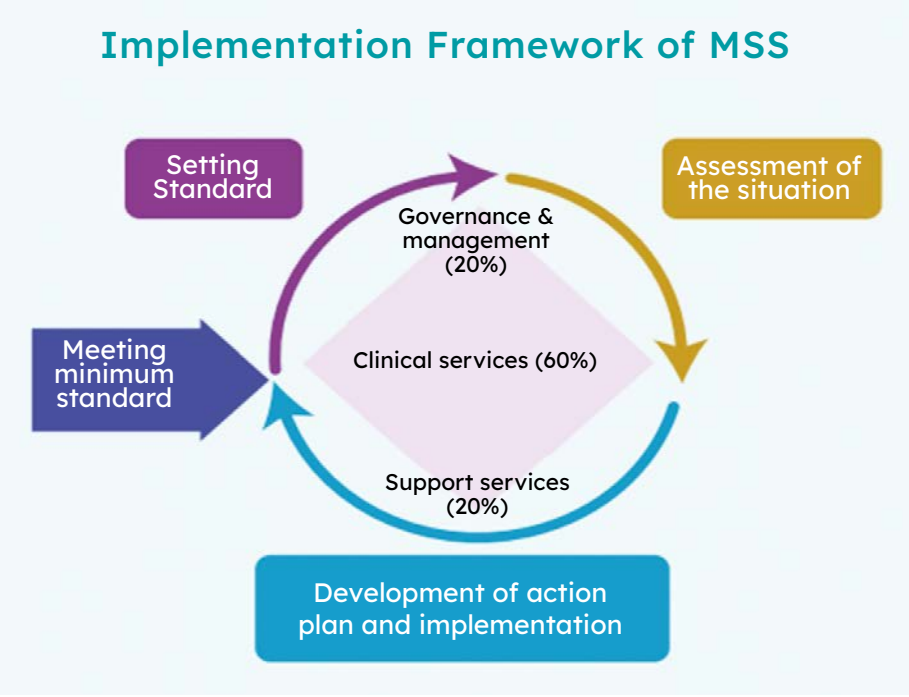


Figure 4.3.1: Implementation Framework of MSS

Implementation of MSS in Bagamati Province

Bagamati Province has implemented MSS in the hospitals since 2076/77 which has significantly improved the readiness of the hospitals and the quality of services at the hospitals. The increasing scores of the hospitals of Bagamati Province shows that the hospitals are doing well. Province level MSS Implementation, Budgeting for province level health institutions, follow-up planning, implementations, and gap analysis for strengthens, Data keeping and analysis for further rational budgeting, correspondence and support to basic Hospitals and Basic health centers MSS Implementation and follow-up via District Health office of municipality of related province.

Table 4.2.1: MSS Implemented Hospitals of Bagamati Province, FY 2079/80

Provincial level (13)		
1	Hetauda Hospital	Secondary A
2	District Hospital Dhading	Secondary A
3	District Hospital Sindhuli	Secondary A
4	Trishuli Hospital, Nuwakot	Secondary A
5	Bhaktapur Hospital, Bhaktapur	Secondary A
6	District Hospital Rasuwa	Primary
7	Pashupati Chaulagain Smirti Hospital, Dolakha	Primary
8	Methinkot Hosptial, Kavrepalanchowk	Primary
9	Bakulahar Hospital, Chitwan	Primary
10	Bajrabarahi Chapagaun Hospital, Lalitpur	Primary
11	Tokha Chandeshori Hospital, Kathmadu	Primary
12	Chautara Hospital, Sindhupalchowk	Primary
13	Ramechhap District Hospital	Primary
14	District Ayurveda Health Center, Makawanpur	
15	District Ayurveda Health Center, Chitwan	
Local level (3)		
1	Baghauda Hospital, Chitwan	Primary
2	Jiri Hospital, Dolakha	Primary
3	Badegaun Hospital, Lalitpur	Primary

Finding of MSS Evaluation of FY 2079/80

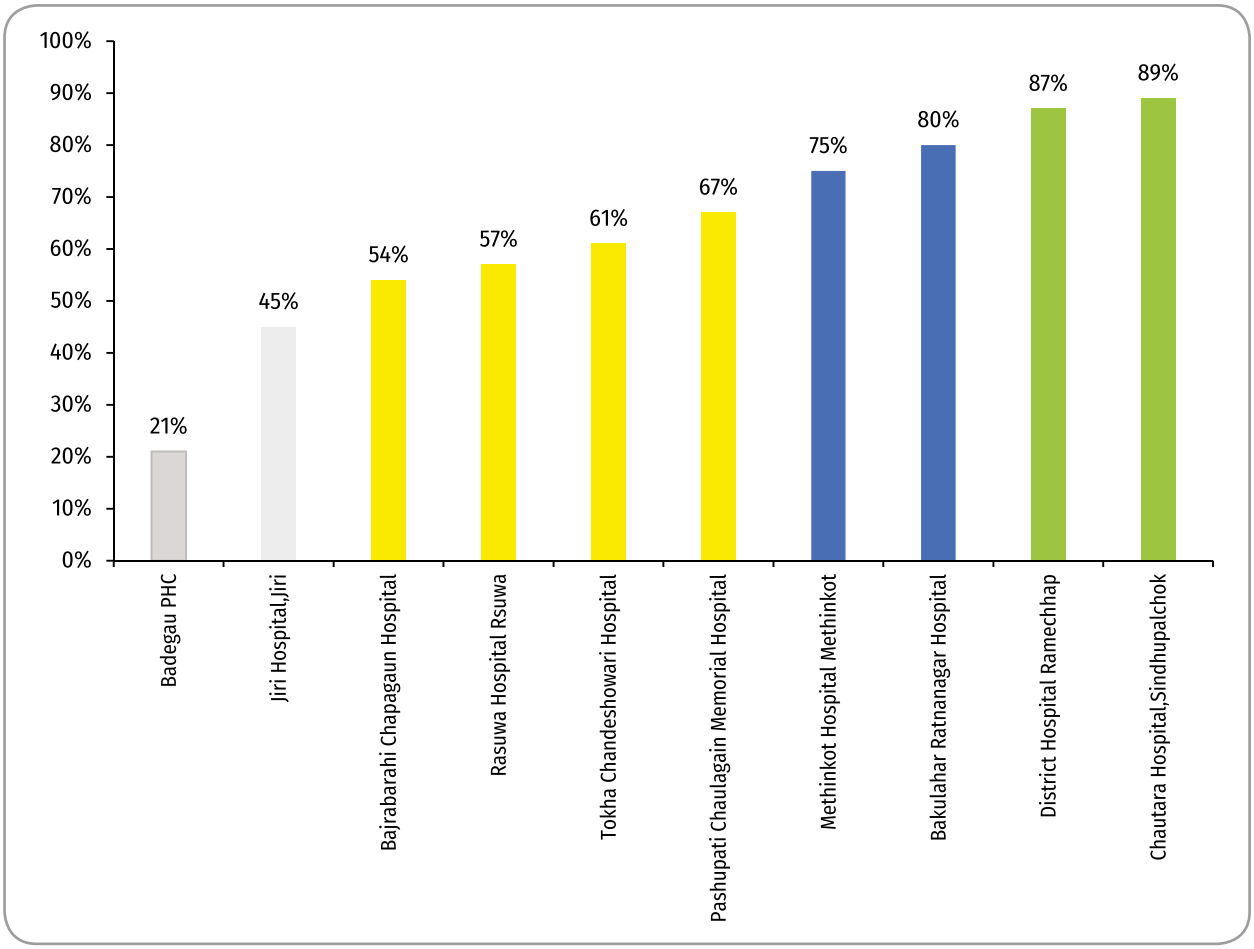


Figure 4.3.2: MSS Score of Primary Level Hospitals of FY 2079/80

In FY 2079/80 MSS was assessed in 9 Primary level hospitals. Among the Primary level hospitals assessed in FY 2079/80, the highest score attained was of Chautara hospital, Sindhupalchok (89%) followed by District Hospital Ramechhap (87%). Additionally, 2 hospitals score within the 70 -85% range, earning the blue color code and 4 Hospitals scored within 50-70 % range, indicating the yellow code on MSS Score Category and 2 local hospital and PHC scored below 50% this indicated the need of improvement of health facilities in local unit.

MSS Score of Secondary A level Hospital.

In FY 2079/80, MSS was assessed in 5 Secondary A level hospitals. Among the Secondary A level hospitals assessed in FY 2079/80, Bhaktapur district hospital achieved the highest MSS score, reaching an impressive 97%, surpassing top scorers in other provinces. Notably, among the top-performing hospitals, 4 other secondary A level hospitals of Bagamati province achieved a score within the 85-100% range, earning the green color code on the MSS score scale. MSS scoring system and the subsequent rankings have ignited a positive sense of competition among hospital leaderships, motivating them to strive for excellence and distinguish themselves as the best in their respective categories.

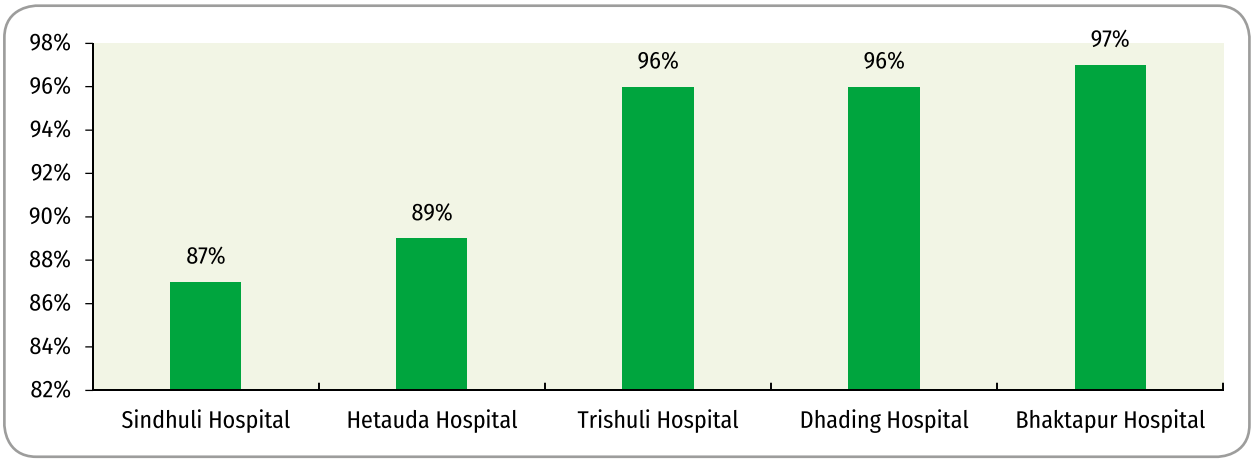


Figure. 4.3.3: MSS Score of Secondary A level Hospital.

MSS Score of District Ayurveda Health Centre

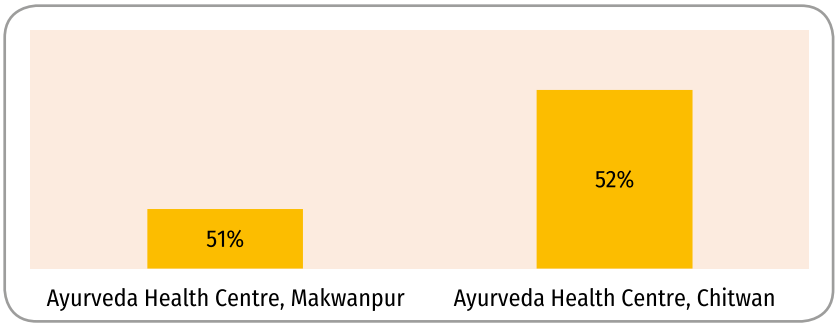


Figure.4.2.9: MSS Score of District Ayurveda Health Centre

In FY 2079/80, MSS was assessed in two District Ayurveda Health Centre. Among the two Chitwan Ayurveda health center scored 52% in FY 2079/80 followed by Makwanpur Ayurveda health center (51%). While comparing the MSS Score of Hospital and Ayurveda Health Centre, there is need of lot of improvement in district Ayurveda health Centre.

Major Strengths of Hospitals under Bagmati Province

- ICU service is available at all secondary A level hospitals and Bakulahar Ratnanagar Hospital.
- Dialysis service is provided from Hetauda, Trishuli, Dhading, Bakulahar Ratnanagar and Ramechhap hospitals.
- CT Scan Service available in Hetauda Hospital
- Oxygen plant has been established in all secondary A level hospitals and some primary Hospital.
- Endoscopy service being provided by Bhaktapur, Trishuli, Sindhuli, Hetauda and Bakulahar hospitals.
- Some hospitals have shifted to well-equipped new building (Ramechhap, Trishuli, Jiri, Bakulahar, Hetauda hospitals) and some are planning to shift in near future (Sindhuli, Chautara hospitals)
- Ministry of Health Bagmati Province recruited 618 human Resources and fill the vacant position in Hospitals.
- NSI Supports hospitals providing Human resources and grants.

Areas to be Improved of Hospitals under Bagamati Province

- Many hospitals do not have dedicated accounting staff, Administrative, recorders etc.
- Most hospitals have not conducted social audits; it should be conducted to improve governance.

- Proper recording and reporting is still lacking in most of the hospitals which should be improved, especially ICD code is not filled in the OPD registers and complete HMIS entries.
- Installment/utilization of the equipment provided by governments (Liquid waste plant, Dryer, Oxygen plant, Hemodialysis Machine, Autoclave, etc) are delayed at some hospitals due to various reasons.
- Practice of Internal Self-assessment should be done by hospitals themselves at regular intervals.
- EHR should be implemented in all hospitals.
- Maternity Waiting Home/ Kuruwa Ghar
- Triage System should be implemented in ER.
- Hospital staff should be oriented of OO1 and 008

All the medicines covered by social health insurance should be available at the pharmacy of all the hospitals.

4.4 Major Achievement of fiscal year 2079/80

Percentage of Population Utilizing Outpatient (OPD) Services

The percentage of the population utilizing the OPD services was around 78.6% in FY 2079/80 which has decreased than FY 2078/79. The overall reporting of outpatient visits from government sector is satisfactory. However, individuals seeking medical care at private hospitals, clinics and polyclinics offering outpatient services are not documented in the HMIS system, resulting in an overall decline.

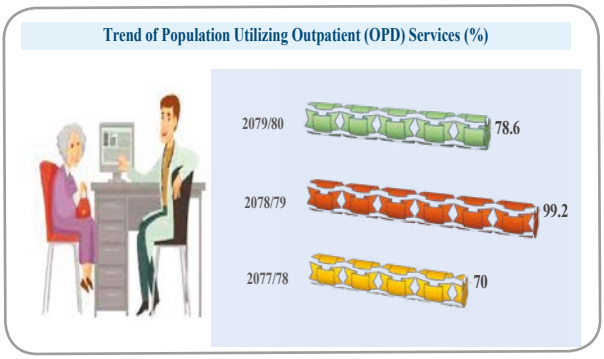


Figure 4.4.1: Percentage of Population Utilizing Outpatient (OPD) Service

Most Common Inpatients Morbidities

The prevalent morbidities encountered at the Inpatient include Dermatitis/Eczema, Diabetes Mellitus, Abdominal Pain and followed by cases presenting with Hypertension. Hypertension marks the fourth common morbidity presented at inpatient and Gastritis/APD is the ninth common morbidity.

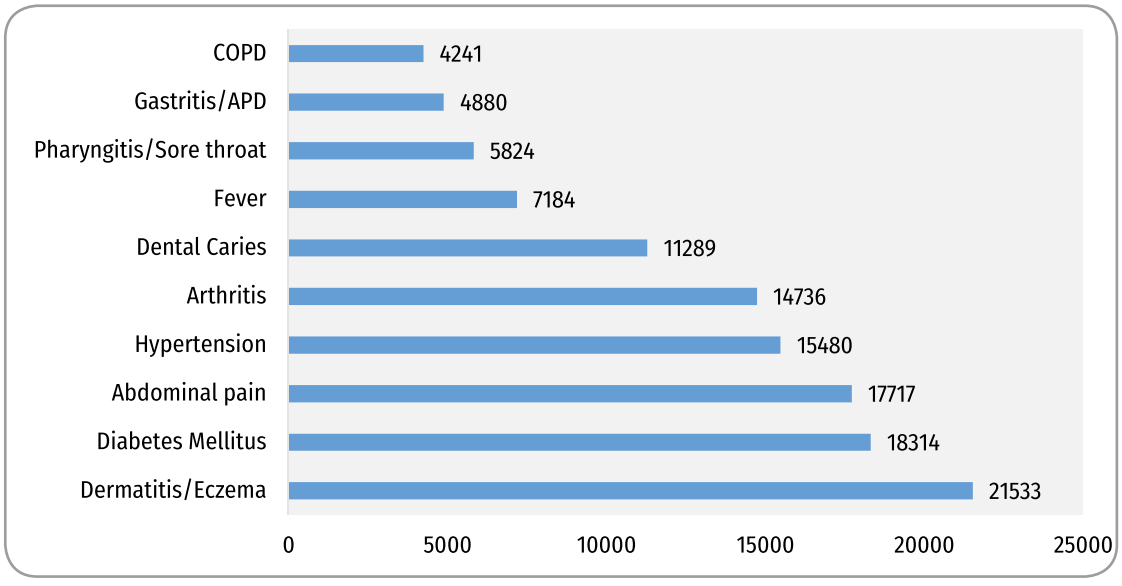


Figure 4.4.2: Most Common Inpatients Morbidities

Percentage of Population Utilizing Hospital Service

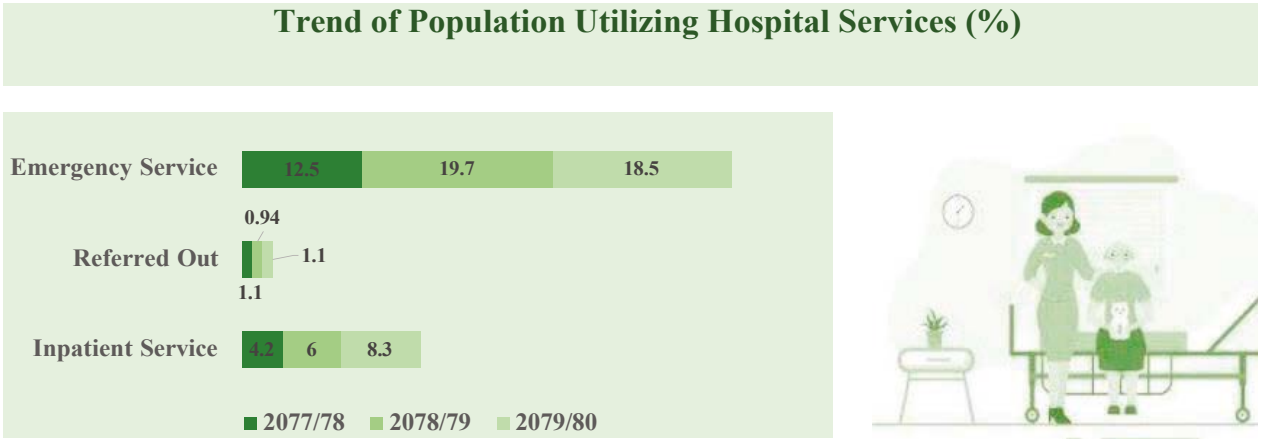


Figure 4.4.3. Trend of Population Utilizing Hospital Service (%)

The above figure illustrates the trend of Population Utilizing Hospital Service. The trend of Population Utilizing emergency and inpatient service has increased in FY 2079/80 compared to previous two years. While looking at the referred-out service it was in decreasing trend from FY 2077/78 to FY 2078/79 but in FY 2079/80 it was increased.

Bed Occupancy Rate (%)

Bed occupancy rate (BOR) is a measure of utilization of the available bed capacity in the hospital. It indicates the utilization of available bed capacity and is calculated as the percentage of cumulative in-patient days by the number of bed days for the duration. In the fiscal year, 2077/78 BOR is found to be 36 % which was relatively low but in FY 2078/79 and 2079/80 the bed occupancy rate was stable at 50%. Although there is no general rule for the optimal occupancy rate, a rate of around 80% is considered to be good in many hospitals.

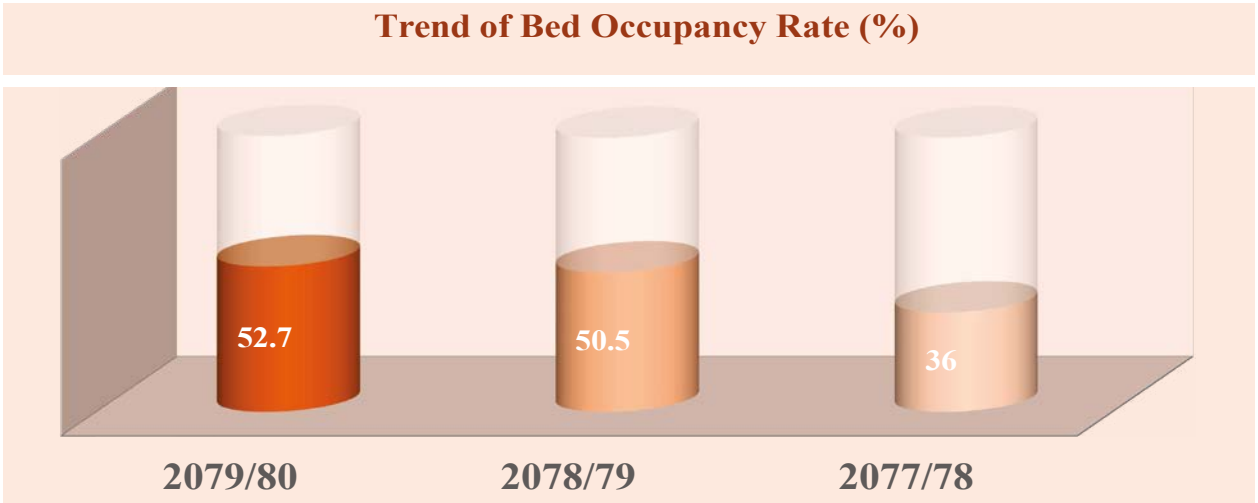


Figure 4.4.4: Trend of Bed Occupancy Rate (%)

Average length of stay at hospital (Days)

In hospital management Average length of stay (ALOS) is also a major indicator. For efficient bed management, a reduction in the number of inpatient days' results in decreased risk of infection, and an improvement in the quality of treatment. In the Fiscal year 2078/79, the national average length of stay was found to be 5 days. However, the figure decreased in FY 2079/80 which accounted to be 4.6 days.

Issues/Challenges

- Low quality medicine procurement.
- Hospital vandalism
- Inadequate clinical and supportive staff thus poor recording of patients' health data.
- Doctors' patient ratio and nurse-patient ratios are not at WHO standard.
- Poor infrastructure for service delivery
- Frequent staff turnover at private hospitals

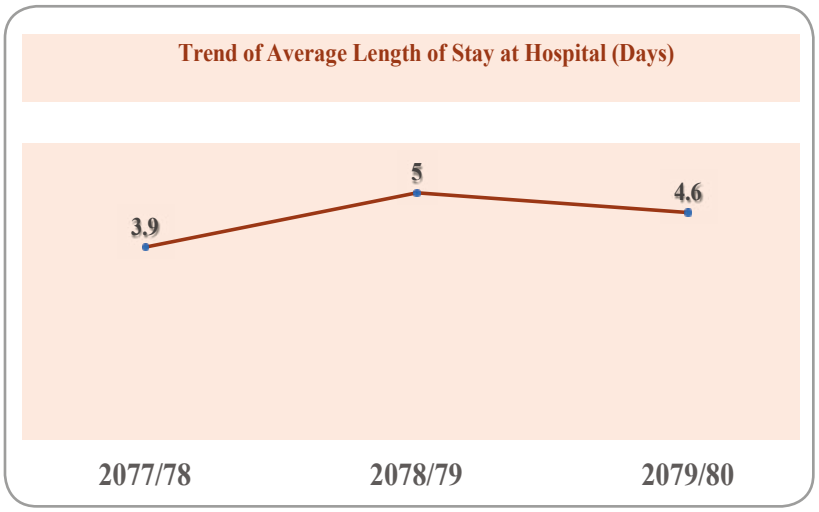


Figure 4.4.5: Trend of Average length of stay at hospital (Days)

CHAPTER 5. SOCIAL SECURITY AND OTHER PUBLIC HEALTH PROGRAM

5.1 One Stop Crisis Management Centre (OCMC)

Gender-Based Violence (GBV) is indeed a significant issue globally, impacting individuals across various cultures and socioeconomic backgrounds. It is characterized by harmful acts perpetrated based on socially ascribed gender differences, resulting in physical, sexual, and psychological damage. GBV often arises from unequal power relations between men and women, with females disproportionately affected. Moreover, instances of GBV tend to escalate during times of emergencies, exacerbating the vulnerabilities of affected individuals.

To address this pervasive problem, governments and organizations worldwide have implemented various initiatives and interventions. One notable example is the establishment of One-stop Crisis Management Centers (OCMCs), which aim to provide comprehensive and integrated services to survivors of GBV. These centers play a crucial role in offering medical, legal, psychosocial, and other support services to individuals affected by GBV, thereby assisting them in coping with trauma and accessing justice.

In Nepal, the Ministry of Health and Population has taken steps to address GBV through the implementation of OCMCs. These centers are established under Clause 3 of the "National Action Plan 2010 against Gender-Based Violence" and are strategically located across different districts and provinces. Currently, there are 93 OCMCs operating in 77 districts nationwide, with 12 OCMCs specifically situated in the Bagmati province.

One stop Crisis Management Centres in Bagmati Province

1. Paropakar Maternity and Women's Hospital, Kathmandu
2. Dhulikhel Community Hospital, Kavrepalanchowk
3. Bharatpur Hospital, Chitwan
4. Hetauda Hospital, Makwanpur
5. Dhading Hospital, Dhading
6. Chautara Hospital, Sindhupalchowk
7. Charikot Primary Health Care Centre, Dolakha
8. Manthali Primary Health Care Centre, Ramechhap
9. Sindhuli Hospital, Sindhuli
10. Bhaktapur Hospital, Bhaktapur
11. Trishuli Hospital, Nuwakot
12. Patan Hospital, PAHS, Lalitpur

OCMC Services

One Stop Crisis Management Centres have been providing seven different types of services to Gender Based Violence survivors based on "Operational guideline on OCMC, 2077"

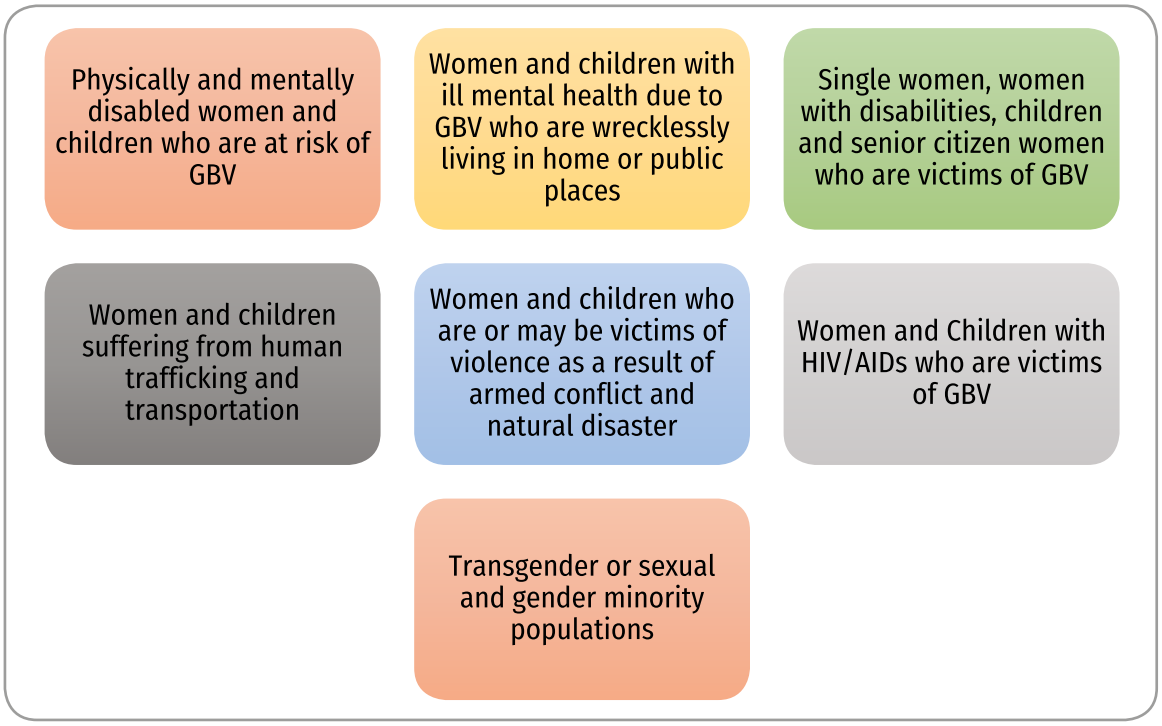
Figure 5.1.1: OCMC Services

Guiding Principles of OCMCs

- Ensuring health care, legal treatment, protection, safe housing, rehabilitation, counseling and other necessary services are available through a one-door system without any discrimination.
- Ending the situation where the GBV-affected victim does not have to frequently repeat the incident details to the relevant body and suffer repeated psychological trauma.
- Establishing a one-door system in service flow.
- Partnership and cooperation between local level, and related bodies/organizations for the integrated management of survivors of gender violence.
- Maintaining the safety and privacy of victims or victims of gender-based violence
- Preparing and following a code of conduct with the participation of all stakeholders and adherence to the Code of Conduct by all.

(Operational Guideline of OCMC, 2077)

Target population of OCMC



Major Achievements in FY 2079/80

Table 5.1.1 Number of cases served in FY 2079/80

S.N	Organisational unit	Number of new registered cases in OCMC	Number of follow-up cases registered in OCMC	Number of perpetrators reported by OCMC cases
1.	Chautara Hospital, Sindhupalchowk	51	2	21
2.	Dhading Hospital, Dhading	70	1	39
3.	Trishuli Hospital, Nuwakot	25	0	26
4.	Paropakar Maternity and Women's Hospital, Kathmandu	84	21	88
5.	Bhaktapur Hospital, Bhaktapur	107	55	107
6.	Dhulikhel Community Hospital, Kavrepalanchowk	138	0	0
7.	Manthali PHCC, Ramechhap	8	0	3
8.	Sindhuli Hospital, Sindhuli	113	68	114
9.	Hetauda Hospital, Makwanpur	229	89	321
10.	Bagmati Province	825	236	719

Source:HMIS

Table 5.1.1 shows that in FY 2079/80 out of 829 new registered cases in OCMC Makwanpur had the highest number of cases (229) while Ramechhap had the least number of cases (8). Similarly, there were 236 follow up cases registered in OCMC with Makwanpur reporting the highest number (89) and Nuwakot, Kavre and Ramechhap reporting zero cases. Likewise, among 719 perpetrators reported by OCMC cases Makwanpur reported the highest number while Kavre reported zero number of perpetrators.

Table 5.1.2 Service utilization at OCMC by type of GBV in FY 2079/80

S.N	Organisational unit	Forced marriage	Denial of resources	Emotional abuse	Harmful traditional practices	Physical Violence	Rape	Sexual Assault
1.	Chautara Hospital, Sindhupalchowk	0	0	2	4	30	5	6
2.	Dhading Hospital, Dhading	3	0	31	0	12	14	28
3.	Trishuli Hospital, Nuwakot	0	0	6	0	7	7	6
4.	Paropakar Maternity and Women's Hospital, Kathmandu	0	11	2	1	64	2	7
5.	Bhaktapur Hospital, Bhaktapur	2	1	0	0	36	57	21
6.	Dhulikhel Community Hospital, Kavrepalanchowk	0	0	11	0	58	42	27
7.	Manthali PHC, Ramechhap	0	0	0	0	0	3	0
8.	Sindhuli Hospital, Sindhuli	0	26	46	0	0	6	1
9.	Hetauda Hospital, Makwanpur	33	44	6	0	97	83	14
10.	Bagmati Province	38	82	104	5	304	219	110

Source:HMIS

Table 5.1.2 shows that in FY 2079/80, the most reported cases among the total clients served by the OCMCs were physical violence (304) followed by rape (219) and sexual assault (110). Hetauda hospital recorded the most cases of physical violence, while Ramechhap and Sindhuli hospital reported zero cases in the FY 2079/80.

Figure 5.1.2 illustrates that different types of GBV i.e. emotional violence, harmful traditional practices, sexual assault, physical violence, rape, denial of resources, child/ forced marriage were reported among new registered cases of OCMC in Bagmati province. Single case can be the victim of multiple type of GBV. In FY 2079/80, physical violence (36.8%) is the most reported type of GBV followed by rape (26.5%) and emotional violence (12.6%) and least being harmful traditional practices (0.61%) in Bagmati province.

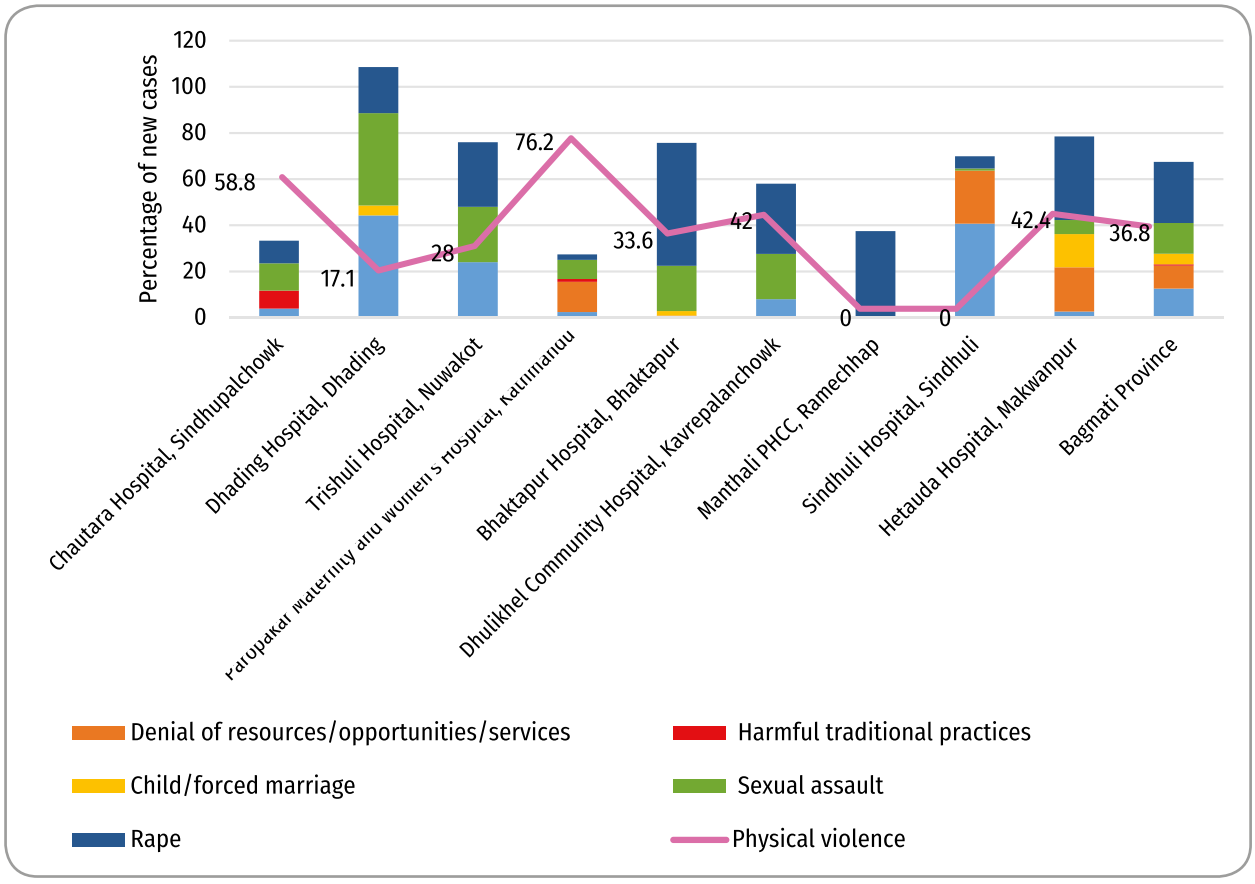


Figure 5.1.2: Type of GBV (percentage) reported among new registered cases of OCMC in FY 2079/80

Source:HMIS

Table 5.1.3 OCMC Services Received by GBV survivors in FY 2079/80

SN	Organizational Unit	Services received									
		Emergency Contraceptive	HIV Testing & Counselling	Treatment of Injury	Medico-legal	Physical examination	Pregnancy test	Psychological counselling	STI treatment	Safe abortion	Treatment of mental illness
1.	Chautara Hospital, Sindhupalchowk	1	7	29	18	40	2	11	0	0	1
2.	Dhading Hospital, Dhading	0	28	34	50	55	17	38	2	0	0
3.	Trishuli Hospital, Nuwakot	2	9	6	16	26	8	18	0	0	2
4.	Paropakar Maternity and Women's Hospital, Kathmandu	3	27	53	11	84	7	60	2	0	3
5.	Bhaktapur Hospital, Bhaktapur	21	51	30	94	96	45	77	2	1	9
6.	Dhulikhel Community Hospital, Kavrepalanchowk	2	0	78	88	138	61	59	17	8	2
7.	Manthali PHCC, Ramechhap	0	0	0	8	8	3	0	0	0	0
8.	Sindhuli Hospital, Sindhuli	5	7	41	6	44	7	114	3	0	23
9.	Hetauda Hospital, Makwanpur	15	65	76	137	288	56	323	7	13	2
10.	Bagmati Province	49	194	347	428	779	206	700	33	22	42

Table 5.1.3 demonstrates that most of the survivors had physical examination (779) done followed by psychological counseling (700), medico-legal services (428) and treatment of injury (347) in FY 2079/80.

Issues/Challenges	Recommendation
• Limited resources in service centres. • High turnover rate of trained human resources. • Limited awareness on gender-based violence management among community people. • Fear and stigma in survivors of GBV that leads to non-reporting or under-reporting of case.	• Allocation of adequate resources in service centres. • Provision of training and orientation among health workers. • Awareness and community participation on GBV management. • Expansion or integration of OCMC services in all level of health facility.

5.2 Social Service Unit (SSU)

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

Major Achievements

Table 5.2.1 Utilization of SSU services by the ultra-poor or poor citizens

S.N.	Hospital/SSU	FY 2077/78	FY 2078/79	FY 2079/80
1	Pashupati Chaulagain Smriti Hospital, Dolakha	12	5	40
2	District Hospital Chautara, Sindhupalchok	381	725	127
3	District Hospital Rasuwa	0	0	7
4	District Hospital Dhading	364	557	168
5	Trishuli Hospital, Nuwakot	137	232	61
6	Tokha Chandeshwori Hospital, Kathmandu	0	0	0
7	Bhaktapur Hospital	23	70	151
8	Bajrabarahi Chapagaun Hospital	0	0	0
9	Methinkot Hospital, Kavre	1	9	32
10	Sindhuli Hospital	75	91	195
11	District Hospital Ramechhap	5	43	0
12	Bakulahar Hospital, Chitwan	90	28	0
13	Hetauda Hospital	495	464	543
	Total	1583	2224	1324

Source:HMIS

Table 5.2.1 demonstrates that, in comparison to FY 2078/79, the use of SSU services by poor or ultra-poor citizens has increased in Sindhuli hospital, Bhaktapur hospital, Pashupati Chaulagain Memorial Gospital, Hetauda Hospital and Methinkot hospital whereas decreased in rest of the hospitals FY 2079/80. SSU provided free services to 2224 ultra-poor and poor people in fiscal year 2078/79, which Decrease to 1324 in fiscal year 2079/80.

Table 5.2.2 Utilization of SSU services by the helpless people

S.N.	Hospital/SSU	FY 2077/78	FY 2078/79	FY 2079/80
1	Pashupati Chaulagain Memorial Hospital, Dolakha	1	0	1
2	Chautara Hospital Sindhupalchowk	88	106	0
3	Rasuwa Hospital,Rasuwa	0	0	1
4	Dhading Hospital,Dhading	31	11	2
5	Trishuli Hospital, Nuwakot	22	4	4
6	Tokha Chandeshwori Hospital, Kathmandu	0	0	0
7	Bhaktapur Hospital ,Bhaktapur	16	21	68
8	Bajrabarahi Chapagaun Hospital,Lalitpur	0	0	0
9	Methinkot Hospital, Kavre	0	3	3
10	Sindhuli Hospital,Sindhuli	7	7	0
11	Ramechhap Hospital,Ramechhap	27	26	0
12	Bakulahar Ratnanagar Hospital, Chitwan	7	3	0
13	Hetauda Hospital ,Makwanpur	93	77	127
	Total	292	258	206

Source:HMIS

Table 5.2.2 shows the trends in the use of SSU by the helpless. In FY 2079/80, the number of helpless persons using services increased in two hospitals i.e .Bhaktapur hospital and Hetauda Hospital when compared to FY 2078/79. SSU provided free services to 206 helpless people from 7 hospitals.

Table 5.2.3 Utilization of SSU services by persons with disability

S.N.	Hospital/SSU	FY 2077/78	FY 2078/79	FY 2079/80
1	Pashupati Chaulagain Hospital, Dolakha	0	0	1
2	Chautara Hospital	85	167	31
3	Rasuwa Hospital	0	0	1
4	Dhading Hospital	30	64	9
5	Trishuli Hospital, Nuwakot	51	54	10
6	Tokha Chandeshwori Hospital, Kathmandu	0	0	0
7	Bhaktapur Hospital	10	16	41
8	Bajrabarahi Chapagaun Hospital	0	0	0
9	Methinkot Hospital, Kavre	0	3	3
10	Sindhuli Hospital	5	4	10
11	Ramechhap Hospital	12	11	0
12	Bakulahar Hospital, Chitwan	3	1	0
13	Hetauda Hospital	40	50	56
	Total	236	370	162

Source:HMIS

Table 5.2.3 illustrates that health service utilization by persons with disabilities via SSU increased in six hospitals and decreased in three hospitals in FY 2078/79 compared to FY 2077/78. However, the highest number of people with disabilities utilizing health care services via SSU was reported at Chautara hospital followed by Dhading hospital, Trishuli Hospital and Hetauda hospital

Table 5.2.4 Utilization of SSU services by senior citizens

S.N.	Hospital/SSU	FY 2077/78	FY 2078/79	FY 2079/80
1	Pashupati Chaulagain Memorial Hospital, Dolakha	185	64	1146
2	Chautara Hospital Sindhupalchowk	2038	1797	932
3	Rasuwa Hospital,Rasuwa	284	313	49
4	Dhading Hospital,Dhading	151	737	326
5	Trishuli Hospital, Nuwakot	224	198	29
6	Tokha Chandeshwori Hospital, Kathmandu	0	0	0
7	Bhaktapur Hospital,Bhaktapur	6	12	48
8	Bajrabarahi Chapagaun Hospital, Lalitpur	0	0	0
9	Methinkot Hospital, Kavre	86	111	300
10	Sindhuli Hospital, Sindhuli	9	3	27
11	Ramechhap Hospital,Ramechhap	617	1902	0
12	Bakulahar Ratnanagar Hospital, Chitwan	24	11	0
13	Hetauda Hospital,Makwanpur	748	1043	702
	Total	4372	6191	3559

Source:HMIS

The Table 5.2.4 demonstrates that senior citizens' use of SSU services has increased significantly in Pashupati Chaulagain Memorial Hospital,Bhaktapur Hospital and Sindhuli Hospitals, between FY 2078/79 and FY 2079/80. In the fiscal year 2079/80, 3559 elderly persons benefited from the social service units of Bagamati Province's 13 hospitals. Pashupati Chaulagain Memorial hospital served the greatest number of senior citizens (1146) through its SSU.

Table 5.2.5 SSU services utilized by survivors of GBV, FCHVs and others

S.N.	Hospital/SSU	Gender Based Violence			FCHVs		
		2077/78	2078/79	2079/80	2077/78	2078/79	2079/80
1	Pashupati Chaulagain memorial hospital	0	0	0	92	0	1
2	Chautara Hospital	15	29	6	90	62	1
3	Rasuwa Hospital	0	2	0	0	0	1
4	Dhading Hospital	2	0	0	5	7	1
5	Trishuli Hospital, Nuwakot	0	0	0	4	10	1
6	Tokha Chandeshwori Hospital, Kathmandu	0	0	0	0	0	0
7	Bhaktapur Hospital	2	0	0	0	0	2
8	Bajrabarahi Chapagaun Hospital	0	0	0	0	0	0
9	Methinkot Hospital, Kavre	0	0	0	0	0	0
10	Sindhuli Hospital	0	0	0	0	0	1
11	Ramechhap Hospital	0	0	0	4	24	0
12	Bakulahar Hospital, Chitwan	0	0	0	0	1	0
13	Hetauda Hospital	164	71	0	92	1	1
	Total	183	102	6	287	105	9

Source:HMIS

Table 5.2.5 illutrates that in Bagmati province, 6 survivors of gender-based violence used the SSU service in fiscal year 2079/80, which was lower than the previous fiscal year by 96. Similarly, in fiscal year 2079/80, 9 FCHVs received free SSU service. The other category utilizing SSU services increased in Bhaktapur Hospital but decreased in other hospitals.

5.3. NCD and Mental Health

Non- Communicable Diseases (NCDs)

Non-communicable diseases (NCDs) pose a global health and developmental crisis, resulting in premature fatalities, exacerbating poverty, and posing a threat to national economies. NCDs are progressively emerging as an additional challenge for the healthcare system of the country. The premature mortality attributed to NCDs has escalated from 51% in 2010 to 71% in 2019, indicating a continuous increase in the proportional mortality of NCDs. Cardiovascular disease (CVD) alone is responsible for over 30% of deaths, cancer for 9%, diabetes for 4%, chronic respiratory disease for 10%, and other NCDs for 13%. This mounting disease burden is associated with a deterioration in the quality of life, a rise in Disability-Adjusted Life Years (DALYs), and a surge in catastrophic health expenditures.

The GoN has endorsed the Package of Essential Non-Communicable Disease Interventions (PEN) designed for primary care in resource-limited settings comprises a prioritized selection of cost-effective interventions aimed at enhancing the delivery of NCD services at the primary health care level. The implementation of the PEN program has been extended to all districts of Nepal, but challenges persist in effectively documenting, recording, and reporting the program's activities.

Multisectoral Action Plan for NCDs-II (2021-2025)

The GoN has endorsed the Multi Sectoral Action Plan (MSAP) for NCDs 2021-2025 which focusses on creating actions which are potentially implementable, have high health impact, politically and culturally acceptable and financially feasible in co-ordination across multiple sectors and multistakeholder. Sustainable Development Goals have provided a renewed impetus to accelerate progress in addressing NCDs, its risk factors and determinants. If Nepal is to meet the SDG targets, investing in interventions to reduce the burden of NCDs and its risk factors will improve health and accelerate progress on many other SDGs.

Bagamati Province achieved the milestone of being the inaugural province to establish both the Provincial Level High-Level Committee and Provincial Level Coordination Committee for the implementation of MSAP-II.

Mental Health

Nepal adheres to a comprehensive health policy that incorporates mental health as a subsection, lacking a distinct standalone mental health policy. In 2020, the country introduced the National Mental HealthStrategy and Action Plan, focusing on integrating mental health into primary care and reinforcing services at the secondary healthcare level. The objective includes enhancing mental health services at both the secondary and tertiary care levels through specialized provider training and financial investment. Despite ongoing initiatives to implement mhGAP in primary care, the availability of psychosocial services remains limited, primarily confined to a handful of tertiary care hospitals and private clinics.

