PROVINCIAL ANNUAL HEALTH REPORT

Fiscal Year 2077/78

Karnali Province Government

Ministry of Social Development

HEALTH SERVICE DIRECTORATE

Birendranagar, Surkhet, Nepal

Karnali Province Government
Ministry of Social Development
Health Service Directorate
Birendranagar, Surkhet, Nepal

PROVINCIAL HEALTH ANNUAL REPORT

F/Y 2077-78

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Karnali Province Government

Ministry of Social Development

Karnali Province

Birendranagar, Surkhet

MESSAGE

Health is the fundamental right of every citizen by constitution. Karnali Province Government, Ministry of Social Development is committed to deliver quality health services to all people of the province. Recently we have recognized our new Health Policy which clearly states our commitment towards increasing access and utilisation of health service through strengthened health system with our dream of *Healthy and Prosperous Karnali Citizen.* We are making strong institutional arrangement of Health service delivery system aiming to integrate health services to cater quality health service efficiently at single service delivery point.

I am pleased that the Annual Report of Karnali Province has come out for the fiscal year 2077/78. Particularly, the report encompasses the service coverage, performance against set targets, problems/ constraints, issues, and actions taken for specific health programs run by Health Service Directorate, Hospitals, Public / Health Service Offices, Local Levels as well as & Local Health Facilities within the province. I appreciate all health workers who continued primary and emergency health service fighting against COVID 19 over this period. I also express my heartfelt condolence to those people who lost their life fighting with COVID 19.

I am glad to know that this annual report is providing us with the results as per the new structure and system of the province. I am hopeful that the annual report of Health Service Directorate will be helpful for policy makers, managers, decision makers, evaluators, researchers and students and it is useful for further improvement of health services in Karnali Province.

I would like to extend my sincere thanks to Director Dr. Rabin Khadka & entire team for significant contribution for the preparation of this report. Last, but not least I would like to thank government of Nepal, development partners and concerned stakeholders for their continuous support.

Yagya Bahadur Budha Chettri
Minister
(Ministry of Social Development)

Karnali Province Government

Ministry of Social Development

Karnali Province

Birendranagar, Surkhet

PREFACE

This is my pleasure that the Annual Health Report of Karnali Province has come out for fiscal year 2077/78. This annual report reflects the annual progress of health services provided from all public and private health facilities within the province. Since the year was very critical due to COVID-19 pandemic across the world we were also seriously affected however the primary and emergency health services was not interrupted from all health facilities. Therefore, express my thanks too all dedicated health workers who were continuously hostile against the COVID-19 for life saving of those people living in Karnali province.

Ministry of Social Development is committed to obtain the better health of its citizen through preventive, promotive, curative, rehabilitative and palliative health services utilizing the available resources at optimum level. Provincial health priorities are reflected in our health policy, strategy, and program in the journey of prosperous and healthy Karnali people. MOSD is playing decisive role to get better health through improved health system. I hope this report would help to evaluate the target, achievements, access quality and gaps of health service over the last year.

The report provides the comprehensive health achievement based on the performance health system components and implementation of planned activities for community, district and province level and it encompasses the service coverage, performance against set targets, problems/constraints, issues, and actions taken of specific health programs run by health service units of the province.

I believe this report would facilitate Health Service Directorate, Public/ Health Service Offices, Public Hospitals, line ministries & other concerned stakeholders for monitoring and evaluation of health programs within the district and whole province. The report will be an asset for policy makers, program managers, academia and concerned stakeholders to analyze the specific issues, problems/constraints found over the period. The given recommendations would be supportive for design, implementation, monitoring, and evaluation of health programs. It is informative and useful for province government, local government, and other concerned stakeholders for evidence-based planning.

I would like to extend my deepest thanks to all service units of Hospitals, Public/ Health Service Offices, Medical Superintendents, Officials of Hospital Management Committee and concerned Officers for their continuous efforts to deliver the health services.

Finally, my appreciation goes to Health Service Directorate for publishing this Annual Report in this form. I appreciate to Director of HSD, focal persons, and development partners for their tireless contribution to produce this report in this valuable outcome.

K Kapri

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Krishna Prasad Kapri

(Secretary)

Karnali Province Government
Ministry of Social Development
Health Service Directorate
Karnali Province
Birendranagar, Surkhet

FOREWORD

TThis report is one of the major outputs of the hard work carried out in the fiscal year 2077/78. Data entered in District Health Information System (DHIS-2) platform of HMIS - a routine health information system were verified, analyzed, interpreted and herby presented in this report. It documents and reflects the annual progress of all Public/Health Service Offices, Public Hospitals & other public health facilities of Karnali. The report essentially encompasses the provincial as well as district level disaggregation of different service delivery statistics, performance against set targets, major issues of specific health programs run by all Public/Health Service Offices of Karnali. Likewise, we have presented some of the vital indicators of all 79 local levels of Karnali which would help to identify the areas for improvement in upcoming days. I believe critical analysis of the report would guide to work efficiently in running fiscal year and consecutively develop priorities for cost effective innovative public health interventions to achieve the health and prosperity of people in Karnali.

I believe this report would facilitate Health Service Directorate, Public/Health Service Offices & other public and private stakeholders for evidence informed planning as well as monitoring and evaluation of health programs at district and provincial level. The report analyzes the specific issues, problems/constraints prevailing in Karnali.

I am grateful to Ministry of Health & population, Department of Health Services for their technical and administrative support to implement, monitor and evaluate health programs throughout the Province. Similarly, I would like to extend my sincere gratitude to Honorable Minister, Secretary and Health Service Division of Ministry of Social Development, Karnali Province for backstopping the Health Directorate. Moreover, my special thanks go to thank all local levels and Health Section chiefs of Karnali Province working to ensure basic health services at their catchment area.

My sincere thanks towards all Managers of Public/ Health Service Offices, Hospital Directors/ Medical Superintendents, and other district level human resources for their continued efforts to deliver the health services in Karnali. Support and contribution of all the technical and administrative staffs of HSD are also thanked for their enerous support to strengthening health system and improving quality of life of people. I would like to appreciate the contribution of Female Community Health Volunteers (FCHVs), community level health workers, PHCC/ HP/CHU/UHCs/ BHSC level staff members for their continuous effort to deliver primary health care services at health facility & community level. Multilateral, Bilateral, International and Non-Governmental Organizations and all Public and Private Stakeholders working together with us for improving health of people as well as their support in health programs within the province are always of greater importance for improving health and lives of people.

At the last but not the least, I would like to thank all involved team members of Health Service Directorate, USAID's Strengthening Systems for Better Health Activity, UNICEF and WHO as well as all the members of technical team, advisors, and reviewer for their inputs in preparing this report.

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Dr. Rabin Khadka
(Director)

CONTENTS

ABBREVIATIONS AND ACRONYMS

ABER	Annual Blood Examination Rate
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
API	Annual Parasite Incidence
ARI	Acute Respiratory Infection
ART	Anti-Retroviral Therapy
ASRH	Adolescent Sexual and Reproductive Health
BCG	Bacillus Calmette and Guerin
BEONC	Basic Emergency Obstetric & Newborn Care
CABA	Children Affected By AIDS
CAC	Comprehensive Abortion Care
CBIMNCI	Community Based Integrated Management of Neonatal & Childhood Illness
CCC	Community Care Center
CEONC	Comprehensive Emergency Obstetric Newborn Care
CFR	Case Fatality Rate
CHBC	Community Home Based Care
CoFP	Comprehensive Family Planning
CPR	Contraceptive Prevalence Rate
C/S	Cesarean Section
DoHS	Department of Health Services
DOTS	Directly Observed Treatment Short Course
DPT	Diphtheria, Pertussis and Tetanus
DQSA	Data Quality Self-Assessment
DTLA	District Tuberculosis and Leprosy Assistant
EDCD	Epidemiology and Disease Control Division
EDP	External Development Partners
EDPT	Early Diagnosis and Prompt Treatment
EOC	Emergency Obstetric Care
EPI	Expanded Program on Immunization
FCHV	Female Community Health Volunteer
FP	Family Planning
FPAN	Family Planning Association of Nepal
FY	Fiscal year
GM	Growth Monitoring
GoN	Government of Nepal
HSD	Health Service Directorate
HFs	Health Facilities
HI	Health Institution
HIV	Human Immunodeficiency Virus
HP	Health Post
IDD	Iodine Deficiency Disorder
IEC	Information Education and Communication
IMR	Infant Mortality rate
IP	Infection Prevention
IPD	Immunization Preventable Diseases
IUCD	Intra Uterine Contraceptive Device
Lab. Asst.	Laboratory Assistant
LEC	Leprosy Elimination Campaign
LMIS	Logistic Management Information System
M&E	Monitoring and Evaluation

MB	Multi-Bacilli
MCs	Microscopy Centers
MDT	Multi Drug Therapy
MDR	Multi Drug Resistant
MIYCN	Maternal and infant young child nutrition
MMR	Maternal Mortality Ratio
MoHP	Ministry of Health & Population
MoSD	Ministry of Social Development
MWRA	Married Women of Reproductive Age
NCASC	National Center of AIDs and STD Control
NGO	Non-Governmental Organization
NHEICC	National Health Education Information and Communication Center
NHTC	National Health Training Center
NIP	National Immunization Program
NMR	Neonatal Mortality Ratio
NPHL	National Public Health Laboratory
NRCS	National Red Cross Society
NTC	National Tuberculosis Center
OPD	Outpatient Department
OPV	Oral Polio Vaccine
ORC	Outreach Clinic
ORS	Oral Rehydration Solution, Oral Rehydration Salts
ORT	Oral Rehydration Treatment
PAC	Post Abortion Care
PB	Pauci-Bacilli
PEM	Protein-Energy Malnutrition
PF	Plasmodium falciparum
PHC	Primary Health Care
PHCT	Provincial Health Coordination Team
PHO/PHA	Public Health Officer/Public Health Administrator
PLHIV	People Living with HIV
PME	Planning, Monitoring and Evaluation
PMTCT	Prevention of Mother To Child Transmission
PNC	Post Natal Care
PR	Prevalence Rate
PSI	Population Service International
PWID	People Who Inject Drugs
RDT	Rapid Diagnostic Test
SAM	Severe Acute Malnutrition
SBA	Skilled Birth Attendant
STI	Sexually Transmitted Infections
TNA	Training Need Assessment
TOT	Training of Trainers
Td	Tetanus diphtheria
TSU	Technical Support Unit
UN	United Nations
UNICEF	United Nations Children's Fund
VBD	Vector Borne Diseases
VPD	Vaccine Preventable Diseases
VSC	Voluntary Surgical Contraceptive
WFP	World Food Program
WHO	World Health Organization