Outpatient Morbidity of Non-Communicable Diseases in Bagamati Province

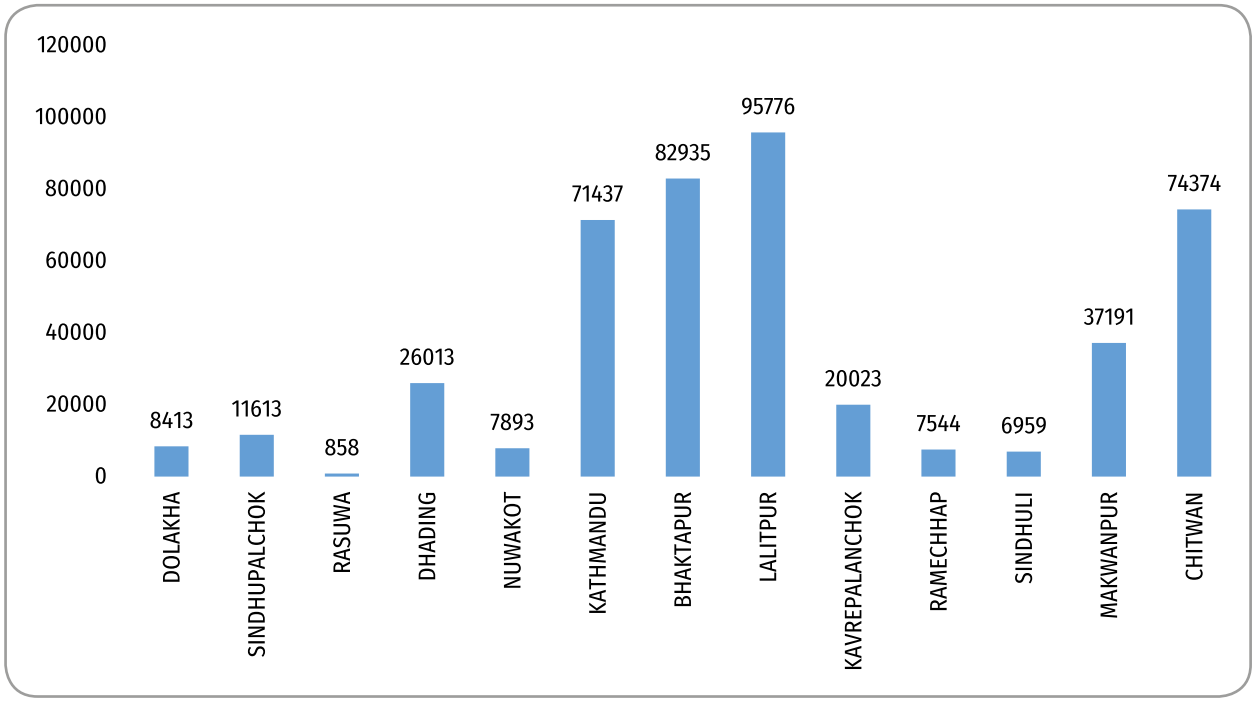


Figure 5.3.1: Outpatient Morbidity of Non-Communicable Diseases in Bagamati Province

The Preceding figure illustrates the total number of outpatient Morbidity of Non-Communicable Diseases. According to the figure the total number of NCDs Cases in Bagamati Province was 451029.

The highest number of NCDs cases was reported in Lalitpur and Bhaktapur and lowest number of cases was reported from Rasuwa and Sindhuli District. The above data suggests the need for targeted public health interventions tailored to the specific needs of each district within Bagamati Province.

Strength, weakness and challenges

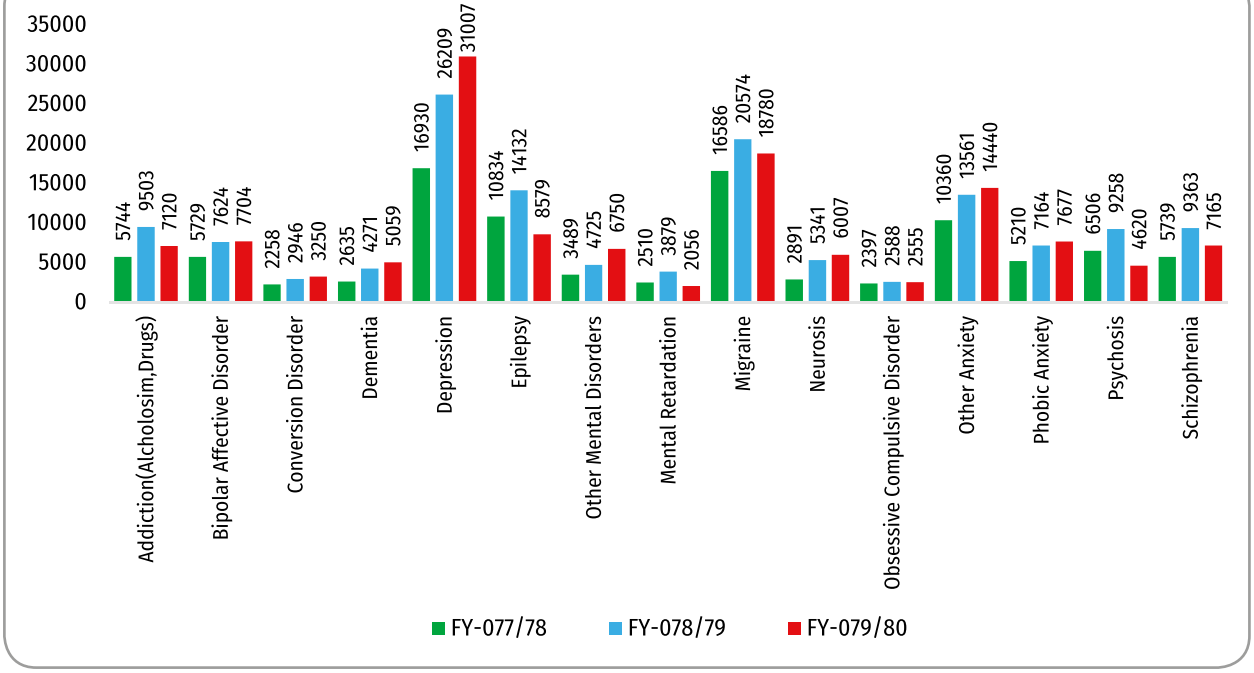
Strength	Weakness	Challenges
Accessible at community level (PHCC and HP)	Inadequate recording, reporting and monitoring system	Staff turnover for trained professionals
Dedicated and functional National NCDs &Mental Health Unit	Complex RR tools & referral chain	Monitoring and Supervision of PEN and Other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

Factsheet (Source: National Mental Health Survey, Nepal-2020)

- Among the adult participants, 10% had any mental disorders in their lifetime, and 4.3% currently had any mental disorder.
- Lifetime and Current Mood disorders among adult participants were found to be 3% and 1.4% respectively.
- Neurotic and Stress related disorders(current) among adult participants was 3%.
- The prevalence of Suicidality (including current suicidal thoughts, lifetime suicidal attempt and future likelihood of suicidal thoughts) was found to be 7.2%.
- Majority of the adult participants (6.3%) had low Suicidality compared to moderate and high Suicidality.
- Current suicidal thoughts and Lifetime suicidal attempt were found to be 6.5% and 1.1% respectively.
- The prevalence of mental disorders among adolescents as found to be 5.2%. In adolescents, neurotic and stress related disorders were the most prevalent, with a prevalence of 2.8%. The prevalence of mental disorders was highest among adolescents in Koshi province (11.4%), among 16-years-olds (7.7%) and among females (5.3%). The Prevalence of current suicidal thoughts among adolescents was 3.9% while that of lifetime suicidal attempt was 0.7%.
- The prevalence of lifetime mental disorders was highest among the adults in Koshi province (13.9%), among 40–49-year-olds (13.3%) and among males (12.4%).
- The prevalence of current mental disorders was highest among the adults in Bagamati province (5.9%), among 40-49-year-olds (6.3%) and among females (5.1%).

In recent years, the Bagamati province's Ministry of Health (MoH) has progressively heightened its dedication to mental health services. This culmination is evidenced by the allocation of dedicated resources specifically for mental health, aiming to enhance service delivery and engage in essential advocacy activities.

Building on WHO's Special Initiative for Mental Health (SIMH), the specialist clinic services at the provincial hospital has been established both regularly and monthly, which has strengthened the mental health services from the hospitals.



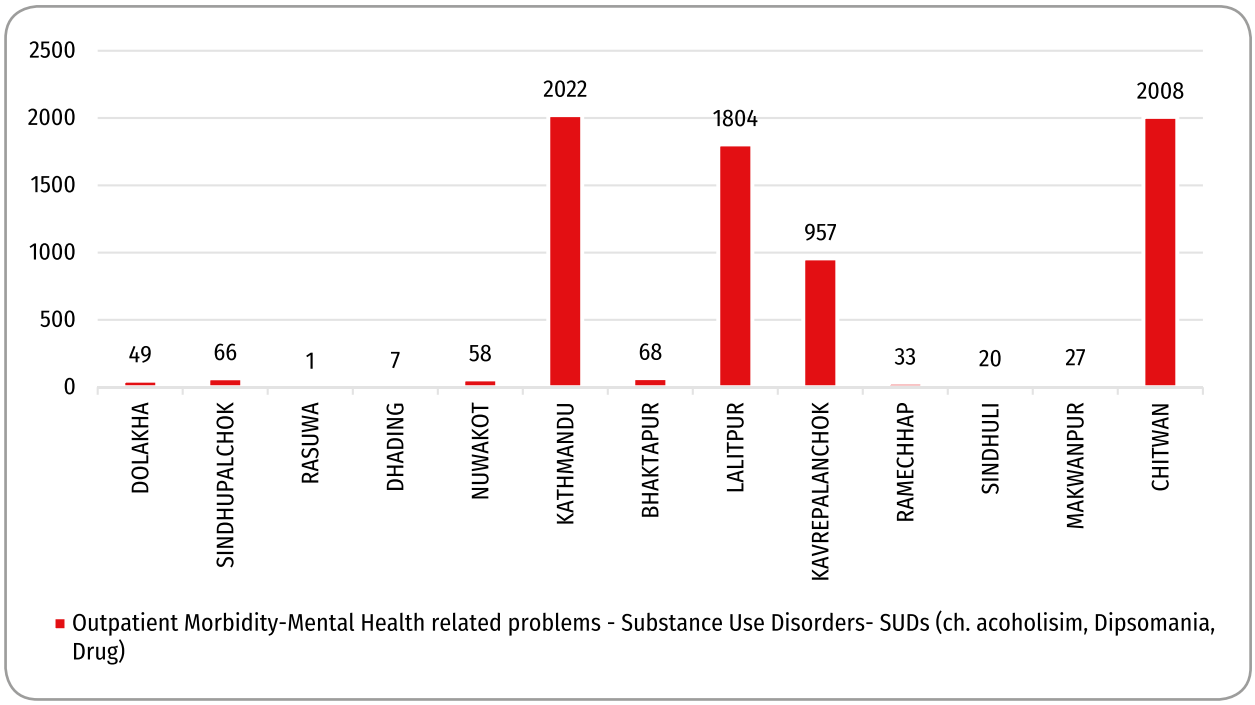


Figure 5.3.2: The Outpatient Morbidity-for substance use disorders

Substance Use disorders(SUDs): Substance Use disorders is a manageable mental condition impacting an individual's brain and behavior, resulting in an inability to regulate the consumption of substances such as legal or illegal drugs, alcohol, or medications. Symptoms can range from moderate to severe, with addiction representing the most intense manifestation of SUD. Individuals grappling with SUD may concurrently experience other mental health disorders, and those with mental health disorders may likewise encounter challenges related to substance use.

This above figure shows the Outpatient Morbidity-for substance use disorders (Ch. alcoholism Dipsomania, Drug etc.) for the FY 079/80. The total Outpatient Morbidity for SUDs is 7120.

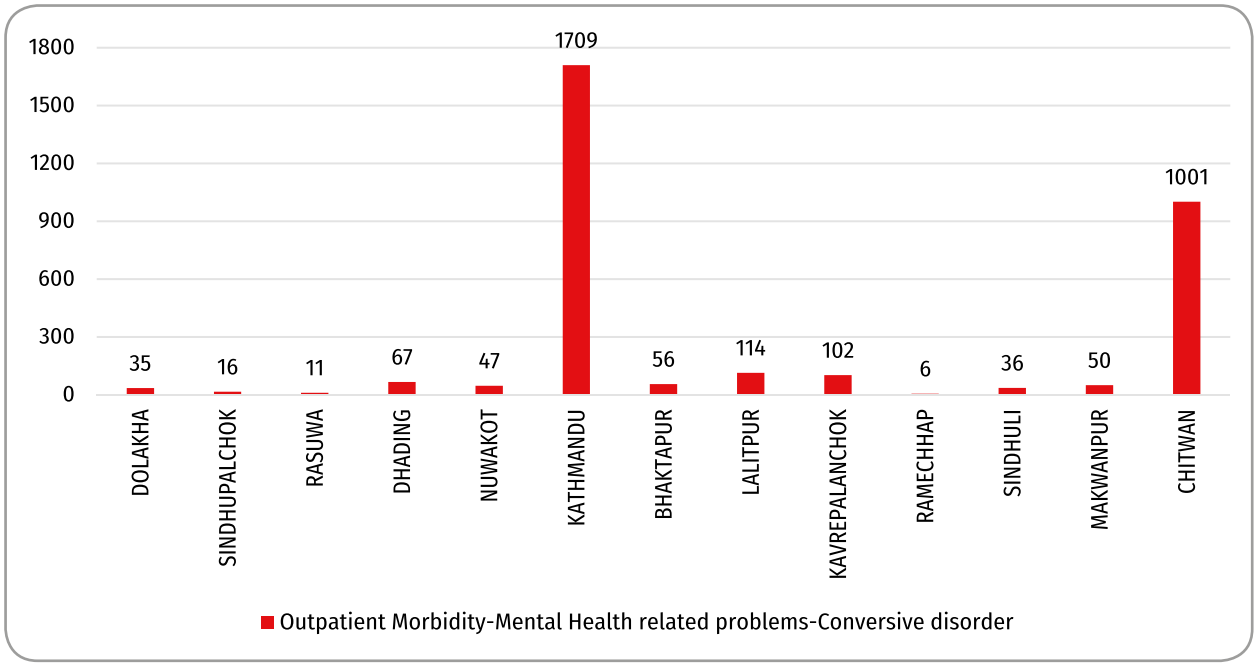


Figure 5.3.3: Outpatient Morbidity-for Outpatient Morbidity-Mental Health related

Conversion disorder, also referred to as functional neurological system disorder, manifests as physical and sensory issues like paralysis, numbness, blindness, deafness, or seizures. Importantly, there is no identifiable neurological pathology underlying these symptoms. The severity of these problems is significant enough to adversely affect crucial aspects of life, including academic performance, social relationships, and family dynamics.

This above figure 5.3.2 shows the Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Conversion Disorder for the FY 079/80. The total Outpatient Morbidity for Conversion Disorder is 3250.

Dementia is characterized by a decline in cognitive abilities, including thinking, remembering, and reasoning, to the extent that it hinders an individual's daily life and activities. Those with dementia may experience difficulty controlling their emotions, and their personalities may undergo changes. The severity of dementia varies, ranging from the initial stages where it begins to impact functioning to the most advanced stages, where individuals require complete assistance with fundamental daily activities such as eating. Alzheimer's disease stands as the most prevalent form of dementia. While dementia predominantly affects older adults, it is crucial to note that it is not a natural aspect of the aging process.

The below figure 5.3.4 shows the Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Dementia for the FY 079/80. The total Outpatient Morbidity for Dementia is 5059.

Depression, also referred to as major depression, major depressive disorder, or clinical depression, is a prevalent yet significant mood disorder. It gives rise to intense symptoms that impact an individual's emotions, thoughts, and ability to carry out daily tasks like sleeping, eating, or working. A diagnosis of depression requires the presence of these symptoms for a minimum of two weeks. Various forms of depression exist, with some arising from specific circumstances. Depression can impact individuals across various age groups, races, ethnic backgrounds, and genders. While depression diagnoses are more prevalent among women, it's essential to acknowledge that men can also experience depression. The disparity arises, in part, from men's potential reluctance to identify, discuss, and seek assistance for their emotional challenges, placing them at a higher risk of having depressive symptoms go unnoticed or receive inadequate treatment.

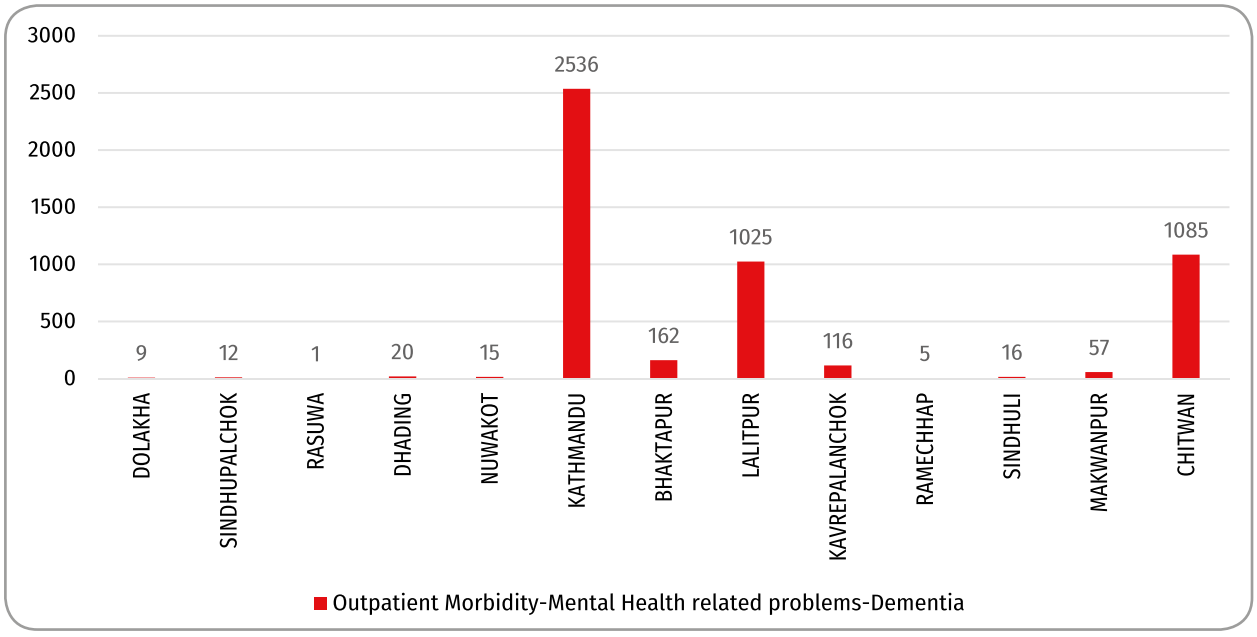


Figure 5.3.4: Outpatient Morbidity-for Outpatient Morbidity-Mental Health related

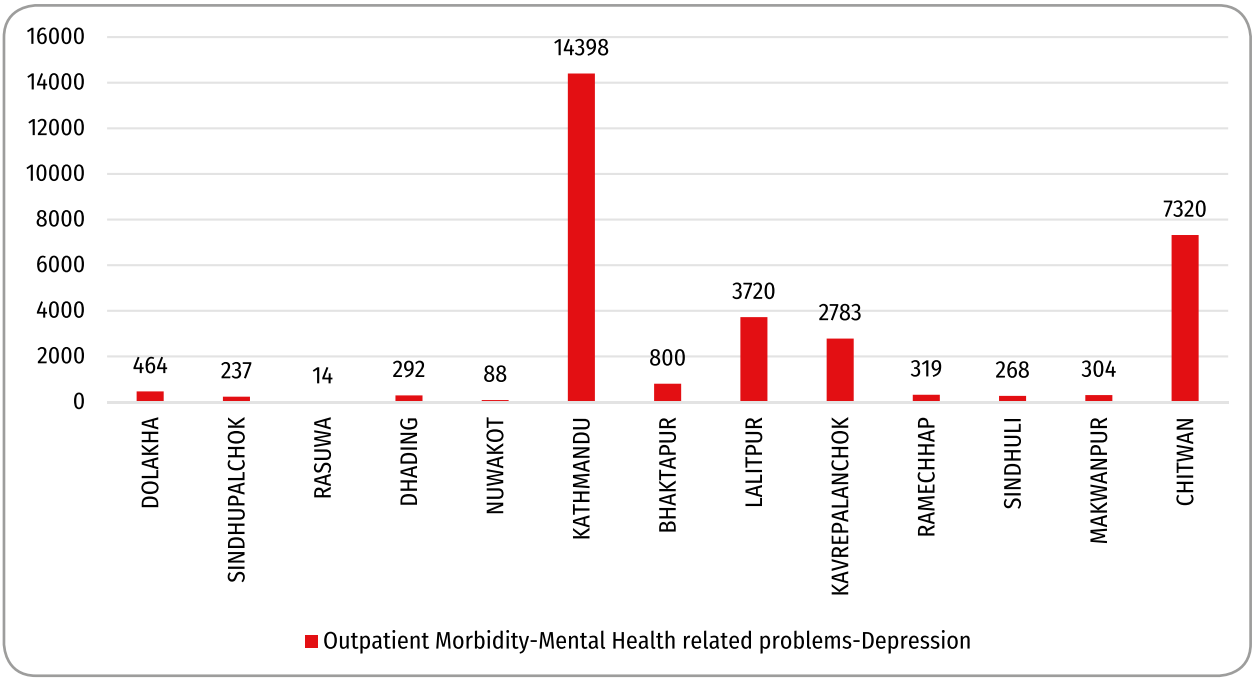


Figure 5.3.5: Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Depressive Disorders

This above figure shows the Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Depressive Disorders for the FY 079/80. The total Outpatient Morbidity for Depressive Disorders is 31007.

Epilepsy is a persistent neurological condition characterized by irregular signaling among groups of nerve cells, or neurons, in the brain, leading to seizures. During a seizure, numerous neurons transmit signals simultaneously, at an accelerated pace. This surge in excessive electrical activity can result in involuntary movements, sensations, emotions, and/or behaviors. Epilepsy can affect anyone, irrespective of gender, race, ethnic background, or age, impacting both men and women.

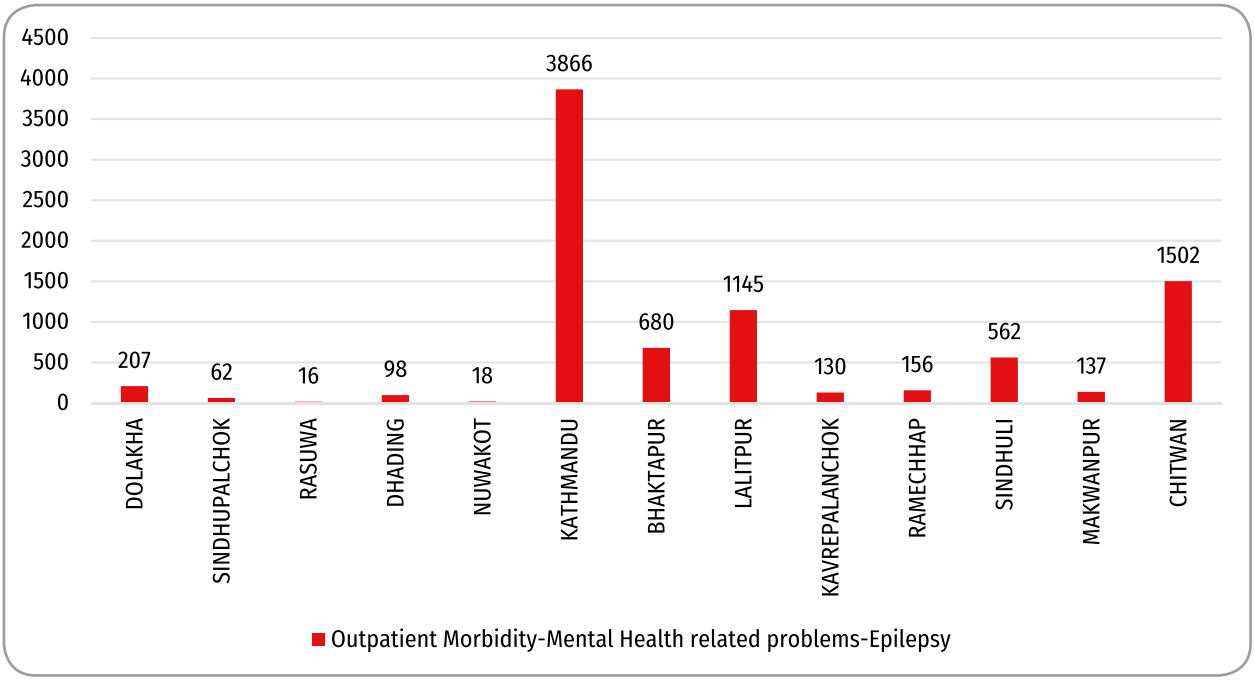


Figure 5.3.6: Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Epilepsy

This above figure shows the Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Epilepsy for the FY 079/80. The total Outpatient Morbidity for Epilepsy is 8579.

Anxiety Related Disorders: Anxiety may manifest with cognitive symptoms such as difficulty concentrating and physical symptoms like nausea, shaking, and muscle tenseness. While anxiety is a typical response to specific situations, it can also be indicative of an anxiety disorder. The "Diagnostic and Statistical Manual of Mental Disorders" (DSM-5) defines anxiety as the anticipation of a future threat. Various types of anxiety disorders exist, such as generalized anxiety, social anxiety, and others. These conditions differ from everyday worry. Anxiety disorders are identifiable mental health conditions marked by individuals experiencing heightened fear, anxiety, and associated behavioral and physical alterations that may escalate over time.

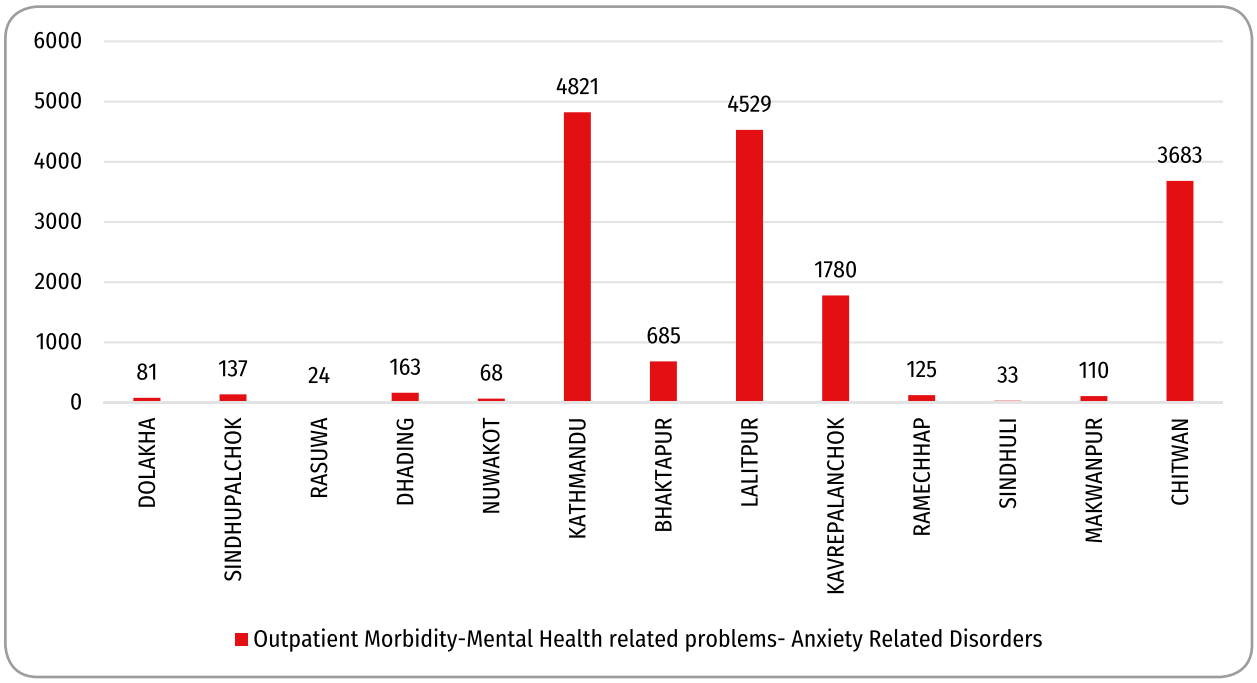


Figure 5.3.7: Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Anxiety related Disorders

This above figure shows the Outpatient Morbidity-for Outpatient Morbidity-Mental Health related Problems-Anxiety Related Disorders for the FY 079/80. The total Outpatient Morbidity for Anxiety Related Disorders is 16239.

NCDs and Mental Health:

Similar to the coexistence of mental disorders with other non-communicable diseases and the sharing of numerous risk factors, the challenges and issues they pose also exhibit similarities. The robust connections and interconnected causal mechanisms between mental health disorders and other NCDs advocate for a unified approach to healthcare. Collaborative care has emerged as a pivotal evidence-based strategy for seamlessly integrating mental health services into primary care.

Issues & Challenges	Recommendations
A Deep-rooted stigma and misconception about mental illness along with myths about NCDs	• Formation of grassroots level service user groups, receiving training and capacity-building on NCD & mental health, and redoubling efforts to reduce stigma and discrimination associated with NCD & mental disorders were among the strategies identified to increase involvement. • Awareness-raising, healthy living & mental health promotion, and mental disorder prevention activities are delivered by the government and several NGOs. These activities include regular radio programs, distribution of leaflets and pamphlets for mental health awareness, as well as dissemination of audiovisual information through social media. These efforts do not occur systematically but are typically centered around specific projects or celebration of global advocacy events such as International Suicide Prevention Day or the World Mental Health Day etc.
B. Lack of human and financial resources for NCD & mental health	• Advocate for policy changes that prioritize NCDs and mental health within healthcare systems. This may involve lobbying for increased funding, integration of NCD & mental health services into primary healthcare, and the development of comprehensive NCD prevention and treatment programs. • Explore innovative funding mechanisms, such as public-private partnerships, philanthropic grants, and social impact investments, to supplement government funding for NCD and mental health initiatives. Engage with donors, international organizations, and corporate sponsors to secure additional financial support.
C. The technical and managerial capacity of municipal and provincial governments is low	• Foster partnerships between government agencies, non-profit organizations, healthcare providers, academia, and the private sector to pool resources and expertise. Collaborative efforts can help maximize impact and reach more individuals in need. • Invest in training programs to build the capacity of healthcare workers, particularly in low-resource settings, to effectively diagnose, treat, and manage NCDs and mental health conditions. This includes training on evidence-based interventions and best practices in care delivery.

Issues & Challenges	Recommendations
D. Underreporting and Misdiagnosis of the cases along with Data Fragmentation	• Invest in data integration platforms that can aggregate and harmonize data from disparate sources. These platforms should support the integration of electronic health records (EHRs), clinical databases, public health registries, and other relevant sources to create a unified view of patient health information. • This may include upgrading existing healthcare IT infrastructure, deploying electronic health record systems, and investing in data analytics capabilities.

5.4 Provincial Health Emergency Operations Centre (PHEOC)

A Provincial Health Emergency Operations Centre (PHEOC) serves as a physical hub where resources and information are organized to facilitate the coordination of crisis management activities. The terms "operations centers," "situation rooms," and "command centers" are also commonly used to describe PHEOCs. Timely implementation of a PHEOC is crucial to avoid common mistakes, such as unclear leadership leading to delayed decision-making, mismanagement of resources, and inadequate coordination. Past experiences underscore the importance of having a PHEOC in managing public health emergencies effectively. Participation in a PHEOC allows diverse teams to share knowledge and expertise, enabling staff members to provide essential data that supports decision-making and resource management. The functioning of a PHEOC relies on various elements, including physical infrastructure (including ICT), policies, plans, procedures, an information management system, and competent staff.

Figure 5.4.1: Provincial Health Emergency Operation Centre (PHEOC), Bagmati Province.

Objectives of PHEOC

The PHEOC's main objectives include the following

- Making operational decisions promptly based on the best information, plans, policies, and technical advice available.
- Working together with response partners to coordinate actions toward shared goals
- Gathering, compiling, analyzing, and presenting event data and information to help with response documentation and planning
- Purchasing and allocating response resources, such as providing services and supplies to the PHEOC and all responders
- Keeping an eye on financial obligations and offering PHEOC administrative support.

Principles of emergency management

Emergency management involves organizing and overseeing resources and responsibilities to address all aspects of emergencies. To ensure a comprehensive and coordinated approach involving the public, nonprofit, and commercial sectors throughout the emergency management cycle, it is essential to establish plans, structures, and accountabilities.

Past experiences highlight the importance of promptly implementing a Public Health Emergency Operations Center (PHEOC) as a crucial platform for managing public health emergencies. This platform plays a key role in preventing deficiencies in various areas, such as insufficient preparation and situational awareness leading to a lack of detailed planning. It also addresses coordination issues within and between organizations, minimizing redundant activities or response gaps. Additionally, the PHEOC helps prevent the overuse or underuse of specialized resources and expertise, ensuring their deployment to the appropriate location, time, and in the right numbers. Lastly, it enhances communication among different response elements and with the public and communities.

There are five key elements to any emergency management program:

1. ***Risk assessment:*** Identifying potential threats and assessing the risk they present.
2. ***Prevention and mitigation:*** Taking steps to prevent hazards from occurring or lessening their effects if they do.
3. ***Preparedness:*** Evaluating and enhancing the ability to react to situations.
4. ***Response:*** Employing the ability and capability to address an occurrence.
5. ***Recovery:*** The process of rebuilding capability, capacity, and infrastructure following an incident.

Applying Emergency Management Principles can help avoid some of the common challenges of response. The principles include:

- Using an all-hazards approach
- Using a modular and scalable Incident Management System
- Joint working with partners
- Having clear lines of accountability and manageable team sizes
- Having clearly defined roles and responsibilities
- Having clearly defined and practiced policies and procedures
- Using common terminology
- Having common structures, functions, and technology in place
- Good communication and engagement, particularly with communities

Major activities of PHEOC Bagmati in the fiscal year 2079/80

- Enhanced command, coordination, and communication for health emergency and disaster preparedness and response.
- Improved surveillance system for diseases and outbreaks focusing on COVID-19 and Dengue.
- Regularly monitored media coverage of major disasters, public health emergencies, and other public health events and prepared daily media monitoring reports.
- Provided technical assistance for outbreak investigation at various times.
- Ensured proper reporting and documentation of outbreaks and disasters.
- Assisted in enhancing International Health Regulations (IHR) core capacities.
- Enhanced hospital preparedness and response for disasters and health emergencies.
- Enhanced coordination between hub and satellite hospitals through organizing Hub-satellite meetings.
- Assisted in providing technical support for the development of the "Health Contingency Plan" across all levels of governance.
- Improved the data repository by gathering detailed information about the Rapid Response Teams (RRT) and committees established at the local and district levels.
- Regularly attended monthly meetings of the Provincial Ambulance Committee and advocated for the enhancement of the ambulance dispatch system. PHEOC is also offering technical and IT support to the dispatch center.
- Support for observing the annual World AMR Awareness Week while supporting for advocacy of relevant Provincial stakeholders on AMR.
- The PHEOC team participated in EMR training as part of the Province's plan to implement EMR with support from the federal government and WHO.

Outcome

Strengthened Health emergency and disaster preparedness and response at all levels of governance.

5.5 Health Education Information and Communication (HIEC)

Health education information and communication is the program under health education information and communication section of provincial health directorate. It aims to plan, implement, monitor and evaluate health promotion programs within a province. It is guided by National Health Communication Policy 2012, National Health Policy 2076 and many other relevant policies and is responsible for developing, producing and disseminating health messages and materials to promote and support health programs and services. Besides it also regulates the health messages produced and disseminated by other partner organizations and stakeholders through media.

Vision	Healthy, alert and conscious citizens oriented to happy life
Goal	To sustain healthy life of citizens by promoting healthy behavior, preventing and controlling diseases and increasing accessibility and maximum utilization of available health services.
Objectives	**General objective** To promote health awareness, motivate and guide the people to take actions that promote improved health status and to prevent disease through the efforts of the people themselves with optimum utilization of available resources. **Specific objectives** • To mobilize and use modern and traditional communication multimedia and methods to raise health awareness, knowledge and promote healthy behavior among the general public. • To strengthen, expand and implement health communication programs at Province levels. • To generate, collect and mobilize resources to implement health information, education and communication programs by promoting participation, coordination and cooperation of relevant organizations and stakeholders for effective implementation of health communication programs. • To prevent the unauthorized dissemination and duplication of health-related messages or information and IEC materials. • To enhance capacity on health communication to develop, produce and disseminate quality, correct, authorized, uniform and appropriate health related messages and information. • To provide quality health messages and information through appropriate media and methods to the citizens who otherwise have little access to such messages and information.

Strategies

Advocacy, health services and regularities are the core strategies for health promotion. Health education, information and communication activities should be implemented based on the health promotion strategies. The specific strategies are as follows:

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

Major Activities of HIEC in FY 2079/80

- School Health Education Program.
- Celebration of world health day and other health related days, week and months.
- Monitoring and supervision of health promotion programs including health education information and communication
- Development, production and broadcasting of health messages through local mass media (keval, television, radio, F.M., Online, Newspapers etc.).

School Health Education Program (SHEP)

A "**Training of Trainers on School Health Education Program**" lasting two days, along with a one-day workshop on "**School Level Class Operation Training Materials Development"** was conducted under school health education program. The aim was to prepare competent school health educator with the necessary skills for delivering effective class sessions in schools and implementing SHEP in targeted six districts viz Kathmandu, Lalitpur, Bhaktapur, Chitwan, Makwanpur, Kavrepalanchowk. During the two-day ToT, seven essential health topics were covered in accordance with the health program implementation guidelines. These topics included:

- COVID-19
- Malaria and Dengue
- Adolescence and Menstrual Hygiene
- Nutrition in Adolescence
- Tobacco Use
- WASH (Water, Sanitation, and Hygiene)
- Management of Epidemics.

Some Photos of School Health Education Program - School Level Class Operation

Issues/Challenges	Recommendations
• Limited human resources to carry out health promotion activities at province and local level. • Inadequate allocation of budget for health communication programme. • Frequently changing behavior pattern of people and resistance to change. • Communication Barrier due to cultural diversity.	• Appropriate budget allocation for health communication program. • Appropriate human resource management for launching health promotion activities smoothly.

5.6 Ayurveda and Alternative Medicine

Introduction

The world's oldest recognized medicinal system Ayurveda plays a vital role in the healthcare landscape with its interventions ranging from promotive, preventive, curative and rehabilitative services. During King Tribhuwan's reign, the formal endeavor to establish Ayurveda in modern-day Nepal started. To advance ayurveda in Nepal, the Department of Ayurveda was founded in 2010 BS. As of right now, Ayurveda, Naturopathy, Homeopathy, Unani, Amchi, and other traditional treatments are all encouraged by the Nepalese constitution. Extending Ayurvedic services is recommended by the National Health Policy 2017, the National Ayurveda Policy 1995, and the National Urban Health Policy 2015. The government's Fifteenth Plan (2076/77-2080/81) provides guidance for the planned development and expansion of Ayurveda, Naturopathy, Homeopathy, and other alternative medicines.

Ministry of Health, Bagmati Province is responsible for planning, management, supervision, monitoring and evaluation of Ayurveda and miscellaneous medicines throughout the province. The ministry works through its network facilities of 13 District Ayurveda Health Centers and 50 local level Ayurveda Aushadhalayas, 51 Citizen Ayurveda Health Centers and a Healthy Lifestyle Program (in PHC). The provincial policies highlight the importance of Ayurveda services in primary healthcare and in the prevention of non-communicable diseases.

Strategies

- Provide preventive, promotive and curative health services in the rural areas
- Establishment and development of Ayurveda institutions
- Strengthen and expand the Ayurveda health services
- Develop skilled manpower required for various health facilities
- Strengthening of monitoring and supervision activities
- Development of information, education and communication center in the Department
- Develop Inter sectoral co-ordination with Education Ministry, Forestry, local development sector and other NGO's and INGO's
- National and International level training for the capacity enhancement of its human resources

Major Ayurveda service and programs

- OPD services
- Panchakarma (Purvakarma) service
- Distribution of galactogogue medicine to lactating mother
- Geriatric health promotion program
- School Ayurveda Health and Yoga program
- E class Laboratory service
- Paying pharmacy service
- National, International Yoga Day and National Health Day (Dhanwantari Diwas) celebration
- Production, publication and broadcasting of Ayurveda IEC materials
- Nasyakarma program to minimize the pollution related health hazard of province traffic police
- Ayurveda Life style management and health promotion program
- Chief Ministry Public Health Program

Major Activities conducted in FY (2079/80)

- Capacity building related to Ayurveda services program (AHMIS Training).
- Annual review of Ayurveda service program completed.
- Nagarik Aarogya Program
- Monitoring and evaluation of Ayurveda service program
- Panchakarma Vastikarma training for Ayurveda doctors
- Yoga training for Ayurveda doctors
- Abhyangkarta training on Purvakarma/ Panchakarma
- Supply management training for Ayurveda doctors and store managers
- Review meeting on Homeopathy services
- Preparation of a training manual on Purvakarma /Panchakarma for Abhyangkarta and Panchakarma Vastikarma for Ayurveda Practitioners
- Conducted onsite coaching

Major Achievements

Status of Panchakarma (Purvakarma) service

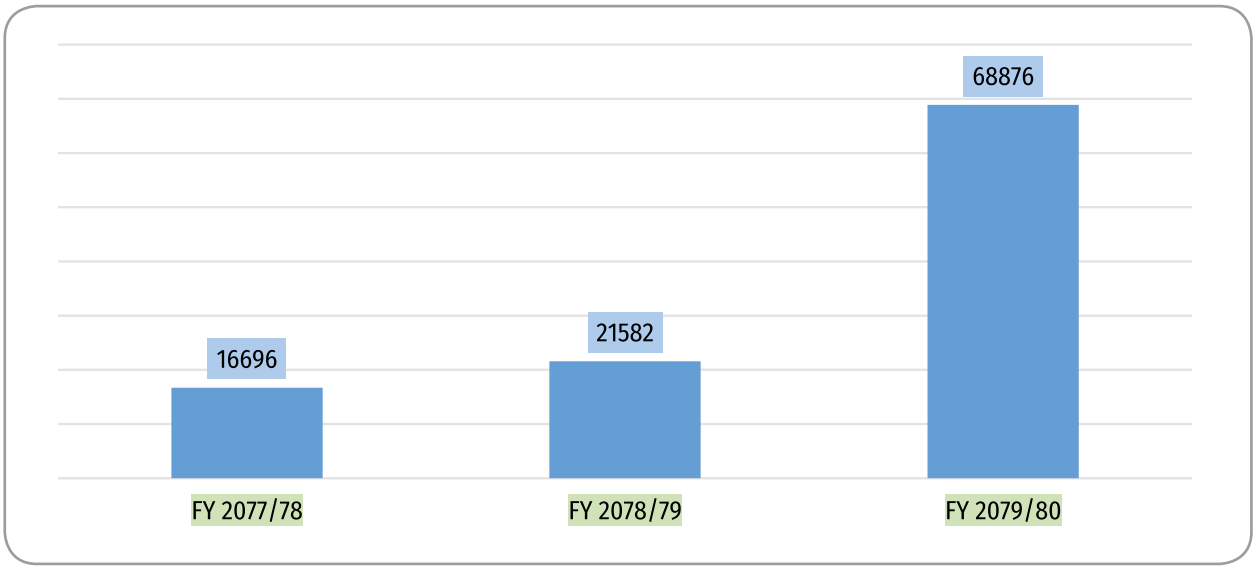


Figure: 5.6.1: Comparison of Panchakarma (Purvakarma) Service of three consecutive fiscal years in Bagmati Province

Source:AHMIS

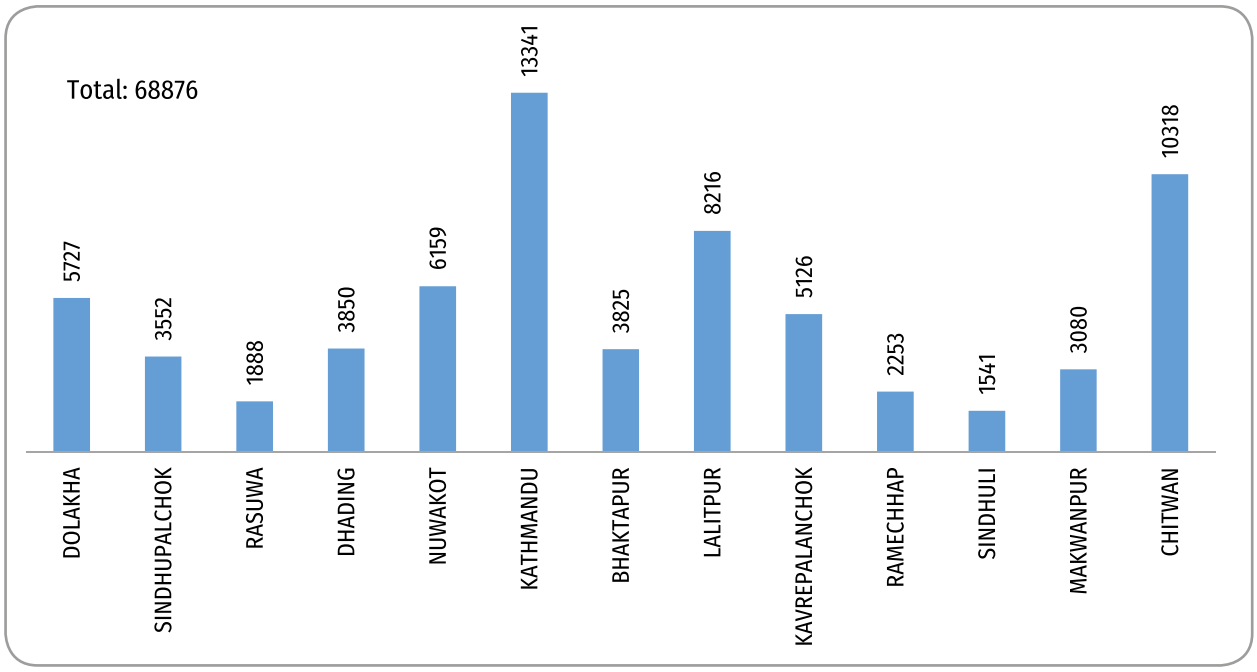


Figure 5.6.2: District wise Panchakarma (Purvakarma) Service (FY 2079/80)

Source:AHMIS

From FY 2077/78 to FY 2079/80, there was a corresponding increase in Panchakarma (Purvakarma service). Similarly, in FY 2079/2080, the Kathmandu district had the most number of clients (13341) receiving Panchakarma (Purvakarma service), while Sindhuli district had the lowest number (1541).

Out of the Panchakarma (Purvakarma services) category, the majority of male clients (553) and female clients (820) received Nasya services, while no client received Baman services.

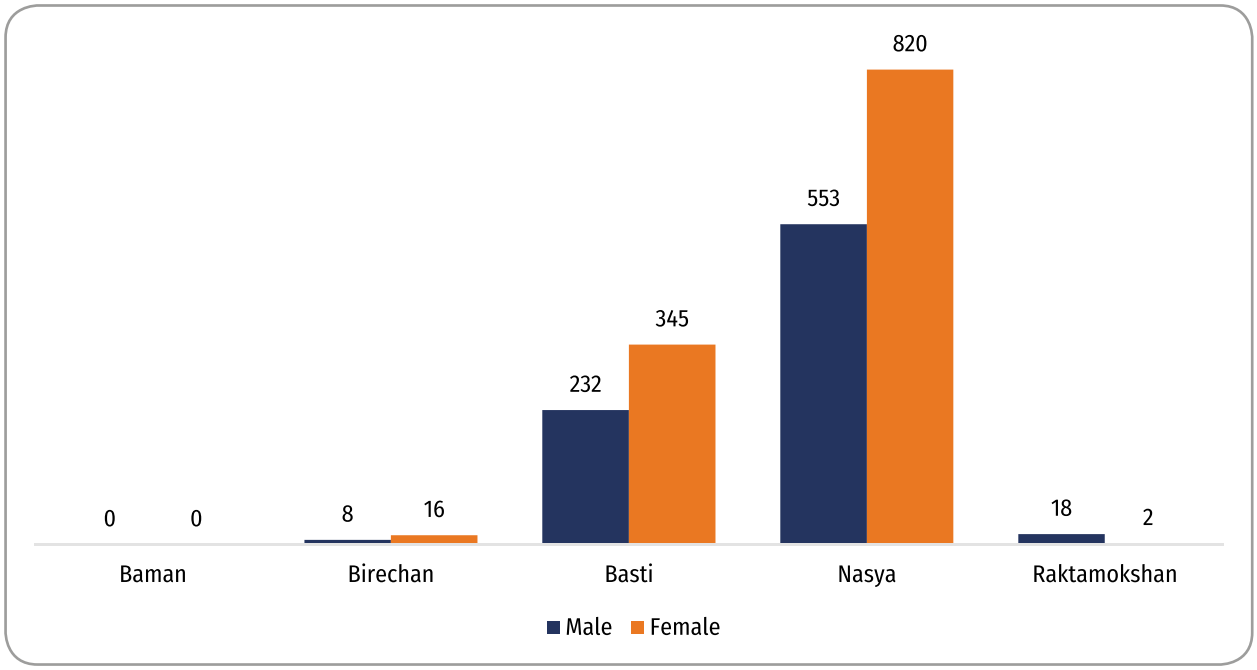


Figure: 5.6.3: Category of Panchakarma (Purvakarma services) in Bagmati Province (FY 2079/80)

Source:AHMIS

Status of Shalya Services

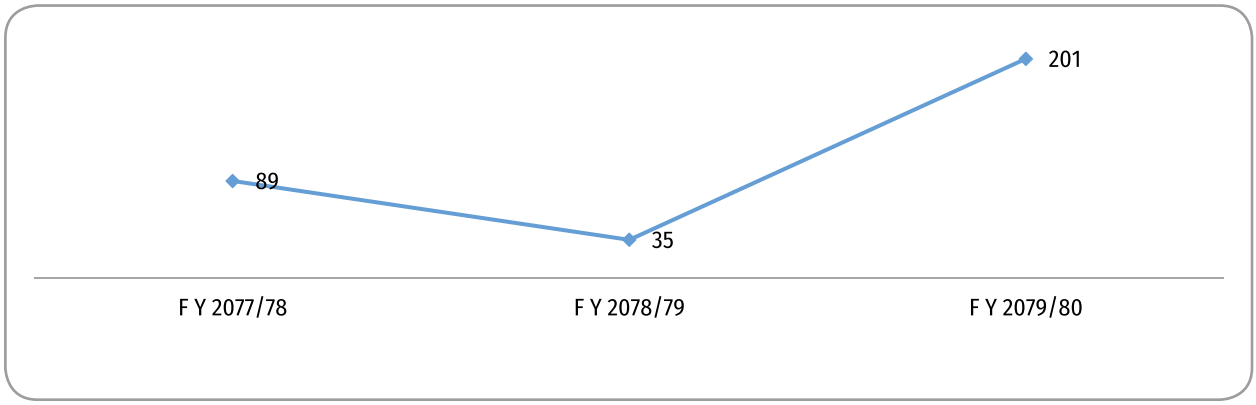


Figure: 5.6.4: Three year Trend of Shalya Service in Bagmati Province

Source:AHMIS

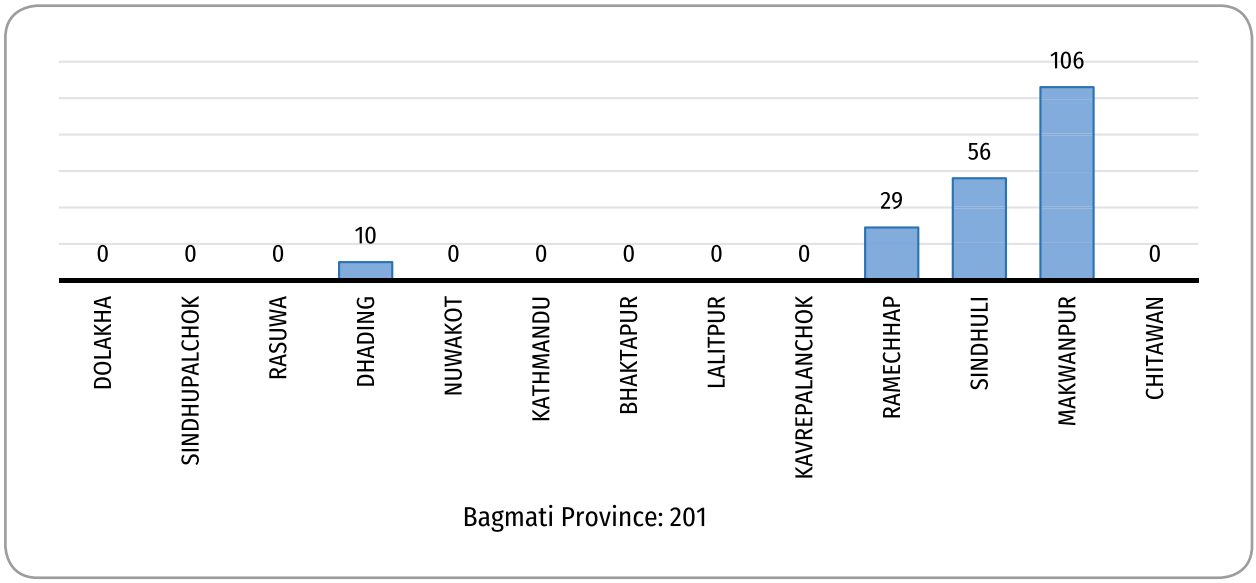


Figure: 5.6.5: Three year Trend of Shalya Service in Bagmati Province

Source:AHMIS

Figure 5.6.4 and 5.6.5 shows shalya service since 2077/78 till 2079/80 and district wise shalya service in Bagmati Province of FY 2079/80. The significant increase in shalya service has been observed in FY 2079/80 i.e. 201 as compared to FY 2078/79 i.e. 35 which is comparatively less than FY 2077/78 i.e. 89. Similarly, Makwanpur district has provided highest no. of shalya service followed by Sindhuli, Ramechhap and Dhading. Rest of the district had no shalya service available.

Status of Yoga Services

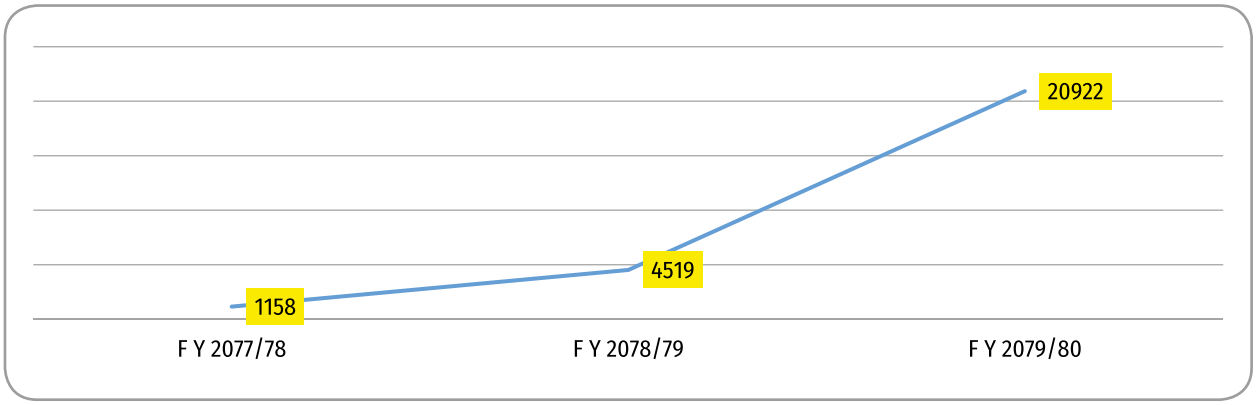


Figure: 5.6.6: Three Years Trend of Yoga Service in Bagmati Province (FY 2079/80)

Source:AHMIS

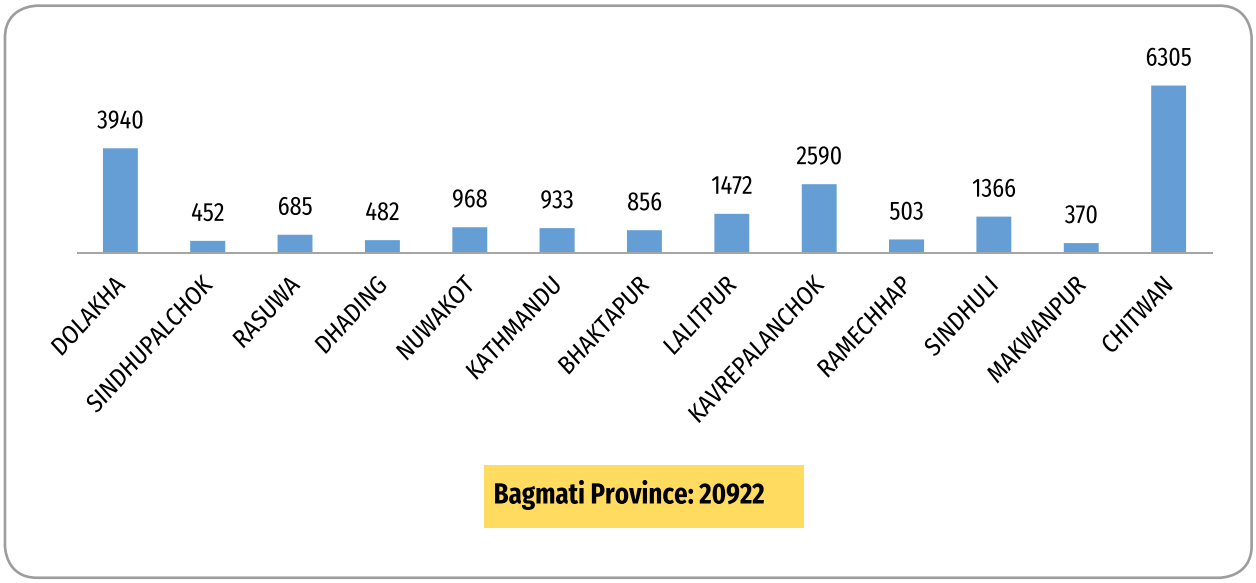


Figure: 5.6.7: District wise Distribution of Yoga Service in Bagmati Province (FY 2079/80)

Source:AHMIS

The three-year trend in the number of clients obtaining yoga services, as shown in figure 5.7.6, increased significantly from 2077/78 to 2079/80, i.e. 1158 to 20922 respectively. Likewise figure 5.7.7 shows that majority of clients in Bagmati province who received yoga services were from the Chitwan district, while the minimum were from the Makawapur district.

Jesthanagarik Service

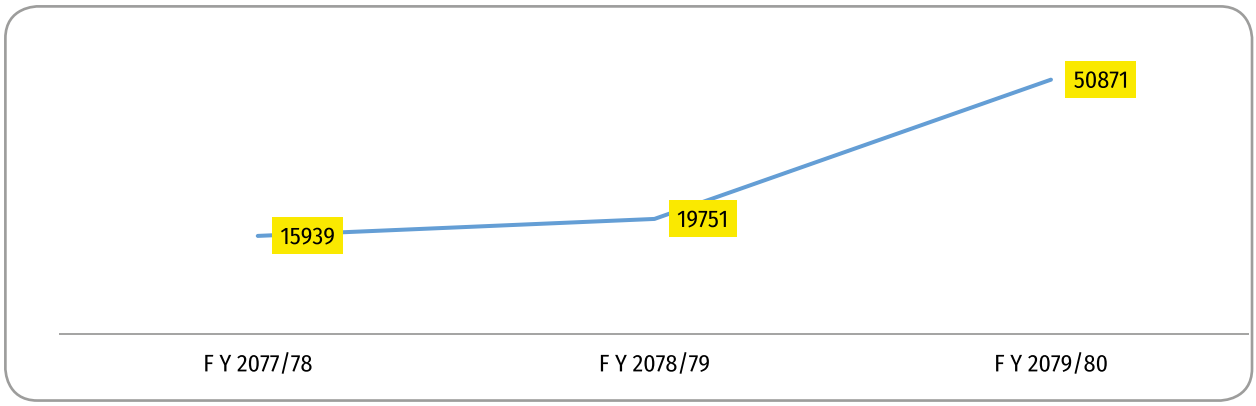


Figure: 5.6.8: Three Years Trend of Jesthanagarik Service in Bagmati Province (FY 2079/80)

Source:AHMIS

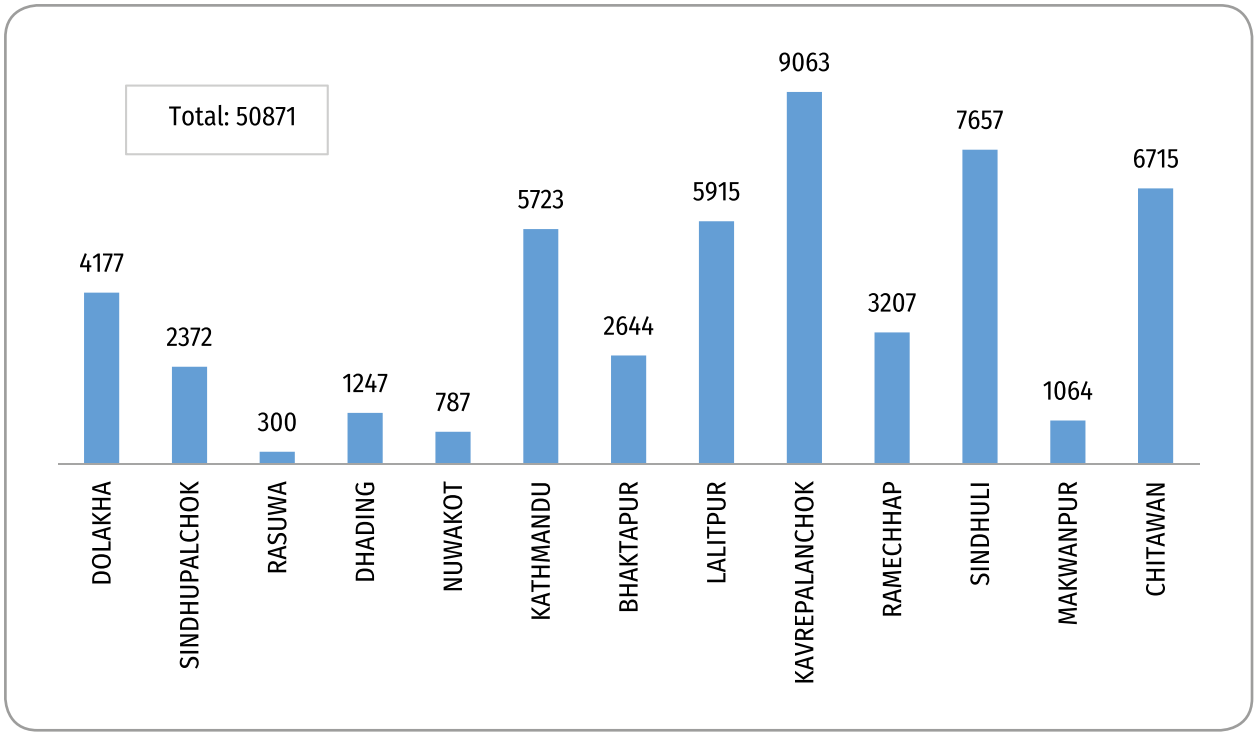


Figure: 5.6.9: District wise Distribution of Jesthanagarik Service in Bagmati Province (FY 2079/80)

Source:AHMIS

The above figure 5.6.8 and 5.6.9 shows Jesthanagarik service provided in Bagmati Province. The yearly rise in number of client receiving Jesthanagarik service i.e. 15939, 19751 and 50871 was observed since 2077/78 till 2079/80 respectively. During the fiscal year 2079/2080, the Kaverpalanchowk district had the highest, with 9063 clients receiving Jesthanagarik service, while Rasuwa district had the fewest, with just 300 clients receiving the same service.

Status of Stanpayi Aama Service

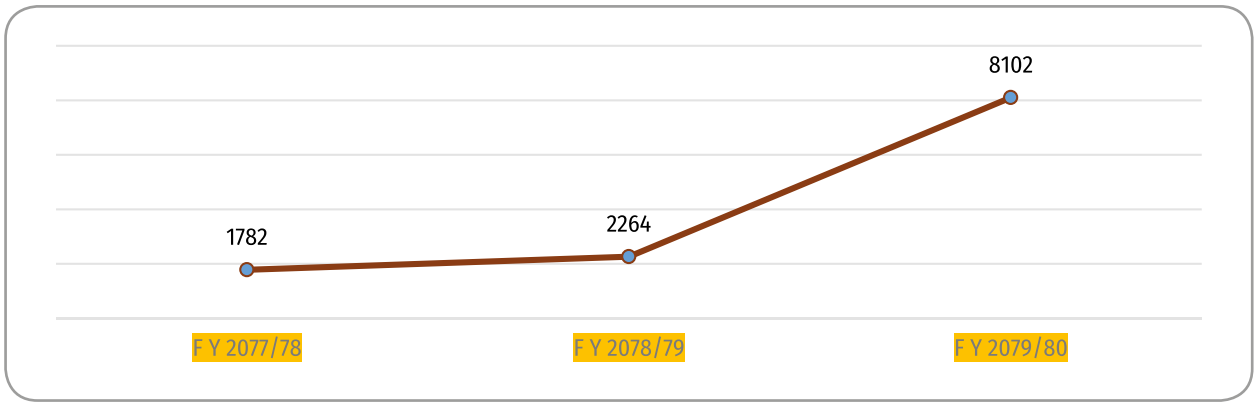


Figure: 5.6.10: Three Years Trend of Stanpayi Aama Service in Bagmati Province (FY 2079/80)

Source:AHMIS

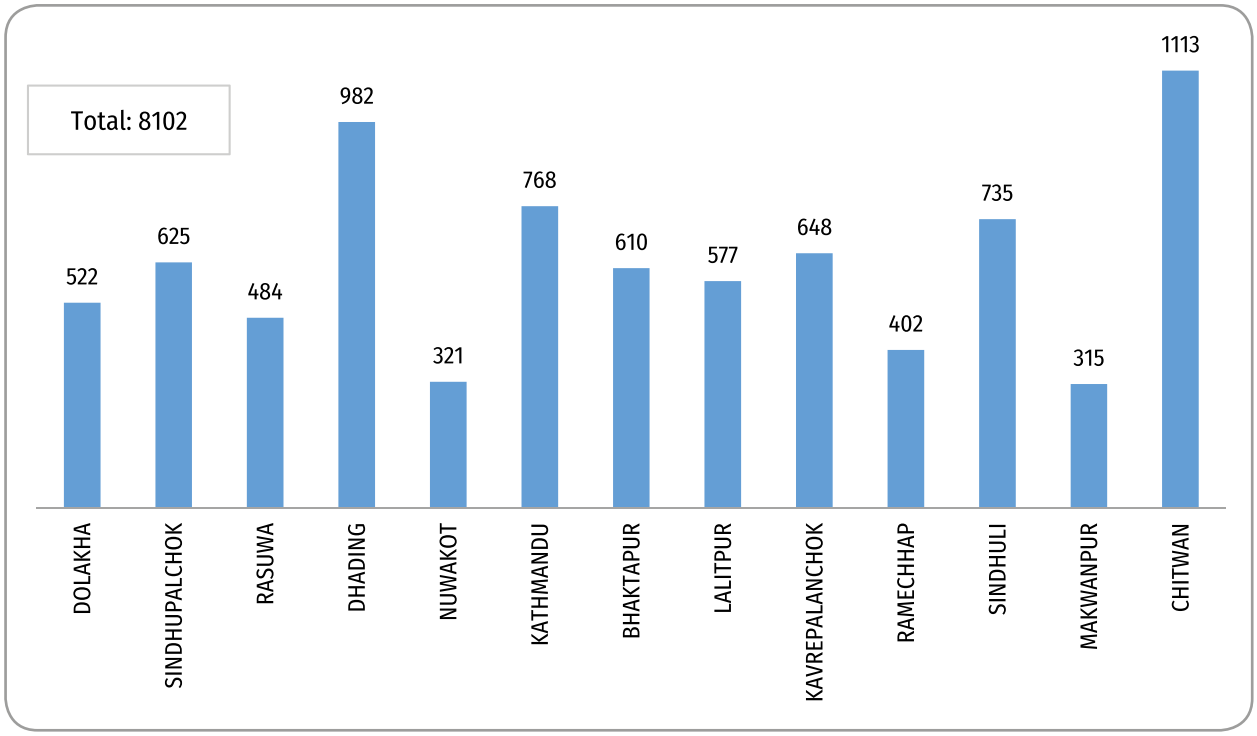


Figure: 5.6.11: District wise Distribution of Stanpayi Aama Service in Bagmati Province (FY 2079/80)

Source:AHMIS

Figure 5.6.10 illustrates the three-year trend of the number of clients receiving Stanpayi Aama services. It shows a large growth from 2077/78 to 2079/80, i.e. 1782 to 8102 respectively. Similarly, figure 5.7.11 shows that the majority of clients receiving Stanpayi Aama service in Bagmati province were from Chitwan district (1113), with the Makawapur district (315) having the lowest number.

Status of OPD Service

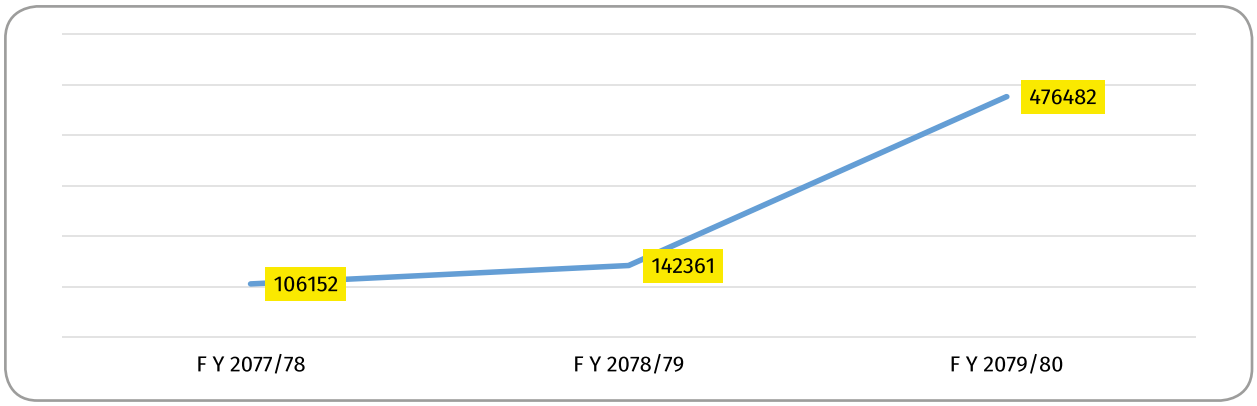


Figure: 5.6.12: Three Years Trend of OPD Service in Bagmati Province (FY 2079/80)

Source:AHMIS

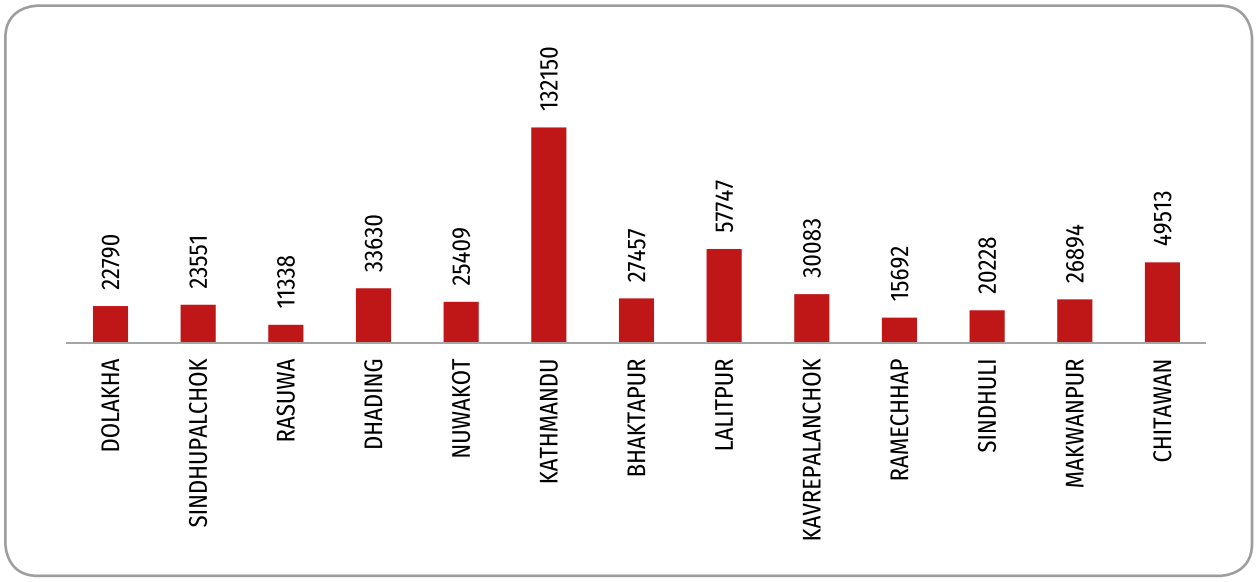


Figure: 5.6.13: District wise Distribution of OPD Service in Bagmati Province (FY 2079/80)

Source:AHMIS

The above figure 5.7.12 and 5.7.13 shows OPD service provided in Bagmati Province. The yearly rise in number of client receiving OPD service i.e. 106152, 142361 and 476482 was observed since 2077/78 till 2079/80 respectively. During the fiscal year 2079/2080, the Kathmandu district had the highest, with 132150 clients receiving OPD service, while Rasuwa district had the fewest, with just 11338 clients receiving the same service.

Laboratory Services

The figure 5.7.14 shows Laboratory service provided in Bagmati Province. The yearly rise in number of client receiving Laboratory service

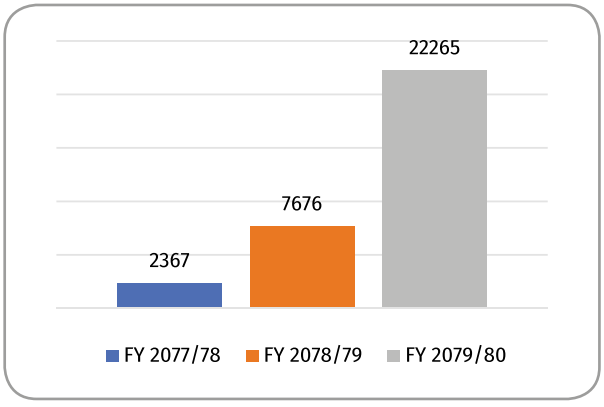


Figure: 5.6.14- Three Years Trend of Laboratory Service in Bagmati Province (FY 2079/80)

Source:AHMIS

i.e. 2367, 7676 and 22265 was observed since 2077/78 till 2079/80 respectively.

Physiotherapy Service

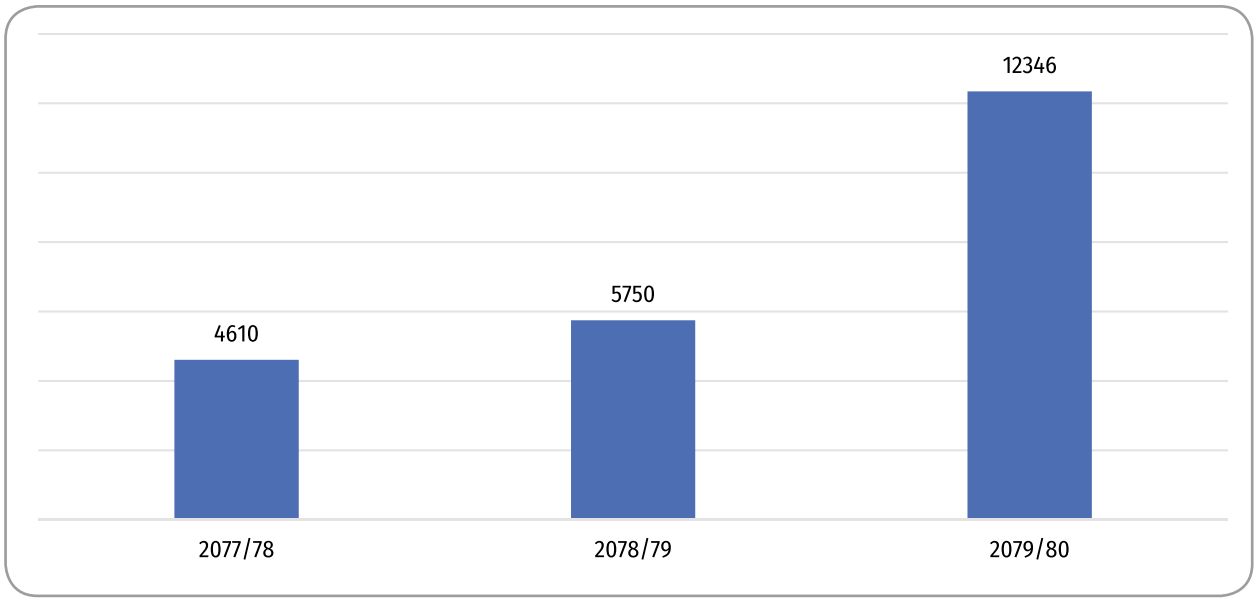


Figure: 5.6.15: Three Years Trend of Physiotherapy Service in Bagmati Province (FY 2079/80)

Source:AHMIS

The significant increase in physiotherapy service has been observed in FY 2079/80 i.e. 12346 as compared to FY 2078/79 i.e. 5750 which is comparatively less than FY 2077/78 i.e. 4610.

Acupuncture Service

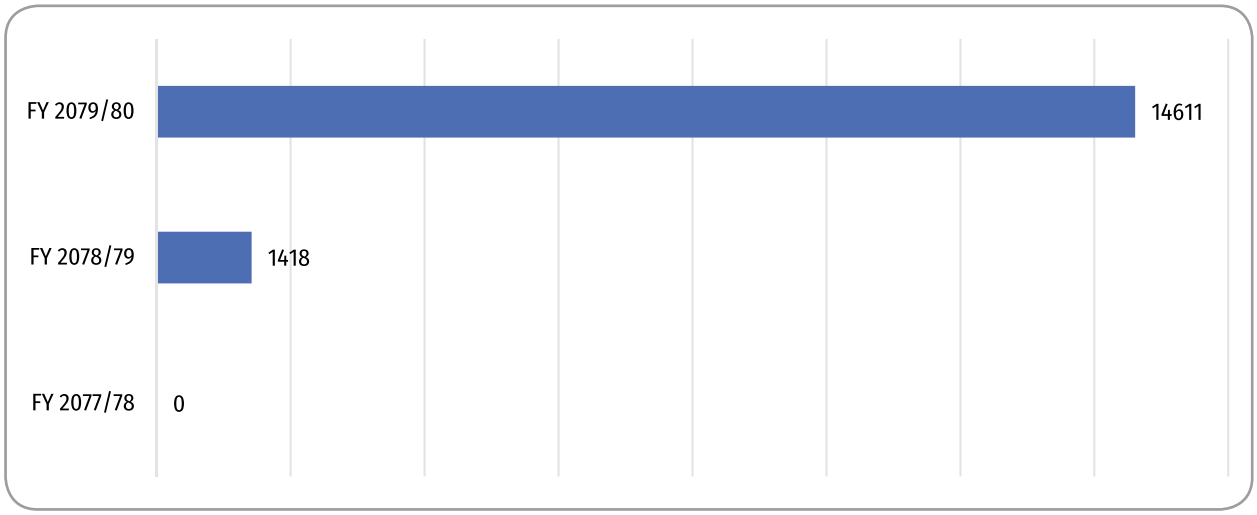


Figure: 5.6.16: Three Years Trend of Physiotherapy Service in Bagmati Province (FY 2079/80)

Source:AHMIS

From FY 2078/79 to FY 2079/80, there was a corresponding increase in number of client receiving acupuncture service in Bagmati Province i.e. 1418 to 14611 whereas there was no client receiving acupuncture service in the FY 2077/78.

Table: 5.6.1-Chief Ministry Public Health Program

Total no. of client screened				Total no. of client with Non- Communicable Disease among screened						
	Sex			High BP	Drug users of High BP	Possible Diabetic case	Drug users of Diabetes	VIA Screening		Incontinence
	Male	Female	Others					-ve	+ve	Present
Total	2497	2480	14	1120	610	962	453	14	1	20

Issues, action to be taken and responsibilities

Issues/Challenges	**Action to be taken**	**Responsibilites**
Non availability of infrastructure/ Inadequate building space	Prioritizing the plan for construction of builing	MOH/HD/Local level
Lack of manpower	Fulfilling the sanctioned seat	MOH/HD
Lack of orientation and training	Provide necessary training to aayurveda health workers	PHTC/HD
Registration and renewal problem of Private Health Organization	Preparation of Guidelines	MOHP/MOH/HD
Lack of essential medicine than required	Provision of sufficient quantities of medicines	PHLMC/HD
Lack of access of ayurveda service at every local level/ward	Expanding ayurvedic service at every local level/ward	HD/Local level

CHAPTER 6. REPORTING STATUS

6.1. Heath Management Information System (HMIS)

HMIS running on DHIS2 platform is one of the ICT friendly platforms with highly scalable features is being used to manage health sector information in an integrated and comprehensive manner, also used as one door system as recommended by health policy, public health act, public health service regulation and cabinet decision. It is helpful for drawing inferences through appropriate indicators. Moreover, to assist in the monitoring of the performance of the program by providing periodical feedback regarding achievement, coverage, continuity, and quality of services through coordination with program divisions/centers, managers, and service providers. In addition, it enhances the dissemination of health information to all concerned authorities using efficient methods and technologies.

The following are the reporting forms used in HMIS:

- HMIS 9.1: Female community Health volunteers (FCHV),
- HMIS 9.2: PHCORC report,
- HMIS 9.3: Community health units (CHU), Urban Health centers (UHC), health posts (HP) and Primary Health Centers (PHC) report,
- HMIS 9.4: Public hospitals report and
- HMIS 9.5: Remaining non-public health facilities/organizations report.

DHIS 2 Software

DHIS2 is an open-source, web-based platform most used as a health management information system (HMIS). The DHIS2 platform boasts data warehousing, visualization features, and the possibility for data users and policymakers to generate analysis from live data in real-time each country (or organization) has its own "instance" of the DHIS2 platform with full ownership of the application and the data contained within it. The health information management system of Nepal has been implemented in this software. In collaboration with experts in the DHIS2 community, the ministry of health has configured its own information system for managing health-sector data. The current DHIS 2 software meets the basic requirements of the HMIS. It helps to facilitate program managers and policy managers to monitor real-time health situations.

Reporting Status

Trend of Reporting Status of Health Facilities (PHCC, HP, BHSU, CHU, UHC)

The preceding figure illustrates the health facilities reporting status trend over the last three years. While looking at the completeness status it has been decreased in FY 2078/79 but in FY 2079/80 it has been increased by 1.3%. Similarly, while looking at the timeliness status, it was higher in FY 2078/79 but declined by 5.4% in FY 2079/80.

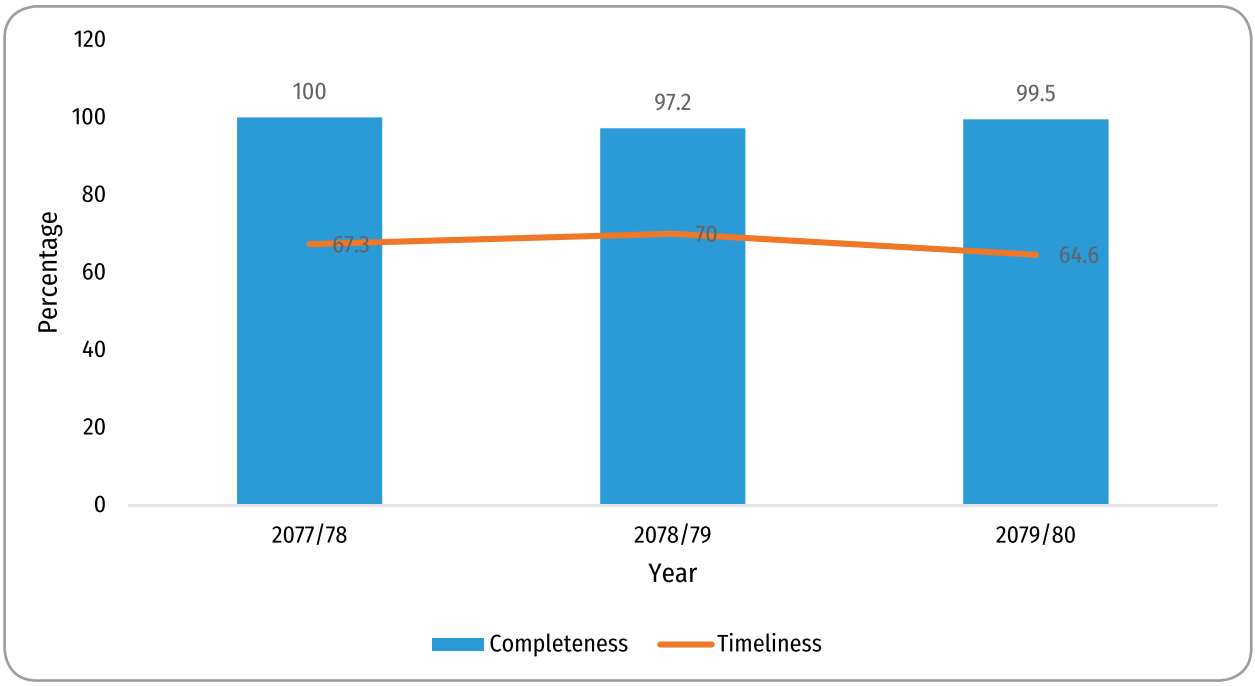


Figure 6.1.1: Trend of Reporting Status of Health Facilities (%)

District wise Reporting Status of Health Facilities (%)

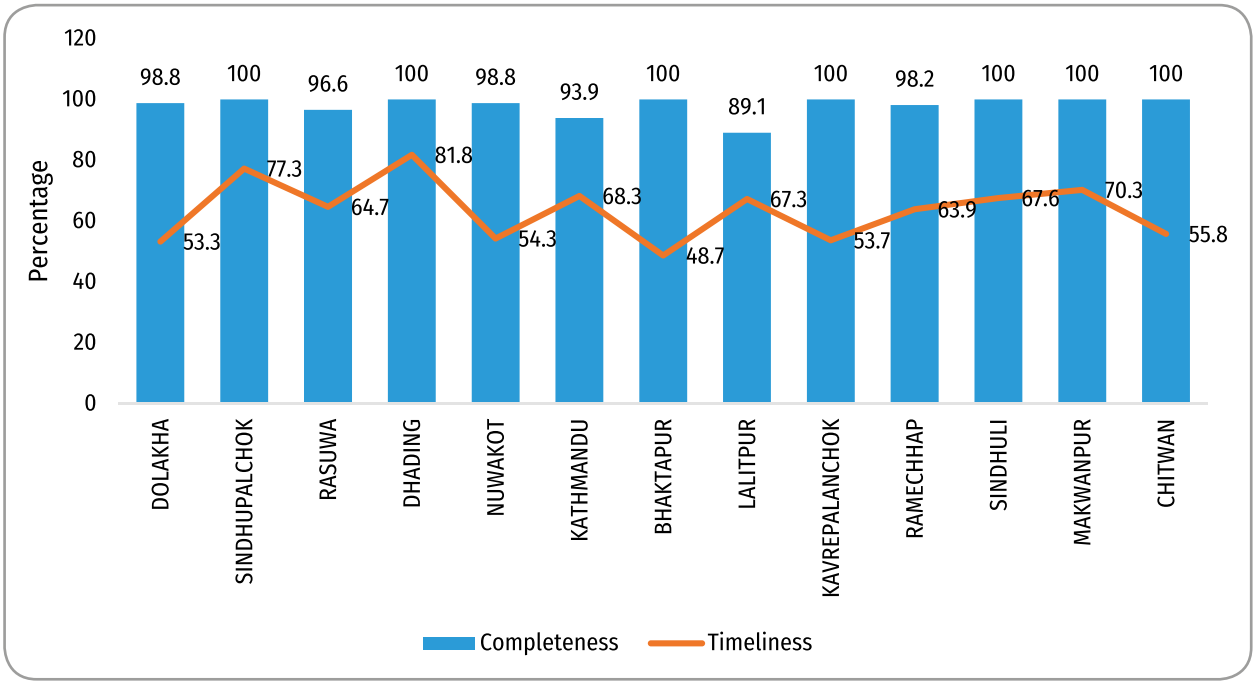


Figure 6.1.2: Trend of Reporting Status of Health Facilities (%)

The above figure shows the district wise reporting status of health facilities of Bagamati Province. While comparing the district wise reporting status based on Completeness and Timeliness, Lalitpur district has the lowest completeness status followed by the Rasuwa. Similarly, while looking at the timeliness status Bhaktapur district has the lowest followed by the Dolakha district.

Trend of Reporting Status of all Hospitals (%)

The preceding figure illustrates the hospitals reporting status trend over the last three years. While looking at the completeness and timeliness status it has been in increasing trend from FY 2078/79 to FY 2079/80. However, when evaluating the reporting status of hospitals and health facilities, hospitals typically have the lowest reporting status.

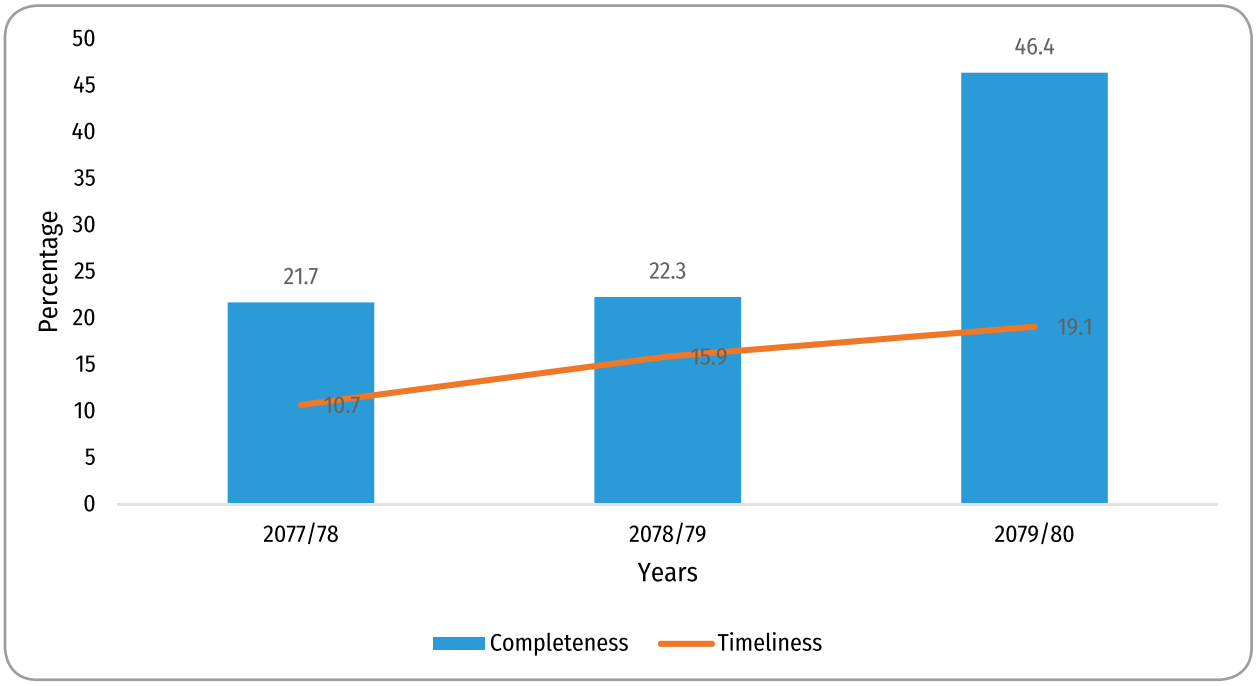


Figure 6.1.3: Trend of Reporting Status of all Hospitals (%)

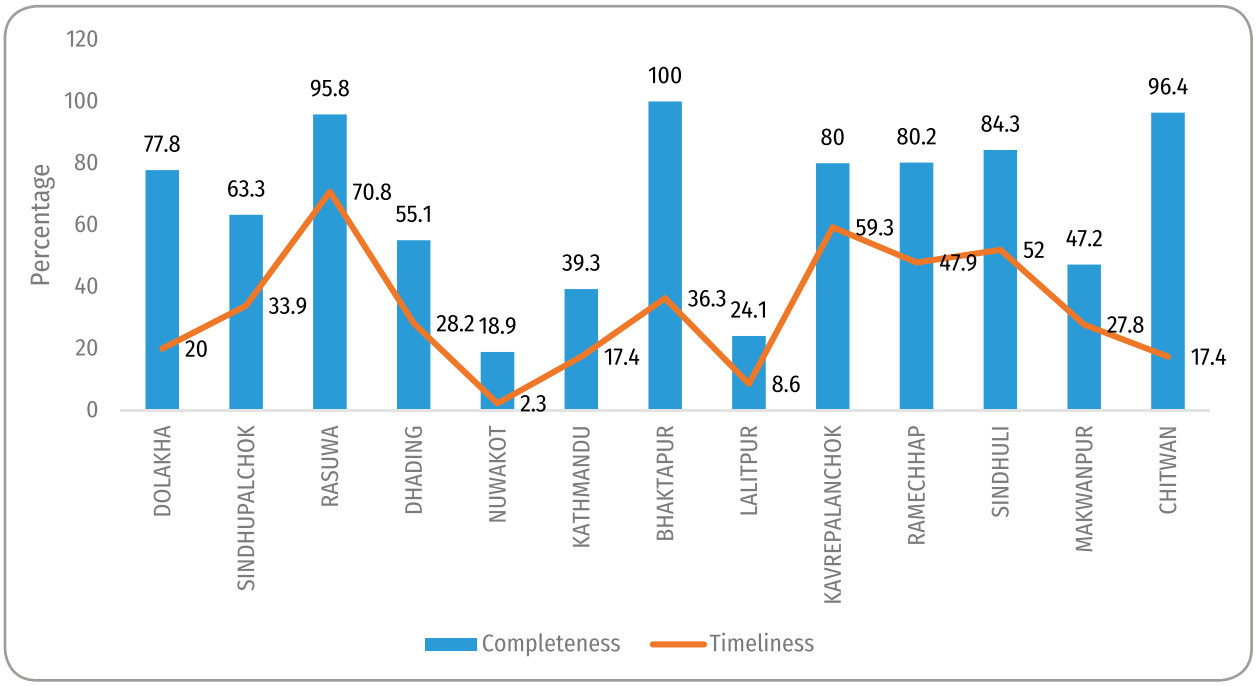


Figure 6.1.4: District wise Reporting Status of all Hospitals (%)

District wise Reporting Status of all Hospitals (%)

The above figure shows the district wise reporting status of all hospitals of Bagamati Province. While comparing the district wise reporting status based on Completeness and Timeliness, Bhaktapur district has the highest Completeness status. Similarly, Nuwakot district has the lowest Completeness and Timeliness status followed by the Lalitpur district.