FACT SHEET

KARNALI PROVINCE

(Fiscal Year 2075/76 to 2077/78)

Program Indicator	Province			FY 2077/78 by district									
	2075/ 76	2076/ 77	2077/78	DOLPA	MUGU	HUMLA	JUMLA	KALIKOT	DAILEKH	JAJARKOT	RUKUM WEST	SALYAN	SURKHET
PUBLIC HOSPITAL	12	16	22	1	1	1	1	1	2	1	4	1	3
PRIMARY HEALTH CENTRE	14	14	14		1		1	1	2	3	1	2	3
HEALTH POST	335	333	333	23	24	26	29	28	56	31	24	45	47
BASIC HEALTH SERVICE CENTER	16	103	239		5	2		30	6	7	32	16	5
COMMUNITY HEALTH UNIT	36	58	101		5	4	4	1	12	2		5	25
URBAN HEALTH CENTRE	22	28	17				1		4			2	21
REPORTING STATUS													
Public Hospital	100	100	100	100	100	100		100	100	100	100	100	100
PRIMARY HEALTH CENTRE	100	100	100		100		100	100	100	100	100	100	100
HEALTH POST	99.9	100	100	100	100	100	100	100	100	100	100	100	100
BASIC HEALTH SERVICE CENTER	100	100	100		100	100	100	99.8	100	100	100	100	100
URBAN HEALTH CENTRE	100	100	100						100		100	100	100
COMMUNITY HEALTH UNIT	99.9	100	100	100	100	100	100	100	100	100		100	100
Percentage of Reporting Status (PHCORC)	88.9	73	77	72.2	49.8	59.4	81.7	62.4	89.1	61.5	73.2	85.3	86.4
Percentage of Reporting Status (EPIC)	93.4	86.1	93.4	76.3	87.9	83.2	97.6	99	94.8	91.7	96.7	94.3	97.7
Percentage of Reporting Status (FCHV)	89.5	85.6	87.9	65.6	52.7	61.3	85.4	91.9	96.6	89.3	81.2	97.9	97
IMMUNIZATION STATUS %													
BCG Coverage	101.5	92.8	106.9	95.9	111	126.4	104.4	122.8	106	126.6	99.4	91.2	104.9
DPT-HepB-Hib3 Coverage	99.4	88.5	101.1	86.7	108.4	112.8	101.8	123.6	101	109.3	98.6	89.8	96.3
measles/rubella 1 Coverage	93.7	90	94.9	85.3	104.1	114.5	89.2	108.2	92.8	104.4	97.4	87.2	90.2
measles/rubella 2 Coverage	78.1	77.6	91.9	79.3	101.1	93.9	82.2	92.5	84.9	91.1	103.5	95.1	92.7
JE Coverage	86.3	86.1	95.5	87.6	103.4	113	88.1	99.6	88.6	96.8	105.6	95.6	93.2
% of rota 2nd	-	0.02	78.5	67.6	86.1	76.9	83.2	90.6	72.7	71.7	78.5	75.9	82.1
TD2 & TD2+ Coverage	69.2	65	72.8	57.7	75.1	75.6	74.3	85.9	75.3	76.7	72.4	61.7	72.4
NUTRITION STATUS %													
Percentage of children aged 0-23 months registered for growth monitoring	98.4	91.7	100.1	178.3	211	187	77.6	157.6	83.9	98.8	91.8	99.1	65
% of children aged 0-23 months registered for Growth Monitoring (New) who were Underweight	6.2	5.1	3.6	1.7	5.2	5	2.9	6.1	4.1	4.3	2.1	2	2.2
Percentage of women who received a 180 day supply of Iron Folic Acid during pregnancy	61	58.4	73.7	42.5	82.8	54.2	66	99.4	75.1	54.9	71.2	69.8	82.5
Percentage of postpartum women who received Vitamin A supplementation	97.9	85.7	92.6	63.6	86.9	65.9	102.7	123.4	96.7	95.3	64.5	77.6	104
Integrated Management of Neonatal and Childhood Illness (IMNCI) STATUS													
% of PSBI among registered 0-2 months infant (sick baby)	16.9	17.7	18.3	13.4	9.2	2.3	9.9	21.9	18.9	20.2	28.7	22.4	14.4
% of PSBI cases received complete dose of Gentamicin	56.7	67	65.2	62.1	20	60	38.5	63.9	70.8	71.7	77.7	51.5	67.1
Incidence of ARI among children under five years (per 1000)	941.5	993	888.9	839.4	748	835.7	1297	1063	1118	772.1	751.8	835.7	718.2

Program Indicator	Province			FY 2077/78 by district									
	2075/ 76	2076/ 77	2077/78	DOLPA	MUGU	HUMLA	JUMLA	KALIKOT	DAILEKH	JAJARKOT	RUKUM WEST	SALYAN	SURKHET
Percentage of severe Pneumonia among new cases	0.49	0.37	0.24	0.89	1.5	0.52	0.1	0.32	0.18	0.12	0.23	0.04	0.22
Diarrhoea incidence rate among children under five years	728.4	656	653.4	659.5	604	685	850.4	831.9	841	645.9	548.6	618.5	464.4
Percentage of children under five years with diarrhea treated with zinc and ORS	98.6	95.8	96.3	77.1	85.5	76.3	83.2	100.6	100	99.4	96	99.9	98
SAFE MOTHERHOOD (%)													
Percentage of pregnant women who had at least one ANC checkup	127.2	130.1	124.7	112.2	165.7	148.6	128.1	162.1	114	112.1	174.3	100.9	110.6
Percentage of pregnant women who had First ANC checkup as protocal	85	89	91	57.6	95.9	92.9	84.7	119.5	95.9	77.7	88.1	81	95.5
Percentage of pregnant women who had four ANC checkups as per protocol	61.9	65.6	76	34.8	74	72.7	75.8	99	84.5	55.8	76.8	70.4	78.9
Percentage of institutional deliveries	73.2	77.5	87.1	56	101.3	83.5	83.7	112.1	92.1	68	81	68.4	101
Percentage of births attended by a Skilled Birth Attendant (SBA)	59.4	62.6	69.6	48.1	87.8	65.8	59.8	98.7	64.2	51.4	67.1	44.7	91.6
Percentage of women who had 3 PNC check-ups as per protocol	24.1	29.4	40	16.4	47.2	51.2	53.4	72.5	55.7	40.4	29.5	24.8	27.8
Percentage of C/S deliveries	5.1	5.9	6	5.7	3.3	1.2	7.1	1.4	1.3	0.79	5	3.7	14.3
FAMILY PLANNING													
Contraceptive prevalence rate(Adjusted MWRA)	35	35.5	36.33	37.14	33.9	36.05	38.10	36.52	28	33.15	31.05	37.1	45.07
CPR (Spacing methods) as % of MWRA	20.1	22.5	23.5	26.5	20.4	21.8	15.0	27.4	19.0	23.9	25.8	28.6	23.3
New acceptor among as % of MWRA	18	19	19.4	25.7	29.9	30	15.6	18.5	18.6	21.8	23	16.2	17.2
FEMALE COMMUNITY HEALTH VOLUNTEERS													
Number of FCHV	4341	4244	4261	207	216	244	551	299	821	272	246	424	981
% of Mother groups meeting held	94.2	86.1	93.9	71.2	221	60.7	91.4	108.8	89.9	91.1	88.4	86.5	91.2
MALARIA AND KALA-AZAR													
Annual Blood Examination Rate per 100	0.57	0.61	0.40	0.01	1.16	2.94	0.05	0.19	0.11	0.06	0.79	0.01	0.59
Annual Parasite incidence (API) per/1000 popn	0.14	0.03	0.02	0.00	0.19	0.12	0.00	0.04	0.00	0.00	0.01	0.00	0.04
Incidence of Kala-azar in high risk disrtricts/10000 popn	0.24	0.02	0.39	0.00	0.00	0.00	0.08	2.67	0.00	0.00	0.00	0.00	0.66
TUBERCULOSIS													
Case notification rate (All form of TB case)	83	68.8	9.5	2.3	12.4	3.4	7.9	5	3.3	6.5	12.3	9.5	17.7
TB Treatment Success Rate(Percentage)	92.2	88.8	93.3	100	96.3	69.6	95	92.9	94.3	91.3	91.3	92.7	94.8
LEPROSY													
New case detection rate	4.4	3.1	3.7	0	0	1.7	3.2	3.7	4	5	5.3	4.7	2.8
Prevalence rate (PR) per 10000	0.54	0.43	0.47	0.00	0.00	0.51	0.63	0.81	0.37	0.70	0.53	0.55	0.31
HIV/AIDS													
HIV Tested	3439	2243	1497	0	0	0	15	149	606	0	20		707
Number of new positive cases among HIV tested	37	32	30	0	0	0	0	0	3	0	1		26
Number of HIV positive cases on ART	590	602	651	0	0	0	0	43	193	0	56	26	333
CURATIVE SERVICE													
% of OPD New Visits among total population	91.9	98.2	103.6	102.7	116	133.8	165.2	98.9	95.7	81	92.8	150	91.7
Average Length of stay in hospital	2.9	2.3	2.5	3	3.5	3.1	5	6.8	2.3	1.3	3.9	2.8	2

EXECUTIVE SUMMARY

This Provincial Annual Health Report of Health Service Directorate of fiscal year 2077/78 (2020/21) reflects the performance of various programs of preceeding three fiscal years and presents problems/constraints; actions taken and suggested actions for further improvement.

Health service information on its progress and achievement of health institutions of local levels, district, province aligning with national service coverage have been presented and analyzed comparatively in this report.