Issue/Challenges, Action to be Taken and Responsible Person

Issues/ Challenges	Action To be Taken	Responsibilities
Inadequate skilled human resource in recording and reporting at various levels especially at LLGs and Hospitals.	Manage O&M survey to update the existing Human Resource in recording and reporting at various levels especially at LLGs and Hospitals	MoH, HD, HO, LLG
Reporting Rate and On-time reporting especially in metropolitan cities, tertiary public hospitals, and private hospitals in Kathmandu, Lalitpur and Chitwan.	Improve the recording and reporting status with new intervention in metropolitan cities, tertiary hospitals, and private hospitals with more focus in Kathmandu, Lalitpur and Chitwan districts.	MoH, HD, HO, LLG
There is still inadequate capacity in data analysis especially at LLG and Health facility level and use of data at all levels	Focus on knowledge and skill transfer regarding data analysis and use in planning at LLG and Health facility level.	MoH, HD, HO, LLG

6.2. Logistics Management Information System (LMIS)

Introduction

The (LMIS) unit was established in 1994. Later, MD started using electronic Logistic Management Information System (eLMIS) from Baishakh 2075 B.S to strengthen supply chain management and LMIS data entry and data visualization for better decision making. eLMIS has been implemented to all Local Level stores to effectively manage real time operations and based on the need of the stores gradual expansion to Service Delivery Points (SDPs). Those SDPs where eLMIS is not implemented, send LMIS form to LLG to enter data. From FY 79-80, the quarterly LMIS reporting has been changed to monthly reporting.

Major Activities of FY 2079/80

- eLMIS implementation (rollout) in two LLG (Ratnanagar Municipality and Bharatpur Metropolitan City) through the budget of Health Directorate.
- Conducted refresher eLMIS training (two batch) to all the nonoperational health facilities in Dolakha.
- eLMIS implementation in 341 service delivery point.
- Onsite coaching to local levels and hospitals.
- Oriented and trained health workers for monthly eLMIS reporting.
- Initiation of eLMIS reporting from Service Delivery Points (SDPs).
- Distribution of eLMIS report user ID and password to SDPs by coordinating with Management Division, Teku, Kathmandu.
- Created a social media group encompassing all the health workers from local levels, districts, province and central.
- Follow up and provided necessary feedback through emails, phone calls and other online mediums.
- Conducted monthly meetings for strengthening and improving data quality in eLMIS.
- Provided technical support via any-desk and other online mediums.
- Coordination with IHIMS, PHLMC, districts health office and local levels and SDPs consistently for complete, accurate, relevant, and timely eLMIS data.

6.2.2. eLMIS Reporting Status

Trend of eLMIS Reporting Status (%)

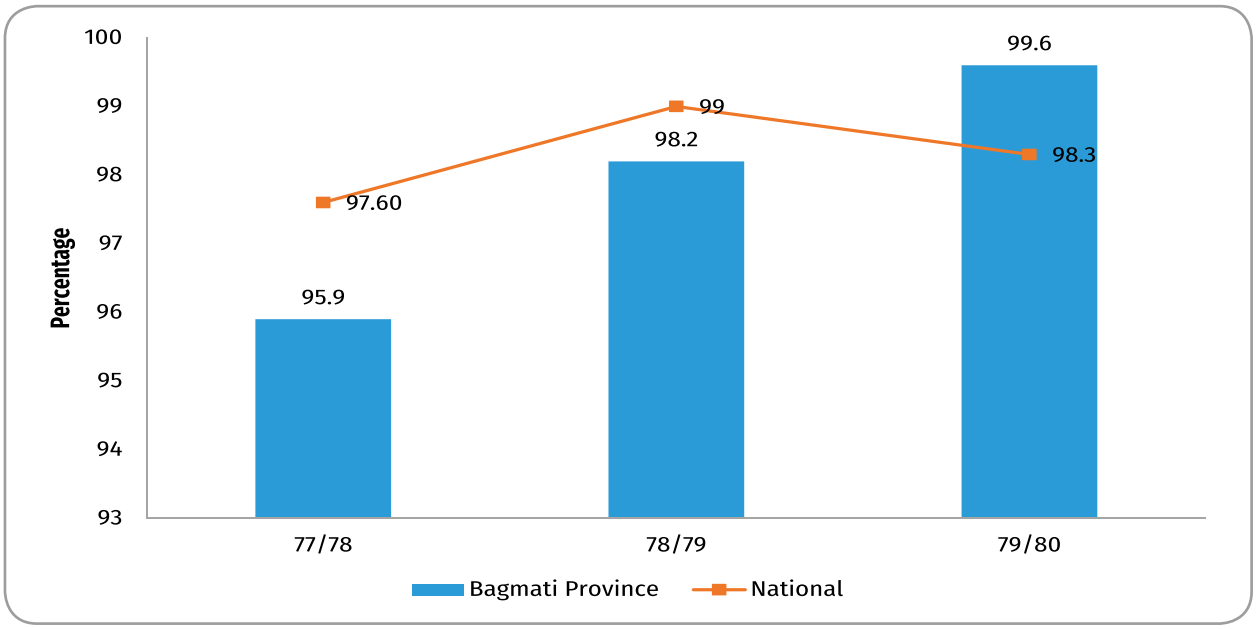


Figure 6.2.1 : Trend of eLMIS Reporting Status

After successful implementation of eLMIS at all local level governments in FY 2077/78, LMIS reporting status has been gradually improved (99.6%) in FY 2079/80 compared to FY 2078/79 and FY 2077/78 of Bagmati Province and while comparing with National reporting status, the reporting status of bagamati Province is slightly lowered.

District wise eLMIS Reporting Status (Timeliness Vs Completeness)

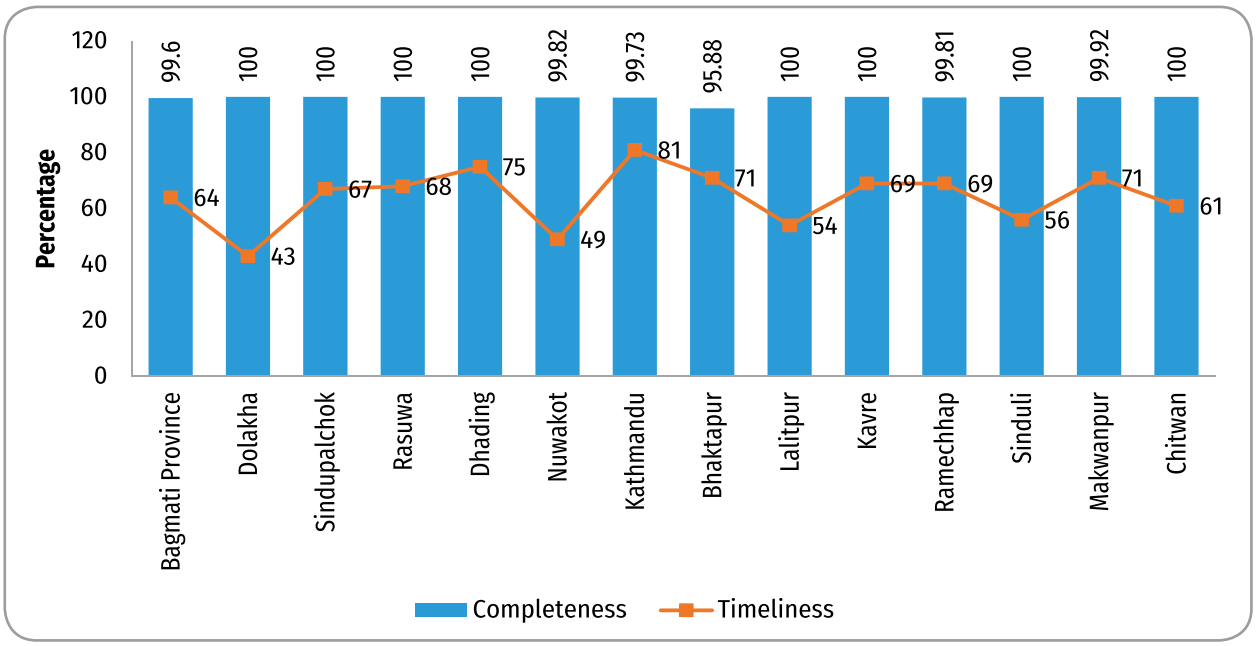


Figure 6.2.2: District wise eLMIS Reporting Status (Timeliness Vs Completeness)

The above figure shows the district wise eLMIS reporting status of Bagamati Province. In FY 79/80 eLMIS reporting status of Bhaktapur (95.88) has been lowered than average provincial reporting status (99.6%). Similarly, while looking at timeliness status Dolakha followed by the Nuwakot district has lowered timely reporting status than other districts.

District Wise LMIS Data Entry Reporting Sites

Table 6.2.1: District Wise LMIS Data Entry Reporting Sites

District Name	Count
BHAKTAPUR	3
CHITWAN	30
DHADING	55
DOLAKHA	90
KATHMANDU	20
KAVREPALANCHOK	34
LALITPUR	40
MAKWANPUR	59
NUWAKOT	96
RAMECHHAP	79

District Name	Count
RASUWA	15
SINDHULI	106
SINDHUPALCHOK	90
Total LMIS Data Entry Sites	717

The above table shows the total number of LMIS data entry sites (717) of Bagamati Province. According to this table Sindhuli (106) and Nuwakot (96) district have the highest data entry reporting sites.

District wise eLMIS Implemented Sites.

Table 6.2.2: District Wise eLMIS Implementation Sites

District Name	Count
BHAKTAPUR	41
CHITWAN	89
DHADING	75
DOLAKHA	18
KATHMANDU	161
KAVREPALANCHOK	51
LALITPUR	36
MAKWANPUR	49
NUWAKOT	14
RAMECHHAP	21
RASUWA	26
SINDHULI	12
SINDHUPALCHOK	38
Total eLMIS Sites	631

The above table shows the total number of eLMIS implemented sites (631) of Bagamati Province. According to this table Kathmandu district has highest eLMIS implementation sites because out of 11 LLG only SDPs of 2 LLG i.e. Shankharapur and Budhanilkantha Municipality's has been left for eLMIS Implementation.

New eLMIS Implementation Site in FY 2079/80

Table 6.2.3: New eLMIS Implementation Site in FY 2079/80

District	LLG	SDP	Number
Bhaktapu	Changunarayan Municipality	HP-8, PHC-1 UHC-2	11
	Suryabinayak Municipality	HP-5 CHU-5	10
	Madhyapur Thimi Municipality	HP-7 PHC-1 Municipal Hospital-1 UHC-4	13
Chitwan	Madi Municipality	Ayurvedic HC-1, CHU-2 Municipal Hospital-1 HP-3 UHC-7	14
	Rapti Municipality	BHC-7 HP-5 CHU-1 Municipal hospital 1	14
	Khairahani Municipality	BHC-8 HP-3 Municipal Hospital-1	12
	Ratnanagar Municipality	BHC-7 HP-3 UHC-4	14
	Bharatpur Metropolitian City	HP-13 PHC-1	14
	Kalika Municipality	BHC-7 Municipal Hospital-1 HP-3	11
Dhading	Siddhalek Rural Municipality	HP-3 BHC-4	7
	Dhunibeshi Municipality	BHC-6 HP-3	9
	Nilkhantha Municipality	BHC-5 CHU-2 District Clinic-1 HP-7 UHC-2	17
	Thakre Rural Municipality	BHC-5 HP-5 CHU-1	11

District	LLG	SDP	Number
Dolakha	Jiri Municipality	BHC-3 HP-3	6
Kathmandu	Kathmandu Metropolitan City	PHC-1 UHC-34	35
	Kirtipur Municipality	HP-7 Hospital-1 UHC-4	12
	Nagarjun Municipality	HP-4 PHC-1 UHC-5	10
	Tarakeshwor Municipality	BHC-1 HP-7 PHC-1 UHC-5	14
	Tokha Municipality	BHC-6 HP-4 PHC-1 UHC-1	12
Kavrepalanchok	Chauri Deurali Rural Municipality	BHC-1 CHU-2 HP-9	12
	Dhulikhel Municipality	BHC-4 HP-6 PHC-1 UHC-4	15
	Namobuddha Municipality	BHC-3 HP-5	8
Lalitpur	Godawari Municipality	HP-10 BHC-2 PHC-2 UHC-2	16
Makwanpur	Bhimphedi Rural Municipality	BHC-1 CHU-3 HP-4 PHC-1	9
	Manahari Rural Municipality	Hp-1, Hospital-1	2
	Raksirang Rural Municipality	HP-3, BHC-1	4
Ramechhap	Umakunda Rural Municipality	HP-6, CHU-2	8
	Manthali Municipality	HP-1 PHC-1	2

District	LLG	SDP	Number
Rasuwa	Kalika Rural Municipality	HP-1 Hospital-1 BHC-3	5
SINDHUPALCHOK	Chautara Sangachokgadhi Municipality	HP-9 BHC- 5	14
Total eLMIS Sites			341

The above table shows the new eLMIS Implementation Site in FY 2079/80. According to this table all together 341 new eLMIS Implementation sites was added. Similarly, most of the implementation sites were in Kathmandu Metropolitan City (35).

Issues/Challenges, Action to be Taken and Responsible Person

Issues/ Challenges	Action To be Taken	Responsibilities
On time reporting	LMIS reporting should be completed through eLMIS within 15th day of next each month.	LLG, SDPs
Real Time Transaction	Transactions like Dakhila, Ha. Fa, Kharchanikasha should be done through system in an exact time when the commodity is taken.	HLMC, HO, LLG, SDPs

6.3. Early Warning and Reporting System (EWARS)

The Early Warning and Reporting System (EWARS) is a hospital-based sentinel surveillance system that was established in 1997. Its primary purpose is the early detection of six priority outbreak potential diseases and syndromes related to vectors, water, and food. These include acute gastroenteritis (AGE), cholera, severe acute respiratory illness (SARI), dengue, kala-azar, and malaria. In National level total of 118 hospitals from all provinces and districts in the country have been designated as sentinel sites. These sites are responsible for promptly reporting cases of specified diseases and syndromes, along with additional diseases and syndromes, either immediately in the case of an outbreak or on a weekly basis. The system also encompasses the reporting of other outbreak-prone communicable diseases such as Influenza-like Illness (ILI), Scrub Typhus, Enteric fever, among others.

Types of sentinel sites that report on EWARS.

Table 6.3.1: Types of sentinel sites that report on EWARS.

Name of Sentinel Site	Type	Name of Sentinel Site	Type
Civil Services Hospital Kathmandu	G	Bir Hospital_ Kathmandu	G
District Trisuli Hospital_ Nuwakot	G	Birendra Army Hospital_ Kathmandu	G
District Hospital _ Rasuwa	G	Dhulikhel Hospital _Kavre	P
Sumeru Hospital Lalitpur	P	District Hospital_ Dhading	G
Bharatpur Hospital_ Chitwan	G	District Hospital_ Sindhuli	G
Grande International Hospital Pvt_ Kathmandu	P	Jiri District Hospital_ Dolakha	G/L
Norvic International Hospital _Kathmandu	P	Kathmandu Model Hospital _Kathmandu	P
Nepal Medical College_Kathmandu	P	Manmohan Memorial Community Hospital Thamel _Kathmandu	P
Patan Academy of Health Science_Lalitpur	G	Menlha Nursing Home (Ciwec Hospital Pvt) _Kathmandu	P
Kist Medical College, Lalitpur	P	Nepal Police Hospital_Kathmandu	G
Nepal Mediciti Hospital, Lalitpur	P	Teaching Hospital (Tribhuvan University)_ Kathmandu	G
Pashupati Chaulagai Smriti Hospital_Dolakha	G	Vayodha Hospital_Kathmandu	P
Sukraraj Tropical and Infectious Disease Hospital_Kathmandu	G	District Hospital_ Sindhupalchowk	G
Kanti Children Hospital_Kathmandu	G	Hams Hospital _Kathmandu	P
College Of Medical Science _Chitawan	P	Hetauda Hospital_ Makwanpur	G
Chitwan Medical College _Chitawan	P	District Hospital_ Ramechhap	G
Om Hospital & Research Center _Kathmandu	P	Armed Police Force (Apf) Hospital_ Kathmandu	G
Kathmandu Medical College _Kathmandu	P	Bhaktapur Hospital _Bhaktapur	G

** P= Private *G= Government*

In the EWARS system, the Bagamati province incorporates 36 sentinel sites actively engaged in regular reporting. Among these, 20 are government-operated facilities, and 16 are private health institutions.

Reported cases of the prioritized infectious diseases on EWARS

Table 6.3.2: Reported cases of the prioritized infectious diseases on EWARS for the period from 2019 – 2022

Bagamati Province				
Disease Name / Period	**2019**	**2020**	**2021**	**2022**
AGE	2 209	2 091	1 297	3 470
Cholera	1	0	0	42
COVID-19	1	7 985	10 448	4 569
Dengue	4 956	87	128	16 981
Diphtheria	0	0	0	1
Encephalitis	4	9	2	3
Enteric Fever	775	584	303	560
Hepatitis-Acute Jaundice	67	41	22	22
Influenza Like Illness	87	827	45	248
Kala azar	27	24	36	38
Leptospirosis	3	4	2	14
Malaria Falciparum	7	1	4	11
Malaria Vivax	7	1	1	2
Meningococcal Meningitis	4	1	0	1
Other	95	901	36	40
Pneumonic Plague	0	1	1	0
SARI	1 780	1 929	2 176	2 362
Scrub Typhus	671	230	298	540
Suspected Measles Like Illness	1	1	0	1

Source: EWARS/EDCD

Total of 19 diseases in EWARS have been reported in the period 2019- 2022. COVID-19 disease was also reported from the sentinel sites partially during the year 2019-2021. Apart from 6 priority diseases, scrub typhus and enteric fever were the most reported diseases while cases of leptospirosis and meningitis were also reported through the EWARS platform.

Reporting Status of the Sentinel Site

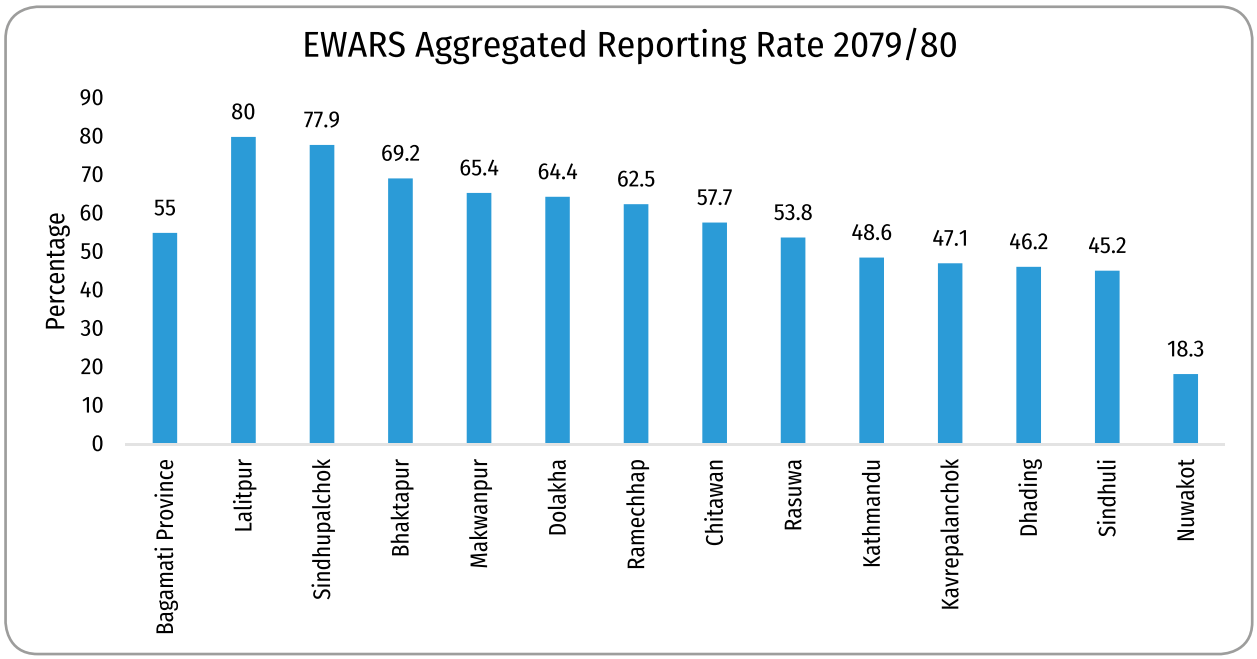


Figure 6.3.1: Reporting Status of the Sentinel Site

Source: EWARS/EDCD

Regarding the performance of the sentinel sites and their reporting status for each epidemiological week, Bagamati Province achieved a 55% aggregate reporting rate across the 36 sentinel sites. Among the 13 districts, Lalitpur district has excelled with the highest reporting rate with 80%, followed by Sindhupalchowk (77.9%), Bhaktapur (69.2%), and Makwanpur (65.4%), as illustrated in Figure-9.

Issue/Challenges, Action to be Taken and Responsible Person

Issues/Challenges	Action to be Taken	Responsibilities
Low reporting status	Providing orientation and on-site coaching to the responsible personnel of the non-governmental and government institutionsTop of Form	HD, HO, LLG
Limited human resources	Management an epidemiologist or information technologistTop of Form	MoH, EDCD, LLG
Lack of prioritized notifiable infectious disease	Prioritization of notifiable infectious disease according to the Public Health Act, 2075 and International Health Regulation, 2005	DoHS, EDCD, MoH
Roles and responsibility on EWARS in federal system	Revision of Guidelines of Early Warning and Reporting System.	DoHS, EDCD, MoH
A limited quantity of sentinel sites	The sentinel site needs to be upgraded up to the PHCCs level.	DoHS, EDCD, MoH

CHAPTER 7. PROVINCIAL PROGRAM

7.1. School Health Nurse Programme

Introduction

School heath nurse programme has been coined to fulfill the target (Universal Health Coverage) of National Health Policy.

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

Initially this programme was conducted in 20 secondary level schools of Bagamati province. Taking consideration to the effectiveness of which the program is being expanded each year. Currently SHN program is running in all local level (119) of Bagamati province. In each local level, we have at least three secondary level school providing school health services. Currently there are total 519 school health nurses working under Bagamati province.

The rationale for initiating SHN programme are:

- To prevent NCD by promoting health from early stage of life
- For the purpose of raising awarness in the community level

Number of School Health Nurse Programme initiated School

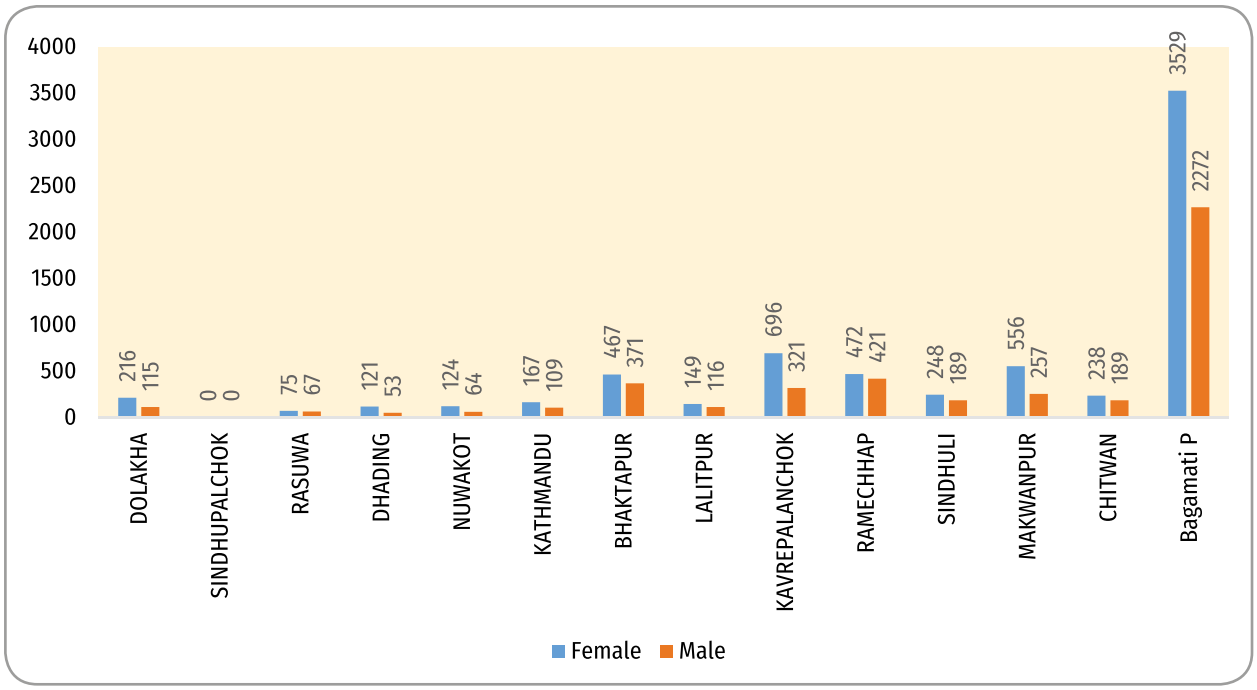


Figure 7.1.1: Number of School Health Nurse Programme initiated School

Services provided by School Health Nurse

1. Nurses are providing variety of services:

- First aid Treatment
- Mental Health
- Reprductive health
- Prevention of Junk food
- Menstrual Hygiene
- Helath education
- Enviromental sanitation
- Holistic health care

Some activities performed by school health nurse are given below: -

1. Aldendazole and folic acid distribution programme.

2. Health awareness regarding unhealthy food.

3. Health education regarding Menstruation Hygiene

4. Pad distribution programme.

5. Health check-up of parent and community people.

6. Eye examination of students at school.

7. Health Camp organizing by school nurse.

5. Health check-up of parent and community people.

Scope of School Nurses:

➢ Policy, planning and leadership:

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

➢ Health promotional services :

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

➢ Preventive health services:

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

➢ Health examination and first aid treatment :

- Regular monitoring of health status of students.
- Examinee height, weight (BMI), eyes, hearing and dental problems.
- Examine nutrition status of children through anthropometric measurement.
- Examine and Identify eyes, nose, ear, throat, teeth and skin problems of students by coordinating with local health centre and other health centre.
- Identify and manage emergency health problems like common cold, diarrhea, vomiting and other injuries.
- Manage different problems related to menstruation .
- Make action plan for the care of chronically ill children by involving related teachers, staffs and families.

➢ Counseling Services:

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

➢ Referral services :

- Coordinate with primary, secondary and tertiary health facilities in order to refer students, teachers and other staff if they need added treatment school nurse should take consent from parents.

- In case of emergency situation where she should provide first aid treatment and immediately refer them to health centre.
- After referral, school nurse should follow up and monitor about the health status of students and other staffs and write a report.

➢ Health service programs related to contemporary issues:

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

2. **Some barriersof this programme are:**

- There is no sanction post for School helath nurse by province government so, there is difficulty in retaining manpower.
- Some of the local levels and schools seem to have passive role in facilitating this service.
- School Health Nurse is a new concept in the conext of Nepal so, it is difficult to make people realize about it.

Achievement

- School nurse conduct different health awarness programme which enchance the better physical and mental health of children.
- School nurse celebrate the different days like HIV day, Diabetes day by involving the student too which helps them to familiar with all disease.
- They provide counselling to young children and parent if they found any delay in milestone of growing children.

Training conducted in Bagamati Province fiscal year 2079/80

S.N.	Training conducted on	Training Conducted by	Number of participant (school health nurse)
1.	Induction Training for new school nurse.	Bagamati Provincial Training Center.	43
2.	Psychosocial Counselling Adolescent Sexual &Reproductive Health	Bagamati Provincial Training Center.	91
3.	Comprehensive Behavioral and Psychological Health Intervention Through School Nurse	Collaboration of WHO and CWIN-Nepal.	120
4.	Child Right Protection and Promotion of Child Friendly good Governance.	Collaboration of Jagriti Child and Youth Concern Nepal and ECPAT Luxembourg.	140
5	Orientation programme for New School Nurse.	Health Directrote, Hetauda	150

Some issues faced by school nurses are given: -

- There is lack of proper communication between district level and local level for staffing process.
- In some school the school nurse has to teach health subject as curriculum basis for whole academic year.
- There is lack of proper supervision and monitoring from provincial level and district level as this programme has occupied all 119 palikas.

7.2. Free blood bag program for blood transfusion

Bagamati province started the free blood bag program since 2078. The program mainly focuses on economically disadvantaged people who are permanently residing in Bagamati province and the people who need urgent treatment. Free blood bag program for blood transfusion facilitate and organize the work of providing blood transfusion services by providing free blood bags and blood tests. This is one of the priority program of the Bagamati province.

District wise list of Blood Transfusion Centre and Service Site

Table 7.2.1: District wise list of Blood Transfusion Centre and Service Site

District	Blood Transfusion Centre	Service Site
Makawanpur	Nepal Red cross Society, Makawanpur Branch	Hetauda Hospital Bakulahar Hospital
Nuwakot	Nepal Red cross Society, Nuwakot Branch	Trishuli hospital, Nuwakot (An agreement was made but not implemented)
Dhading	Nepal Red cross Society, Dhading Branch	Dhading Hospital
Dolakha	Nepal Red cross Society, Dolakha Branch	Pashupati Chaulagain Memorial Hospital Tso-rolpa Hospital Dolakha Community Hospital Dhulikhel Hospital Jiri Hospital
Bhaktapur	Nepal Red cross Society, Bhaktapur Branch	Bhaktapur Hospital
Lalitpur	Nepal Red cross Society, Lalitpur Branch	Patan Hospital Bajrabarahi Chapagaun Hospital
Kavrepalanchowk	Nepal Red cross Society, Banepa Branch	Dhulikhel Hospital Methinkot Hospital
Ramechhap	Nepal Red cross Society, Manthali Branch	Ramechhap Hospital
Chitwan	Nepal Red cross Society, Chitwan Branch	Bharatpur Hospital B.P. Koirala Memorial Cancer Hospital Bakulahar Ratnanagar Hospital

Sindhuli	Nepal Red cross Society, Sindhuli Branch	Chautara Hospital
Kathmandu	Nepal Red cross Society, Kathmandu Branch	Tribhuwan University Teaching Hospital, Maharajgunj Manmohan Cardio-thoracic centre, Maharajgunj Kanti Children Hospital, Maharajgunj Tokha Chandeshwori Hospital, Tokha Bir Hospital, Mahabouddha Trauma centre, Mahabouddha Paropakar Maternity hospital, Thapathali Civil Service Hospital, Minbhawan Sukraraj Tropical and Infectious Disease Hospital Shahid Gangalal National Heart Centre

Major Achievement of Fiscal Year 2079/80

No. of recipients receiving transfusion services (New)

The below figure illustrates the total number of new recipients who has received the blood transfusion service. All together 2725 new recipients have received the blood transfusion service in Fiscal Year 2079/80.While comparing the district wise data Sindhuli and Dhading has provided the highest number of blood transfusion service and Lalitpur as well as Bhaktapur has provided lowest number of service.

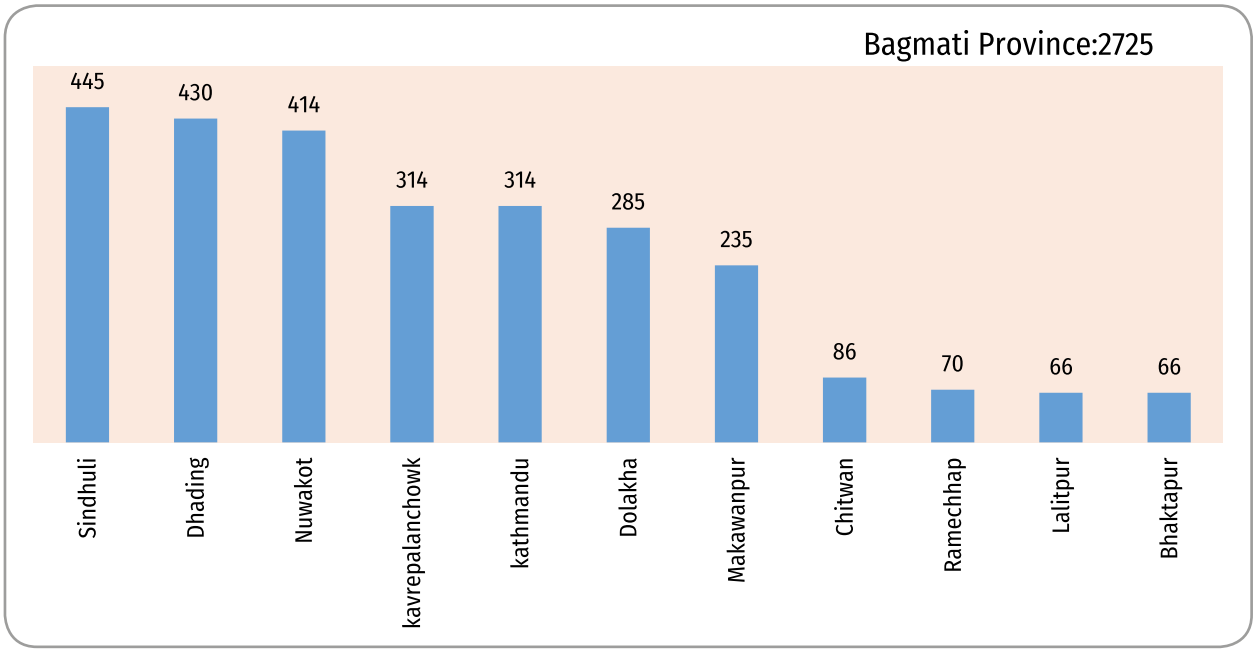


Figure 7.2.1: No. of recipients receiving transfusion services (New)

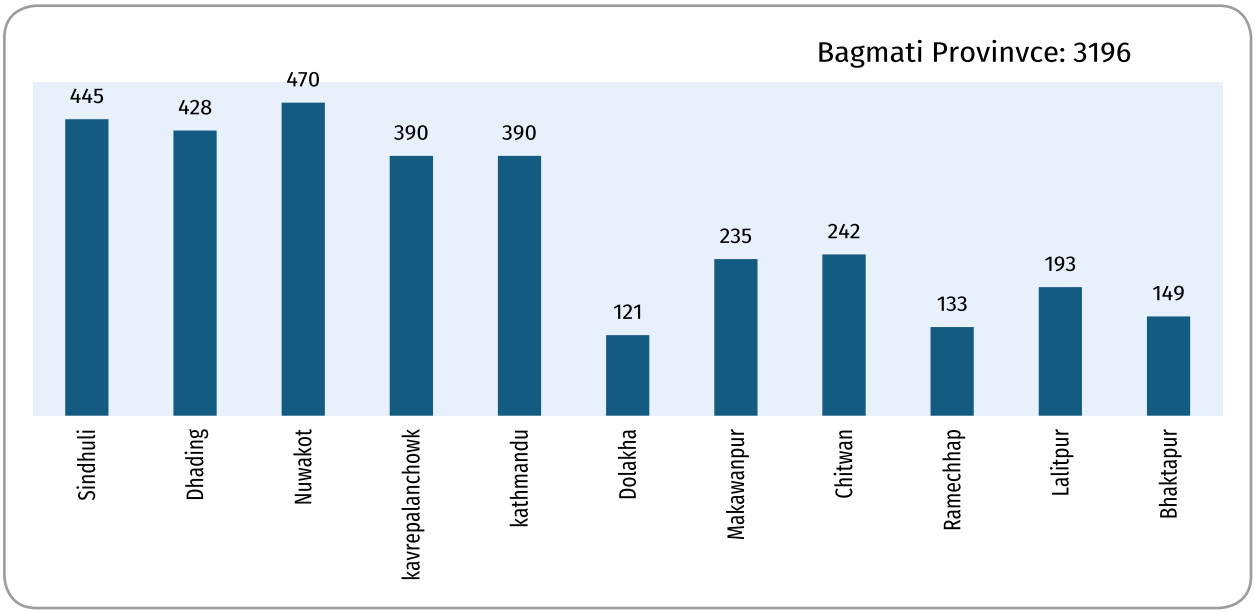


Figure 7.2.2: No. of recipients receiving transfusion services (New + Old)

No. of recipients receiving transfusion services (old + new)

The above figure shows the total number of recipients (New+Old) who has received the blood transfusion service. All together 3196 recipients have received the blood transfusion service. While comparing the district wise data Sindhuli and Dhading has provided the highest number of blood transfusion service and Lalitpur as well as Bhaktapur has provided lowest number of service.

Types of blood cells consumed (FY 2079/080)

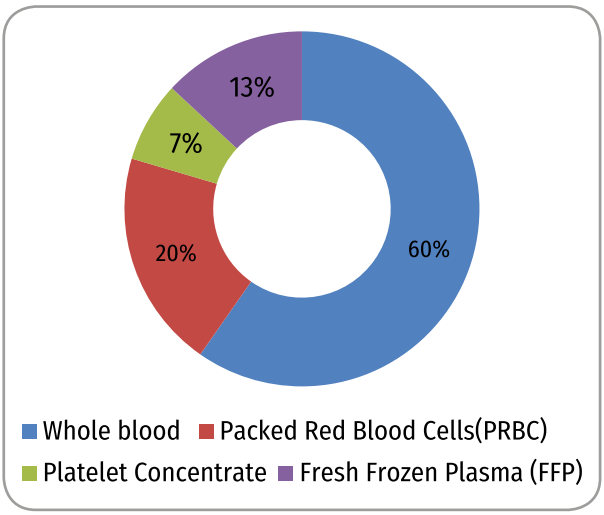


Figure 7.2.3: Types of Blood Cells Consumed (FY 2079/80)

The figure illustrates the types of blood cells consumed in Fiscal year 2079/80. While looking at the figure whole blood has been consumed in highest number (60%) followed by the Packed Red Blood Cell (20%). The lowest amount of blood that were consumed are Platelet Concentrate (7%) and Fresh Frozen Plasma (13%).

Purpose of using blood transfusion services

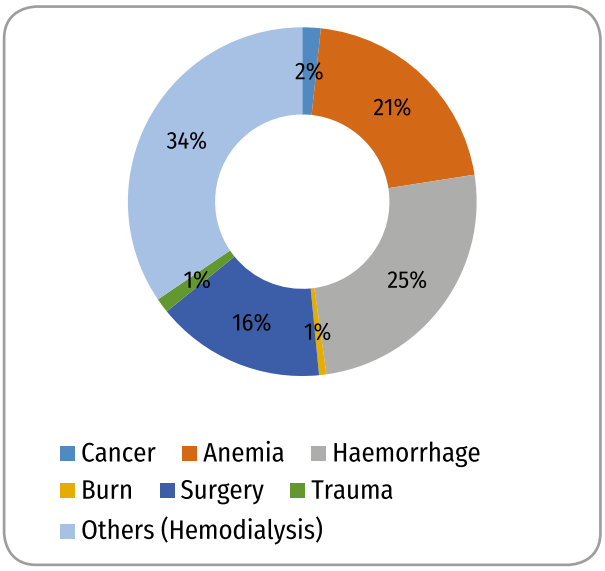


Figure 7.2.4: Purpose of using blood transfusion services

The above figure illustrates the purpose of using blood transfusion service. While looking at the figure blood transfusion service is more often used in Hemodialysis (34%), Hemorrhage (25%), Anemia (21%) and Surgery (16%).

Issues/Challenges, Action to be Taken and Responsibilities

Issues/Challenges	Action to be taken	Responsibilities
Poor coordination between hospitals and blood transfusion centers	Coordination between hospitals and blood transfusion centers	MOHP/MOH/NRCS
Non-establishment of Province Level Blood Transfusion Bureau	Amendment of procedure and establishment of provincial level Blood Transfusion Bureau	MOHP/MOH/NRC
Unable to provide service to residents of other provinces except Bagmati province	Amendment of procedures and making necessary arrangements to provide services to the residents of other provinces besides Bagmati province	MOHP/MOH/NRCS
Unable to easily provide services to poor and emergency service customers	Amending the procedure, facilitating the provision of services to the poor and emergency service customers.	MOHP/MOH/NRCS
The hospital requesting blood transfusions requested more than necessary	Hospitals must arrange to request blood transfusions only as per necessity.	MOHP/MOH/NRCS
Non-uniformity in fee determination	Component wise fee should be determined to bring uniformity in fee determination.	MOHP/MOH/NRCS
Lack of manpower required for blood transfusion centers	Since it is not possible to make the service in accordance with the quality of the existing manpower, until the management of the permanent manpower, a special subsidy should be arranged.	MOHP/MOH/NRCS
Problems in data recording and reporting	Developing digital technology to solve problems in data records and reports	MOH/HD
There is no regular maintenance of the equipment in the blood transfusion center	Arrange for regular maintenance.	MOH/HD/PHLMC/NRCS
There is no arrangement of necessary equipment in the blood transfusion center	Equipment should be arranged	
Inadequate allocated budget	The local government, the state government and the federal government should manage the budget according to the demand by avoiding duplication when allocating the budget.	
There is no provision for laboratory staff working in Blood Transfusion Centers with Risk Allowance/Salary as per Central Blood Transfusion/ Government of Nepal	The salary and risk allowance of the laboratory personnel working in the Blood Transfusion Center should be the same as that of the Central Blood Transfusion Center / Government of Nepal.	Local, state and federal governments, NRCS

7.3. Chief Minister Public Health Program

Non-Communicable Disease accounts for more than half of mortality in the Bagamati province. While looking at the prevalence of hypertension the data shows 20 % of women and 25 % of women has hypertension = SBP >140 mmHg or DBP >90 mmHg or taking antihypertensive medication. In order to address the rising burden of Non-Communicable Diseases Provincial government designed and implemented the Chief Ministers Public Health Program- an exemplary program of the Ministry of Health Bagamati Province. This Program aims to reduce mortality associated with NCDs particularly CHD, asthma, Diabetes, and Cancer; Timely detection of the risk of NCD among the healthy population of Bagamati province through the provision of screening, early diagnosis, and treatment facilities to reduce complications; To manage Obstructive Fistula, Heart Attack, Stroke, and other NCD by providing treatment subsidy.

This program is being implemented since FY 2076/077 and comprises various programs related to the problem of NCD. **"Chief Minister People Health Program (screening, diagnosis, counseling, and treatment) management guideline 2079"** was developed and implemented in FY 2078/079.

Under Chief Minister People Health Program following programs are being implemented:

1. Subsidy to a destitute patient with a cancer program
2. Diagnosis, Prevention, Control, and Treatment of a patient with a Heart Attack
3. Diagnosis, Prevention, Control, and Treatment of a patient with a Stroke
4. Diagnosis, and treatment subsidy to patients with Obstructive Fistula
5. NCD testing, screening, counseling, and Treatment service program:

Major Achievement of Fiscal year 2079/80

NCD Screening Service (Health office)

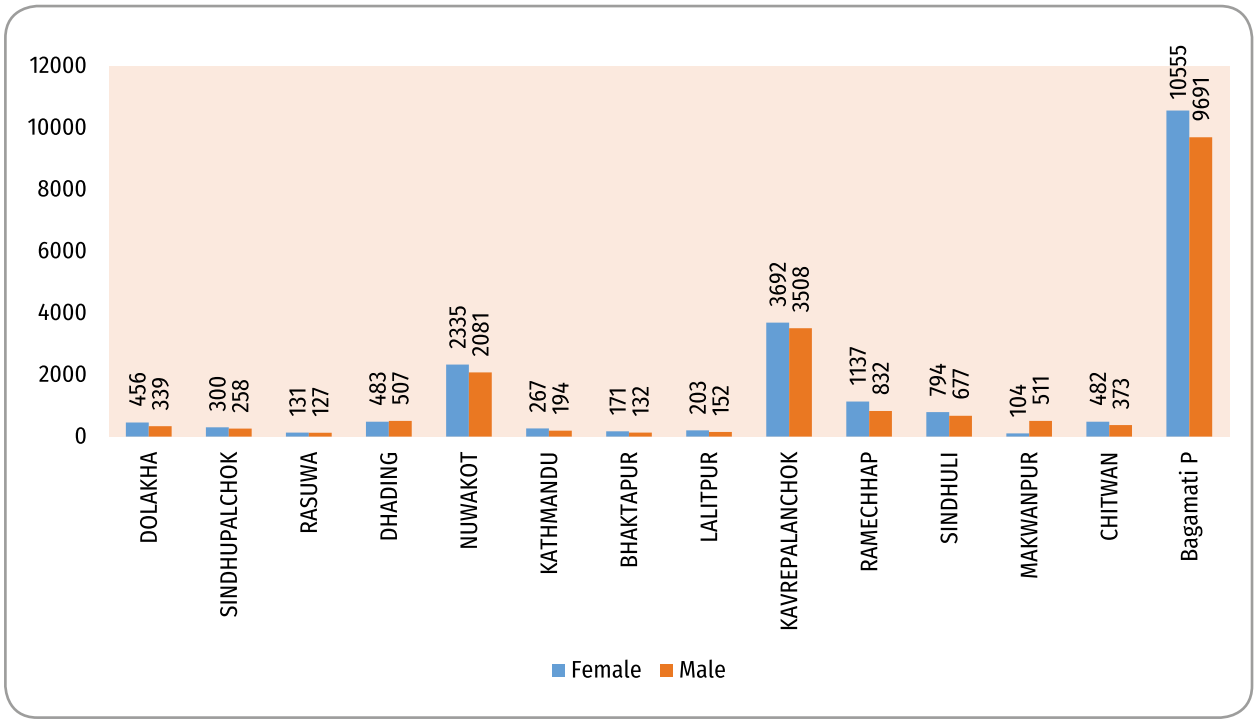


Figure 7.3.1: District wise number of clients screened for NCD (Health office)

The above figure illustrates the District wise number of clients screened for NCD. All together 10555 females were screened for NCD and 9691 males were screened for NCD in FY 2079/80 through health office. While looking at the district wise service Kavrepalanchowk and Nuwakot has provided highest number of NCD screening service and Rasuwa has provided the lowest number of NCD screening service.

NCD Screening Service through Hospital

The below figure illustrates the District wise number of clients screened for NCD. All together 3623 females were screened for NCD and 2446 males were screened for NCD in FY 2079/80 through hospital. While looking at the district wise service status Pasphupati chaulagain Memorial Hospital and Bakulahar Ratnanagar hospital has provided highest number of NCD screening service and Rasuwa as well as Bhaktapur has provided the lowest number of NCD screening service.

NCD Screening Service through Ayurveda Health Centre

The figure illustrates the District wise number of clients screened for NCD. All together 3529 females were screened for NCD and 2272 males were screened for NCD in FY 2079/80 through Ayurveda Health Centre. While looking at the district wise service status Makwanpur as well as Kavrepalanchowk Ayurveda health center has provided highest number of NCD screening service while Sindhupalchok Ayurveda health center hasn't started the program.