This report is mainly based on the information collected by the Health Management Information System (HMIS) from the health institutions across the Province as well as the progress report of different service centers. There are 1 Academic Hospital(KASH), 1 Secondary Hospital B(Provincial Hospital), 2 Secondary Hospitals A(Jajarkot Hospital and Mehelkuna Hospital), 20 Primary Hospitals (District and Local level Hospital), 3 Community Hospitals (Chaurjahari Hospital, Eye Hospital and Shining Hospital), 6 Private Hospitals, 14 Primary Health Care Centers (PHCCs) and 333 Health Posts (HPs), 359 Basic Health Service Centers, 17 Urban Health Centers, 101 Community Health Units, within Karnali Province reporting to HMIS, including service coverage of 956 Primary Health Care/Outreach Clinics (PHC/ORC), 1398 EPI Clinics and 4261 Female Community Health Volunteers (FCHVs), one Province Ayruveda Ausadhayala, 14 poly-clinics. In Karnali Province there are 9 district Ayurveda centers, 18 Ayurveda dispensaries, Nagarik Aryogya Center.

In this fiscal year, reporting status of all Health facilities (Hospitals, PHCC, HP, BHSC, CHU and UHC) is 100% whereas the reporting status of PHC-ORC, EPI clinics and FCHV is 77.1%, 93.4% and 87.9% respectively that have reported to HMIS in fiscal year 2077/78. Similarly, on an average one FCHV provine service to 19 people in province. PHC-ORC provided services to 21 people and each immunization clinic provided services to 20 people in Karnali.

FAMILY WELFARE DIVISION

Immunization

The provincial immunization coverage of most of the antigens in the regular National Immunization Program (NIP) during fiscal year 2077/78 has increased as compared to the last fiscal year. BCG coverage is 106.9%, DPT-Hep B-Hib-III is 101.1%, OPV-III is 92.9 %, Measles-Rubella-I is 94.9%, Measles-Rubella-2 is 91.9%, Td2 & Td2+ for pregnant women is 72.8% and JE is 95.5%. In fiscal year 2077/78, DPT-HepB-Hib 1 vs measles 2 dropout rate has been significantly decreased by approximately 7% as compared to last fiscal year. Similarly, BCG Vs Measles drop out has been significantly increased from 2.9% to 11.2, measles 1 vs 2 has been decreased from 14.5% to 5.1. The vaccine wastage rate for DPT-HepB-Hib slightly increasedto 35.1 in this fiscal year 2077/78 from 34.2% in last fiscal year 2076/77 which is higher than the acceptable wastage rate (15 %) and for BCG, it is 84.2% which is above the recommended wastage rate (50%). The data shows that vaccine wastage rate for almost all the antigens is increased in this fiscal year 2077/78 compared to that in last fiscal year 2076/77 above the acceptable range which suggests for the strict and proper implementation of Multi Dose Vaccine Vial Policy (MDVP) to reduce the wastage rate.

Nutrition

The growth monitoring services are targeted to children below 2 years of age. Two rounds of Mass Distribution Campaign of Vitamin A capsules to 6 to 59 months children and Albendazole distribution to 12-59 months children were conducted. All the children (100%) of under 2 years children were registered for growth monitoring, among which 3.6 % are reported underweight which significantly decreased compared to the last fiscal year i.e., 5.1 percent. More than 73.7 % women received a 180 day iron folic acid during pregnancy which is a significant rise form last fiscal year (58.4%). Furthermore, a total of 92.6% postpartum mother received vitamin A supplementation which is also in better position in compared to last fical year i.e., 85.7.

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

The CB-IMNCI program has been rolled out in all districts of Karnali Province aiming to reduce neonatal, infant and child mortality. The CB-IMNCI program has been implemented up to community level and it has achieved positive results in management of neonatal & childhood illnesses. The Chlorhexidine application immediately after the birth of new has decreased drastically from 95.3% last year to only 81 % in this year 2077/78. ARI cases per 1,000 under-five population have decreased from 993 in fiscal year 2076/77 to 889 in this fiscal year. Incidence of Pneumonia (Pneumonia + Severe Pneumonia) has slightly decreased from 148.2/1000 in fiscal year 2076/77 to 94.9/1,000 in fiscal year 2077/78. Similarly, the percentage of severe pneumonia has been slightly decreased from 0.37 percent in fiscal year 2076/77 to 0.24 percent in fisal year 2077/78. Incidence of diarrhea per 1,000 under-five years' children has decreased from 656 in fiscal year 2076/77 to 653.4 in fiscal year 2077/78. More than 96.3% of diarrheal cases were treated with Zinc and ORS. Proportion of 'Severe Dehydration' among diarrhea cases decreased from 0.4% in fiscal year 2076/77 to 0.25% in fiscal year 2077/78. The decrease in diarrheal incidence might be the people's behavior change in hand hygiene induced by COVID-19.

Family Planning

The Provincial adjusted contraceptive prevalence rate (adjusted CPR) for modern methods is 36.1 % in the year 2077/78 which slightly increased from 35.5% in fiscal year 2076/77. The highest CPR in fiscal year 2077/78 is in Surkhet (44.81%) and lowest is in Dailekh (27.83%) followed by RukumWest (30.88%).

Safe Motherhood

Access and availability of safe motherhood services has increased in the community over the last three fiscal years along with increasing number of birthing centers and increasing access to health services during delivery. There are 11 Comprehensive Emergency Obstetric and Neonatal Care (CEONC) sites & 14 Basic Emergency Obstetric and Neonatal Care (BEONC) sites within the Province. Moreover, there are 318 birthing centers in Karnali. There is a gradual increase in safe motherhood service indicators in Karnali Province compared to previous fiscal years. Service statistics of the fiscal year 2077/78 shows that most of the

mothers (124.7%) received at least one antenatal care services. Pregnant women who had four ANC visits as per protocol significantly increased to 76 in this fiscal year 2077/78 from 65.6% in the last fiscal year 2076/77. SBA assisted delivery increased from 62.7 % to 69.6 of expected live births in fiscal year 2077/78. Institutional delivery increased by nearly 10 points this fiscal year 2077/78 (87.1) compared to last fiscal year 2076/77 (77.5). There has been increase in percentage of mothers who received first postnatal care from 77.1% to 83% in fiscal year 2077/78. Similarly, women had their all three PNC as per protocol significantly increased to 40% this fical year 2077/78 compared to that in last fiscal year (27.3%). A total of 20 maternal deaths, 218 neonatal deaths & 518 still births were reported in fiscal year 2077/78. Neonatal mortality and still birth increased this year compared to last year, while the maternal mortality slightly decreased from 21 last year to 20 this year. On an average, percentage of caesarean section is 6 % in the province in fiscal year 2077/78.

Adolescent Sexual and Reproductive Health (ASRH)

Nepal has developed Adolescent Sexual and Reproductive Health strategy and endorsed the first National Adolescent Health and Development (NAHD) strategy in 2000. Adolescent Sexual and Reproductive Health is one of the priority programs of Family Welfare Division. NAHD was revised in 2018 to address emerging issues of the adolescents in the changing context. The objective of the ASRH is to enable all adolescents to be healthy, happy, competent, and responsible and to provide safe supportive and protective environment increasing the accessibility of adolescents to sound and age specific information to improve their health status. In the context of Karnali, a total of 104 health facilities have been providing adolescent friendly health facilities. Some of the local levels have taken initiation for the expansion of adolescent friendly health services at the facilities level.

NURSING AND SOCIAL SECURITY

Female Community Health Volunteers (FCHV)

A total of 4261 Female Community Health Volunteers (FCHVs) have been working in Karnali province. They are involved in the promotion of safe motherhood, child health, family planning, and community-based health services. In this fiscal year 2077/78, almost 93.9% mothers group meetings have been held which is a significant rise in compare to last year 2076/77 (86.2%). FCHVs played a crucial role in distribution of family planning devices such as condoms and pills as well as distribution of ORS and vitamin A to postpartum mothers. Looking at the data, FCHVs have distributed a total of 4,72,679 pieces of condoms in this fiscal year 2077/78 which is slightly less compared to last year 2076/77 (9527,781). Similarly, a total of 44,822 cycle of Pills and 1,00,423 packets of ORS were distributed in this fiscal year 2077/78. Beside this, they are also actively involved in national events such as Vitamin A distribution as well as counseling and referring mothers to health facilities for service utilization. A total of 4,289 postpartum mothers have received vitamin A from Female community health volunteers.

Social Security

Social health security was insured through Social Health Insurance scheme. Health Insurance is scaled up to all of the districts. Facilitation for specified eight diseases (Parkinson's, Head Injury, Spinal injury, Sickle cell anemia, Alzimer, Cancer, Heart disease and Kidney diseases) are done by local levels.

EPIDEMIOLOGY AND DISEASE CONTROL

Malaria

A total of 34 new malaria cases were identified in fiscal year 2077/78 which declined from 51 cases in last year 2076/77. Among the total cases, Plasmodium vivax cases were 31 (16 indigenous and 15 imported) and 2 Plasmodium falciparum cases (1 indigenous and 1 imported). The Annual Blood Slide Examination Rate (ABER) decreased from 0.61 in fiscal year 2076/77 to 0.40 in this fiscal year 2077/78. During the same period, the annual parasite incidence rate (API) has decreased from 0.03 per 1000 in fiscal 2076/77 to 0.02 in this fiscal year 2077/78.

Lymphatic Filariasis

Mass Drug Administration (MDA) against Lymphatic Filariasis has been stopped in Karnali Province after effective implementation of MDA campaign. In Morbidity management and disability prevention program, Morbidity mapping in Surkhet district has also been completed.

Health Emergency Epidemic & Outbreak

Provincial Health Emergency Operation Center (PHEOC) is a focal point for emergency health management at provincial level. The unit is responsible for outbreak management, disaster response, epidemic, endemic and pandemic, and technical support to province government for situation assessment, monitoring, and surveillance. Furthermore, PHEOC is equally responsible for COVID 19 response and its investigation and management. Contract tracing and case investigation (CICT) is one of the prime responsibilities of PHEOC and has being carried out. PHEOC is actively involved in information collation and management related to natural disasters, casualties and outbreak responses in Karnali from different stakeholders involved.

Tuberculosis

In Karnali, Directly Observed Treatment Short course (DOTS) for Tuberculosis (TB) is being provided through 388 treatment centers. The Case Notification Rate (CNR) per 100,000 has decreased to 65.4 in recent fiscal year 2077/78 which was 68.8 % in fiscal year 2076/77. Treatment Success Rate (TSR) has increased to 93.3% in fiscal year 2077/78 from 88.5% in fiscal year 2076/77. Multi Drug Resistant (MDR) TB management service has been implemented in Karnali province since 2005. Total 18 MDR-TB cases have been registered in 2077/78 and one additional transfer case is found in Karnali. Province has a total number of 11 MDR TB patient under treatment regimen within the health facilities. MDRTB patients of this province are also receiving treatment service from TB Nepal, Nepalgunj.

NCD and Mental Health

Provincial ToT and District level training of health service providers were carried out for Package for Essential Non-Communicable Diseases (PEN) program in scaled up to Surkhet, Jumla, Jajarkot, Humla and Dolpa. PEN Program was implemented in Hospitals, PHCCS and Health Post of respective districts.

Mental health training was provided to medical officers, paramedics and nursing staff of Dailekh, Jajarkot, Salyan and Surkhet districts. In the recent context of COVID 19, the counseling services on mental health has been further strengthened with the leadership from PHSD in close collaboration with other supporting agencies and development partners.

Leprosy

The prevalence of leprosy is 0.47 per 10,000 population in Karnali which meets the elimination level (<1 per 10,000 population). Total 67 new leprosy cases were detected in fiscal year 2077/78. The new case detection rate has increased to 3.7/100,000 in fiscal year 2077/78 and it was 3.1/100,000 population in fiscal year 2076/77. In this fiscal year 2077/78, a total of 50 cases were done RFT. Total 88 cases were under treatment till the end of fiscal 2077/78.

HIV/AIDS and STI:

There are total 16 HIV Testing and Counseling (HTC) sites in Karnali Province. Total 1,497Clients werecounseled and tested for HIV in all HTC center. Out of total tested, 30 (2%) new HIV cases were reported in fiscal year 2077/78 in Karnali Province. Total HIV test in HTC center has decreased while HIV positive percentage among total tested has increased compared to previous FY. Among 30 new HIV infected cases 16 Male and 14 Female were reported.

Total 651 PLHIVare currentlytaking ART from6 ART sites of karnali province during fiscal year 2077/78.Out of total 651 PLHIV, 328 are Adult Male, 279 are Adult Female, 1 is Adult TG and 43 are Children.

From STI sites in province, total 692 cases of STIs were screened, diagnosed and treated during reporting period. Out of 692, 64 were Male migrants, 250 were spouse of male migrants and 375 were others.

In PMTCT program a total 48,400 pregnant women has counselled on PMTCT and HIV. Among total counselled 31,246 pregnant women were tested for HIV during fiscal year 2077/78. From total test, 2 women were diagnosed as HIV positive from PMTCT program and were enrolled in ART services.

CURATIVE SERVICE

Curative Services

Curative services are provided through 1 Academic Hospital(KASH), 1 Secondary Hospital B (Provincial Hospital), 2 Secondary Hospitals A(Jajarkot Hospital and Mehelkuna Hospital), 20 Primary Hospitals (District and Local level Hospital), 3 Community Hospitals (Chaurjahari Hospital, Eye Hospital and Shining Hospital), 6 Private Hospitals, 14 Primary Health Care Centers (PHCCs) and 333 Health Posts (HPs), 359 Basic Health Service Centers, 17 Urban

Health Centers, 101 Community Health Units in province. Majority of curative services are taken care by Provincial hospital. Percentage of new OPD visits among the total population was found 103.6% in fiscal year 2077/78. The bed occupancy rate of hospitals in the province decreased to 35.9 in this fiscal year 2077/78 from 38.6% in fiscal year 2076/77 and. All the essential listed drug by government of Nepal has been procured by health directorate, logistic management and procurement section and supplied to health facilities.

Health Laboratory Services

Quality control unit of Health Service Directorate is responsible for providing laboratory support (especially TB) within the province by conducting laboratory training (basic and refresher), logistic supply and supervision. During fiscal year 2077/78, a total of 13660 slides were screened for the TB diagnosis and 3895 slides were rechecked for quality assessment. Overall agreement rate was 99 percent.

SUPPORTING PROGRAMS

Personnel Administration

Administration Section of the Health Service Directorate Karnali province takes the responsibility of organizing day-to-day internal administrative and personnel management. Out of 895 sanctioned position, only 314 are filled, and 577 posts are vacant. Majority posts of Medical officers and specialists are vacant in the hospitals. Despite of the challenges, Ministry of Social development (MoSD) and province health service directorate has been filling the vacant post in contract basis. Thus, only 35.08% of positions are filled in Karnali by the end of fiscal year 2077/78.

Financial Administration

A total of Rs. 390249000 budgets allocated for PHSD to execute different health program, a sum of Rs. 209376402 (53.65%) was absorbed during fiscal year2077/78. The federal government, covid current, Covid Grant, Non-conditional grants are the major sources of budget in province.

Planning, Monitoring, and Information Management

Management Information System (MIS) Section, HSD coordinates with Public/ Health Service Offices & hospitals for timely reporting and feedback. It also provides technical support to districts & local levels in HMIS. It prepares and implements integrated supervision & monitoring plan. It provides technical inputs in conducting Annual Performance Review workshop at districts & local levels and conducts half yearly & annual provincial performance review workshops. Orientation program on HMIS tools for newly recruited staff was conducted in different districts. DHIS-2 training (for PHCC, Health service office staff, hospital staff, local HF staff) was carried out in provincial as well as in district level. Planning, monitoring, supervision & information management is continued in fiscal year 20776/77. Onsite coaching, data quality assessments, orientation & supervision/monitoring of private & non-government institutions, microplanning for family planning & immunization programs were carried out in different districts. Furthermore,

various virtual orientations upto palika levelwere conducted for covid case reporting and covid vaccination reporting.

Logistic Management

A Medical Store unit of Health service directorate of Karnali lies in Nepalgunj to allocate logistics (from central and provincial level), manage and distribute the health commodities to its targeted health institution. Beside this, HSD provides services for repair and maintenance of biomedical equipment's & instruments. LMIS reporting for 98.4 for first quarter, and rest of three quraters reported hundred percent reporting in Karnali province.

Training

Human Resource Development Center (HRDC), the former Health Training center conducted in-service, refresher, up-grading training along with clinical, non-clinical and other management trainings in the fiscal year 2077/78. Besides these, HRDC is also responsible for gap analysis, recommendation and research on training needs of HRH of Karnali.

Health Education, Information and Communication

Public/ Health Service Offices and HSD implements IEC activities utilizing various media and methods according to the local needs of the people. Local media were used in the district & local level for dissemination of health messages. The main activities include health education programs in the schools and community; print materials production and distribution; production and dissemination of regular, weekly, and periodic radio, television and FM radio programs; publication and dissemination of health messages through newspapers, social mobilization, advocacy, workshop-seminar, folk events, observation on special days and exhibitions. Majority of the districts achieved more than 90 percent progress in IEC activities. Health Education and Health promotion unit of PHSD is responsible for the task. In the context of COVID 19, the unit prepared various IEC/BCC messages for maximizing the vaccination coverage and roll out preregistration and registration for covid vaccination. Furthermore, it also developed messages for accessing online covid vaccine certification with QR code.

Supportive Supervision, Monitoring and Evaluation

Health Service Directorate Surkhet carried out integrated as well as program specific supervision and monitoring in different districts, local levels, and different service delivery sites within the province. Different methodologies, tools, techniques & priorities were developed and deployed for supervision and monitoring. Integrated supportive supervision Monitoring visits during various covid vaccination campaigns.

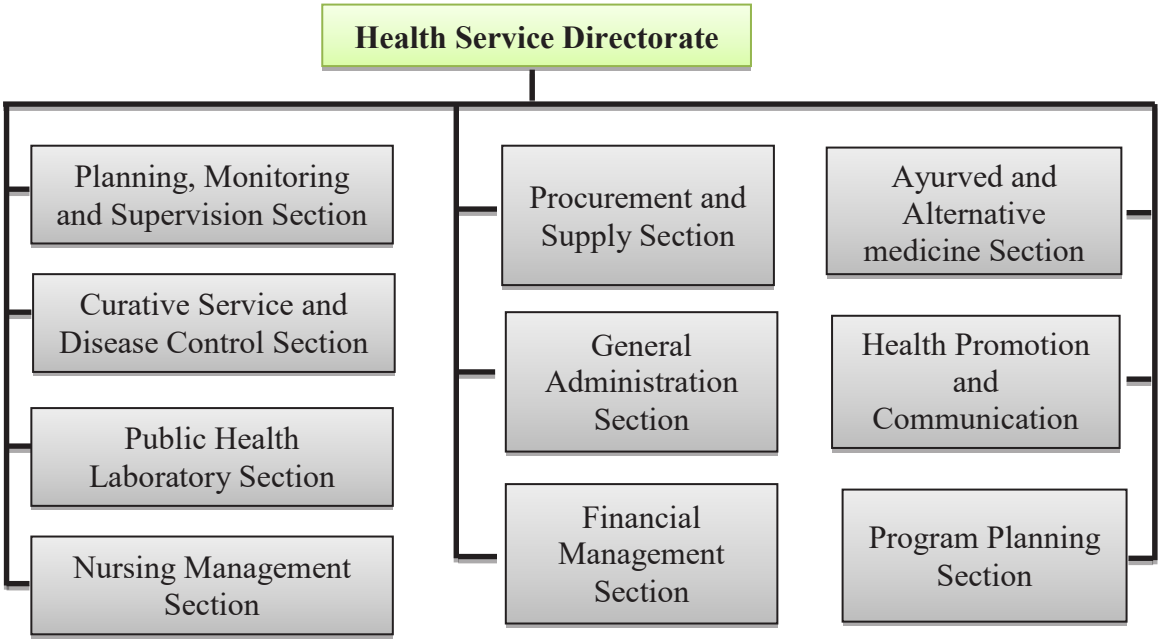
1. INTRODUCTION

1.1 General Introduction

Karnali Province spread over 27,984 square kilometers and is in mid-west of Nepal. Karnali province includes both mountains and hilly terrain and shares boarders to China in the north, Gandaki province to the East, Sudurpaschim province to the West, and Lumbini province to the South. Population of 1.7 million (6% of national population) resides within 10 districts, 79 local government (54 rural and 25 urban) and 718 wards of Karnali Province. Constitution of Nepal guarantees access to basic health services as a fundamental right of every citizen. In line with the constitution, Health policy, 2076 of Karnali province has visioned for the access to quality health care services for every Karnali dwellers and ensure peoples fundamental right to live healthy life.