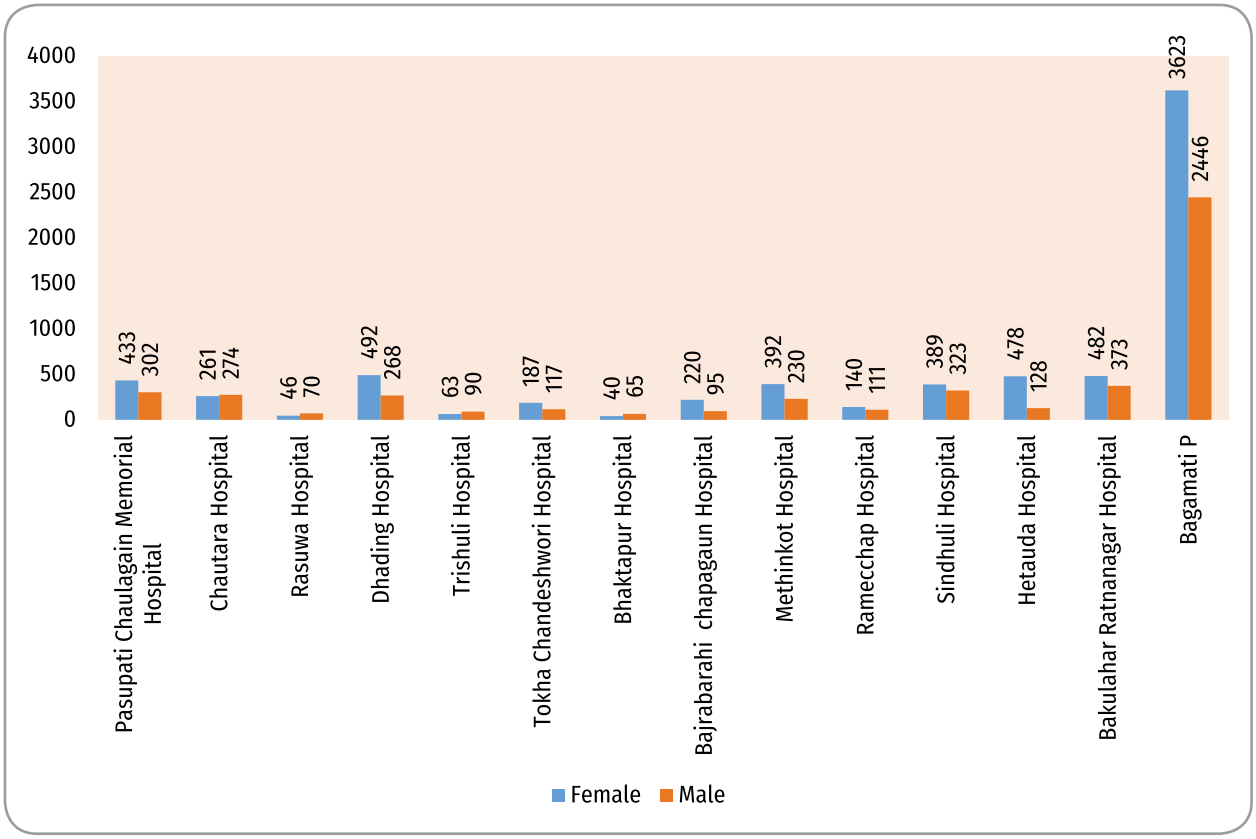


Figure 7.3.2: District wise number of clients screened for NCD through Hospital

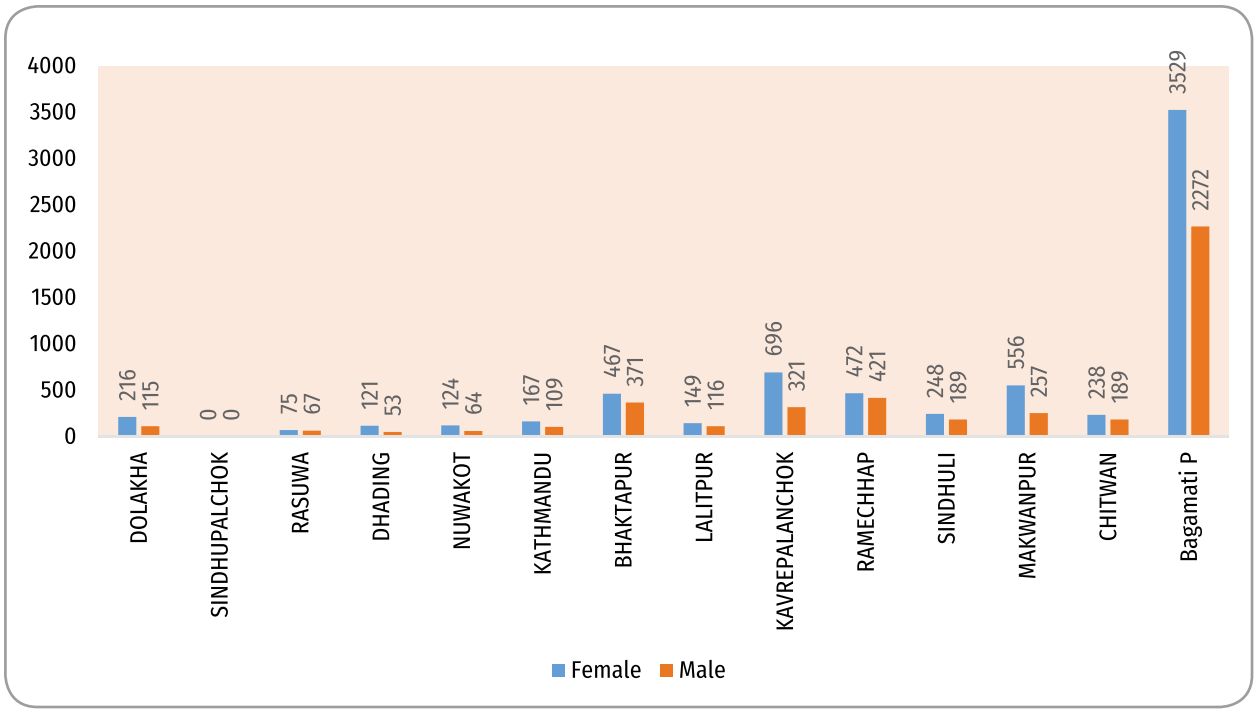


Figure 7.3.3: District wise number of clients screened for NCD through Ayurveda Health Centre

7.4. Special Grants Program

Health is the basic asset of every individual. Every year government, non-government and private organizations invests tons of budget on health sectors so as to work together for uplifting the health status of Nepalese citizens. Similarly, Special Grants Program is also the newly initiated health program that has been started in the fiscal year 2079/80 to aware and promote the heath of people in the field of nutrition, child health, maternal health, adolescent health, reproductive health and upgrade the service providing sites through well-equipped instruments.

Components of Special Grants Program

1. Maternity Center Improvement Program
2. Adolescent Sexual and Reproductive Health Improvement Program
3. Maternal and Child Nutrition Promotion Program
4. Urban Health Program

The rationale for initiating special grants program

- To raise heath awareness among all individuals
- To manage essential equipment in the maternity centers
- Capacity building
- To improve maternal and child nutrition

Maternity Center Improvement Program

In Nepal, maternal and child health condition is improving from the last three decades but the prevalence rate of maternal mortality and child mortality is still a concern. The health status of mothers and children differs due to various factors like geographical condition, caste, education, lifestyle, behavior. This is the main reason to initiate the maternity center improvement program. The main aim of this program is to provide quality services in mountain and hilly region to uplift the health status of maternal and neonatal health. The

program focuses on providing well-equipped instruments, delivery beds and other needed services, improve MCH clinics, establish neonate care corner in maternity centers, train human resources to provide quality services as well. All these programs are functioned and conducted on twenty-two maternity centers of mountain and hilly region districts of Bagmati province elected areas.

Adolescent Sexual and Reproductive Health Improvement Program

Nepal's Constitution have included reproductive rights as the fundamental rights of every individuals so as to ensure that they can acquire quality services provided by the Nepal government. Prevalence of maternal and child mortality rate has not decreased as satisfied. Out of total population of Nepal, twenty-two percentage of population is covered by adolescent age group. 17% of adolescent girls of age 15-19 years are being pregnant which may lead to health complications and death as well. Adolescents get health education regarding reproductive rights in school as it is included in school course. However, school dropout adolescent children may not be aware about reproductive health. So focusing on such age groups this Adolescent Sexual and Reproductive Health Improvement Program has initiated. This program has to be conducted with collaboration with School Health Nurse Program. The main focus of this program is to improve the adolescent sexual and reproductive health of adolescent children so that maternal and child health status can be improved. The program is implemented in seventy-four (74) marginalized rural municipalities' higher secondary school of Bagmati province. This initiative focuses on adolescent students of grade 6 to 12 along with their family members. The program includes:

1. Capacity building and development among students, teachers, health teachers
2. Creating conducive environment in school
3. Methods and media like LCD, laptop for adolescents

Maternal and Child Nutrition Promotion Program

Nutrition is the main aspect for healthy living among all age groups. Every year the cases of maternal mortality, child mortality, under five malnutrition is high in number. Children are obese and underweight too. The main reason

सि.नं	जिल्लाको नाम	स्थानीय तहको नाम	कैफियत
१.	धादिङ्ग	गजुरी गाउँपालिका, रुबीभ्याली गाउँपालिका, बेनीघाट रोराङ्ग गाउँपालिका	
२.	नुवाकोट	किस्पाङ्ग गाँउपालिका, दुप्चेश्वर गाँउपालिका, मेगाङ्ग गाँउपालिका	
३.	रसुवा	नौकुण्ड गाँउपालिका	
४.	सिन्धुपाल्चोक	पाँचपोखरी थाङ्गपाल गाँउपालिका, हेलम्बु गाँउपालिका, भोटेकोसी गाँउपालिका, लिसंखु पाखर गाँउपालिका	
५.	दोलखा	कालिन्चोक गाउँपालिका, बिगु गाँउपालिका, शैलुङ गाँउपालिका	
६.	काभ्रेपलाञ्चोक	महाभारत गाँउपालिका, खानीखोला गाँउपालिका, तेमाल गाँउपालिका, रोशी गाँउपालिका	
७.	रामेछाप	उमाकुण्ड गाँउपालिका, सुनापती गाँउपालिका, लिखु तामाकोशी गाउँपालिका	
८.	मकवानपुर	कैलाश गाँउपालिका, राक्सीराङ्ग गाँउपालिका, बाग्मती गाँउपालिका	
९.	चितवन	ईच्छाकामना गाँउपालिका, रासी नगरपालिका	
१०.	सिन्धुली	मरिण गाउँपालिका, हरिहरपुरगढी गाउँपालिका, घ्याङलेख गाउँपालिका	
११.	ललितपुर	बागमती गाउँपालिका	
१२.	काठमाण्डौ	शङ्खरापुर नगरपालिका	
१३.	भक्तपुर	चाँगुनारायण नगरपालिका	

behind child health deterioration is due to uneasy health facility access among marginalized groups of family who cannot provide proper health sanitation and personal hygiene to their children, clean drinking water facility that leads to malnutrition and brain underdevelopment. This nutrition promotion program aims to minimize women workload in mountain and hilly region using new initiative technique so that it helps to improve their children nutritional status. This program is implemented in thirty-two local levels of Bagmati province. They are:

Urban Health Program

Constitution of Nepal 2072 has defined health service as the basic fundamental right of every citizen of the country. Nepal is facing three different types of health consequences like communicable disease, non-communicable disease and casualties due to natural disasters like road accidents, violence, injuries which need to be addressed. In Nepal, STEPS survey was done. It says that 66% of death is due to non-communicable disease. Among which 39 lakh death is due to respiratory illness and 16 lakh death is due to diabetes. 72.57% population of Bagmati province stays in urban areas where as 27.43% of population in rural setting. Due to junk food consumption, air pollution, urban lifestyle risk of non-communicable disease is increasing rapidly in today's context. Out of total death in Nepal, 9% death cases is due to different types of cancer. Thus, to decrease the prevalence of non-communicable disease the program and to promote awareness campaign on risk of non-communicable diseases so as to promote health status of urban citizen.

CHAPTER 8. SUPPORTING PROGRAMS

8.1 Health Training Centre, Bagamati Province

Introduction

Health Training Center, Bagamati Province is the major administrative and technical unit of health training in Bagamati province. It oversees all health training activities in the province. It was established in 2019 AD to coordinate and manage all health-related training through one door under MoH in Bagamati Province. This center caters the training needs of different health workforce of Bagamati Province working in health directorate, centers, Provincial hospitals and local level health institutions. This training center focus on training and skill development of health workforce and aims to meet the targets envisioned in National Health Policy 2019 and Sustainable Development Goals (2030) AD. It plans and conducts health related training activities for provincial and local level health workers. Similarly, it coordinates with the provincial and local health related N/IGOS for quality and uniformity of health-related training in the province.

In the establishment year, FY 2075/76 Training Center conducted only one technical training as approved. The training was Primary trauma care training for health worker. Health Training Center was established in Kathmandu as Province Government decision. The office of Health Training Center, Bagamati Province is located at NewBaneshor, Kathmandu (Near Pathsala Nepal).

Vision

To develop skilled, motivated and responsible health human resources in province.

Goal

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

Objectives

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

Functions

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

Strategies

- Assessing, standardizing and accrediting training activities and training sites at province and local level
- Standardizing training packages for health workers for province and local level
- Strengthening institutional capacity of clinical training sites of province and local level
- Integrating and institutionalizing health training activities at province and local level
- Strengthening Training Information Management System (TIMS) for documentation of training
- Establishing and developing trainer's pool at provincial level
- Conducting health trainings as per provincial and local level requirements
- Coordinating and collaborating with partners and local level for health training planing and conduction

Major Activities

- Assisting in formulating health related training policies, strategies, plans, programs, guidelines, procedures, standards and implementing them
- Coordinating and collaborating with the National Health Training Center regarding health training programs
- Health training instructor certification and training site development, consolidation and licensing
- Conducting/coordinating health related training at the provincial level
- Monitoring, follow-up and evaluation of health related training
- Health training trainers, certification of trainees and site strengthening
- Accreditation of Training Site

Table: 8.1.1-Human Resources Status (sanctioned Vs fulfilled)

S.N.	Post	Sanction	Fulfilled	Vacant
1	Director	1	0	1
2	Senior Public Health Administrator	1	1	0
3	Health Education Administrator	1	1	0
4	Senior Health Education Officer	2	1	1
5	Senior Public Health Officer	2	2	0
6	Senior Community Nursing Officer	1	(Contract based-1)	1
7	Section officer	1	(Education leave)	1
8	Account Officer	1	1	0
9	Driver	3	3	0
	Total	13	9	4

Table:8.1.2- List of clinical training sites in Bagmati Province

S.N.	Training Sites	Type of training
1.	Bir Hospital, Kathmandu	AAC
2.	Paropakar Maternity and Womens Hospital, Kathmandu	ASBA, SBA, Implant, IUCD, PPIUCD, ASRH, GBV, RUSG, CNBC (SNCU), VIA/CRYO, STI, SAS (CAC, MA, 2nd Trimester Abortion Care), Minilap
3.	CFWC, Chetrapati, Kathmandu	Implant, IUCD, Minilap, NSV, CoFP Counseling
4.	FPAN, Pulchowk, Lalitpur	Implant, IUCD, NSV, CoFP, Counseling, CAC
5.	MSS, Satdobato	Implant, IUCD, Minilap, NSV,COFP Counselling, MA
6.	FPAN, Chitwan	Implant, IUCD, COFP Counselling NSV
7.	MSS, Narayanghat, Chitwan	Implant, IUCD, COFP Counseling MA
8.	Bharatpur Hospital, Chitwan	ASBA, SBA, MLP, MA, OTTM, GBV, 2nd Trimester Abortion Care, VIA
9.	Kritipur Hospital, Kathmandu	SBA, VIA
10.	Model Hospital, Kathmandu	VIA, 2nd Trimester, CAC
11.	Kathmandu Medical College, Sinamangal, Kathmandu	2nd Trimester Abortion Care, CAC
12.	Army Hospital, Chauni, Kathmandu	IP
13.	TUTH, Maharajgunj, Kathmandu	SBA, ICU, OTTM, Pediatric Nursing Care, Medico legal
14.	Kanti Children Hospital, Kathmandu	Pediatric Nursing Care
15.	Nepal Cancer Care Foundation, Mahalaxmisthan, Lalitpur	VIA/CRYO

Probable Training Sites
• Hetauda Hospital (SBA, MLP) • Trishuli hospital (SBA, MLP)

District-wise details of health workers participating in various trainings (FY 2079/80)

S.N	Training Name	Total	chitwan	Sindhupalchowk	Kavrepalanchowk	Ramechhap	Dhading	Nuwakot	Sindhuli	Rasuwa	Kathmandu	lalitpur	bhaktapur	Makawanpur	Dolakha
1	Mental Health 2b	39	3	2	2	2	2	3	2	3	4	8	3	3	2
2	Mental Health Module 5	39	5	5	4	4	5	5	5	0	0	0	0	5	1
3	Panchakarma	24	1	2	2	2	1	2	2	1	3	1	2	4	1
4	Postmortem Helper	5	0	0	0	1	1	1	1	0	0	0	0	1	0
5	Psychosocial Counceling for SHN	91	4	13	18	0	17	17	0	3	0	5	0	14	0
6	ENT (ToT)	60	5	5	5	3	5	4	4	4	6	7	3	4	5
7	FCHV (ToT)	200	11	16	27	13	15	20	15	6	23	20	11	12	11
8	IPC(ToT)	16	1	1	1	1	1	2	1	0	4	1	1	2	0
9	Snake Bite	26	4	0	2	3	2	1	5	0	5	2	0	2	0
10	Psychosocial Counceling	21	1	1	1	1	1	2	1	1	3	4	2	2	1
11	IUCD	34	0	1	4	1	5	2	0	2	10	4	5	0	0
12	Medical Aboration	129	7	5	11	9	10	14	6	5	39	8	6	6	3
13	CB-IMNCI	20	2	2	2	2	2	0	2	0	0	3	1	2	3
14	SBA Mentor Development	10	1	1	0	1	1	1	1	1	0	1	0	1	1
15	Human Rights and Medical Ethics Related to HIV	47	3	3	4	3	4	3	1	2	9	7	2	5	1
16	Primary Eye Care	28	2	2	5	2	4	4	2	2	1	1	0	3	0
17	Social Audit	33	2	2	3	3	3	2	2	0	7	5	2	2	0
18	Medicolegal	20	2	3	1	2	1	2	5	0	0	0	0	3	1
19	Disability	50	4	4	16	3	3	0	4	1	4	3	3	5	0
20	Mental Health	37	3	4	4	4	4	2	4	2	0	2	0	5	3
21	Infection Prevention Control	30	2	2	2	3	2	2	2	0	8	3	0	2	2
22	CNSI (TOT)	159	15	27	0	17	28	1	20	0	4	4	0	24	19
23	COFP & Counceling	13	0	0	0	0	0	0	0	0	13	0	0	0	0
24	VIA	99	6	6	21	9	17	3	6	1	6	3	3	10	8
25	NSV	7	1	0	1	0	1	0	0	0	0	2	0	1	1
26	Zoonotic	17	1	0	1	1	0	1	0	1	6	3	3	0	0
27	OTTM	20	4	1	3	1	2	1	3	1	2	0	1	1	0
28	Trauma Care	96	8	11	11	10	11	8	9	6	2	4	0	9	7
29	Critical Care	16	0	0	1	2	2	1	1	0	2	0	5	2	0
30	Implant	371	14	23	91	26	22	16	10	9	44	14	34	9	59
31	SBA	174	18	12	25	18	23	14	13	9	8	7	1	14	12
32	MLP	20	4	1	1	1	4	1	1	1	0	0	1	4	1
33	Rousg	135	7	19	15	13	21	6	14	6	8	7	3	12	4
34	BLS/PTC	65	6	3	14	5	5	4	4	3	5	3	2	6	5
35	CTS	32	5	0	7	0	0	3	2	0	9	1	3	2	0
36	LMIS	39	4	3	4	4	2	4	4	2	3	3	2	2	2
37	ASRH	112	7	12	11	9	13	13	7	7	7	3	0	13	10
38	SAS	9	1	1	1	1	0	1	0	0	2	1	0	1	0
39	School Health Nurse (Induction)	43	7	0	9	0	12	9	0	0	0	4	2	0	0
40	SNCU Level II	10	1	1	1	0	0	0	1	1	1	1	0	1	2
41	विद्यालय शिक्षक	69	1	9	5	5	11	8	7	5		3		8	7

Issues/Challenges, action to be taken and responsibilities

Issues/Challenges	Action to be taken	Responsibilities
Lack of training operational guidelines	Approval of training management guidelines and expenditure standards	MOH
Low presence of partner organizations	Management of partner organizations	MOH/HTC
Verification of training programs conducted from outside the training center like district/ local level	Provision to extend the use of TIMS to districts Approval of training guidelines and expenditure standards	MOH
Lack of Physical infrastructure	Physical infrastructure should be managed	MOH/HTC
Lack of manpower	Fulfilment of sanctioned post	MOH

8.2 Provincial Public Health Laboratory

Introduction

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

Scope of work/job description

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

A. Non-Communicable Diseases Laboratory

B. Infectious Disease Laboratory

C. Quality Control and Training

D. Administration and Finance

Major activities conducted in (FY 2079/80)

- Setting up and running a laboratory with fully automatic system in the lab for diagnosis
- To manage the reporting system of the laboratory, the creation of cloud-based software and the start of services, as well as the creation of the web-site of the office.
- Establishment and operation of general laboratory for routine tests.
- Emergency reagents and chemicals have been supplied to health offices, district hospitals and municipalities in all 13 districts.
- Monitoring and inspection of laboratories in government and private health institutions.
- Providing all necessary materials for TB testing in various microscopy centers in 13 districts
- Quality assurance for quality control of TB in different microscopy centers
- Mobilization of technical and human resources in the diagnosis of various epidemic diseases
- Worked on influenza surveillance
- Technical supervision of laboratory network within the province
- Technical supervision at Gene Xpert sites
- Monitoring, registration and maintenance of "C" category laboratories within the province
- Participated in various health related seminars of this province
- Performed role in HIV QA/QC by sending the DTS sample to HIV testing site related to HIV QA/QC
- Establishment of service unit and laboratory operation in Chitwan

Human Resources Status (Sanctioned vs Fulfilled)

Table 8.2.1: Human resource status

SN	Designation	Level	Sanctioned	Fulfilled	vacant
1	Director	11	1	1	0
2	Consultant pathologist	9/10	1	0	1
3	Consultant Microbiol ogist	9/10	1	0	1
4	Deputy/Joint Chief Med Lab Technologist	9/10	1	0	1
5.	Medical Lab Technologist	7/8	2	2	0
6	Lab Technician	5/6/7	2	2	0
7	Lab Assistant	4/5/6	1	1	0
8	Accountant	5/6	1	1	0
9	Nayeb Subba	5/6	1	1	0
10	Driver		1	1	0
11	Office Assistant		2	2	0
Total			14	11	3

Issues/Challenges, action to be taken and responsibilities

Issues/Challenges	Action to be taken	Responsibilities
Lack of own building	Political and administrative coordination for land acquisition	MOH
Inadequate human resources (vital posts i.e., Consultant Microbiologist, Consultant Pathologist, Deputy Chief MLT)	Recruitment and advertisement of employees	PSC
Limited budget for the procurement of reagents, kits and chemicals, difficulty in daily lab operation	Additional budget arrangements for purchase of reagents, kits and chemicals	MOH/PHLMC
High demand for microscopes and other laboratory equipment from local and provincial laboratories	Procurement of laboratory instruments and equipment through Health Supply Centre	MOH/PHLMC
Need to add post of Biomedical Engineer for routine maintenance of laboratory equipment	Through the Provincial Temporary Recruitment Agreement	MOH

8.3 Health Logistic Management Center

Introduction

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

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

Objectives

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

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

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

Table 8.3.1: Human Resources Status (Sanctioned Vs Fulfilled)

SN	Post	Sanctioned	Fulfilled	Vacant	Remarks
1	Director	1	-	1	
2	Sr. Public Health administrator	1	1		
3	Account Officer	1	1		
4	Section Officer	1	-	1	
5	Bio Medical Engineer	1	1		Contract
6	Pharmacy Officer	1	1		Contract
7	Pharmacy Assistant	1	1		
8	Cold Chain Assistant	2	2		
9	Refrigerator Technician	1	1		
10	Computer Operator	1	1		Contract
11	Heavy Vehicle Driver	1	1		Contract
12	Light Vehicle Driver	1	1		Contract
13	Office Assistant	2	2		1 in Contract
14	Loader Packer	2	2		Contract
	Fixed Term Contract				
15	Bio Medical Engineer	1	1		Contract
16	Electric Technician	1	1		Contract

Activities conducted in (FY 2079/80)

- Purchase of tools and equipment for operation of Ayurveda Medicine Processing Center, Ratnanagar, Chitwan Purchase of tools and equipment for Ayurveda Centers
- Procurement of refrigerators and cold chain materials for safe storage of vaccines and vaccine materials
- Procurement of equipment for hospital solid liquid waste management
- Procurement of medicines for free services for health institutions within the province
- Conducting regular preventive and corrective maintenance programs of hospital equipment and regional biomedical workshops.
- Free Repacking and Shipping of Medicines and Health Supplies
- Procurement of anti-hemophilic factor for hemophilia patients within the state
- Purchase of test kits and reagents for expansion of PCR services and epidemic management
- Conducting regular preventive and corrective maintenance programs of hospital equipment and regional biomedical workshops
- Free Repacking and Shipping of Medicines and Health Supplies
- Procurement of anti-hemophilic factor for hemophilia patients within the state
- Purchase of test kits and reagents for expansion of PCR services and epidemic management
- Regular supply of medicine, equipment and vaccine materials
- B Grade Ambulance handed over to eight hospitals
- Hetauda Hospital is in the final stage of installation of MRI Machine

Issues, action to be taken and responsibilities

Issues/challenges	Action to be taken	Responsibilities
Lack of office and store buildings	Planning for the expansion of office and store building.	MoH/HLMC
Equipment inventory is not organized in hospitals/health institutions	Managing and updating Software	MoH/HLMC
Regular maintenance of equipment in health institutions is not possible.	The MOU with NSI to conduct the biomedical workshop has been completed and is under management. Equipment in health institutions by training and increasing the capacity of the employees working in the biomedical workshop	MoH/HLMC
Irregularity in ELMIS reporting	Training and capacity building of staff working in the biomedical workshop and also regular maintenance of the equipment should be carried out in the health institution.	MoH/HLMC
ELMIS is not operational in Ayurveda health institutions	Regular reporting should be done, technical assistance should be provided to the supply center to create a distribution system based on ELMIS.	MoH/HLMC/Hospital
Free medicines and equipment for the local level could not be provided as per the demand	Program and budget management	MoH/HLMC

8.4. Health Finance Management

To ensure UHC and the accomplishment of the SDGs, health financing is a crucial component and strategic element. Research indicates that nations should aim to allocate 5% of their GDP, and low- and middle-income nations should allocate USD 86 per person to facilitating access to primary care services.

Although the return on investment in health care is several times greater than the initial outlay, political will and commitment have been found to be essential for allocating the necessary funding for health finance. Federal funding for health comes from a variety of sources, including internal borrowing, international aid, and domestic earnings. Partners in health development provide direct help via designated funds or indirect support through non-governmental organizations.

Health financial management objectives

- To support the planning section in preparing the annual program and budget
- To manage a book of accounts, and collect financial progress reports from the underlying institutions
- To support institutions to carry out program activities
- To monitor and provide technical support to underlying institutions
- To assure financial accountability, transparency, and Implementation and regulation of policy, and rules related to public expenditures
- To prepare and submit financial reports
- To provide financial consultation to the underlying institutions

Achievements in the fiscal year 2079/80

Financial Achievement of Health directorate based on different types of grants

Table 8.4.1: Financial Achievement of Health Directorate based on different types of grants FY 2079/80 (%)

S.N	Program	Types of Grants	Financial Achievement (%)
1	Provincial Program	Provincial Grant	69.54
2	Tuberculosis Control Program	Federal Conditional Grant	76.92
3	Health Management Program	Federal Conditional Grant	88.95
4	Family Welfare Program	Federal Conditional Grant	62.58
5	Disability Prevention and Leprosy Control Program	Federal Conditional Grant	41.17
6	Epidemic Disease Control Program	Federal Conditional Grant	28.01
7	Nursing and Social Security Services Program	Federal Conditional Grant	62.75
8	Remedial Services Program	Federal Conditional Grant	83.36
9	Ayurveda Service Program	Federal Conditional Grant	60.08
10	National Health Education, Information and Communication Center	Federal Conditional Grant	67.18
11	AIDS and Sexually Transmitted Disease Control	Federal Conditional Grant	50.21
	Total		67.76

The above table illustrates the overall financial Achievement of Health Directorate based on different types of grants and activities of FY 2079/80. According to this table, the total financial achievement of health directorate is 67.76%. Among the different programs, Health Management Program has the highest financial achievement with 88.95% under Federal Conditional Grants while Epidemic Disease Control Program shows the lowest financial achievement at 28.01% under Federal Conditional Grants. There is notable variability in achievements among different programs, highlighting areas where improvements in financial management or resource allocation may be needed.

District wise total financial Achievement of Health office, Hospital and Ayurveda Health Centre

Table 8.4.2.: District wise total financial Achievement of Health office, Hospital and Ayurveda Health Centre FY 2079/80 (%)

District	Health Office	Hospital	Ayurveda Health Centre
Makwanpur	79	86.19	91.78
Nuwakot	60.67	87.32	77.37
Bhaktapur	70	85.54	87.95
Chitwan	62.3	81.11	94.76
Dhading	70.52	77.26	85.10
Dolkha	57.72	66.87	79.80
Kavrepalchok	63.35	63	97
Ramechhap	82.95	74.3	86.10
Sindhuli	65.96	99.6	91
Sindhupalanchok	61	78.78	84
Kathmandu	45.51	61.13	92.17
Lalitpur	81.7	62	98.84
Rasuwa	63.20	44.38	67.38

The above table illustrates the overall financial Achievement of Health office, Hospital and Ayurveda Health Centre of FY 2079/80. This table shows that Ayurveda Health Center has achieved the highest financial success when compared to hospitals and health offices. This Table also suggests that Ayurveda Health Centers have effectively managed and utilized their allocated financial resources, leading to the highest financial success compared to hospitals and health offices in FY 2079/80

District wise financial achievement of Health office based on different types of grants (%)

Table 8.4.3: District wise financial achievement of Health office based on different types of grants FY 2079/80 (%)

	Federal Conditional Grants			Provincial Grants			Special Grants		
Health Office	Allocated	Expenditure	Expenditure %	Allocated	Expenditure	Expenditure %	Allocated	Expenditure	Expenditure %
Makwanpur	28894000	16586994	93	34597000	26250841	75.88	22270000	17667455	79
Sindhupalchowk	27529000	13294000	48	27024000	18901000	69	17255000	11525000	67
Kathmandu	59666000	20406000	34.2	42590000	24798737.85	58.23	8795000	5337033	54.67
Rasuwa	16314000		47.7	21046000	14879600	70	11204000		73.4
Lalitpur	32706000	25497083.25	77.95	32980000	28084515.41	85.2	18060000	14870665	82.3
Nuwakot	38820000	190046218	49.06	34551000	22501000	65.12	16725000	11349908	67.86
Bhaktapur	23225000	15824534	68	25280000	21208592	84	8125000	2927378	37

Health Office	Federal Conditional Grants			Provincial Grants			Special Grants		
	Allocated	Expenditure	Expenditure %	Allocated	Expenditure	Expenditure %	Allocated	Expenditure	Expenditure %
Chitawan	30809000	15440000	50.1	32724488	23686289	72.38	17430000	11278121	64.71
Dhading	27904000	17498043	62.71	35731000	25625145	71.72	17745000	13684160	77.12
Dolakha	24892000	12923348.67	51.92	25711100	17970836.87	69.8	15740000	7404844.96	44
Kavrepalanchowk	40330000	26572239.5	65.88	36093000	26100972.2	72	16140000	5765256	35.72
Ramechhap	24909000	18444400	74.04	25891000	20488578.20	79.13	15020000	14371000	95.68
Sindhuli	26264000	18587768	70.77	27920000	19234624	68.89	15590000	46026110	52.62

The above table shows the financial Achievement of health office based on different types of grants. According to this table, Makwanpur health office stands out across all types of grants, demonstrating strong financial achievement while Lalitpur health office also shows significant achievement, particularly in Federal and Provincial Conditional Grants.

District wise financial achievement of Hospital based on different types of grants (%)

Table 8.4.4: District wise financial achievement of Hospital based on different types of grants FY 2079/80 (%)

Health Office	Federal Conditional Grants			Provincial Grants		
	Allocated	Expenditure	Expenditure %	Allocated	Expenditure	Expenditure %
Makwanpur	70667361	54767241	77.5	80850000	64714001	82.1
Sindhupalchowk	25081000	14818846.5	59.0	71816000	61071014	85.04
Kathmandu	6782000	2234872	32.95	63636000	3829105.13	73.8
Rasuwa	12249000	2594539.73	21.28	49604000	33473271.4	67.48
Lalitpur	6819000	1426640	21	7270000	4744476	65
Nuwakot	41000361	30324439	73.96	118132000	105801193.5	89.56
Bhaktapur	33916063	33916063	74.71	152097000	152097000	84.45
Chitawan	18159000	13830898	76.16	94025000	54880345	58.36
Dhading	30344000	17457000	57.53	106514000	79101110	74.26
Dolakha	13487000	10666026	79.08	87921000	48065362.20	54.66
Kavrepalanchowk	2476000	885518	36	71151000	48081820	68
Ramechhap	18847000	8294924	56	67676000	54844846	82
Sindhuli	19945041	19945041	100	74276064.72	74276064.72	98.84

The above table shows the financial Achievement of hospitals based on different types of grants. According to this table, Sindhuli Hospital achieved highest financial success in both Federal Conditional Grants and Provincial Grants while Bajrabarahi Chapagaun Hospital

achieved lowest financial success in Federal conditional grant and Bakulahar Ratnagar Hospital achieved lowest fianancial success in Provincial grant. This shows the disparities in financial achievements among hospitals, reflecting varying levels of grant utilization, management effectiveness, and possibly different priorities or challenges faced by each hospital.

District wise financial achievement of Ayurveda Health Center based on different types of grants (%)

Table 8.4.5: District wise financial achievement of Ayurveda Health Center based on different types of grants FY 2079/80 (%)

Health Office	Federal Conditional Grants			Provincial Grants		
	Allocated	Expenditure	Expenditure %	Allocated	Expenditure	Expenditure %
Makwanpur	6725000	6651793.71	98.91	17982000	16026661.7	89.12
Sindhupalchowk	6588000	5360398	94.53	17053000	12296096	86.48
Kathmandu	6525000	6200698	95.03	16822000	14923826	90.36
Rasuwa	4885000	3463700	70.90	15780000	9950145.70	63.86
Lalitpur	6439000	6151417.4	87.8	15160000	14728572.6	98.05
Nuwakot	6105000	5479165	89.75	16293000	10763279.60	65
Bhaktapur	5484000	5483000	99.9	16224000	13610000	83.88
Chitawan	6485000	6429887	99.15	15493000	13737573.98	88.66
Dhading	6725000	6431028	95.62	15130000	12182709	89.76
Dolakha	24389000	19454592	79	23089000	18682644	80
Kavrepalanchowk	6105000	6006137	98	17906000	17102470	96
Ramechhap	5833000	5687568	98.71	15754000	12332356	87.57
Sindhuli	5905000	5760710	95	18157000	15473449.2	87

The above table shows the financial Achievement of Ayurveda Health Center based on different types of grants. According to this table, Bhaktapur Ayurveda Health Center achieved highest financial success in Federal Conditional Grants while Rasuwa Ayurveda Health Center achieved lowest financial success in Federal conditional grant .While looking at the Provincial grant Lalitpur Ayurveda Health Center achieved highest fianancial success and Nuwakot Ayurveda Health Center achieved Lowest Financial success.

Challenges of Financial Management

- Allocation of health budget to the provinces and level programs and availability of human resources is not rationale.
- Mismatch in the allocation of health budget to the LGs in the certain levels.
- Lack of proper planning of financial resources.
- Lack of timely and accurate financial reporting

CHAPTER 9. DEVELOPMENT PARTNERS

HEALTH DEVELOPMENT PARTNERS WORKING AT BAGMATI PROVINCE

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
World Health Organization (WHO)	• Health systems strengthening • Immunization, COVID Vaccination, Disease control and surveillance • NCD and Mental Health	Province and 13 districts	• Supported to draft Health in All Policy guideline. High-level advocacy workshops including the chief minister and other ministers, chief secretary, secretaries from different ministries and relevant stakeholders. The guideline has been finalized and under proceed for approval. • A draft of provincial health policy developed • Supported to draft Airlifting Guideline for the high-risk pregnant and post-partum mothers. The guideline has been approved and published in the provincial gazette. • Provincial EDPs meeting regularized, SRHR technical committee meeting regularized, district level public health coordination committee meeting supported. • Provincial Annual Health Report of the FY 2078/79 published. District and provincial annual health review supported. • Outbreak responses: rumor verification, risk communication, daily report preparation. Monitoring, surveillance, and supportive supervision of labs, isolation centers, and vaccination centers. • Facilitation of training sessions including onsite & virtual • Supported in the development of the checklists for monitoring of the hospitals	Hari Bhusal Provincial Health Officer bhusalh@who.int 9841497586 Dr Sasmrita Bastola SMO bastolas@who.int 9818981832 Dr Sabita Poudel FMO spoudel@who.int 9851118788 Dr. Anup Bikram B.C. NCD and Mental Health – Field Officer 9848026000 bca@who.int

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Daily provincial situation report published. Hospital resource mapping, supported in POE updates, reporting. Handover of the oxygen concentrators and other equipment to hub hospitals and PHLMC. • Maintained Polio free status since 2010 and mother/ neonatal tetanus elimination status since 2005 • Achieved control certification of Rubella in 2018 and Hepatitis B in 2019 through immunization among children • technical support in implementation PEN program and mhGAP in all 13 • FCHV's Hypertension Prevention Program to be piloted in Kavrepalanchowk • NORAD project district i.e., Kavrepalanchowk • Special Initiative of Mental Health districts i.e., Rasuwa and Sindhupalchowk • School Mental Health Nurse Program in over 120 schools of Bagmati Province by CWIN • Supported to province in SRHR need assessment, to formulate Provincial SRHR TWC, Finalization of ToR of SRHR TWC, listing of safe abortion sites and service providers, supported on MPDSR program expansion. • Facilitation of training sessions including onsite & virtual • Supported in the development of the checklists for monitoring of the hospitals • Daily provincial situation report published. Hospital resource mapping, supported in POE updates, reporting. Handover of the oxygen concentrators and other equipment to hub hospitals and PHLMC.	

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Maintained Polio free status since 2010 and mother/ neonatal tetanus elimination status since 2005 • Achieved control certification of Rubella in 2018 and Hepatitis B in 2019 through immunization among children • technical support in implementation PEN program and mhGAP in all 13 • FCHV's Hypertension Prevention Program to be piloted in Kavrepalanchowk • NORAD project district i.e., Kavrepalanchowk • Special Initiative of Mental Health districts i.e., Rasuwa and Sindhupalchowk • School Mental Health Nurse Program in over 120 schools of Bagmati Province by CWIN • Supported to province in SRHR need assessment, to formulate Provincial SRHR TWC, Finalization of ToR of SRHR TWC, listing of safe abortion sites and service providers, supported on MPDSR program expansion.	

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
Save The Children	• HIV, TB and Malaria	**HIV Program (10 districts)** Kathmandu, Lalitpur, Bhaktapur, Makwanpur, Chitwan, Dhading, Nuwakot, Sindhuli, Kavre and Sindhupalchok TB Program (7 districts) Kathmandu, Lalitpur, Bhaktapur, Makwanpur, Chitwan, Dhading and Kavre, **Malaria Program** All districts of Bagmati Province	**Key Activities of HIV Program:** • Behavior Change Communication (BCC) and community led testing (CLT) in key population PWID, Migrant, index of PHLIV • Distribution of Needle, Syringes, alcohol swab, Condom and IEC materials • Opioid Substitution Therapy (Methadone & Buprenorphine) • HIV Test and linkages to treatment, care and support • Residential support in Community Care Centre (CCC) and Home visit to the PLHIV clients by CHBC team • Cash Support for Income Generation *(priority to widow and ultra poor)* • Cash Transfer Program of NRs. 1,000/- per month to CABA • Technical support in implementing red book activities of HIV program • Support in data quality of DHIS 2 **Key Activities of TB Program:** • Sputum Courier Services and Contract Tracing of Index TB Cases • DR TB Management and Childhood TB Management • FAST Service in major Hospital • Active Case Finding (ACF) in vulnerable population • Public Private Mix (PPM) in private hospitals, pharmacy and private clinic • Technical support in implementing red book activities of TB program • Support in data quality of DHIS 2	Mr. Rajesh Sah Senior Program Coordinator rajesh.sah@savethechildren.org 9845034837

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			<u>Activities for Malaria Program:</u> • Case based Investigation (CBI) of all reported malaria cases • Technical support for implementation of red book activities and support data quality of DHIS 2 • Malaria Reorientation program in Kavre, Sindhuli, Dhading and Chitwan **<u>Support under C19RM</u>** • Strengthening Dispatch Center • Continuation of Human Resource • Responding TB, HIV and Malaria in COVID 19 • HR support - 3 HA, 2 Lab Tech, 1 eLMIS coordinator • Initiation of Warehouse construction in Hetauda for HLMC	
FHI 360, EpiC Nepal- • **HIV** • **Procurement and Supply Chain Management (PSM)**	• **Thematic Area:** HIV/ AIDS **Beneficiary groups:** • Female sex workers (FSWs) • Men who have sex with men (MSM), male sex workers (MSWs) and transgender people	Seven districts • Kathmandu, • Lalitpur, • Bhaktapur, • Makwanpur, • Chitwan, • Dhading and • Kavrepalanchok	• 4,958 individuals reached for HIV prevention, 1,650 individuals received PrEP services, 1,724 Number of HIV self-test kits distributed, 630 individuals diagnosed and treated for Sexually Transmitted Infections • 3,015 individuals were tested for HIV and received their results, 172 of people tested HIV-positive, 385 PLHIV were newly enrolled on ART, 2,277 PLHIV received a suppressed VL result (<1000 copies/ ml) within the past 12 month, 4,522 Number of HIV-positive who are receiving care and support services outside of the health facility, 421,693 condoms distributed, 157,996 lubricants distributed, 559 individuals were participated in stigma and discrimination reduction training	**Ajay Katuwal | Provincial Coordinator |** School Road, Hetauda-4 | Makwanpur, Nepal 977.57.526389 |M: 9842101165 | akatuwal@ fhi.org | www.fhi360.org | FHI 360 Facebook

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
	• Clients of FSWs and other high-risk individuals People living with HIV (PLHIV) and their families • Health System Strengthening and Management Information System		**<u>Innovative Intervention</u>** • Online outreach and online to offline linkage • Online service booking using www.merosathi.net • HIV self-testing for screening • PrEP services • ARV dispensing from 5 dispensing sites for MSM, MSWs and TG people. **<u>Activities regarding HSS and MIS</u>** • Technical support to PHLMC work through human resource (HR). • Supportive supervision visit- quarterly five sites. • Follow up supportive supervision visit- quarterly five sites. • Material handling equipment support to province, districts and LLGs • Technical assistance for provincial level SCMWG meeting. • Technical assistance for quarterly meetings at the provincial level with provincial leads and district representatives on eLMIS data for decision-making on supply chain management. • Technical assistance for forecasting and supply planning, quarterly pipeline monitoring, inventory management support at provincial, district and LLGs. • Orientation on expired medicine and wastage • management and TA for the disposal. • eLMIS site expansion/refresher training • Follow up and TA to non-operational eLMIS sites, LMIS timely reporting. • Regular support to users through eLMIS help desk.	**Madan Kumar Prajapati-** **Provincial Supply Chain Coordinator** Health Logistic Manage-ment Center, Hetauda, Makwanpur, Nepal M: 9857024571 mkohar@fhi.org | www.fhi360.org | FHI 360 Facebook

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
One Heart Worldwide	Maternal and Newborn Health (MNH)	Four districts • Dolakha • Ramechhap • Kavrepalanchowk • Nuwakot	• Construction of birthing centers: 3 BCs, Essential equipment supports to birthing centers: 8 BCs, SBA training: 33 nursing staff, Rural Ultrasonography training: 2 nursing staff, Implant training: 11 health workers, IUCD training: 4 health workers • SBA onsite coaching/mentoring and follow ups: 39 events • Rural Ultrasound Machine: 2 machines • BPP MISO refreshers: 5 events • HFOMC training and follow ups: 110 events • Support implementation of Minimum Service Standard (MSS) and follow ups at health facilities: 135 events • Conduction of health mother's group meetings using self-applied tool for quality health (SATH): 33 events • Interaction program with pregnant, recently delivered women, caretakers, and family members to increase health-seeking behavior: 28 events • School health program incl uding follow ups: 27 ents	**Ms. Babita Bindu** 9841515039 babita@oneheartworldwide.org
PSI/Nepal	Sexual and Reproductive Health	**5 districts** Kathmandu, Nuwakot, Dhading, Sindhupalchwok, Dolakha (26 municipalities in total)	• Supported training of 61 service providers (nursing staff) on Medical Abortion (41 public and 20 private) • Facilitated orientation on National Safe abortion guideline to authorities from 26 municipalities, including Mayor, vice-Mayor and Chief administration officer under leadership of health office. • Capacitated 26 municipalities to start registration of providers and health facilities for provision of safe abortion services • Facilitated registration of trained service providers and health facilities	**Mona Giri** **Program Manager** monagiri@psi.org.np 9841646387

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
FAIRMED	FAIRMED Maternal and newborn health Neglected Tropical diseases Health System strengthening Community Empowerment Inclusion: GESI, Disability, LNOB, Health emergencies preparedness and response	Sindhupalchowk • Melamchi, Indrawati, Chautara, Balefi, Sunkoshi, Barhabise Municipalities	• Support in Morbidity Management and Disability Prevention (MMDP) case verification of LF morbidity mapping • Hydrocele screening camp – 52 suspected screened with 38 successful hydrocele surgeries • Mother Group reactivation by using SATH tool in 30 Mother groups • 30 Awareness campaigns on dengue control • 750 Dengue kit support in District • Community awareness sessions on MNH and Social security program of government (Disability card, health insurance, Maternity Incentive, Chronic Major disease treatment support of Government etc) in 58 community groups • Renovation and maintenance of Health facilities, birthing center, Drinking water system and other infrastructure in 6 health fcilities • Establish Newborn corner in one health facility • Establish maternity waiting room in one Health Facility • Infrastructure supported in 2 PHC_ORCs • Equipment supported to strengthen basic services in 3 lab • Capacity building of health workers for screening, identification, treatment/referral related to NTDs – 4 batches (86 HWs) • Capacity building of FCHVs on NTDs – 10 Batchs (85 FCHVs) • Onsite coaching to 15 nursing staff of 5 Birthing centers • MNH Update to 11 health workers	**Shobha Ram Bhandari, Project Manager** shobharam.bhandari@fairmed.ch 9849663230