Health Service Directorate

Health Service Directorate (HSD) is the health activities implementing body established under the Ministry of Social Development (MoSD) of Karnali Province. There are 10 sections under Health Service Directorate. Th function of the Health Service Directorate is to provide technical backstopping as well as program supervision to the Public/Health Service Offices and Hospitals.



1.2 Role and responsibility of health directorate

The Constitution of Nepal 2072 endorsed health as fundamental right of people. Inline with the proclamation of Alma Ata Declaraion; health for all, health service directorate has been providing Primary health care services to reach out all people. Health Service Directorate (HSD) is health activities implementing body under the Ministry of Social Development (MoSD) of Karnali Province. The Health Service Directorate oversees the health system and provides technical backstopping and program supervision and monitoring to the Public/Health Service Offices and Hospitals.

Objectives:

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

1.3 Major activities of Health Directorate

- Develop annual work plan as per the policy and directions of MOHP& Ministry of Social Development
- Develop the provincial level program in line with the district level program and report to the central authority
- Support in implementation of National policy, provincial health policy analyzing the available health services in the province
- Coordinate with relevant stakeholders in the province for joining hands to work collectively in the health sector
- Develop budget estimates in coordination with the health offices, Ayurveda centres regarding the construction and repair of physical facilities
- Monitor and control the financial transaction in the district level as per need
- Administer the implementation of audit report and take action to those who do not clear their advances and financial irregularities as per the existing financial rules or recommend to the centre for necessary action Print and distribute the forms and formats provided by Policies to district Health Offices, Hospitals and Ayurveda Centers

Number of Service Delivery Sites by District

To deliver basic primary health care to around 1.7 million population of Karnali, there are 1 Academic Hospital(KASH), 1 Secondary Hospital B(Provincial Hospital), 2 Secondary Hospitals A(Jajarkot Hospital and Mehelkuna Hospital), 20 Primary Hospitals (District and Local level Hospital), 3 Community Hospitals (Chaurjahari Hospital, Eye Hospital and Shining Hospital), 6 Private Hospitals, 14 Primary Health Care Centers (PHCCs) and 333 Health Posts (HPs), 239 Basic Health Service Centers, 7 Urban Health Centers, 100 Community Health Units Public/ Health service Offices under the Directorate are established in Surkhet, Jumla, Salyan, Humla, Mugu, Kalikot, West Rukum, Dailekh, Jajarkot and Dolpa for managerial purpose as an implementation unit of Province Government of Karnali. Other private health facilities and development partners including INGOs, bilateral and multilateral organizations have been working in the province.

Table 1.1 Service Delivery Points, Service Providers in Karnali

Institution	Number	Institution	Number
Secondary Hospital (B)Province Hospital	1	Basic Emergency Obstetric center	14
Academic Hospital	1	Comprehensive Emergency Obstetric and neonatal Care	11
Secondary Hospital A	2	PHC/ORCs	956
Primary Hospital	20	EPIORCs	1398
Other Hospitals (Privates)	6	FCHVs	4261
Community Hospital	3	Safe abortion sites	47
Health Service Offices	8	Microscopic center	47
Public Health Service Offices	2	DOTS Center	388
PHCCs	14	DR Treatment Center	2
Health Post	333	DR Treatment S/Center	14
Basic Health Service Center	239	Gene Xpert Lab	8
Community Health Unit	101	ART	6
Urban Health Center	17	Ayurved Ayushadhalaya	9
Birthing center	359	Nagarik Arogya Kendra	27

Source: *District Presentation at Provincial Review Meeting Birendranagar, Surkhet 2077/78*

Health System Building Blocks in context to Karnali Province

The World Health Organization has formulated health system framework that describes health systems in six building blocks. A good service delivery comprises quality, access, safety and coverage. A well-performing workforce consists of human resource management, skills and policies. Likewise, a well performing system ensures the production, analysis, dissemination and use of timely and reliable information. Procurement and supply ensure equitable access, assure quality and cost-effective use. A good health financial system raises adequate funds for health, protects people from catastrophic financial burden. Effective leadership and governance ensure the existence of strategic policy framework, effective oversite and coalition building, and attention to system design and accountability.

Table 1.2. Status of Health, HRH, Reporting, financing and Governance and leadership

Building Blocks and Indicators	Status of Karnali Province
Health Services Delivery	
Population per government hospital	1,21,609
Population per hospital (both sector)	79310
Population per health facility (included hospital, PHCC and HP)	5039
Population per FCHV	430
Health Workforce (Provincial Level HRH)	
Availability of Medical Doctors	25 (Vacant percentage 85%)
Availability of Nursing Staff	80 (Vacant percentage 65%)
Availability of Paramedics	52 (Vacant percentage 33%)
FCHVs	4261
Doctor Patient Ratio	0.14
Nurse Patient Ratio	0.90

Building Blocks and Indicators	Status of Karnali Province
Health Information	
Reporting Status of Government Hospital (N=22)	100%
Reporting Status of PHCC (N=14)	100%
Reporting Status of Health Posts (N=333)	100%
Reporting Status of PHC-ORC (N=956)	77.1%
Reporting Status of EPI clinics (N=1398)	93.4%
Reporting Status of FCHVs (N=4261)	87.9%
Health Financing	
Provincial Total Budget	33741353000
Total Budget MoSD	5724932000
Provincial total Health Budget	3227276000
% of health budget among total MoSD budget	56.37%
Expenditure (%)	82.5% (Physical), 70.7% (Financial)
Insurance covered districts	10
Total population insured	269903
Leadership and Governance	
Provincial Health Policy	Implementation stage
Provincial Health Act	Implementation stage

Source: *Annual Review of PHSD, MoSD, Karnali Province.*

1.4 Nepal Health Sector Strategy 2015-2020

1.4.1 Introduction

The origin of the five-year strategic health planning process in Nepal can be traced back to 2003 when the Council of Ministers endorsed the *Health Sector Strategy: An Agenda for Reform*. The strategy put in place the first Nepal Health Sector Program (NHSP-I) as its implementation plan for the period 2005-2010. The second sector Program for the period 2010-2015 (NHSP-II) was largely seen as an extension of the previous one, albeit with greater emphasis on partnerships, local governance, decentralized service delivery and equitable access to essential health care services. Nepal Health Sector Strategy 2015-2020 (NHSS) is recognised as the strategy that will guide the sector, considering multi-sector collaboration to address wider determinants of health, over the next five-year period. It responds to the existing socio-political environment and the changes that have taken place both in the local and global health agenda.

The NHSS stands on four **strategic principles**

1 Equitable access to health services
2. Quality health services
3. Health systems reform
4. Multi-sectoral approach

The Result Framework

The result framework of NHSS has 10 goal level indicators ensured through 9 outcomes and 26 outputs.

Table1.3. Result Framework of NHSS

Goal No	Goal: *Improved health status of all people through accountable and equitable health delivery system*	Baseline		Target 2020
		2011	2016	
1	Maternal mortality ratio (per 100,000 live births)	---	239	125
2	Under five mortality rate (per 1,000 live births)	54	39	28
3	Neonatal mortality rate (per 1,000 live births)	33	21	17.5
4	Total fertility rate (births per women aged 15–49 years)	2.6	2.3	2.1
5	% of children under-5 years who are stunted	41	36	31
6	% of women aged 15-49 years with BMI less than 18.5	18.2	17.2	12
7	Life lost due to RTA per 100,000 population		34**	17
8	Suicide rate per 100,000 population ***	---	16.5	14.5
9	DALYs lost due to CDs, NCDs, MNH and Injuries		8319695[+]	6738953
10	Incidence of impoverishment due to OOP expenditure in health[#]		Na	↓ 20%

Sources: *NDHS 2011, NDHS 2016,*UN Estimates, **MoPPTM, ***Nepal Police, [+]IHME, [#]NLSS*

Outcomes

1. Rebuilt and strengthened health systems: HRH, Infrastructure, Procurement and Supply chain management
2. Improved quality of care at point of delivery
3. Equitable distribution and utilization of health services
4. Strengthened Decentralized Planning and Budgeting
5. Improved Sector Management and Governance
6. Improved Sustainability of Healthcare Financing
7. Improved Healthy Lifestyles and Environment
8. Strengthened Management of Public Health Emergencies
9. Improved availability and use of evidence in decision-making processes at all level

1.5 Sustainable Development Goals

On 25 September 2015 at United Nations Sustainable Development Summit, world leaders adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030.

The Sustainable Development Goals, otherwise known as the Global Goals, build on the Millennium Development Goals, eight anti-poverty targets that the world committed to achieving by 2015. The MDGs, adopted in 2000, aimed at an array of issues that included slashing poverty, hunger, disease, gender inequality, and access to water and sanitation. Enormous progress has been made on the MDGs, showing the value of a uni-agenda underpinned by goals and targets. Despite this success, the indignity of poverty has not been ended for all.

SDG 3: Ensure healthy lives and promote well-being for all at all ages

TARGETS

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3.d Strengthen the capacity of all countries, developing countries, for early warning, risk reduction and management of national and global health risks

Note: The details of SDG target and indicators is presented in ANNEX.

Table 1.4. Major Health Indicators of Karnali Province Vs Nepal as Targets

Indicator	Karnali	National	Target (National)
Maternal mortality ratio[1]	NA	239	70 by 2030
Teen childbearing rate[5]	81	63	NA
Under five mortality rate[5]	30	28	20 by 2030
Infant mortality rate[5]	27	25	10 by 2030
Neonatal mortality rate[5]	11	16	12 by 2030
Total fertility rate[5]	2.7	2.0	2.1 by 2030
Contraceptive Prevalence, modern methods[2]	35.5	35.6	60 by 2030
Institutional delivery[2]	77.5	65.5	90 by 2030
Delivery by skilled birth attendant[2]	69.6	60.8	90 by 2030
Children fully immunized[5]	70	70.2	100 by 2030
Children stunted[5]	46.8	31.5	15 by 2030
Children wasted[5]	17.6	12	4 by 2030
Life expectancy at birth[3]	66.8	68.8 yrs	NA
HIV prevalence, adults		0.15%	Reduce new infections to zero

Source: *[1]2016 NDHS [2]HMIS 2076/77, [3]Karnali in statistics, [4]NCASC 2019,[5]Nepal MICS 2019*

FAMILY WELFARE

2. CHILD HEALTH AND IMMUNIZATION PROGRAM

2.1 National Immunization Program

2.1.1 Background

Immunization has been recognized as the most cost-effective child survival initiatives for preventing a quarter of mortality of under-five year children. Effective implementation of the program is considered to contribute directly to the reduction in child morbidity and mortality and thereby ultimately contributes to achieve the Sustainable Development Goal-3 and target 3.2 on Child Mortality reduction. The National Immunization Program (NIP) is a priority 1 (P1) program. The history of immunization backs to 2034 B.S.as an Expanded program of Immunization in Nepal. After the smallpox elimination, Nepal started BCG and DPT antigen. Now, there are 12 types of antigens being provided through more than sixteen thousand immunization clinics through outreach, institutional and mobile clinics. Nepal has already achieved legislative landmarks through the endorsement of the Immunization Act 2072.

Vision, Mission, Goal and Strategic direction of NIP

According to recent Comprehensive Multiyear Plan (cYMP) of Nepal 2017-2021 of NIP,

Vision - *"Nepal- a country free of Vaccine Preventable Diseases"*

Mission-

"To provide every child and mother high-quality, safe and affordable vaccines and immunization services from the National Immunization Program in an equitable manner"

Goal-

"Reduction of morbidity, mortality and disability associated with vaccine preventable diseases"

Strategies

- Reach every child for full immunization.
- Accelerate, achieve and sustain vaccine preventable disease control, elimination and eradication;
  - Sustain polio-free status for the global eradication of the disease
  - Achieve measles elimination and rubella and CRS control by 2019
  - Accelerate JE Control
  - Sustain MNT elimination status
  - Accelerate hepatitis B vaccination
  - Expand surveillance of other vaccine preventable diseases
- Strengthen immunization supply chain and vaccine management system for quality immunization services;
- Ensure financial sustainability for immunization program;
- Promote innovation, research and social mobilization activities to enhance best practices

Target and Schedule

The target population of the National Immunization Programme are:

- Under 1-year aged children for BCG, DPT-HepB-Hib, OPV, FIPV, PCV, Rota and measles-rubella1 (MR1) vaccine.
- 12 months old children for Japanese encephalitis
- 15-month-old children for measles-rubella second dose (MRII)
- Pregnant women for tetanus toxoid and low dose diphtheria toxoid (Td) containing vaccine.

National Immunization Schedule

Table 2. 1.1 Immunization Schedule

S.N.	Type of vaccine	Doses	/Schedule
1	BCG	1	At birth or on first contact with HFs
2	Oral polio vaccine (OPV)	3	6, 10 and 14 weeks of age
3	Rota	2	6, 10 weeks of age
4	DPT-Hep B-Hib	3	6, 10 and 14 weeks of age
5	f-IPV	2	6 and 14 weeks of age
6	PCV	3	6 weeks,10 weeks and 9 months of age
7	Measles-rubella	2	9 months and 15 months of age
8	Japanese encephalitis	1	12 months of age
9	Tetanus and diphtheria toxoid (Td)	2	Pregnant women: 2 doses of Td one month apart in first pregnancy, and 1 dose in each subsequent pregnancy

Source: *National Immunization Schedule of Nepal*

Major Activities Carried Out in fiscal year 2077/78 (2020/21)

- Celebration of immunization month in Baisakh every year.
- Annual Provincial Review of Immunization and Supply Chain (iSC).
- Conduction of immunization training to newly recruited health workers.
- Microplanning of immunization
- Interventions for full immunization declaration wards, palikas and district

Table 2.1.2 Provincial Vaccination Coverage 2077/78

SN	Antigen	Target Population	Target	Achievement	Coverage %
1	BCG Doses	Under 1 year	36958	39495	106.9
2	DPT-HepB-Hib-1st	Under 1 year	36958	38413	103.9
3	DPT-HepB-Hib-2nd	Under 1 year	36958	37193	100.6
4	DPT-HepB-Hib-3rd	Under 1 year	36958	37357	101.1
5	OPV-1st	Under 1 year	36958	35866	97.0
6	OPV-2nd	Under 1 year	36958	34380	93.0
7	OPV-3rd	Under 1 year	36958	34324	92.9
8	FIPV-1st	Under 1 year	36958	36798	99.6
9	FIPV-2nd	Under 1 year	36958	35252	95.4
10	PCV-1st	Under 1 year	36958	37861	102.4
11	PCV-2nd	Under 1 year	36958	36456	98.6
12	PCV-3rd	Under 1 year	36958	34031	92.1
13	Rota-1st	Under 1 year	36958	34241	92.6
14	Rota-2nd	Under 1 year	36958	29023	78.5
15	Measles/Rubella-9-11 Months	Under 1 year	36958	35088	94.9
16	Measles/Rubella-12-23 Months	15 month	36259	33314	91.9
17	JE	12 month	36958	34613	93.7
18	TD(Pregnant Women)-2&2+	Pregnant women	44897	32682	72.8

Analysis of Service Statistics

Figure 2.1 1 Routine Immunization Coverage

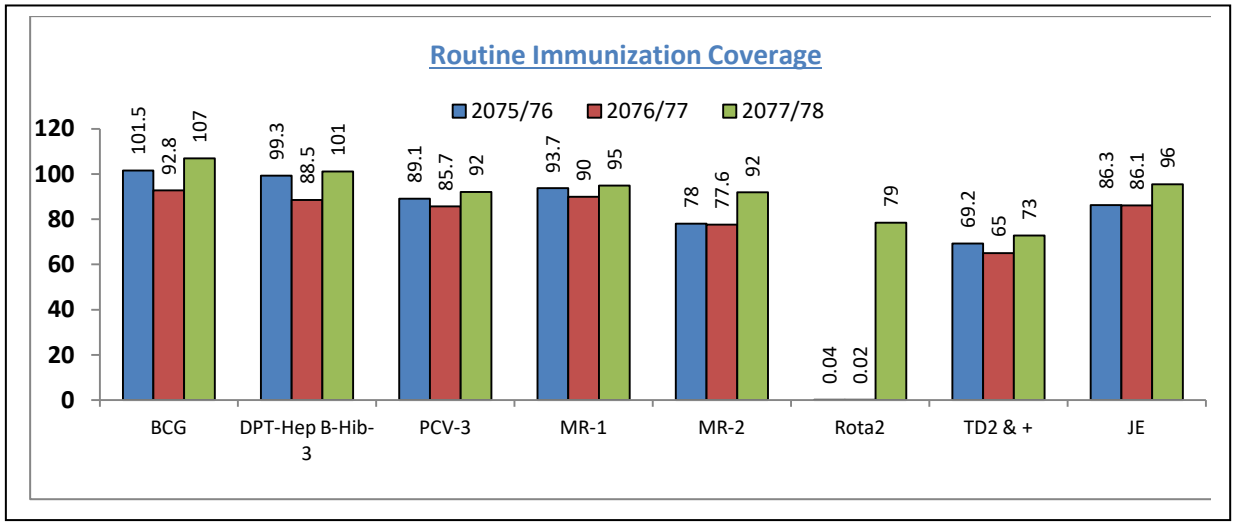


Figure 2.1.1 presents the comparative annual immunization coverage trend of BCG, DPT-HepB-Hib3, PCV 3, measles-rubella1, measles-rubella 2, Td2 & 2+ and JE vaccine as per National Immunization Schedule. The figure shows that the coverage for all antigens increased significantly in fiscal year 2077/78 compared to the fiscal year 2076/77.

Figure2. 1.2 BCG Coverage

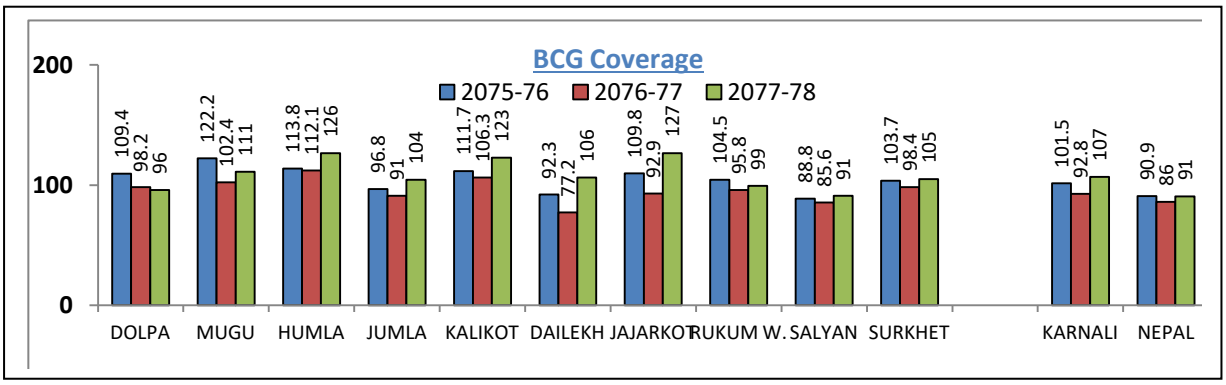


Figure 2.1.2 shows the district wise trend for BCG vaccination for the last three fiscal years. The coverage for BCG has significantly increased in all the districts of Karnali Province in this fiscaly year 2077/78 in compared to last fiscal year 2076/77. The significant increment in the coverage might be due to resuming the essential health care services after covid 19.