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Orientation to HFOMC members on health governance, accountability and quality improvement of 12 Health Facilities • Support health facilities in achieving MSS scores through through review and orientation at district level • DHIS training to 76 Health Workers • Support needy PWDs and NTD affected for medical rehabilitation for surgical correction, Assistive devices and Physiotherapy - 5 • Cost of travel for referred cases for further treatment in medical rehabilitation centers and hospitals - 2 • SHG formation and orientation on their role and responsibilities – 3 SHG with 43 members • Support to the disaster-affected families for their hygiene, sanitation and disease preventive measures (Fire affected) – 3 families	
AIDS HEALTHCARE FOUNDATION (AHF NEPAL)	Health-HIV& AIDS	Sukraraj Tropical and Infectious Disease Hospital, Bir Hospital-Kathmandu, Bharatpur Hospital- Chitwan, Hetauda Hospital-Makwanpur & Sparsha Nepal (Community ART clinic)- Lalitpur	• Supported to MoHP in scaling up and delivering quality HIV treatment and care services from ART clinics, • Strengthened coordination, networking and advocacy for quality ART services., HR supported at ART Centre • PLHIV Supported Program, CME, QI/TWG Meeting, Capacity Building, PE Mobilization • Supported for transportation of samples for viral load and commodities • Supported PLHIV, CLT and Index testing Program, VIA Test for Cervical Cancer Screening	Radheshyam.shrestha@ahf.org 9851007812, Krishna.sapkota@ahf.org 9855082254 Divya.joshi @ahf.org 9851015305

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Syphilis & STI Screening and Diag./Treatment • Minimized the death rate caused by HIV related causes • Free Health Insurance, Day celebration and advocacy events **1. Improve and scale up HIV prevention, testing and linkage services focusing Key Populations (KPs)** • **417,427:** Condom distribution (LOVE Condom), **7,426 Tests/118 Reactive:** HIV testing and Counselling and Reactive cases from CLT, **100%:** HIV Diagnosed clients Linked to ART service • **7 Events:** Special Days celebrated to promote prevention & utilization of services **2. Increase access to quality treatment and care services and improve service delivery from project supported ART sites** • **4,779:** Active PLHIV at ART clinics (Pre ART and On ART) • **4,759 (99.6%):** Active PLHIV On ART • **513:** Totally New Enrollment at ART Clinics • **87.3%:** ART initiation within 14 days among Totally New enrollment clients • **4,204:** PLHIV with Viral Load test result • **98.6%:** PLHIV Virally Suppressed among test result received • **89.7%:** Free Health Insurance covered • **0.8%:** Clients with confirmed TB diagnosis among total active PLHIV, Conducted CMT, CLT Training, CME, CES, QI-TWG meeting,	

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			3. Strengthen coordination, networking and advocacy for improved quality ART services. • 4 Conducted Stakeholder meetings, D/LPAC and CPAC Meetings • 1 Final Evaluation of Previous Project done through SWC • 3 Project Inception Meetings at Local and Provincial Level of Current projects • Shared the Monthly & trimester program progress report to concern government line agencies of province and local level. **HR Support** • Program Coordinator: 2, Counselor: 5, Staff Nurse: 1, Lab. Staff: 1, Data Capturer: 1, Peer Educator: 8 & Maintenance Worker: 2	
NSI Nepal	Minimum Service Standards	Bagmati Province	People in rural Nepal receiving quality health care service within their own communities , Hospital Strengthening program(covers about all primary and secondary level hospital) • Minimum Service standard(MSS) Workshops • Hospital Grant • Hospital Follow-up • Curative service Support • Key Human resources support • Essential Equipment • Training/CME • Research Provincial Biomedical Workshop Support	**Aaistha Shrestha** aiesta@nsi.edu. np9845200523 9843140589

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
Japan-Nepal Health and Tuberculosis Research Association (JANTRA)	Neglected Tropical diseases (NTD) Tuberculosis	Bhaktapur, Chitwan, Dhading, Kathmandu, Kavre, Lalitpur and Makwanpur	**Support Under Save the children/Global Fund** • Early TB case notification through sputum collection and transportation in the hard-to-reach population • TB screening of children, malnourished children, DR suspects, Contact tracing • Screening and Diagnosis of TB in major hospitals with FAST Strategy, Pay for performance for private doctors, TB case finding from a referral of pharmacy • Active case finding in risk and vulnerable populations including Prison	Ram Sharan Gopali 9841896531 Subidhnagar, Koteshwor, Kathmandu jantra@ntc.net.np 01-5104601
Japan-Anti Tuberculosis Association (JATA)			**JANTRA as an implementing partner** • Active TB case finding using the ultra- portable digital chest x-ray in marginalized, vulnerable population • Orientation on active case finding to all the staff members working in Urban Health Clinics, Mobilize local volunteers, Conduct active case detection by mobile team (Chest X-Ray and TB Lamp), Advocate NCDA members by providing TB information, Conduct TB awareness campaign, Advocate clinic management committee and elected members on National Tuberculosis Control Programme, orientation on patient charter and patient friendly care and support, strengthen urban health clinics, Develop/print IEC materials to increase TB awareness and minimize TB related stigma and discrimination • Develop SOP to maintain the quality of the project interventions and standards	

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
WaterAid	Hygiene Promotion	13 districts	**Hygiene Promotion through Routine Immunization** • Hygiene promotion and COVID preventive measures in routine immunization program • Technical support to Nepal Government family welfare division, Province Health Directorate and below level. • This initiative has been scaled up across the nation, hence covers all the districts of Bagmati Province • Capacity building health workers in hygiene promotion. • Onsite coaching on hygiene promotion to new health workers. • Support province, districts and below level training of hygiene promotion and routine immunization.	**Ms. Jonyta Baral** jonytabaral@gmail.com 9843586731
UNICEF Nepal	HMIS/ DHIS-2/ IMU Strengthening	Bagmati Province	• Support HD to increase reporting coverage from health facilities and hospitals. • Follow up data entry points for timely and complete data entry. • Support to provincial health directorate in HMIS training as required. • Support in data analysis, presentation and presentation of data	**Pratibha Shahi** mepratibha@hotmail.com 9841144125
Plan International	Early Childhood Development	**2 districts** • Sindhuli, • Makawanpur	• Early Childhood Development • Child DREAM (Child Development through Responsive care, Early stimulation, Affection in family and Motivated parents • Support in COVID 19 prevention and response, medical items for COVID -19 Response	**Mihir Kumar Jha – East Regional Office** Janakpurdham Email: mihirkumar.jha@plan-international.org 9801241148

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
USAID's SUAAHARA II Good Nutrition Program implemented by Helen Keller International	Nutrition, Maternal newborn and child health, Family Planning, Water, Sanitation and Hygiene WASH	Bagmati Province 5 Districts: • Dhading • Dolakha • Nuwakot • Rasuwa, and Sindhupalchok 51 Municipalities 396 Wards	• Improved Household Nutrition, Health and WASH Behaviors • Increased utilization of Quality Nutrition and Health Services by Women and Children [Maternal, Child Health, Family Planning – Integration with Nutrition) • Improved access to diverse Nutrient-rich foods for Women and Children) • Rollout of Multi-Sector Nutrition Plan (MSNP-II) through Strengthened Local Governance • Gender Equity and Social Inclusion, Social and Behavior Change Communication, Monitoring, Evaluation and Research	**Mr. Chiranjibi Dahal,** Senior Province Coordinator cdahal@hki.org 9840169680 (Phased out in the current FY)
RTI International/ USAID's Act to End NTDs| East program	Health systems and governance GESI Neglected Tropical diseases (NTD) Disease Control and Surveillance Health Education and Communication	13 districts (additional support activities for Mass Drug Administration of Lymphatic Filariasis in Rasuwa)	• School based Transmission Assessment Surveys (TAS 2) in 1 district (Lalitpur Rural) as part of Post MDA Surveillance of Lymphatic Filariasis Elimination Program • School based Transmission Assessment Surveys (TAS 3) in 3 districts (Kathmandu- Rural & Urban, Lalitpur Urban, Bhaktapur) as part of Post MDA Surveillance of Lymphatic Filariasis Elimination Program	Achut Babu Ojha 9851182289 +977-5535780 **Email**: acteastnepal@np-ntd.rti.org

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
World Vision	Health systems and governance: Health Infrastructure GESI Sexual and Reproductive Health: Child Health and Nutrition: Health in Emergency Livelihood	District – Sindhuli Municipal: Tinpatan- ward no 4,5,6,7,8,10 and 11 Golanzor – ward no 1,2,3,4 and 6 Phikkal – ward no 2,3,4,and 5	• 1249 children under 5 yrs were growth monitored where 669 were found malnourished (Mild, moderate and severe) as per weight for age • 370 has gained adequate weight 200 gm plus in 12 days session • 72 HMG and 65 Support group meeting are in functional and PLW and their family members are aware on safer motherhood, sanitation and hygiene, diversified food consumption, immunization and GMP • Supported in increased number of Institutional deliveries, service user with quality Health Service • 35 participants were capacitated on Budget planning training where stakeholders are sensitized on importance of allocation of budget on Health Nutrition. • 35 plus participants were capacitated on NFLG and major stakeholders has agreed to initiated NFLG declaration • in Tinpatan, Phikkal and Golanzor • 11 Health Post – Major issue on 11 indicators were discussed to improve and service provider are agreed to improve the indicator • 6 vaccination sites were supported where all gage group community people were able to have vaccine	

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
KOSHISH	**Mental Health and Psychosocial disability** Cross-cutting: Gender Equality and Social Inclusion (GESI)	Chitwan, Makwanpur, Nuwakot	• Around 100 women are reintegrated into their family to take emergency transit care services • Formed 15 peer support groups in Bhimphedi, Panchakanya, Nuwakot and Lalitpur • Around 40 people living with psychosocial disability received disability card in the KOSHISH project areas • Around 500 people leaving with psychosocial disability received OPD service on mental health • Total 14 health workers are trained on prescribers training at Nuwakot • Conducted 2 policy dialogue workshops at KTM on Mental Health with the policymakers • Conduced Baseline Survey on Mental Health in Bagmati province • Conducted Province level workshop with the coordination of the provincial health directorate office on April 2022 • Conducted Media workshop with coordination of the Province Health Director on 10 Sep 2022	Sunira Lama lamasunira@gmail.com 9841525411
Leprosy Mission Nepal	**Leprosy :** TLMN works under four key thematic areas, health service delivery, training and Technical support, research, and Community based inclusive development (economic empowerment, gender equity and advocacy).	Kathmandu Metropolitan City Lalitpur Chitawan	**Major Activities:** • Health service delivery towards zero leprosy Transmission, Zero Disability and Zero discrimination through Anandaban Hospital and Satellite clinics • Training and capacity building: Generate leprosy capacity nationally • Micobacterium Research Laboratory: Cutting edge clinical, molecular and social research	Shovakhar Kandel Country Director, shovakhark@tlmnepal.org

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Community Based Inclusive Development: Leprosy case finding, treatment, rehabilitation inclusive of physical, social, economic empowerment, advocacy and education support to leprosy affected, disabled, marginalised and vulnerable communities, self-sustained SHGs **Key Achievements:** • 124 New cases of leprosy detected among them 23of them with grade 2 disability • 17 confirmed relapse cases • 97% MDT completion rate achieved • 1109 visits of leprosy reaction patients treated • 957 visits of leprosy ulcer cases treated • 7615 OPD visits of leprosy patients • 144 reconstructive surgeries performed • 107 Health Workers trained (GoN) • 47 medical officers trained • 944 health workers were provided with basic leprosy training • 663 medical students received Leprosy orientations • 33 Dermatologist were trained on leprosy • 107 Health workers trained on Complication management (reaction, RCS) • 102 NGO, CBO workers including social mobilizes & DPOs oriented on Leprosy • 32 Coordination meeting with different level of governments held • Scholarship opportunities to 187 children affected by leprosy and dependents of leprosy affected (Schooling to bachelor's degree) provided	

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Increased skills & understandings of people with disability to gain employment & succeed in chosen occupations, supported for Entry & retention of people with disability into formal or self-employment • Increased business owners' and employers' confidence in employing PwDs • Innovative and Quality leprosy research implemented resulting in findings recognized according to international scientific standards • Sustaining Inclusive Livelihood Activity was piloted to assess the effectiveness of building sustainable and inclusive communities through livelihood and skill development in Maadi Municipality	
LI-BIRD (Local Initiatives for Biodiversity, Research and Development)	Food and Nutrition Security	Dhading (Gangajamuna, Khaniyabas and Rubyvalley Rural Municipalities)	Promoting LANN+ "Linking Agriculture and Natural Resource Management towards Nutrition Security", a multi-sectoral approach for improving food and nutrition security which includes the following key areas of interventions: • Dietary diversity of marginalized and smallholder farmers) • Empower women in developing their capacities to produce food, generate income and take leadership positions in the society • Linking Agriculture and Natural Resource Management towards Nutrition Security • Participatory Learning and Behaviour Change for nutrition security	Rita Gurung

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
Mother Child Health Nepal (MOCHEN)	Mother and child health, SRH and family planning, Emergency relief and responses during and post disaster period, COVID-19 pandemic	Chitwan, Makawanpur	• Family Planning, ANC visit, PNC visit and safe Delivery • 207 FCHV and 32 HW trained on Safe motherhood/ RH/ • School Health awareness including topic menstrual hygiene, CC, Drugs used • 525 Mother/Female VIA examination Done • 54 FCHV and 120 other Cervical/Breast Cancer • Conducted clinical training to health professionals, health service providers staff as well as a community health worker, and health volunteer for technical health-related training, regarding occupational health and risk mitigation measures, Covid-19 response training, Maternal/child health, community health, and the infection prevention training	Kabita Khatiwada kabita1984ghi@gmail.com /mochen71@gmail.com 9855054640
Nepal Public Health Foundation (NPHF)	Occupational Health and environment	Chitwan District (all 7 municipalities)	Occupational Health and environment Farming, Health and Environment Nepal Project (FHEN) Pesticide Minimization • Conducted farmers training on Integrated Pest Management-Farmers Field School (IPM-FFS) • Conducted different community sensitization programs and mass media programs. • Training of Health Workers and FCHVs on Prevention and Management of Health Problems due to Pesticide Exposure • Training of farmers, pesticide spray workers, pesticide retailers, schoolteachers on increase the knowledge, skill and practices of safe use of chemical pesticides.	nphf.nepal@gmail.com fhen.nphfoundation@gmail.com fhenp3@gmail.com Samana Sharma, Project Manager 9845302727 Mahesh Maskey 9801083127

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Coordination with all levels of government through panel discussions, webinars, and other meetings. • Organized workshops to develop pesticide minimization policy, draft presentation. • Training of Trainers (ToT) to cooperatives for conducting IPM-FFS. • Supported two cooperatives for IPM-FFS. • Conducted school health programs in 7 municipalities of Chitwan. Strengthening Research and Capacity Building	
USAID MOMENTUM Private Healthcare Delivery- MPHD **(Nepal CRS Company**)	Sexual and reproductive health (Adolescent Health & Family Planning)	**Districts:** Three (Kathmandu, Chitwan & Makwanpur) **Municipalities:** Eight (Kathmandu Metro, Tokha, Kageswori Manohora, Bharatpur Metro, Ratnanagar, Khairahani, Kalika and Hetauda Sub-Metropolitan)	Capacity Building of Private Sector's Providers to provide adolescent responsive contraceptive services; • ASRH Training • Sangini Training • Whole site orientation and VCAT orientation Increase technical capacity of private sector SDPs to provide high-quality person centric FP services; • QA/QI mentoring and coaching & Routine Assessment • Onsite coaching • Establish and Strengthen Referral Mechanism for LARC or Permanent Methods • FP Commodity Supply chain linkage • Support to establish separate client feedback mechanism Increase managerial capacity of private health facilities to sustain the high-quality person-centric FP service: • Provide Business skill training to private health facility	Sudarsan Dahal Program Coordinator 9841769535, sudarshan.dahal@crs.org.np

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Guide and support private health facility to increase the awareness on RH from HFs itself through Health facility initiated demand generation activities. Recording, Reporting and Data Integration; • DHIS/HMIS Training • Support to private health facilities reporting in national reporting system (HMIS/DHIS) to municipal level and or online reporting on DHIS2. Partnership & Collaborations; • Monthly cluster meeting with private service providers & municipal health team. • Quarterly Review meeting with municipality • Joint Monitoring Community Awareness • Community Youth Meetings	
Medic Mobile	mHealth program	Dhading Rasuwa Sindhupalchok Sindhuli	1. CHT **SMS Based Program** - FCHVs • Simple SMS based messaging system • Designed for Care Coordination of ANC, PNC, and Delivery 2. CHT **Android Application** - CHNs (Community Health Nurses) • Android based application • Users: Community Health Nurses • Owned: Nursing and Social Security Division, DoHS, MoHP • Lead: Local Governments 3. **Echosystem** • CHT Academy, forum, and documentation Technical Partners	Dr. Nitin N Bhandari Head of Programs, Asia

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
MSH		Makwanpur-4, Sindhuli-4, Ramechhap-5, Chitwan-5 (Municipalities)	• A Multipronged Capacity Building Strategy for medicine management. • Implemented by MSH in partnership with DOHS, Curative Service Division.	Susmita 9851084252
Shanti Med Nepal	Quality Health Service Eductation Support	Bakulahar Ratnanagar Hospital, Chitwan- Hadikhola, Makwanpur Health Post Narayanghat Manahari-5, Makwanpur Chisapani, Makwanpur Khairani, Chitwan	• Quality Health Service Health Camps • Medical Support for underprivileged people • Education Support • Medicine Distribution • Food Distribution in Pandemic and other Emergencies • Training to Medical staffs • Skin Treatment and Health Insurance Services • Pediatric OPD • Waste Management • Support to CP and Autistic Children, Blind People • Solar Installation	Rabina Dallakoti Country Secretary rdallakoti917@gmail.com 9865038932 Kurt Janser Country Director Kurtjanser@gmx.ch Ruth Gonseth Country Representative ruth.gonseth@gmail.com 9814282976
Visible Impact	SRHR – Family Planning, Safe Abortion, MHM CSE SDG	Kathmandu, Bhaktapur, Lalitpur, Dolakha, Okhaldhunga, Rasuwa	Mobilization of Youth Champions • Selection of Youth Champions and Training on SRHR Issues • Lobby Meetings • Awareness campaign on Family Planning, Safe Abortion, and Menstrual Hygiene Management • Day Celebrations • Peer educator • VCAT on Safe Abortion to healthcare providers • Media Fellowship on Safe Abortion • Development of a video on Decriminalization of Abortion in Nepal	Shilpa Lamichhane, Program Manager, 9843246364, shilpa.lamichhane@visim.org

Organization	Major Thematic Area	Geographic Coverage	Major activities and achievements of the FY 2079/80	Contact Details
			• Assessment of the status of sexuality education in Nepal by using SERAT, an Excel-based tool • Pilot testing of SRHR and Technology (Chatbot) in Kathmandu Valley • Localizing SDG in Nepal and ensuring meaningful youth participation and leadership in achieving Agenda 2030 • Social media mobilization and advocacy	
Beyond Beijing Committee (BBC) Nepal	SRHR – MHM, FP, Safe Abortion, Comprehensive Sexuality Education(CSE)	Kathmandu Makawanpur Kavrepalanchowk Lalitpur	• Empowered young people make decision about their sexuality, voice their needs and claim their rights (Information & Education) • A critical mass reinforces positive norms and values (Public Support) • Governments adopt, implement and account for human rights-based policies and laws (Advocacy) • Strengthening civil society	Sushma Shrestha, Project Coordinator 9843249711, 01 4794615 sushmashrestha@beyondbeijing.org
Marie Stopes International (MSI)	• Safe Abortion • Family Planning • Adolescent and Reproductive Health • Public Service Strengthening Social Marketing	**Bagmati Province:** Kathmandu- Kathmandu Metropolitan City Lalitpur- Lalitpur Metropolitan City Sindhuli- All R/ Municipalities Chitwan- Bharatpur Metropolitan City	• MS Ladies Program • Providing different services through Marie Stopes Centers which are listed below. - Family Planning Services (Short Acting Temporary Methods and Long-Acting Temporary Methods). - Safe Abortion Services - Training and Capacity Development of Service Providers.	KP Upadhyay Sr. Advisor-Policy and External Affairs Kp.upadhyay@mariestopes.org.np Phn no- 9851070208, 9808093699

Annex -1 Contributors of the Annual Health Report 2079/80

Advisory Committee

S.N.	Name of officials	Post Designated	Office
1.	Mr Badri Bahadur Khadka	Secretary	Ministry of Health
2.	Mr Dipak Prasad Tiwari	Director	Health Directorate
3.	Mr Sagar Prasad Ghimire	Division Chief	Ministry of Health
4.	Dr Khageshwor Gelal	Division chief	Ministry of Health
4.	Mr Satish Bista	Section Chief	Health Directorate
5.	Dr Nabin Darnal	Section Chief	Health Directorate
6.	Mr Kiran Shrestha	Sr. Public Health Officer	Ministry of Health
7.	Dr Rabin Bhusal	Ayvurveda Doctor	Ministry of Health

Technical Working Group

S.N.	Name of officials	Post Desigmated	Office
1.	Mr Vibhu Jha	Sr Public Health Officer	Health Directorate
2.	Mr Rajan Chalise	Statistics Officer	Health Directorate
3.	Ms Birshana Khadka	Nursing Officer	Health Directorate
4.	Ms Roshana Ghimire	Nursing Officer	Health Directorate
5.	Ms Tripti Dhakal	Public Health Officer	Health Directorate
6.	Ms Sirisa Gauli	Statistics Officer	Health Directorate
7.	Mr Hari Bhusal	Provincial Health Officer	WHO

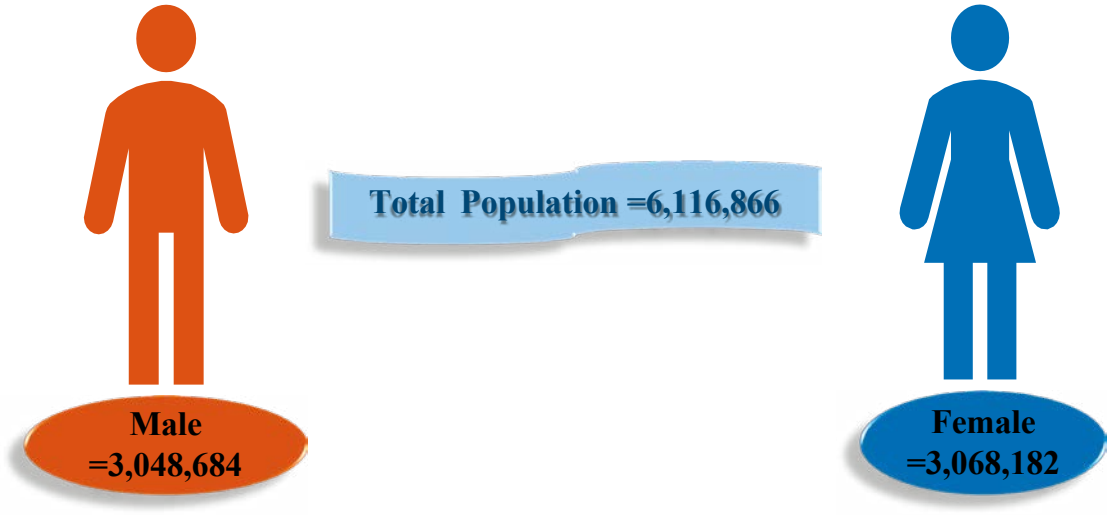
List of the Contributors

S.N.	Name of Contributors	Organization
1.	Mr DL Shah	Statistics Officer, Health Directorate
2.	Ms Rita Badu	Entomologist, Health Directorate
3.	Ms Srijana Panta	Nursing Officer, Health Directorate
4.	Mr Uttam Raj Pyakhurel	VCI, Health Directorate
5.	Mr Jitendra Karn	TB Leprosy Officer, Health Directorate
6.	Mr Shiva Badal	Health Education Officer, Health directorate
7.	Mr Sushil Acharya	Medical Lab Inspector, Health Directorate
8.	Mr Rebati Thapa	Public Health Inspector, Health Directorate
9.	Mr Tarani Prasad Chaudhary	Sr Ayurveda Technician, Health Directorate
10.	Mr Mohan Kumar Raut	Health Education Technician Inspector, Health Directorate
11.	Mr Prakash Dulal	Pharmacy Officer, Health Directorate
12.	Ms Rita Mahato	Nursing Officer, Health Directorate
13.	Ms Yunisha Dahal	Public Health Officer, Health Directorate
14.	Ms Aakriti Chuke	Nursing Officer, Health Directorate
15.	Dr Anup Bikram BC	NCD and Mental Health Officer, WHO
16.	Ms Babita Regmi	MSS Officer, Health Directorate
17.	Mr Shambhu Shah	Provincial Coordinator, Save the Children
18.	Ms Jonyta Baral	QM Officer, WaterAid Nepal
19.	Ms Prativa RL Shahi	Data Analyst, UNICEF

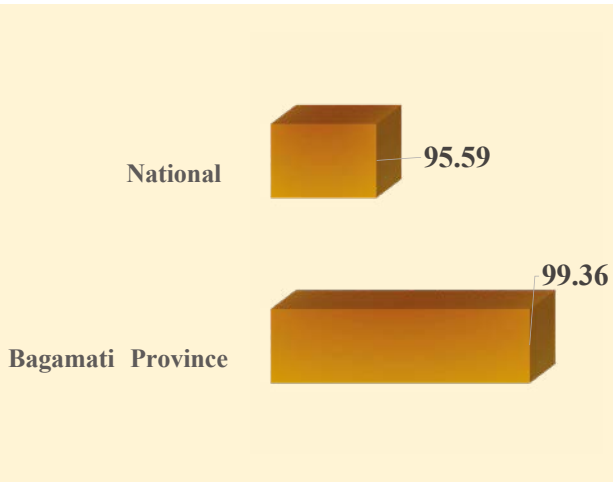
Annex -2 Fact sheet of Bagamati Province

Key Health Outcome

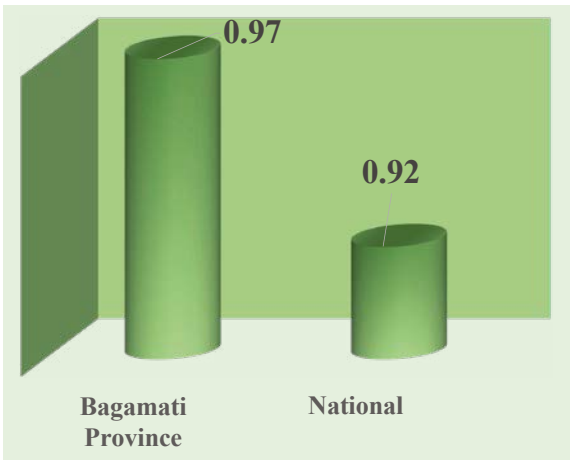
General Information



Sex Ratio



Annual Growth Rate



Source : NPHC : 2021

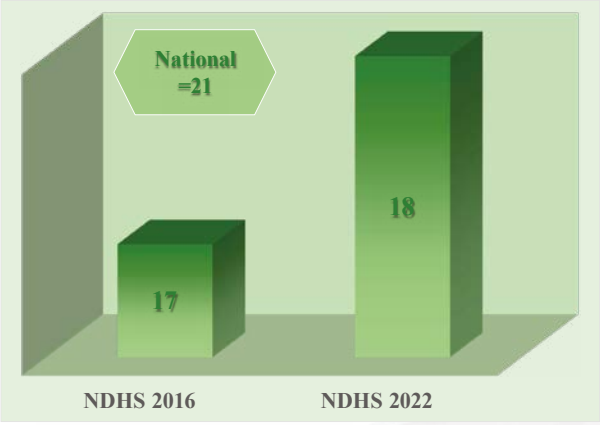
Total Fertility Rate of Bagamati Province

Source : NDHS 2016 and 2022 , NPHC : 2021

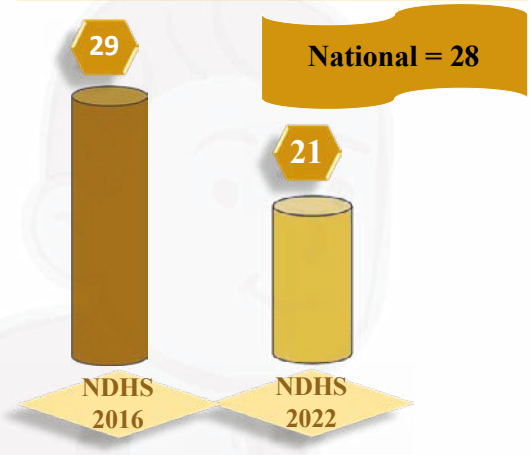
Maternal Mortality Ratio (Per 100,000 Live Birth)

Source : NPHC : 2021

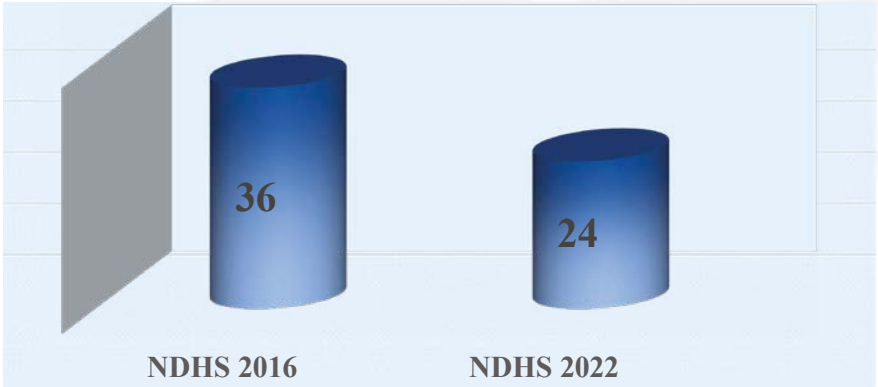
Neonatal Mortality Rate of Bagamati Province

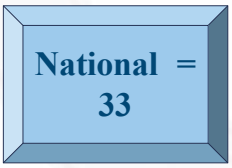


Infant Mortality Rate of Bagamati Province



Under – 5 Mortality Rate of Bagamati Province

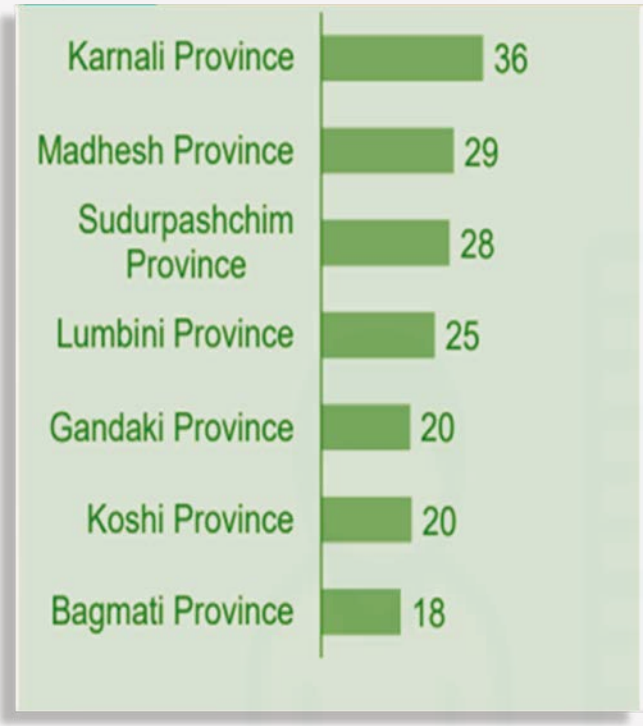




Source : NDHS 2016 and 2022 , NPHC : 2021

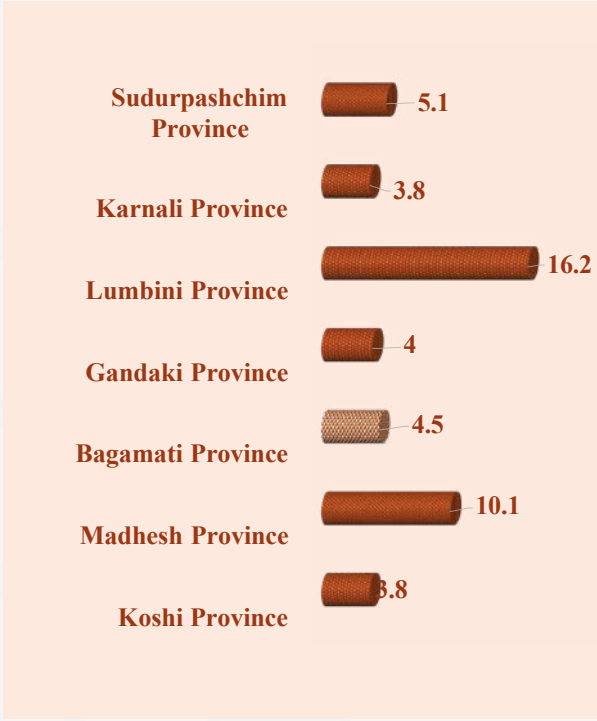
Stunting in Children by Province(%)

National =25



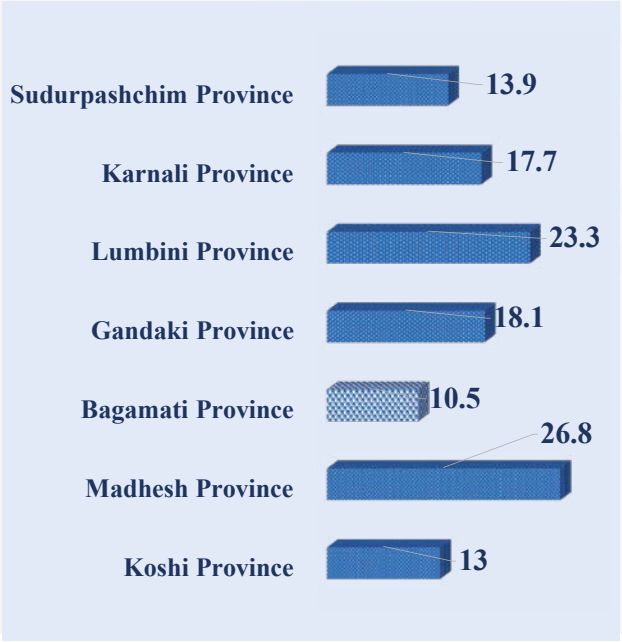
Wasting in Children by Province(%)

National =8



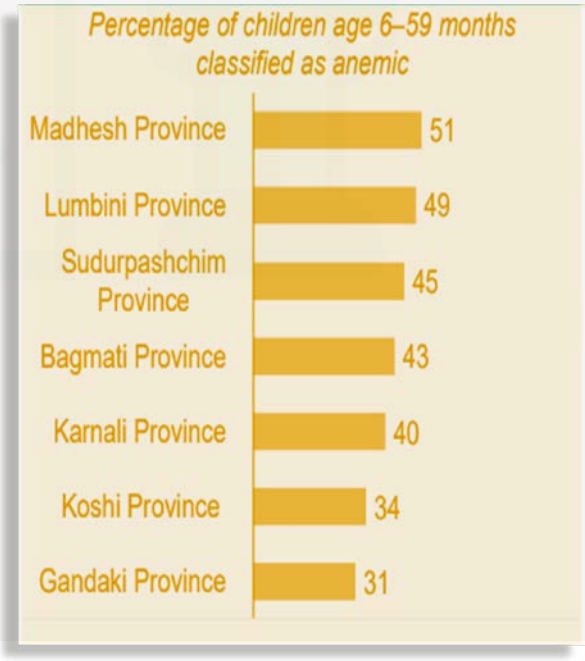
Underweight in Children by Province(%)

National = 19



Anemia in Children by Province(%)

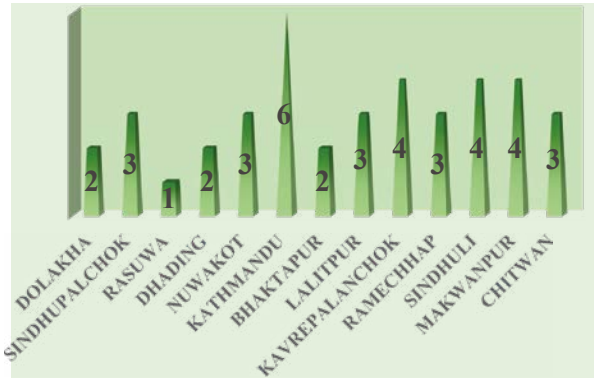
National = 43



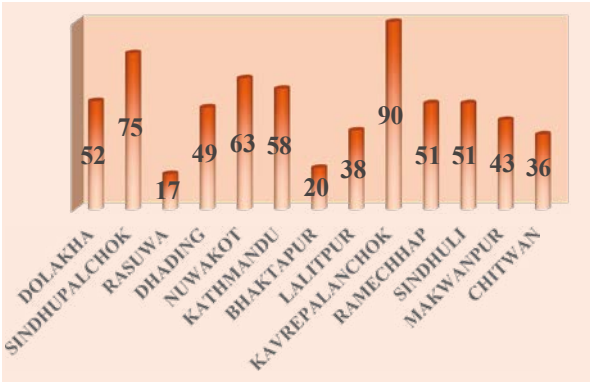
Source : NDHS 2022

Health Facilities

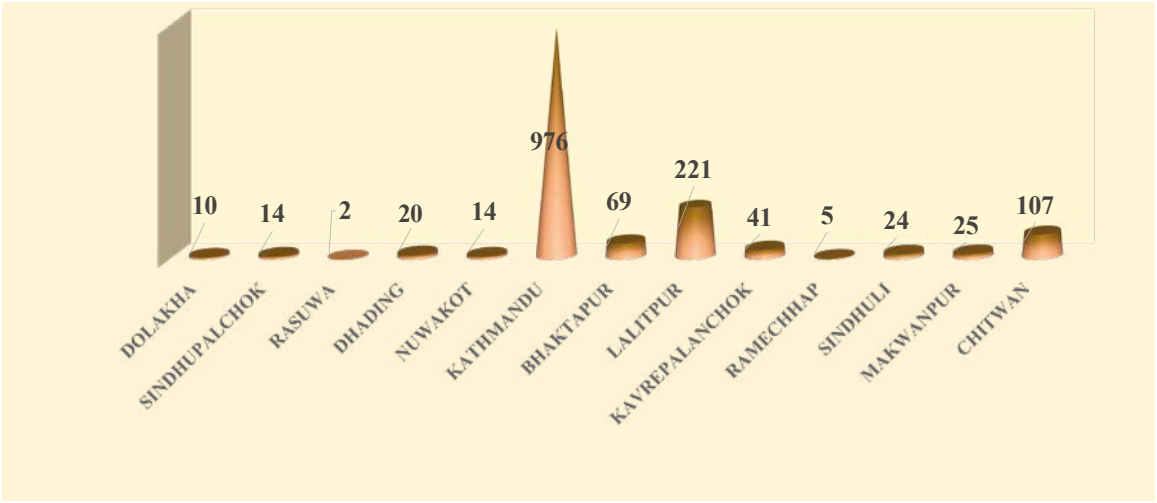
PHCCs (in number)



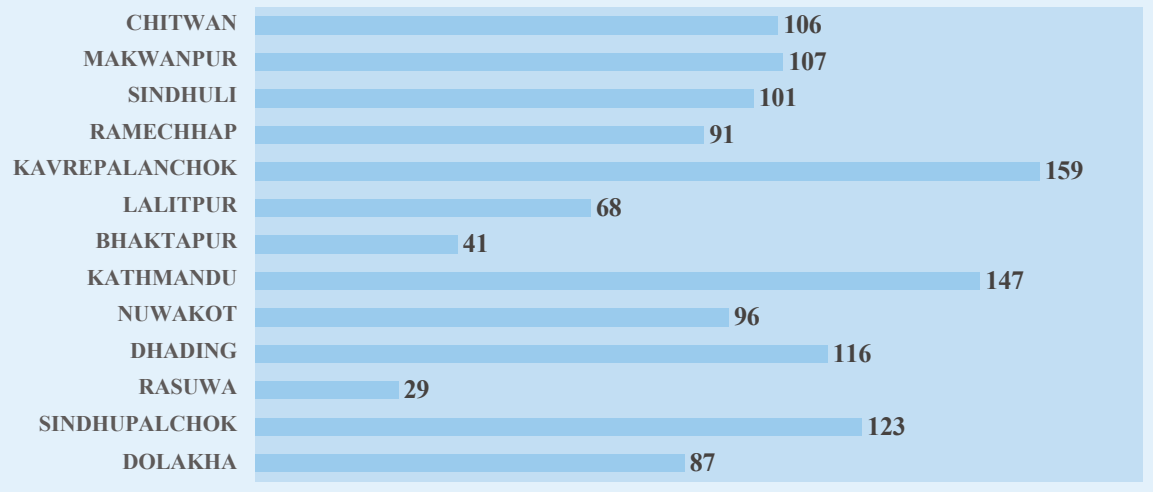
Health Posts (in number)



Non – Public Facilities (in number)

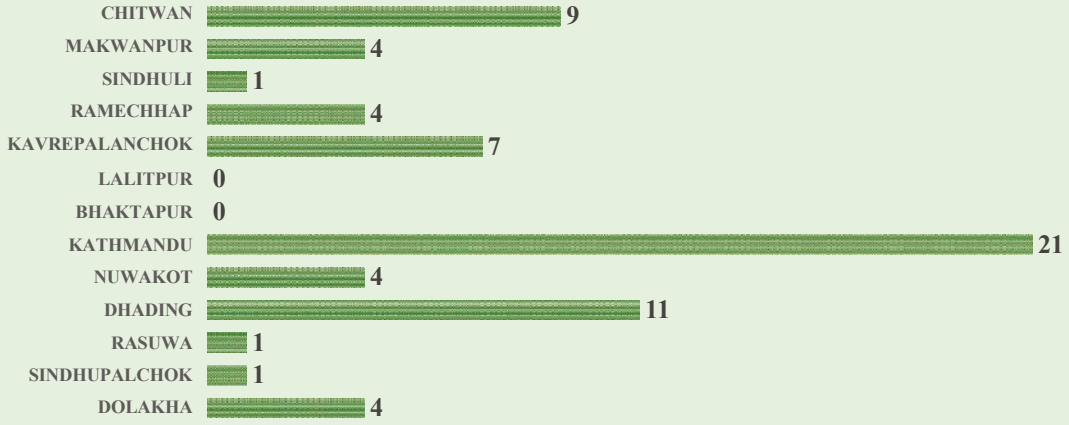


Basic Health Service Centers (in number)

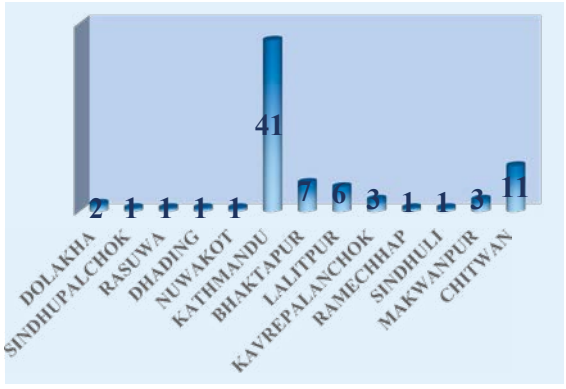


*Include HP,PHCC,CHU,UHU

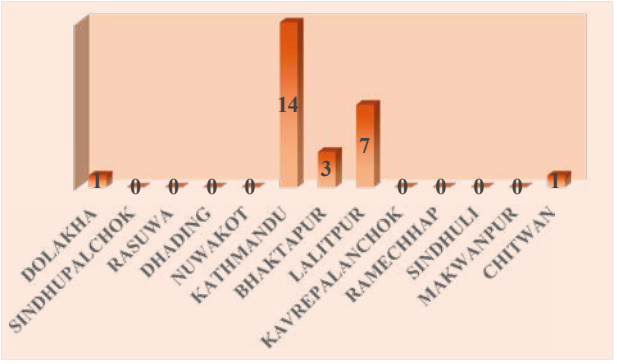
Basic Hospitals (5 - 15 Beds) 2079/80 (in number)



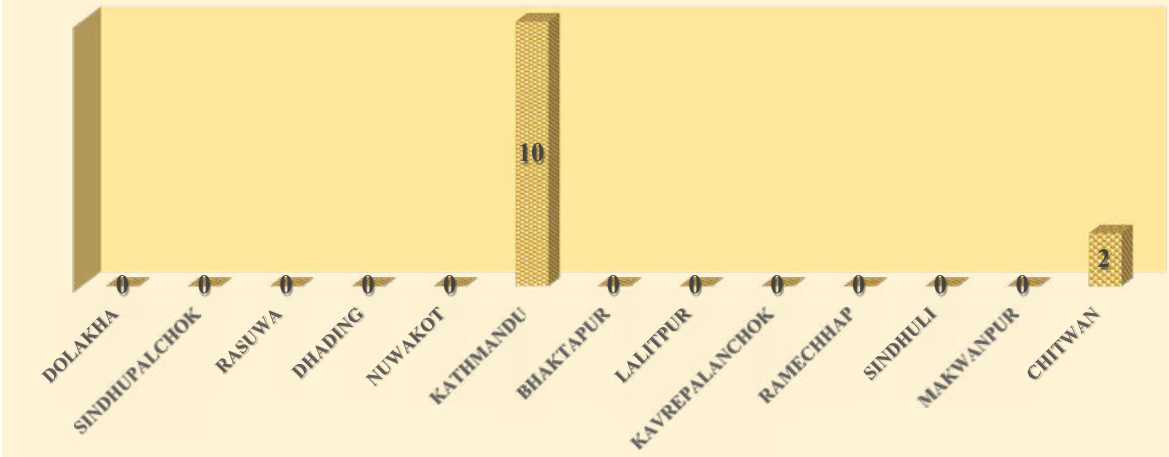
General Hospitals (25 - 50 Beds) 2079/80 (in number)



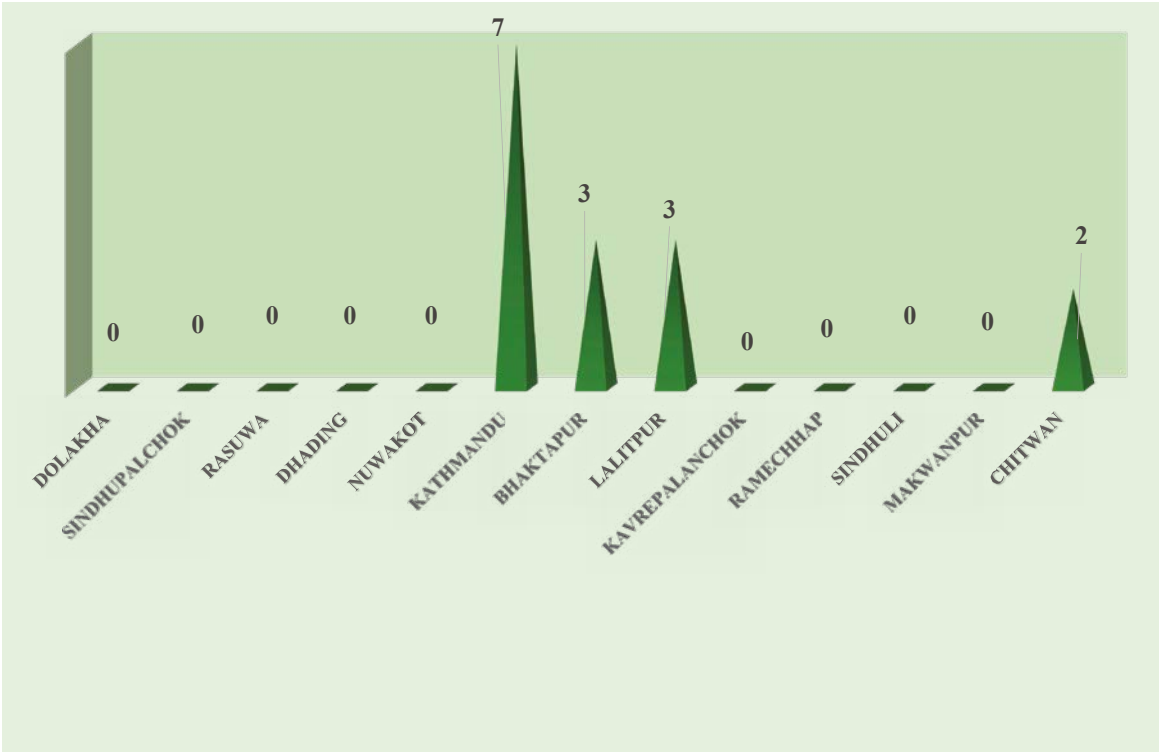
General Hospitals (100 - 300 Beds) 2079/80 (in number)