Figure 2.1.3 DPT-HepB-Hib3 Coverage

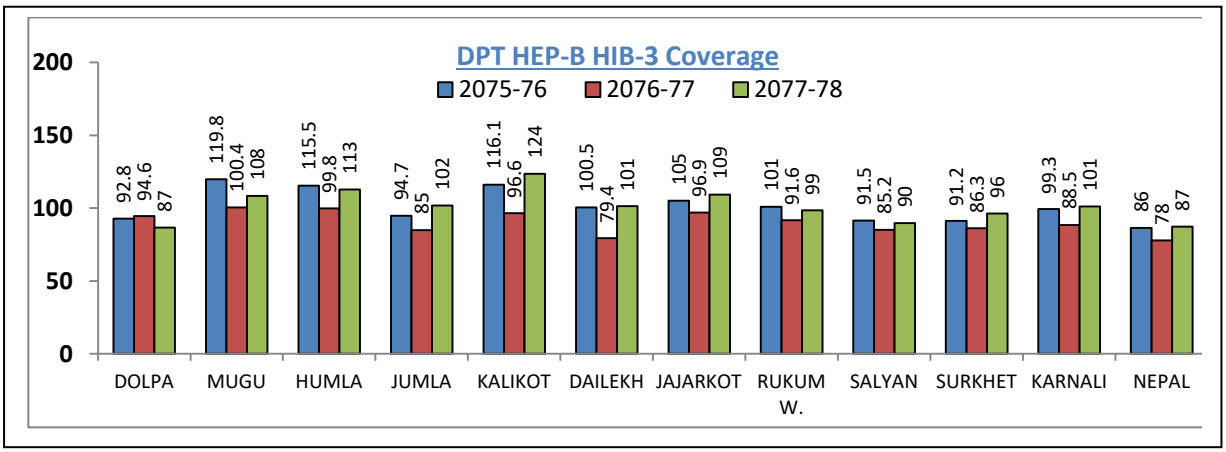
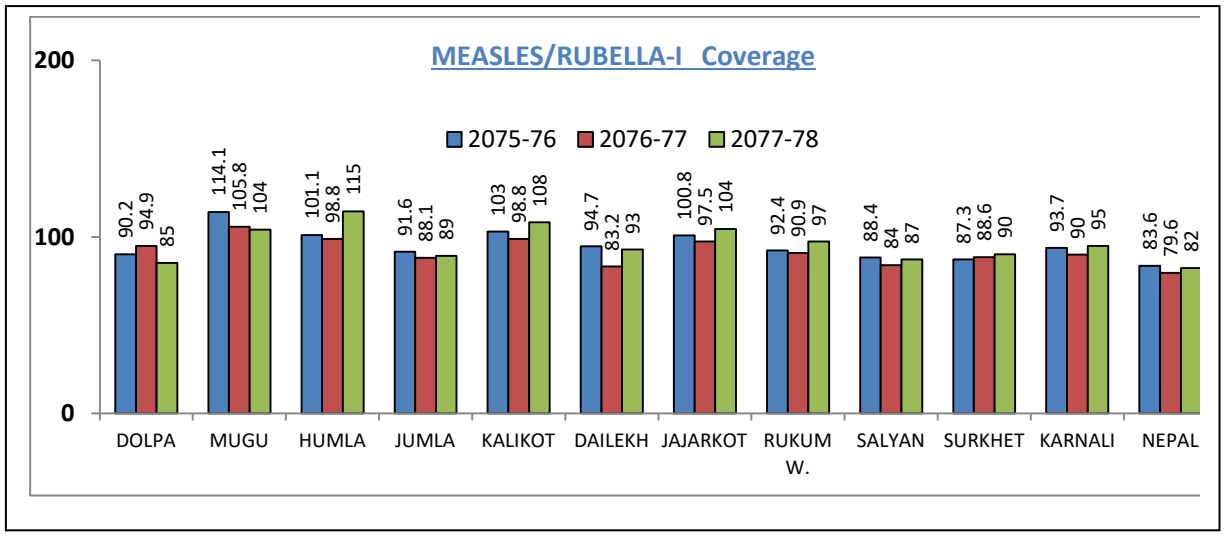


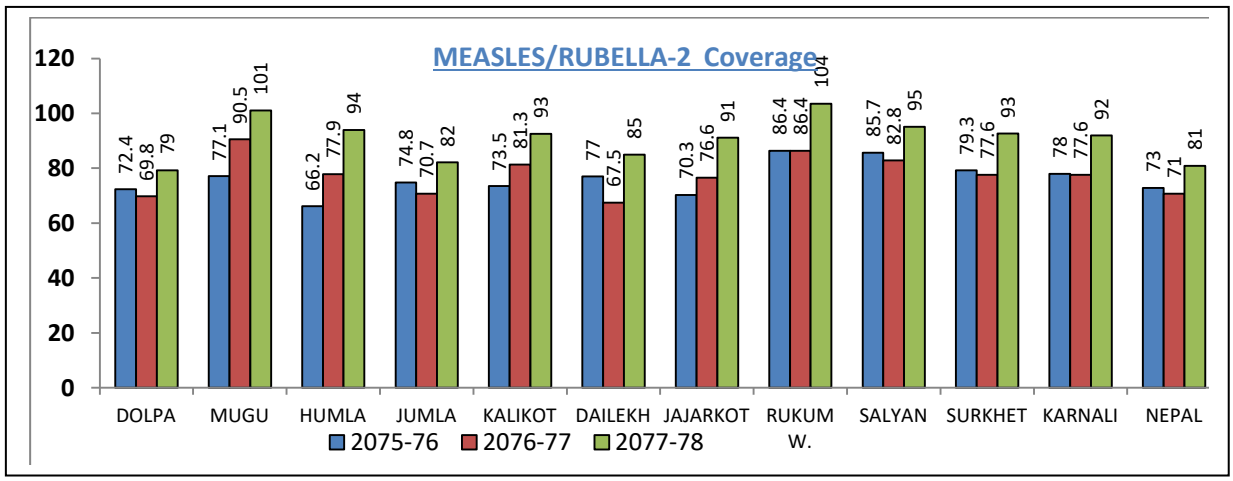
Figure 2.1.3 shows that DPT-HepB-Hib-3 coverage of Karnali Province has increased in this fiscal year 2077/78 (101%) compared to the last fiscal year 2076/77 (88.5%) with a variation in districts. Dolpa and Salyan have less than 95 percent coverage whereas rest of 8 districts Mugu, Humla, Jumla, Kalikot, Dailekh, Jajarkot, RukumWest and Surkhet achieved the target of 95 percent. Coverage of third dose of pentavalent vaccine of Karnali Province is higher than national coverage in the last three years.

Figure 2.1.4 Measles-Rubella-1st does coverage



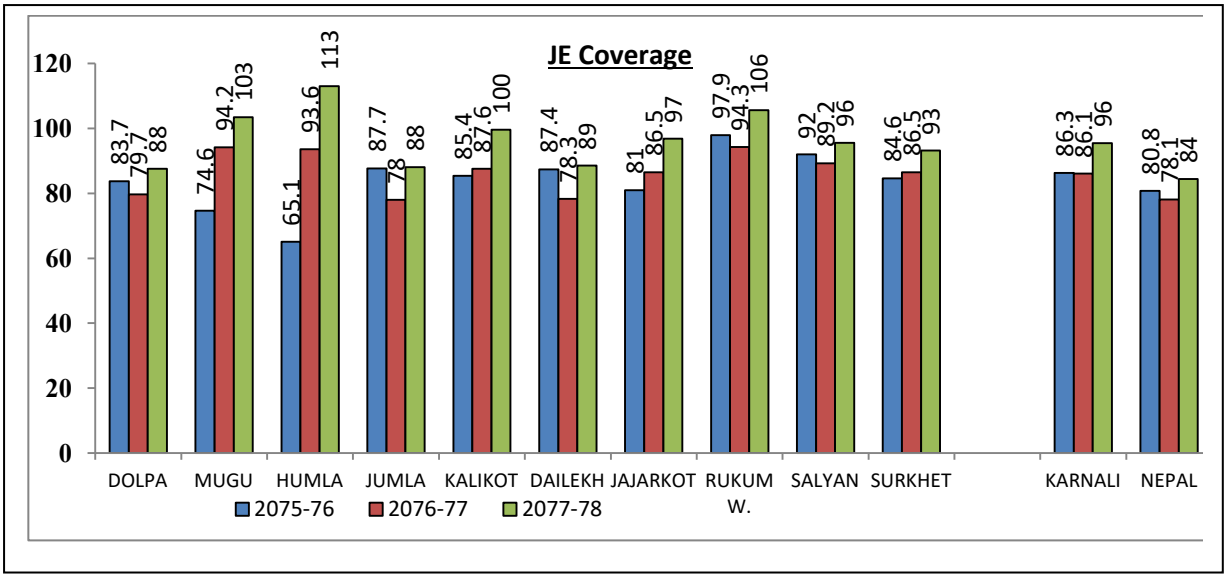
As illustrated in Figure 2.1.4, provincial coverage of measles/rubealla 1st dose is 95 % which is higher than the national coverage (82%). The provincial coverage increased by 5 points in this fiscal year 2077/78 (95%) compared to last fiscal year 2076/77 (90%). The coverage of 1st dose of Measles/Rubella 1st is significantly increased compared to last fiscal year except for Dolpa and Mugu.

Figure 2. 1.5 Measles- Rubella2 Coverage



As per the national immunization schedule of Nepal, completion of MR2 is considered as complete vaccination. Child completes his/her immunization at 15 months after receiving second dose of MR. The figure 2.1.5 depicts the coverage of MR 2nd dose significantly increased to 92 % in this fiscal year 2077/78 compared to 77.6% last fiscal year 2076/77.

Figure 2.1.6 JE Coverage



The Vaccination coverage for JE vaccine is shown in figure 2.1.6. The Provincial coverage of JE is 96% in fiscal year 2077 /78 which is higher than national coverage and is increased by around 10 points this fical year 2077/78 (96%) compared to last fiscal year 2076/77 (86.1%).