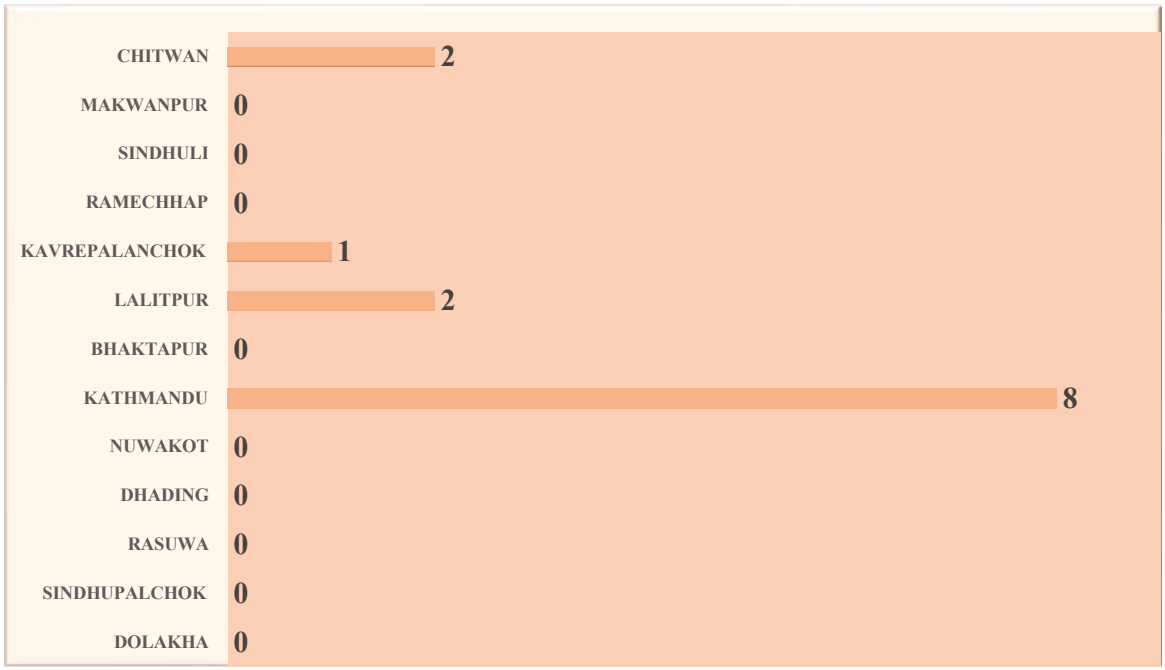
Specialized Hospitals* (100 beds and Above) 2079/80 (in number)



Super Specialty Hospitals* (50+ Beds) 2079/80 (in number)

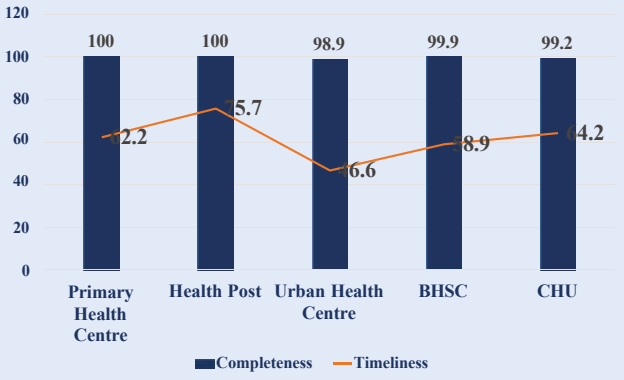


Academy and Teaching Hospital (300+ Beds) 2079/80 (in number)

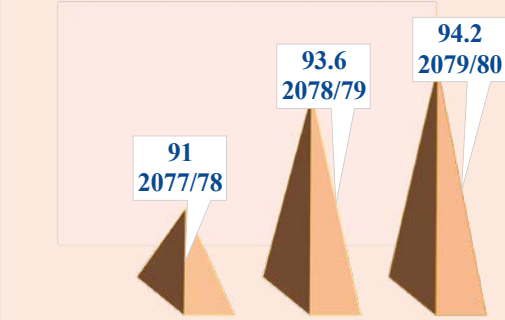


Health Facilities and FCHV Reporting Status (%)

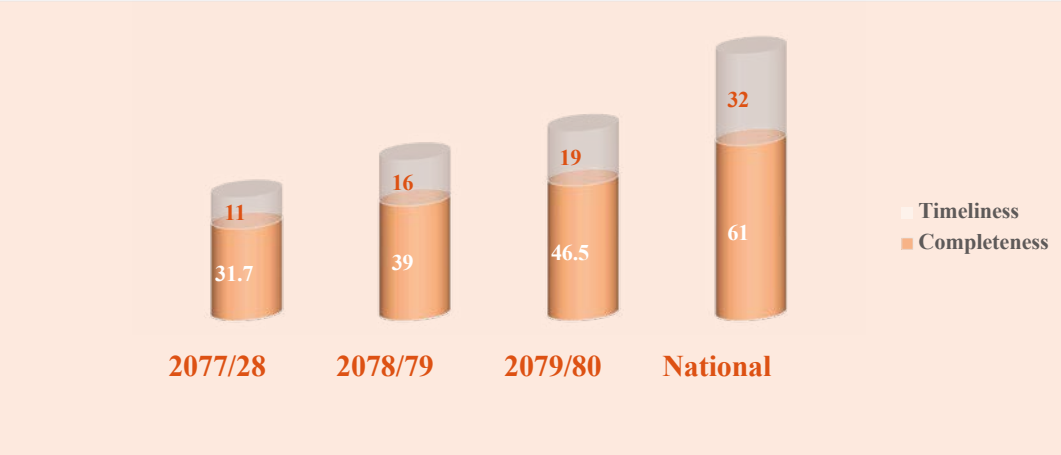
Reporting Status of Health Facilities FY 2079/80 (%)



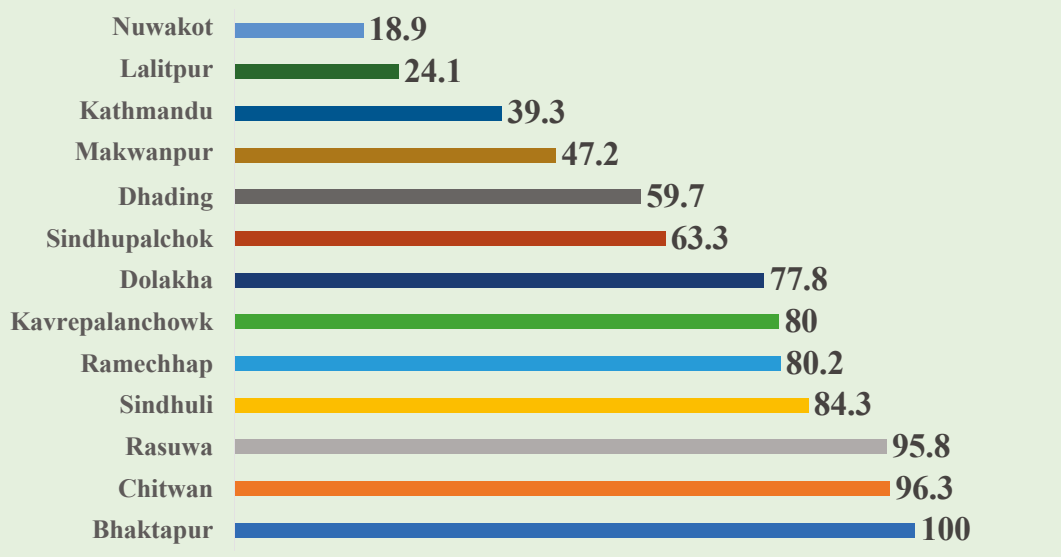
Trend of Reporting Status of FCHV (%)



Trend of Reporting Status – All Hospitals (%)

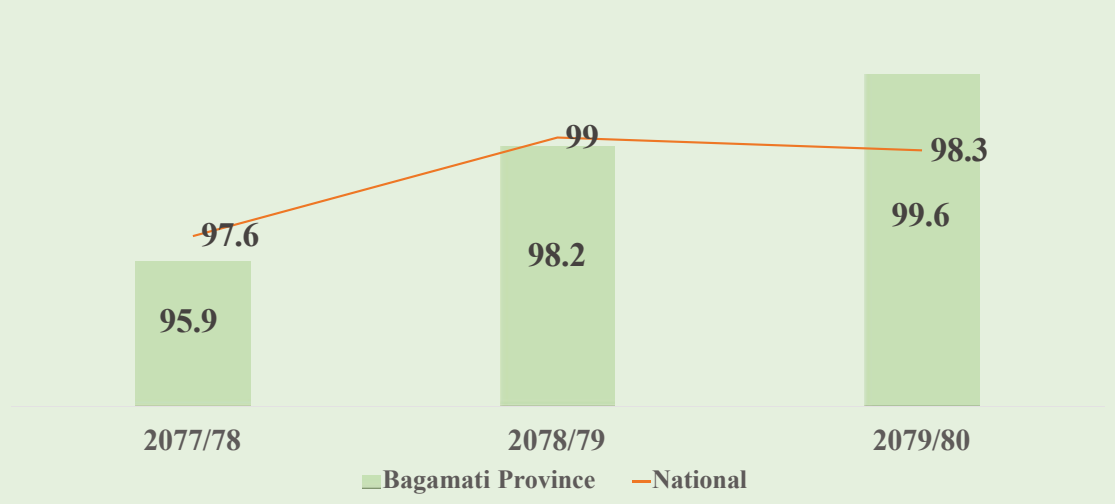


District Wise Hospital Reporting Status FY 079/80 (%)

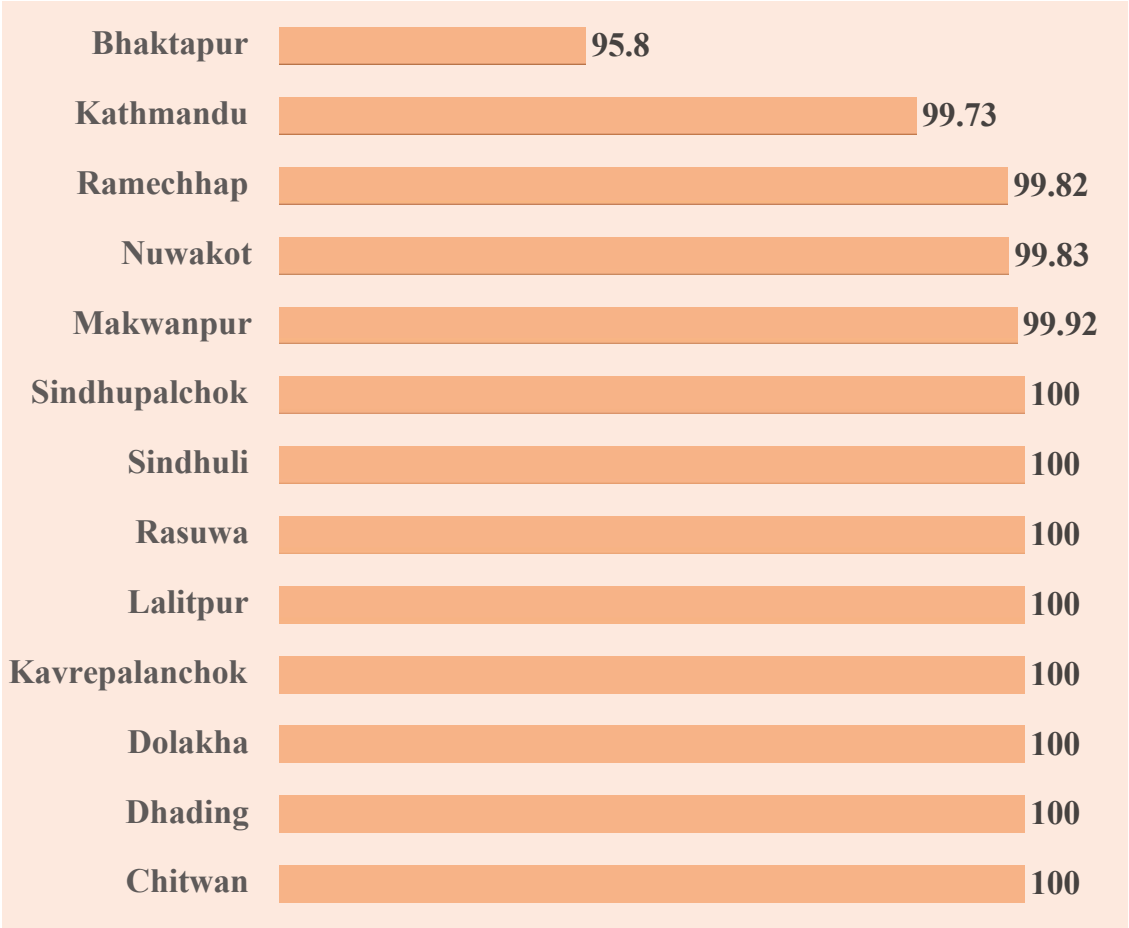


LMIS Reporting Status

Trend of LMIS Reporting Status



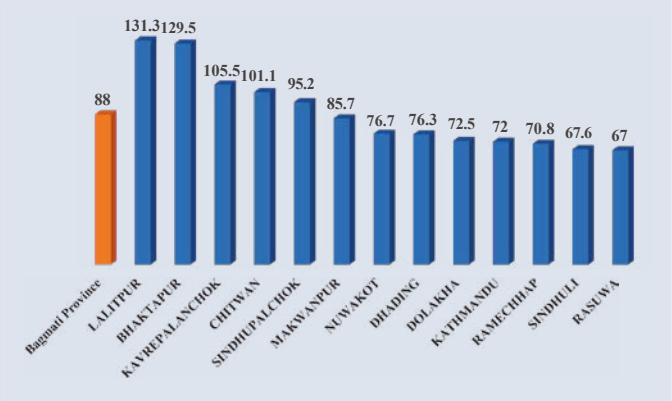
District wise Status of LMIS Reporting Status FY 2079/80



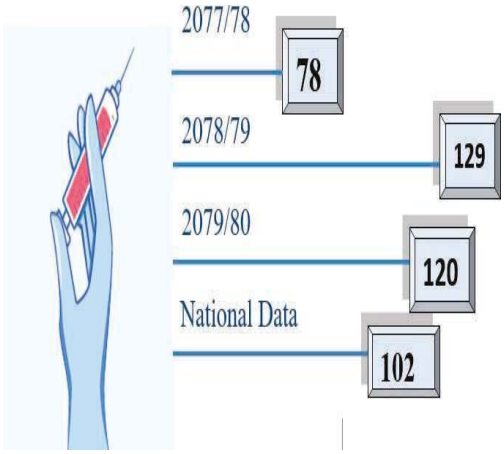
Immunization Coverage

Trend of Fully Immunized Children (%)

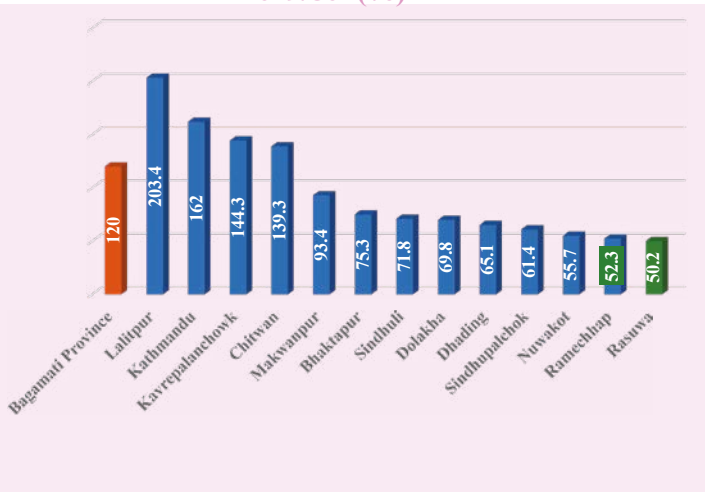
District wise data of fully Immunized Children FY 2079/80 (%)



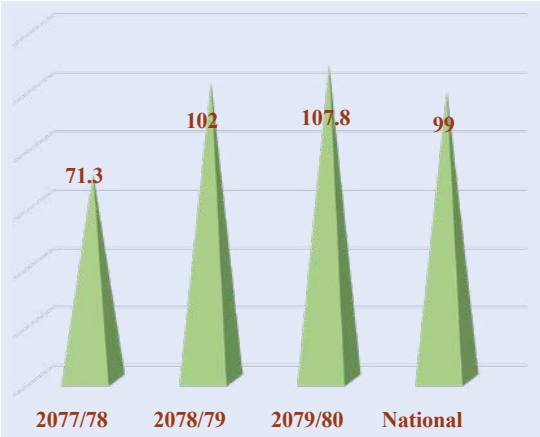
Trend of BCG Coverage (%)



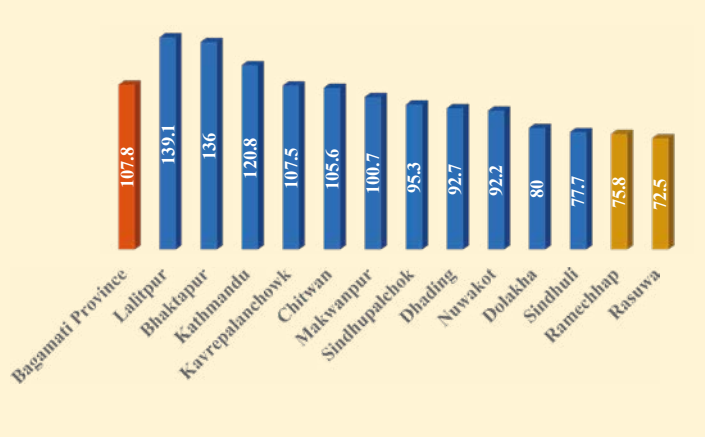
District wise Status of BCG Coverage FY 2079/80 (%)



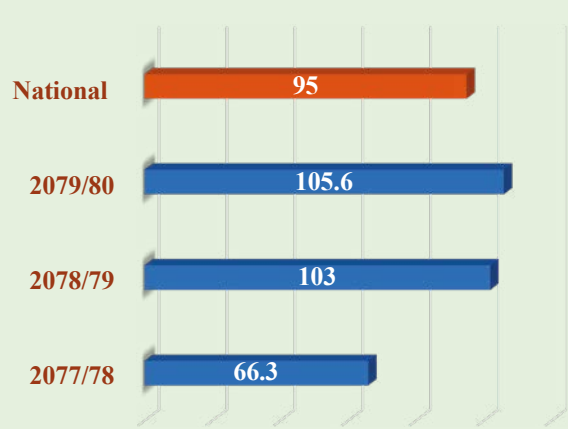
Trend of DPT-HepB-Hib3 Coverage (%)



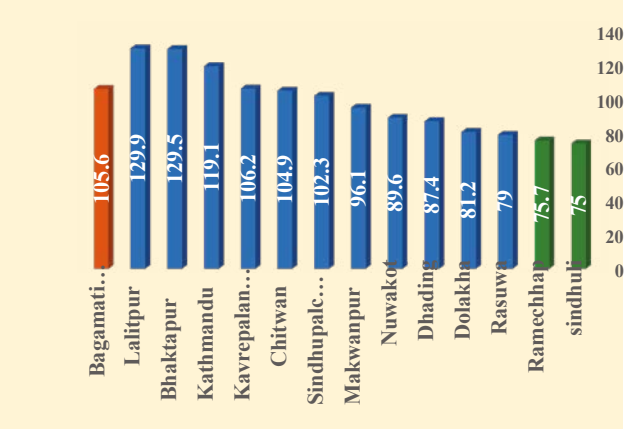
District wise Status of DPT-HepB-Hib3 Coverage FY 2079/80 (%)



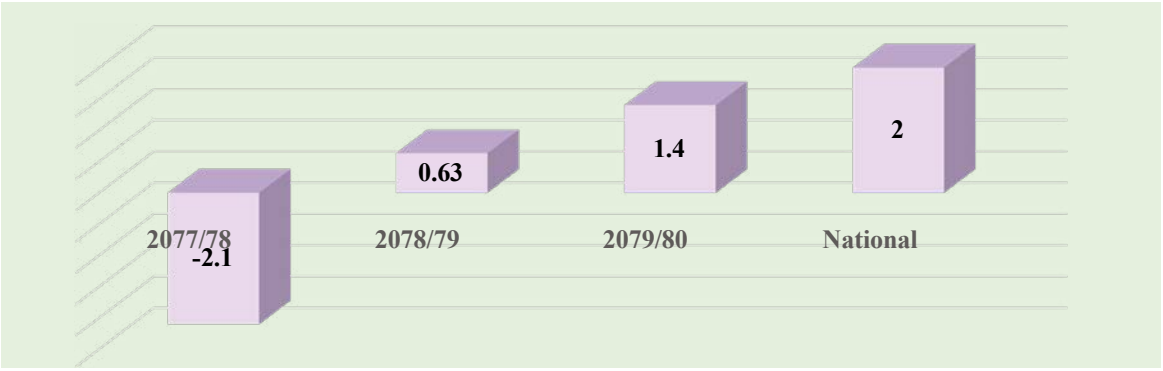
Trend of MR2 Coverage (12-23 months) (%)



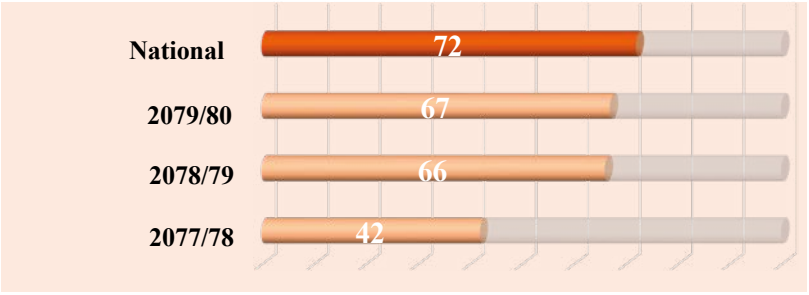
District wise Status of MR2 Coverage (12-23 months) FY 2079/80 (%)



Trend of Dropout Rate DPT-Hep B-Hib 1 vs 3 Coverage (%)



Trend of Pregnant Women who Received TD2 and TD2+ (%)



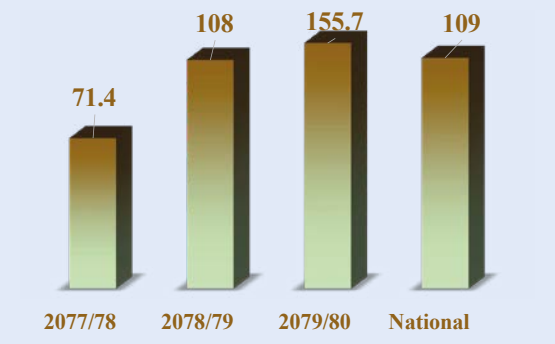
Access and Utilization of Immunization Services

Category 1 (Less Problem) High Coverage(>90%) Low Dropout(<10%)	Category 2 (Problem) High Coverage(>90%) High Dropout(>10%)	Category 3 (Problem) Low Coverage(<90%) Low Dropout(<10%)	Category 1 (Problem) Low Coverage(<90%) High Dropout(>10%)
Makwanpur Chitawan Dhading Kathmandu Lalitpur Bhaktapur Kavrepalanchok Sindhupalchok Nuwakot		Dolakha Sindhuli Ramechhap Rasuwa	

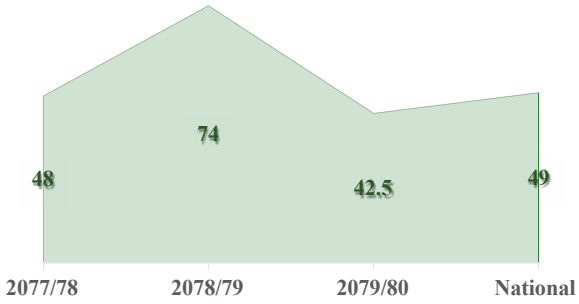
DPT-Hep B- Hib 1 coverage , DPT - Hep B – Hib 1 Vs MR2 drop out rate

Nutrition Programme

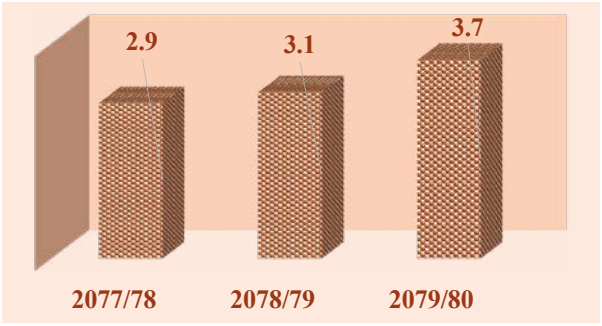
Trend of Children Aged 0-11 Months Registered for Growth Monitoring (%)



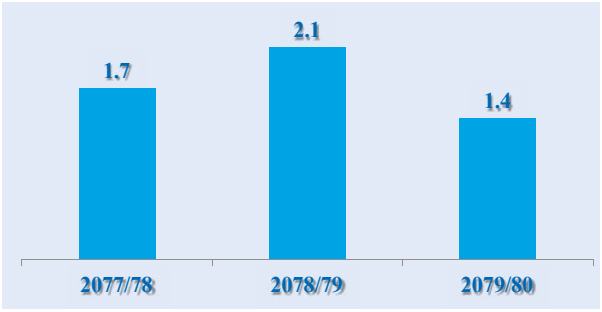
Trend of Children Aged 12-23 Months Registered for Growth Monitoring (%)



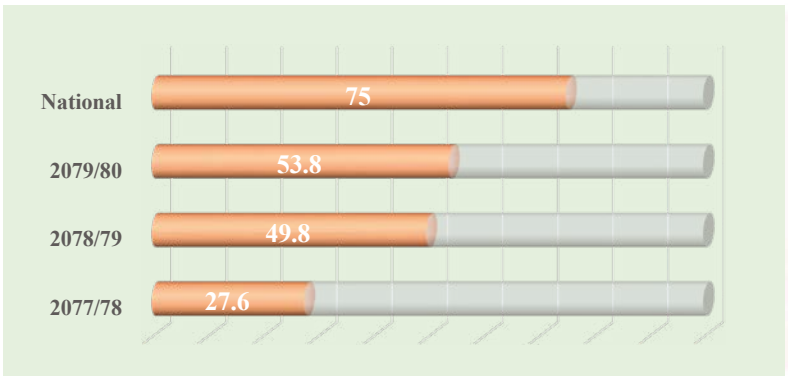
Average number of visits among children aged 0-23 months registered for growth monitoring



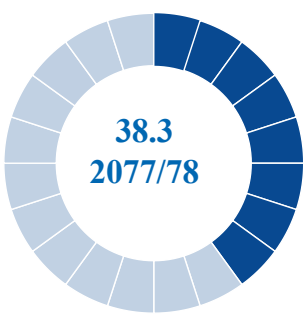
Trend of Underweight Children Among New Growth Monitoring Visits (0-23 Month) (%)

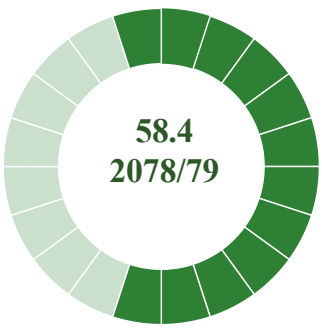


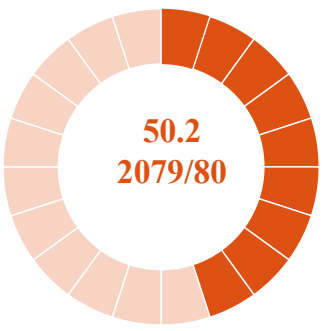
Trend of Pregnant Women who Received 180 Tablets of Iron (%)



Trend of Postpartum Mothers who Received Vitamin A Supplements (%)

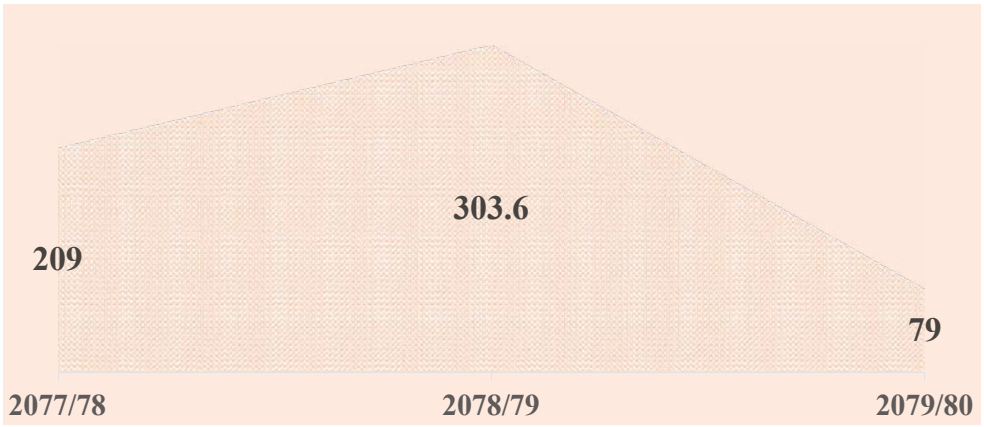




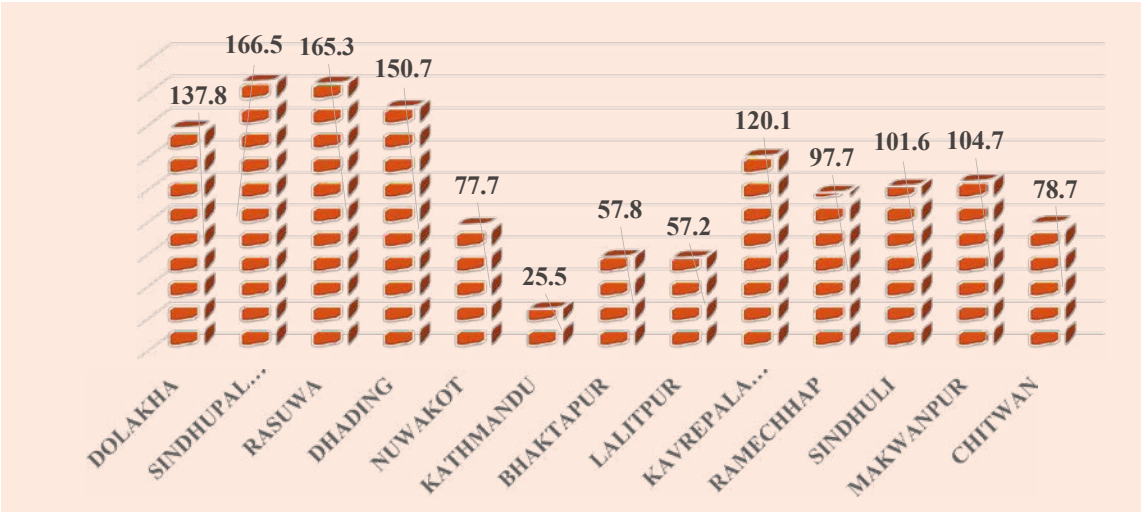


Integrated Management of Neonatal and Childhood Illness (IMNCI) Programme

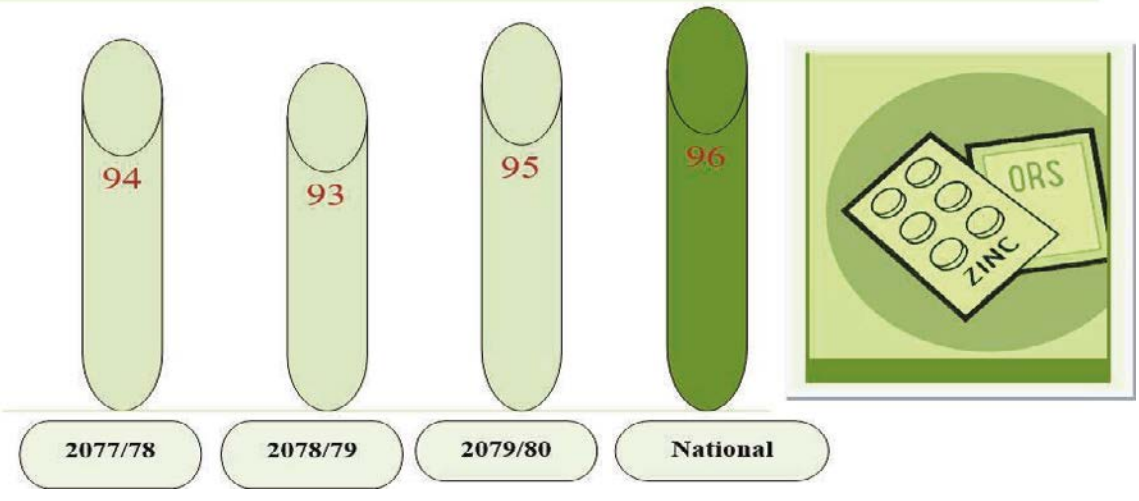
Incidence of Diarrhea Per 1,000 Under Five Years Children



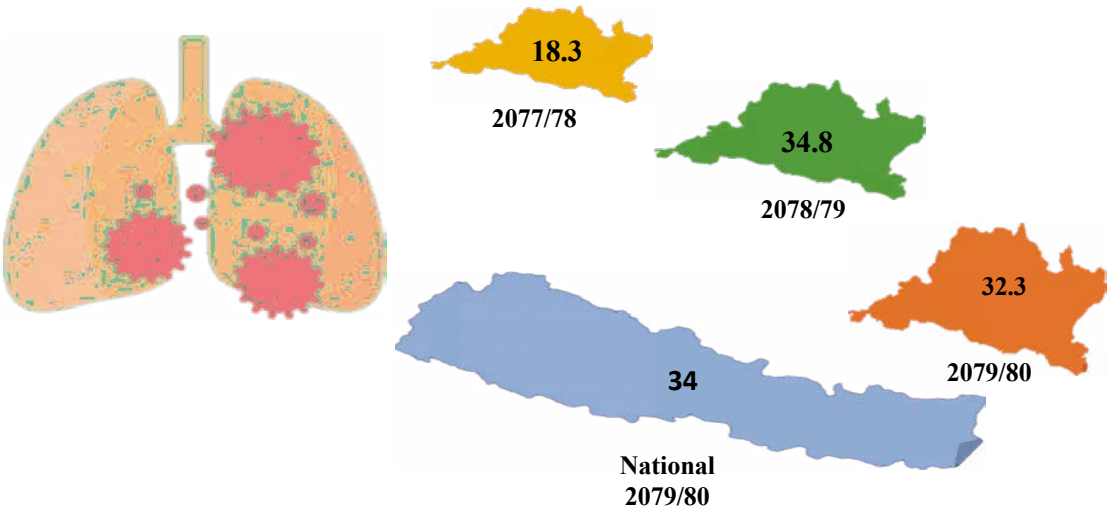
*2079/80: Include data of HF only

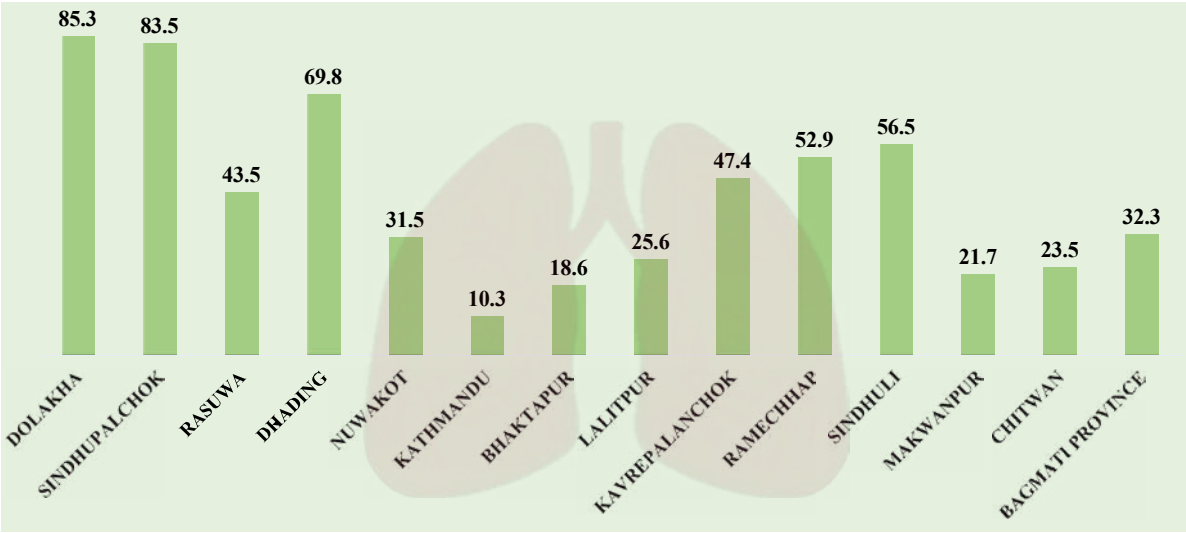


% of Children Under 5 with Diarrhea Treated with ORS and Zinc

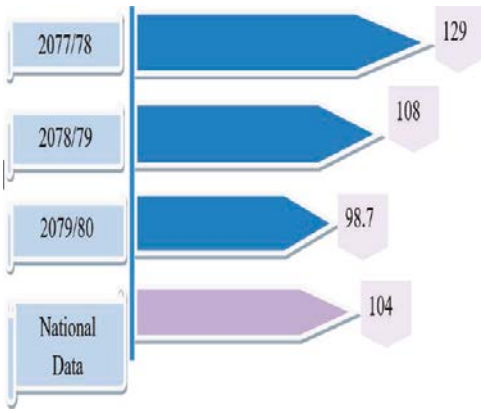


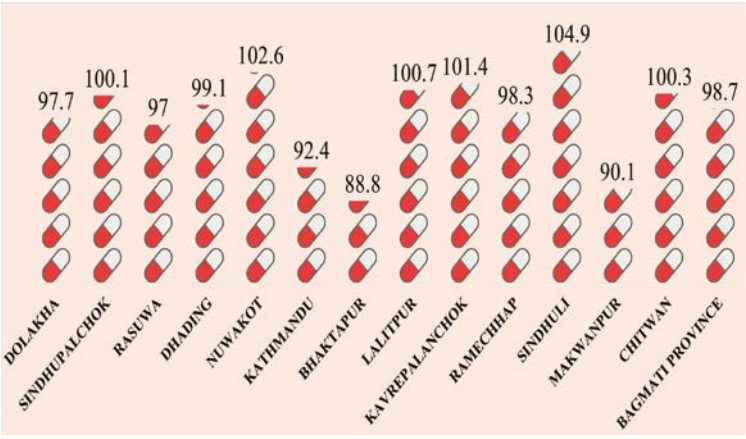
Incidence of Pneumonia under five-year children





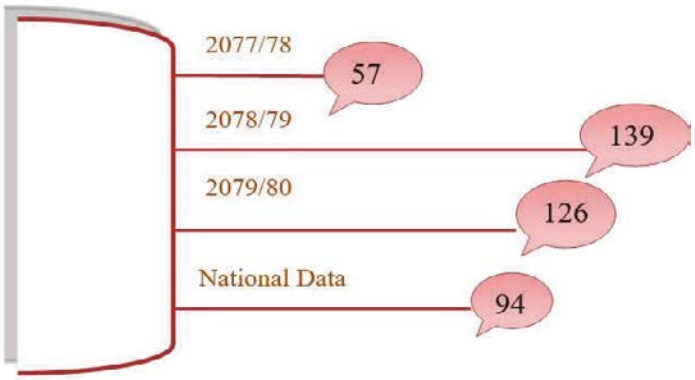
% of children under five years with pneumonia treated with antibiotics (Amoxicillin)



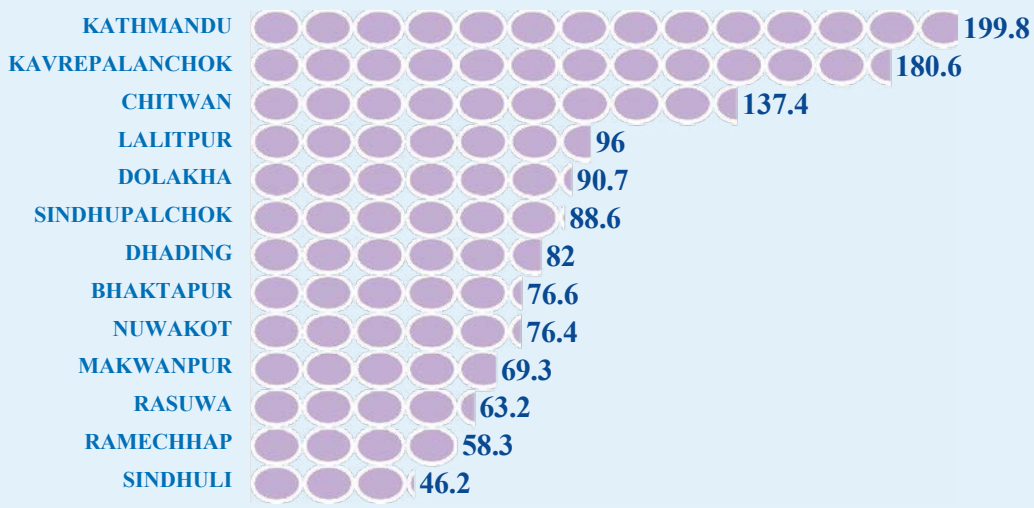


Safe Motherhood Programme

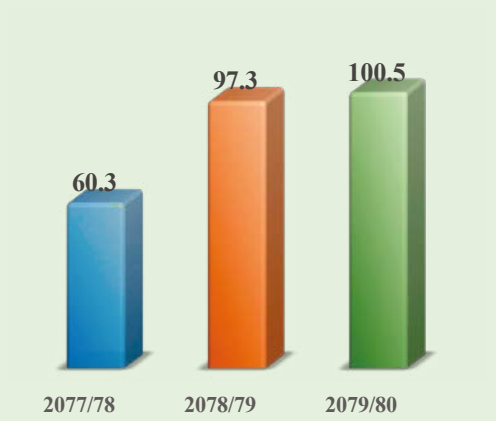
Pregnant Women Who Attended Four ANC Visits as Per Protocol (%)



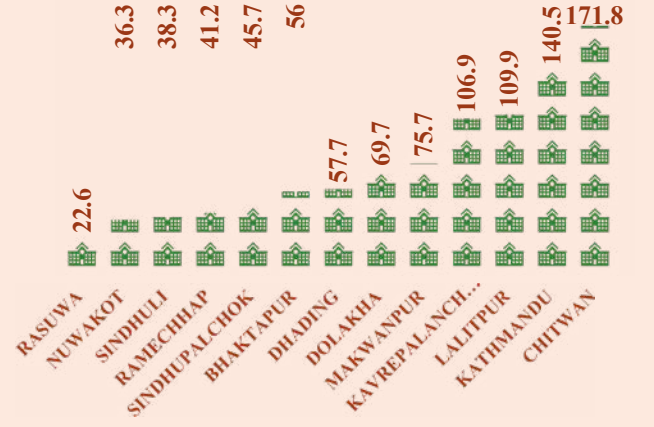
District wise Status of Pregnant Women Who Attended Four ANC Visits as Per Protocol FY 2079/80 (%)



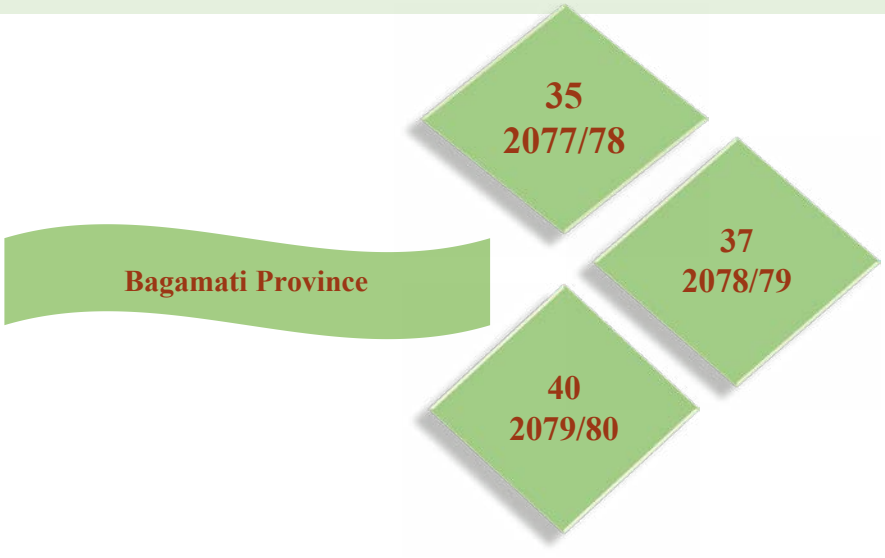
Trend of Institutional Deliveries (%)



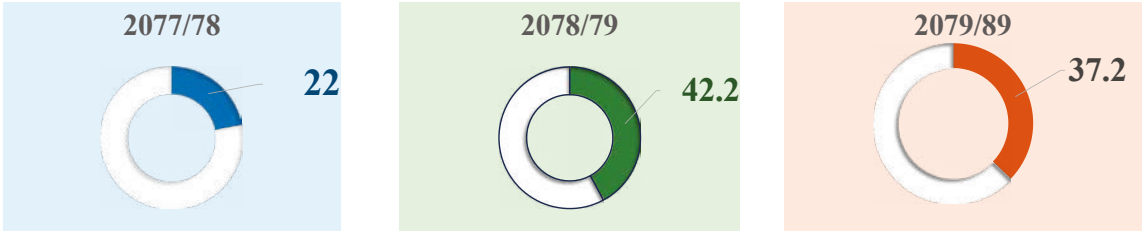
District wise Status of Institutional Deliveries FY 2079/89(%)



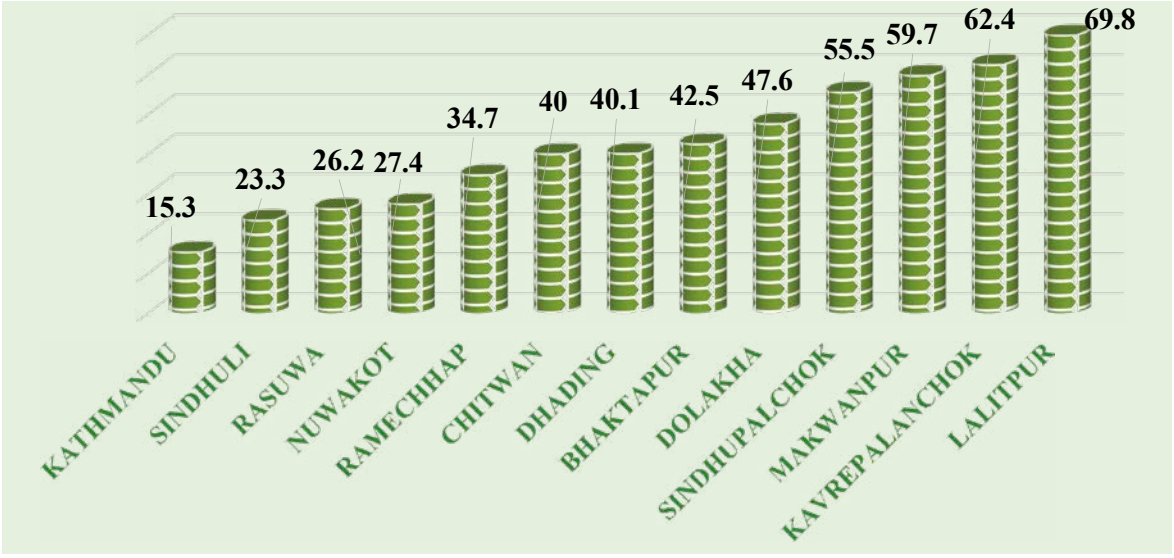
Trend of Deliveries by Caesarean Section(%)



Trend of Mothers who had Three PNC Check-up as Per Protocol (%)

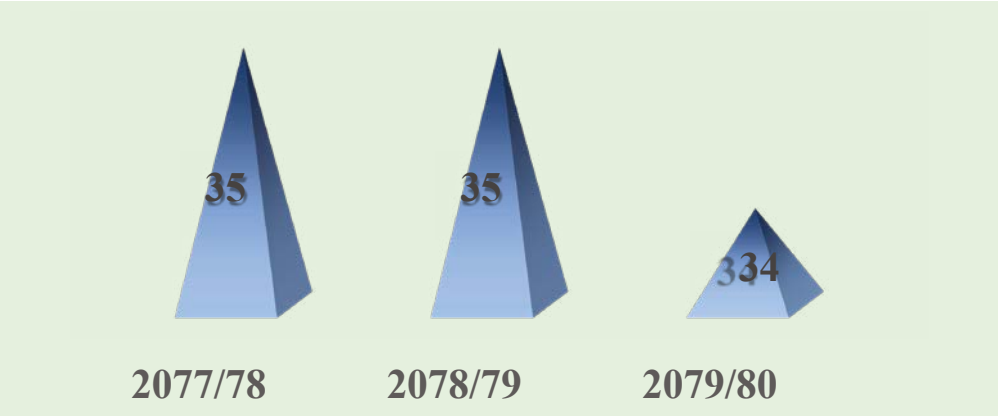


District Wise Status of Mothers who had Three PNC Check-up as Per Protocol FY 2079/80 (%)

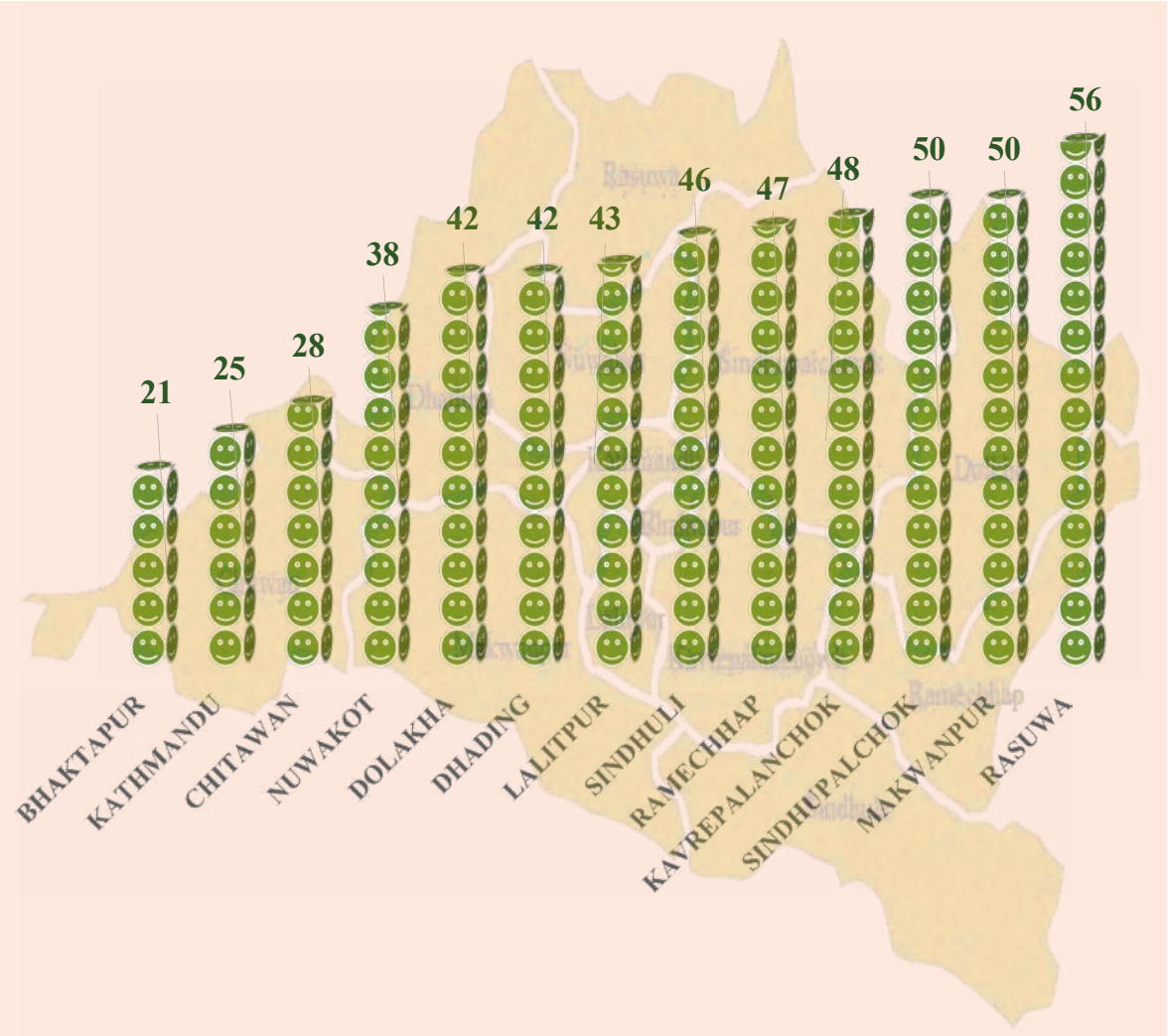


Family Planning Programme

Trend of Contraceptive Prevalence Rate (CPR)%

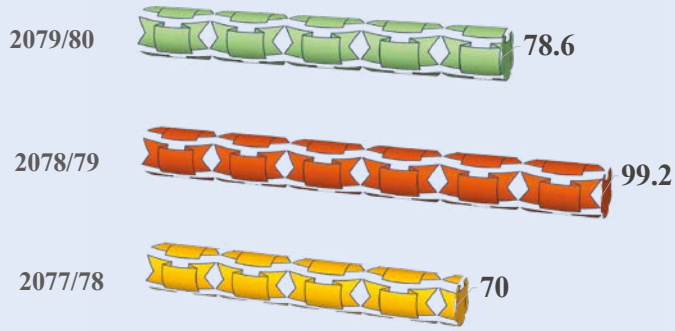


District Wise Status of Contraceptive Prevalence Rate FY 2079/80 (CPR)%

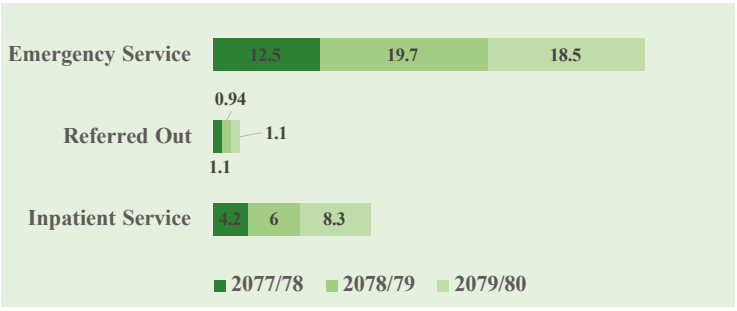


Curative Service

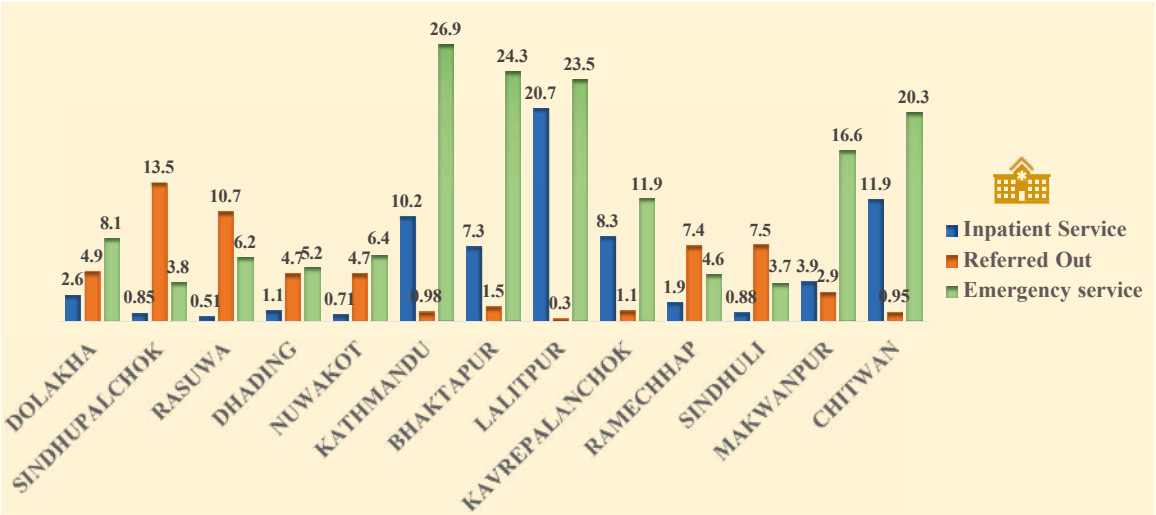
Trend of Population Utilizing Outpatient (OPD) Services (%)



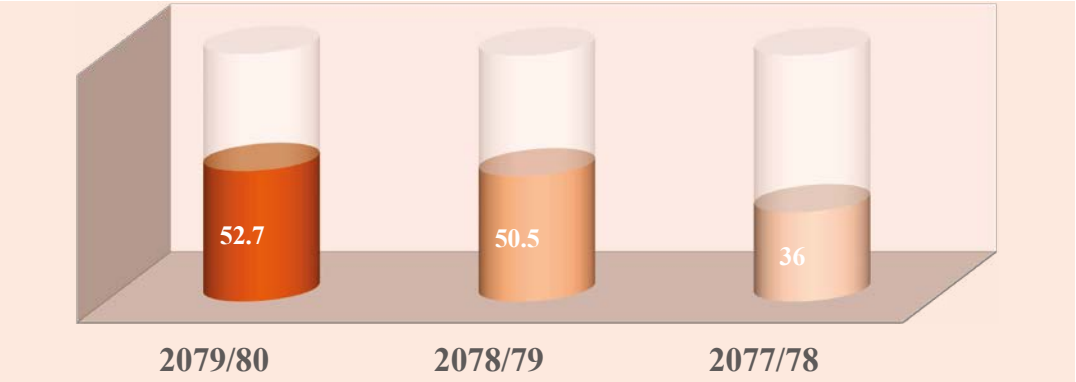
Trend of Population Utilizing Hospital Services (%)



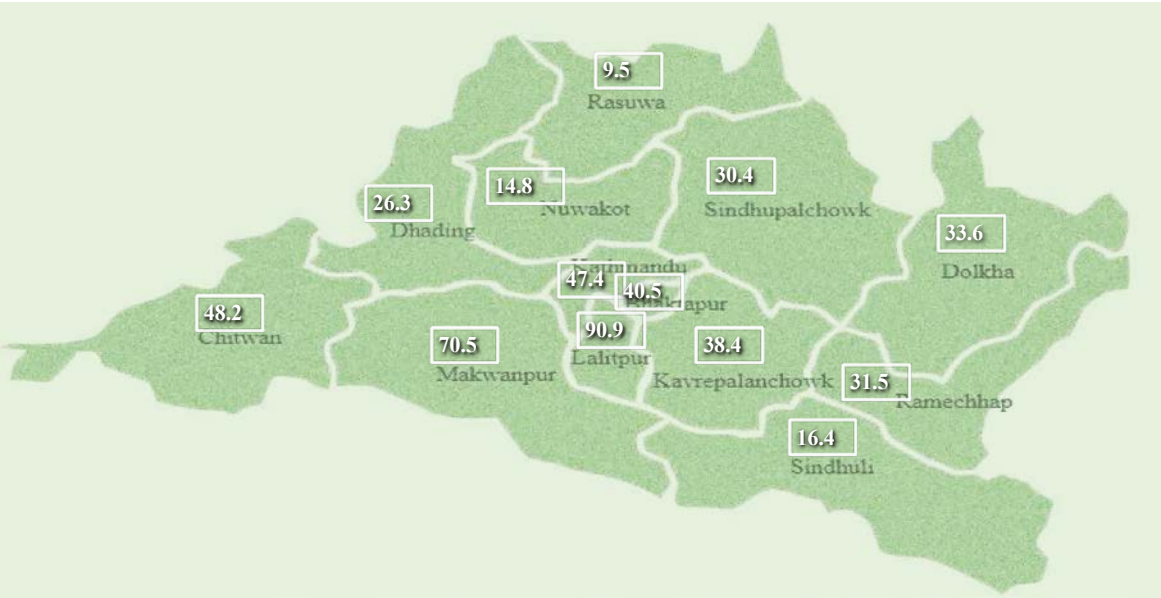
District wise Status of Population Utilizing Hospital Services FY 2079/80



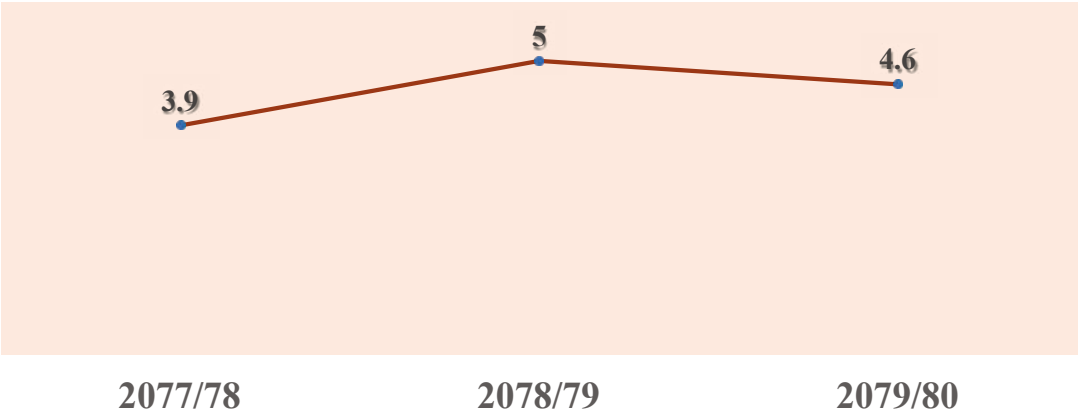
Trend of Bed Occupancy Rate (%)



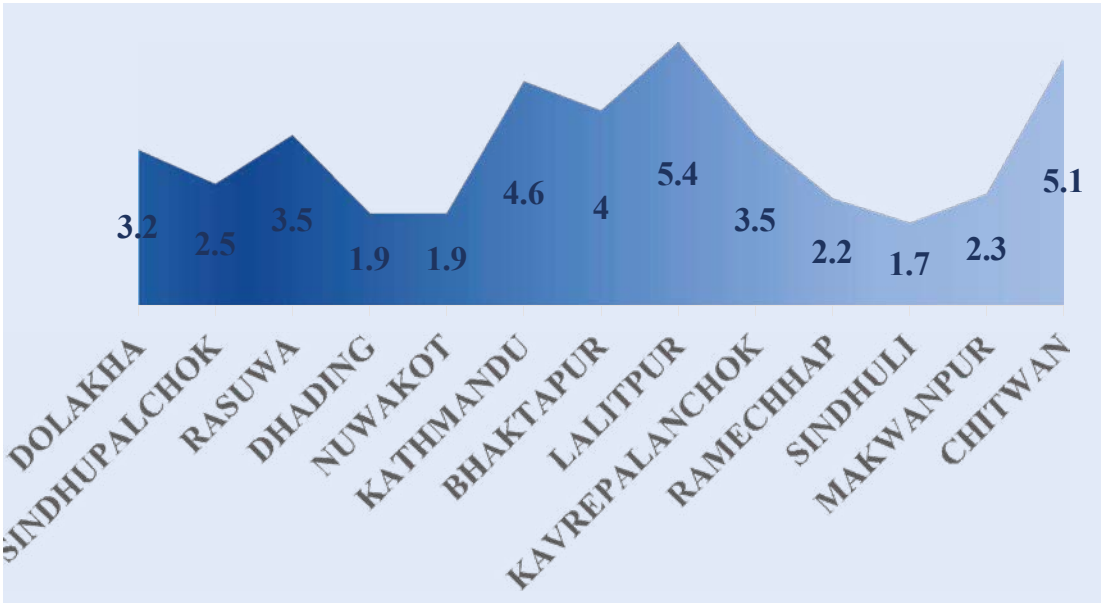
District wise Status of Bed Occupancy Rate FY 2079/80 (%)



Trend of Average Length of Stay at Hospital (Days)

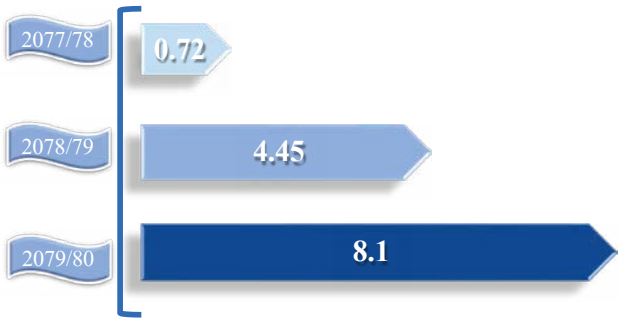


District wise Status of Average Length of Stay at Hospital FY 2079/80 (Days)

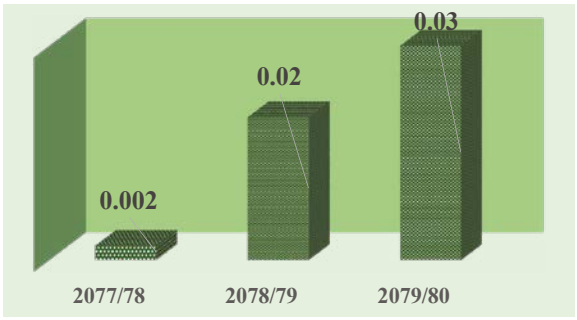


Malaria, Kalaazar and Dengue Programme

Trend of Annual blood slide examination rate (ABER) per100

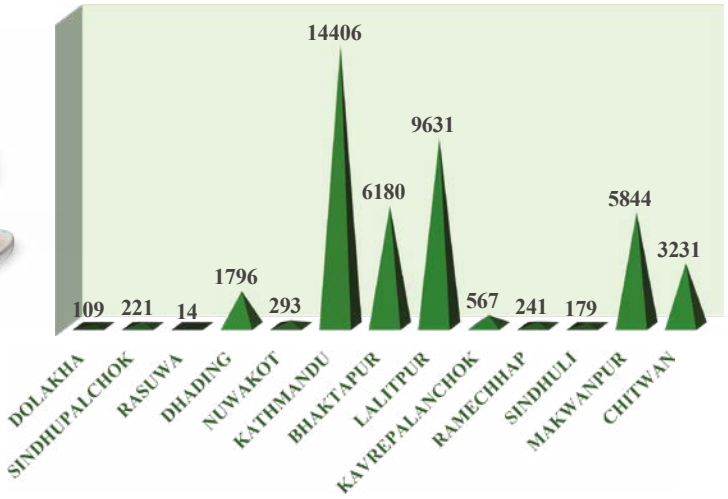


Annual parasite incidence (API) per 1000 population risk

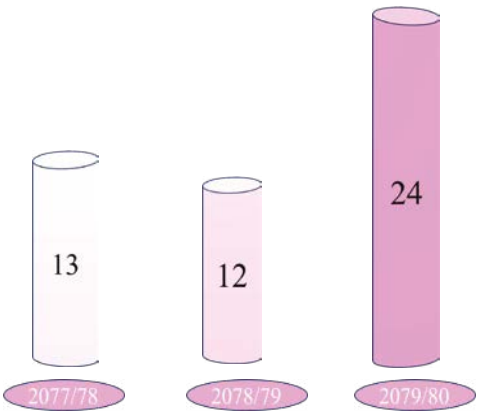


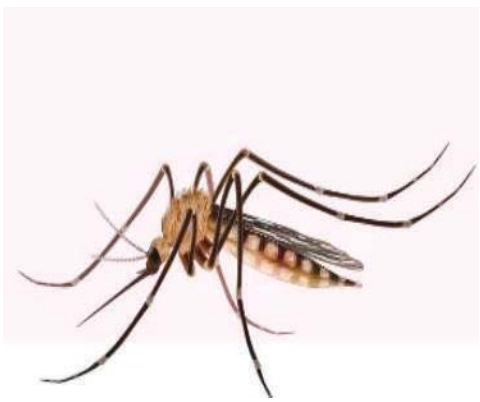
Trend of Dengue Cases (N)

District wise Status of Dengue Cases FY 2079/80 (N)



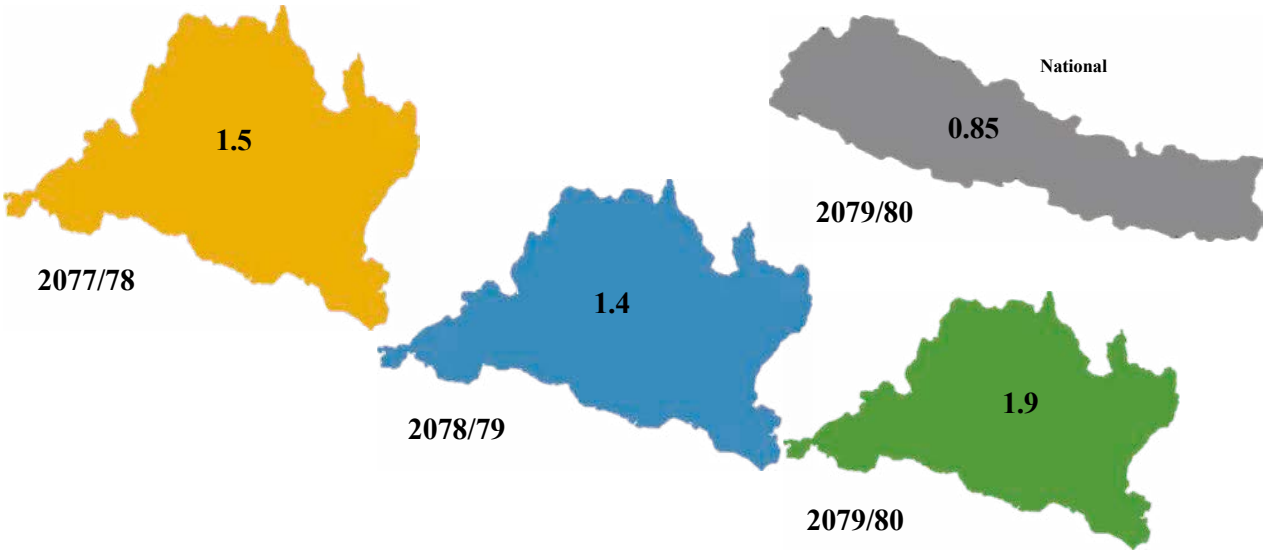
Trend of Kala-azar Cases (N)



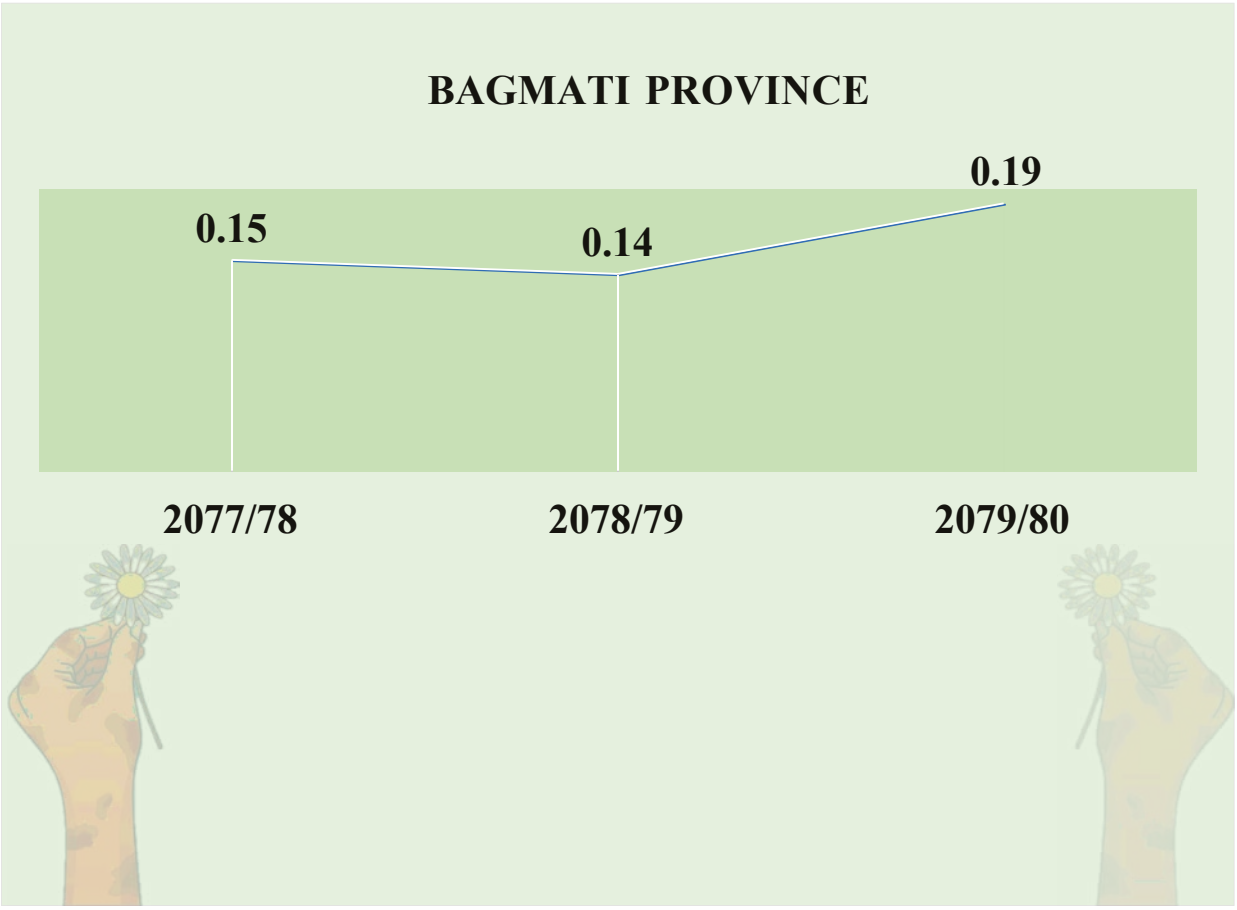


Leprosy Programme

Trend of New Case Detection Rate (NCDR) per 100,000 Population



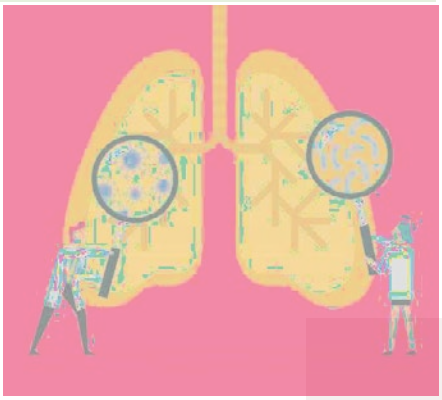
Trend of Prevalence Rate (PR) Per 10,000 Population

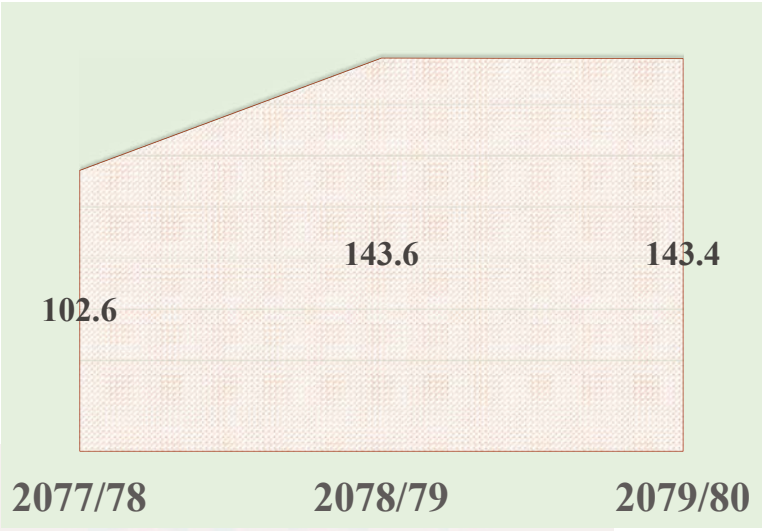


Tuberculosis Programme

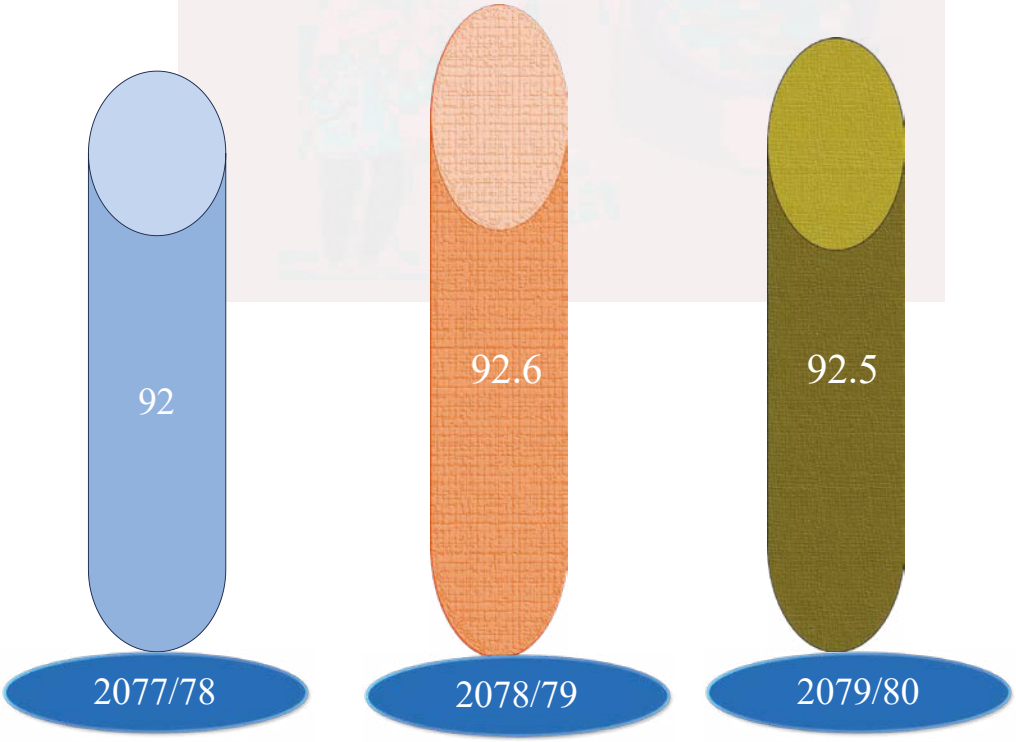
Trend of Case Notification Rate (all forms of TB/ 100,000 Population

National (2079/80)
126.1

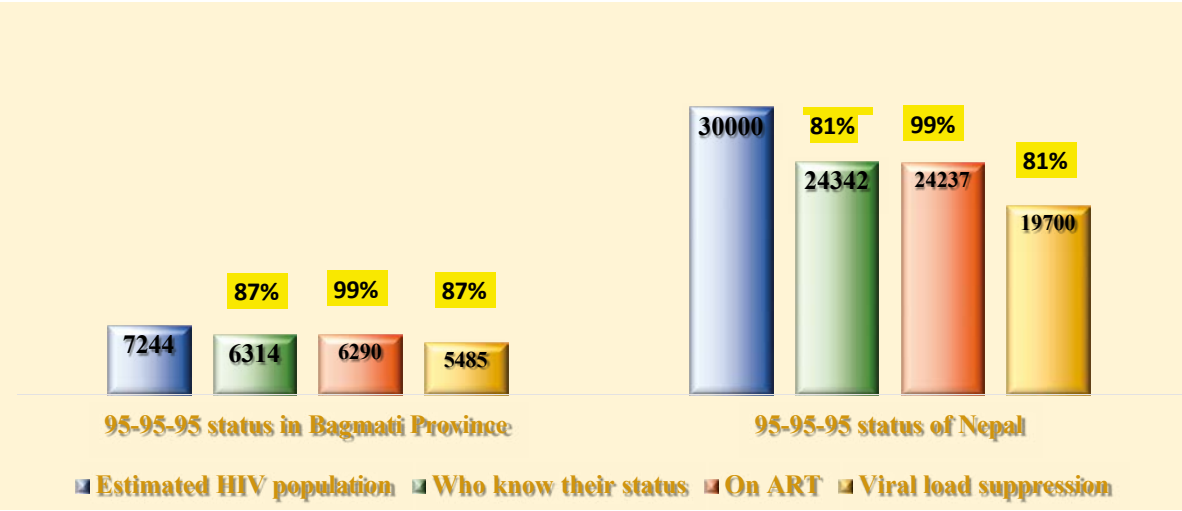




Trend of Treatment Success Rate (%)

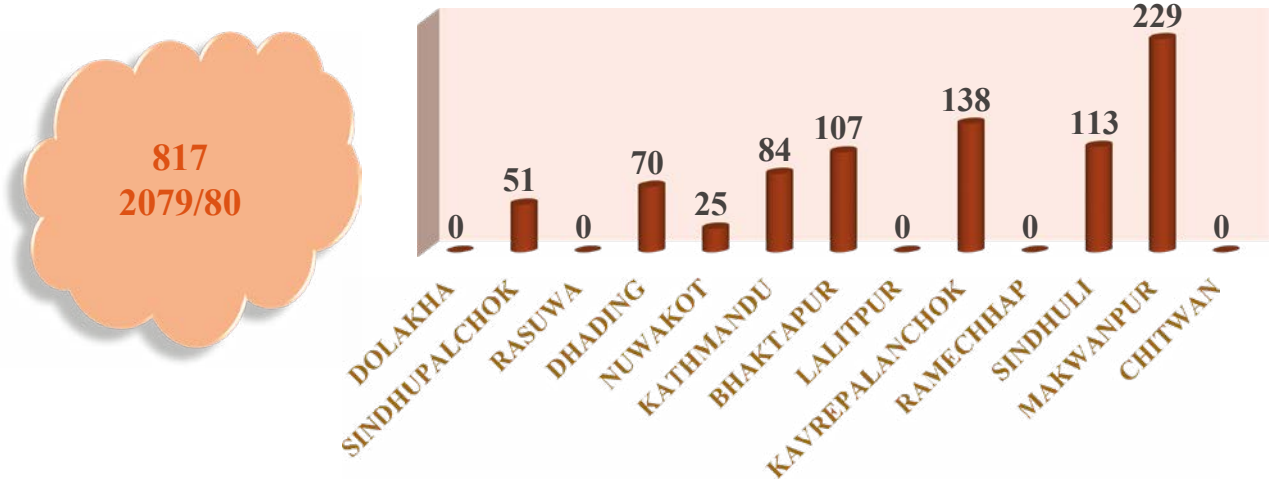


HIV/AIDS and STD Programme

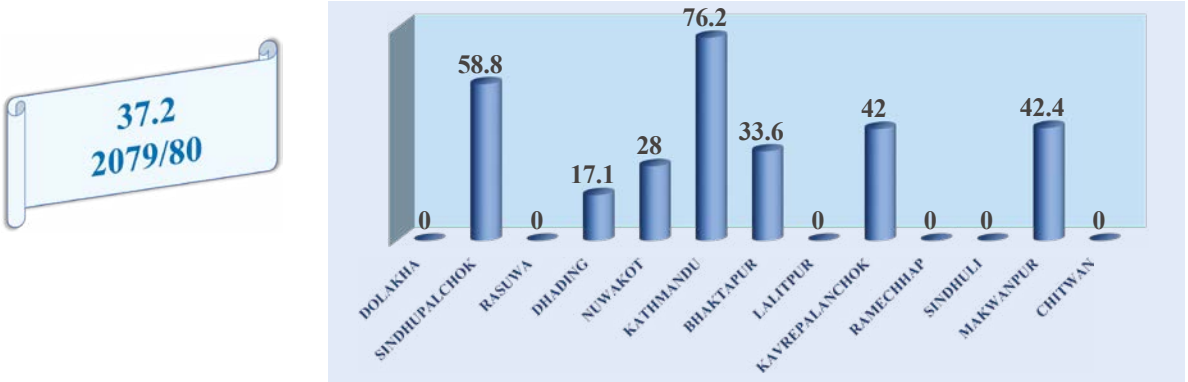


Nursing and Social Security

New Registered Cases in OCMC FY 2079/80 (N)

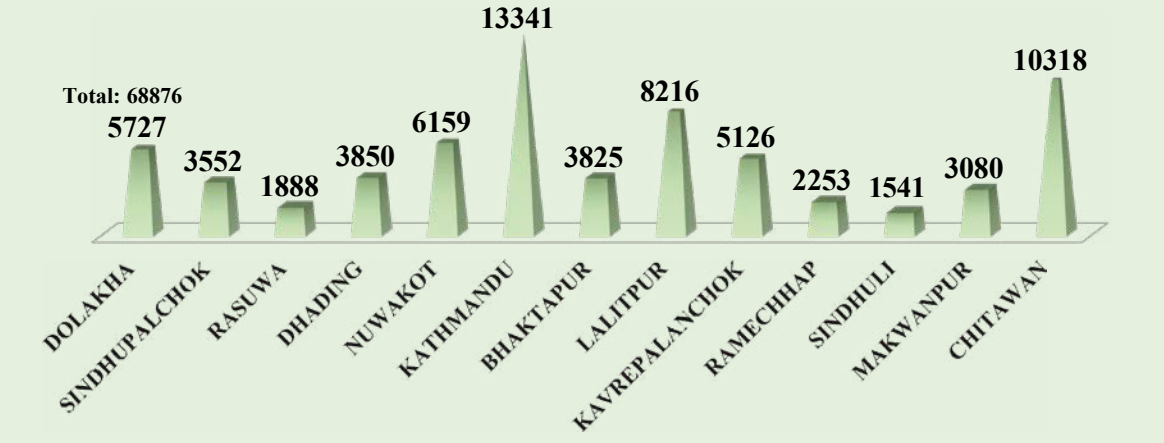


% of Physical Violence Among the Total New Registered Cases FY 2079/80

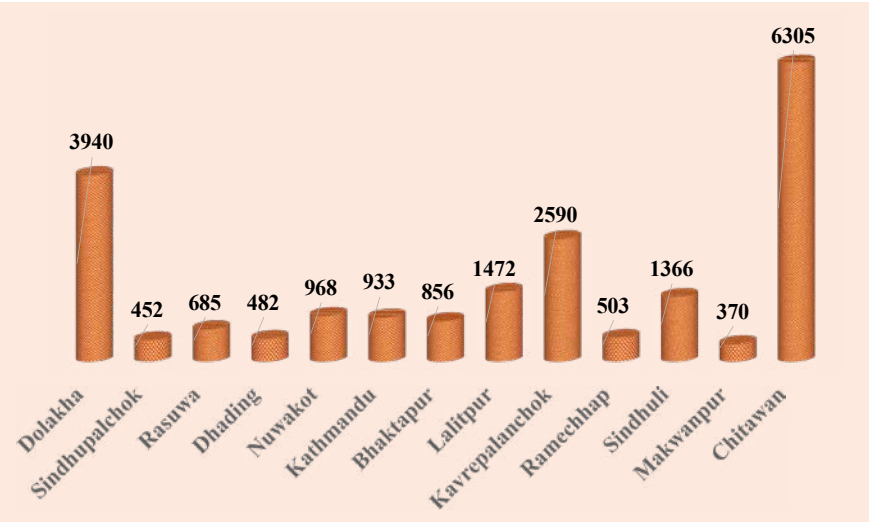


Ayurveda and Alternative Medicine

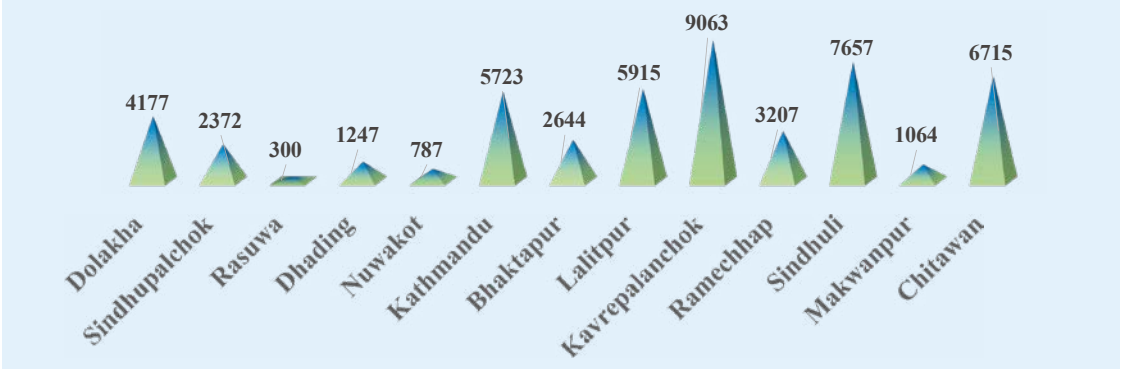
Trend of Purva Panchkarma Service (in number)



Trend of Yog Service (in number)



Trend of Jesthanagarik Service (in number)

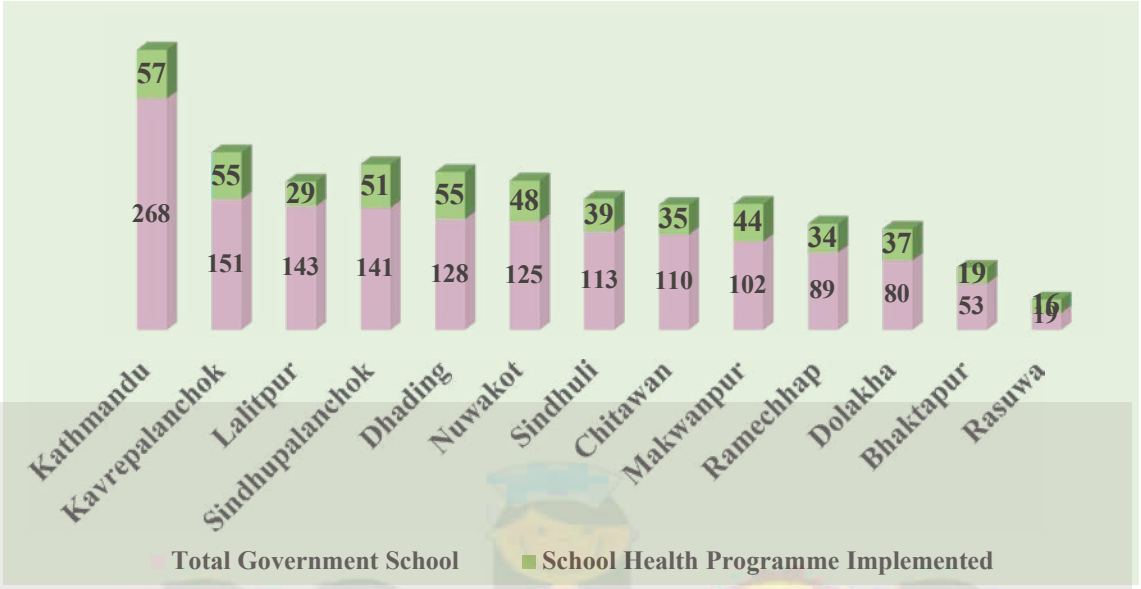


Trend of Minimum Service Standard Score (%)

Name of Hospital	2077/78	2078/79	2079/80
1. Trishuli Hospital	88%	94%	96%
2 Dhading Hospital	73%	93%	96%
3 Bhaktapur Hospital	82%	84%	97%
4 Sindhuli Hospital	77%	78%	87%
5 Hetauda Hospital	63%	67%	89%
6 Bakulahar Ratnanagar Hospital	77%	65%	80%
7 Chautara Hospital	57%	61%	89%
8 Methinkot Hospital	60%	61%	75%
9 Pashupati Chaulagain Smriti Hospital		56%	67%
10 Ramechhap Hospital	68%	57%	87%
11 Rasuwa Hospital	51%	49%	57%
12 Bajrabarahi Chapagaun Hospital	27%	31%	54%
13 Tokha Chandeshwori Hospital		31%	61%

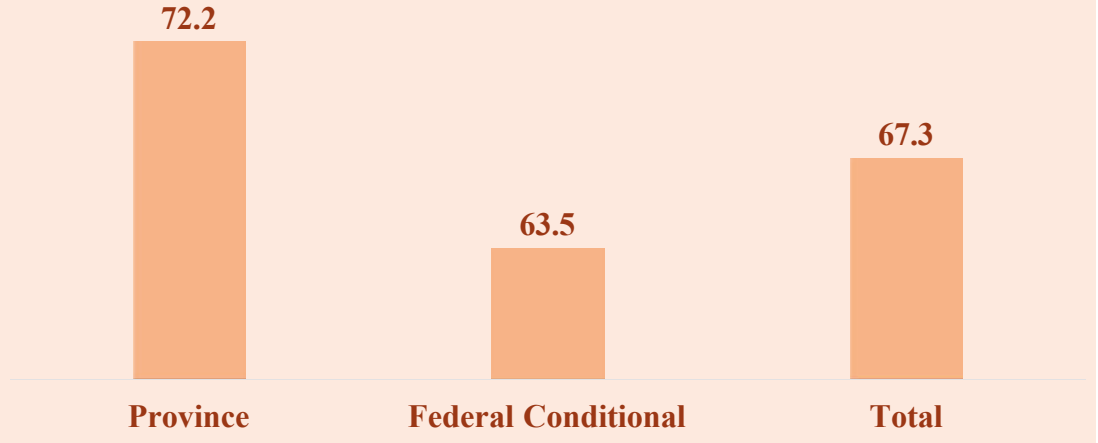
School Health Nurse Programme

District wise Status of School Health Nurse FY 2079/80 (N)



Health Financing

Financial Achievement FY 2079/80 (%)



District wise Total Financial Achievement of Health office , Hospital and Ayurveda Health Centre FY 2079/80 (%)

District	Health Office	Hospital	Ayurveda Health Centre
Makwanpur	79	86.19	91.78
Nuwakot	60.67	87.32	77.37
Bhaktapur	70	85.54	87.95
Chitwan	62.3	81.11	91.76
Dhading	70.52	77.26	85.10
Dolakha	57.72	66.87	79.80
Kavrepalanchok	63.35	63	97
Ramechhap	82.95	74.3	86.10
Sindhuli	65.96	99.6	91
Sindhupalanchok	61	78.78	84
Kathmandu	45.51	61.13	92.14
Lalitpur	81.7	62	98.84
Rasuwa	63.20	44.38	67.38