Figure2.1.7 Td2 & Td2+ Coverage

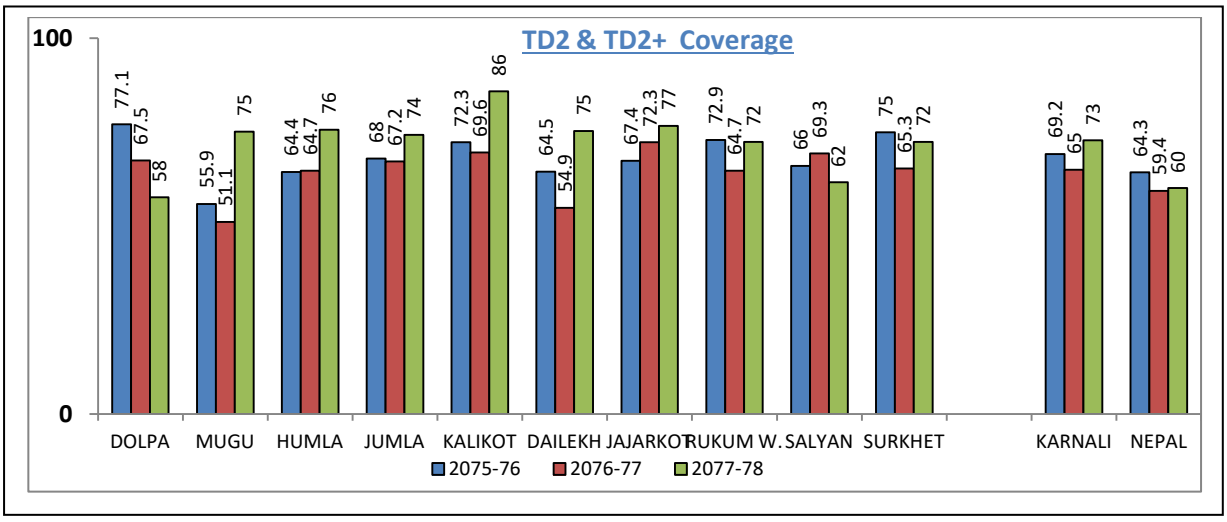


Figure 2.1.7 presents the trend of Provincial & district coverage for Td (Td2 and Td2+) vaccination among pregnant women during last three years. Provincial coverage increased to 73% in this fiscal year 2077/78 from 65% in last fiscal year 2076/77.

Figure 2.1.8 Dropout Rate

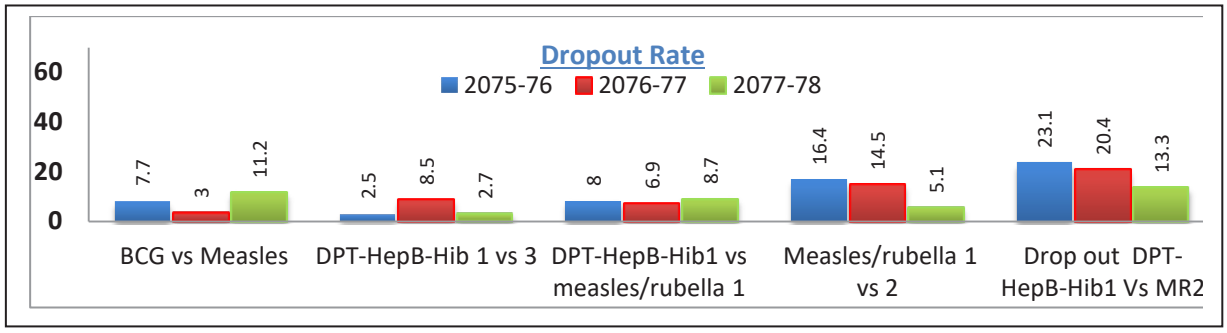


Figure 2.1.8 shows the decreasing trend of dropout rate of immunization program for overall Karnali province in fiscal year 2077/78 as compared to fiscal year 2076 /77. However, there is increase in drop out for BCG vs measle and DPT 1 Vs measles/rubella1.

Figure 2.1.9 Dropout Rate: DPT HepB-Hib1 Vs3

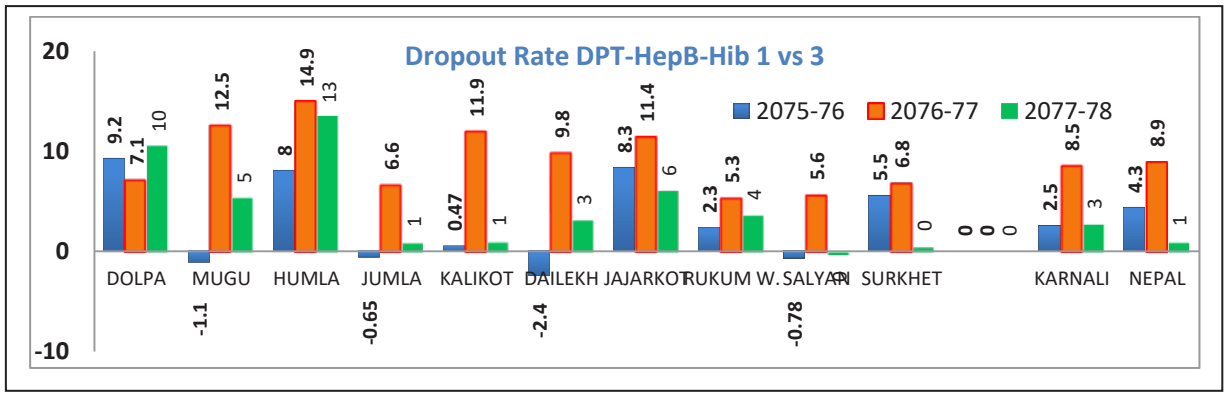
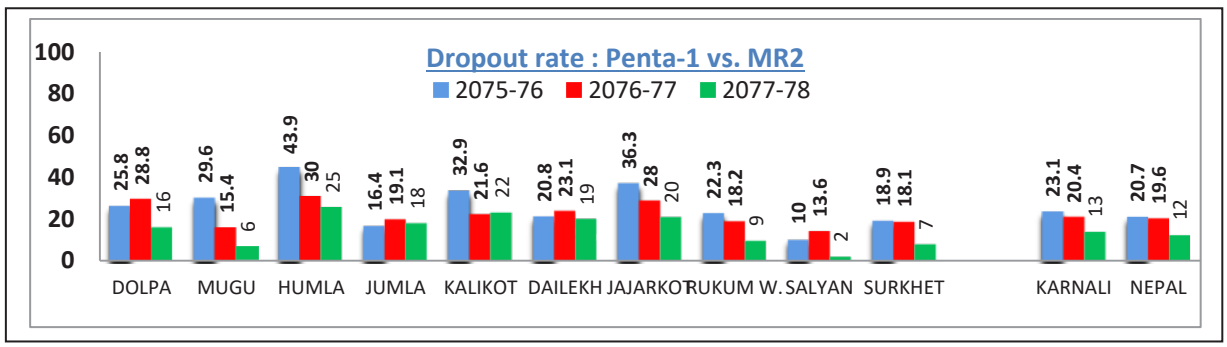


Figure 2.1.9 shows the dropout rate of DPT HepB-Hib1 Vs 3 significantly decreased to 3% in year 2077/78 from 8.5% in the year 2076/77. The figure shows decreased drop out rate in all the districts except for Dolpa district in the fiscal year 2076/77 in compared to the fiscal year 2077/78.

Figure 2.1.10 Dropout Rate: PENTA1 Vs MR2



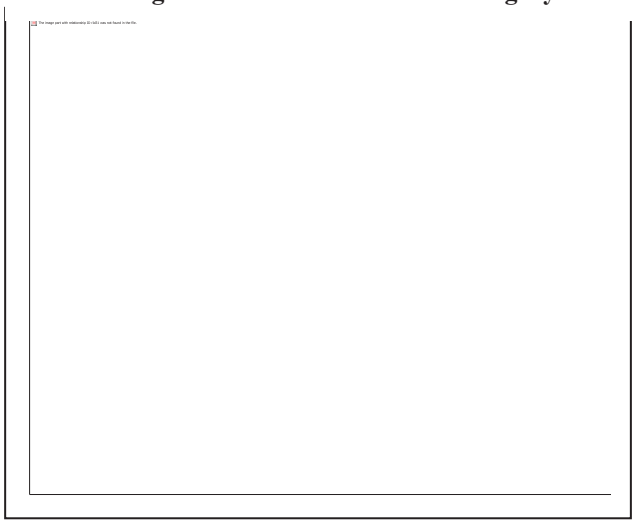
The second dose of Measles Rubella was introduced in 2015. The figure shows that the drop out rate decreased from 20.4% in fiscal year 2076/77 to 13% in year 2077/78. This shows that

13 out of 100 children who received Penta 1 are still missing their second dose of MR2 in fiyear 2077/78. The provincial Penta1 Vs MR2 dropout rate is in decreasing trend (Figure 2.1.10) however the drop-out is still above recommended cut-off of (10%) in 6 districts of the province and Mugu, Rukumwest, Salyan and Surkhet is in acceptable range in fiscal year 2077/78.

2.1.2 Access and Utilization of Immunization Services

The figure 2.1.11 shows the mapping of cat I, II, III and IV local level. Similarly, the table shows the information for category of utilization and access of Vaccination programs categorized based on Penta 1 access and utilization on the basis of measles and rubella 2.

Figure 2.1.11 Immunization Category



The categorization is presented considering coverage of DPT-HepB-Hib 1 and drop-out of MR2 against DPT-HepB-Hib1 (Table 2.1.3). Among 79 local levels of Karnali province, 18 (23%) are in category I (Good access, good utilization), 41 (52%) are in category II (Good utilization, poor utilization), 13 (16%) are in category III (Poor access, good utilization), and 7 (9%) are in category IV (Poor access and poor utilization).

Table 2.1.3. Local Level Categorized based on Access and Utilization

(DPT-HepB-Hib1 coverage and Drop out DPT1 vs MR2) 2076-77- 2077/78

	Category 1 : High Coverage (≥90%) Low Drop-Out (<10%)	***Category 2*** **:** High Coverage (≥90%) High Drop-out (≥10%)	***Category 3 :*** Low Coverage (<90%) Low Drop-out (<10%)	***Category 4*** **:** Low Coverage (<90%) High Drop-out (≥10%)
Province		***Karnali***		
2077/78	**Mugu, Rukum West, Surkhet (3 District)**	**Dopa, Humla,Jumla, Kalikot, Dailekh, Jajarkot (6 District)**	**Salyan (1 District)**	-
	Tripurasundari Mun, Soru RM, Khatyad RM, Patarasi RM, Kalika RM, Narayan Mun, Bhagawatimai RM, Sanibheri RM, Banphikot RM, Chaurjahari Mun, Darma RM, Siddha Kumakh RM, Tribeni RM, Chingad RM, Gurbhakot Mun, Bheriganga Mun, Birendranagar Mun, Chaukune RM **(18 local levels)**	Thulibheri Mun, Kaike RM, Mugumkarmarog RM, Chhayanath Rara Mun, Chankheli RM, Kharpunath RM, Simkot RM, Sarkegad RM, Adanchuli RM, Tanjakot RM, Sinja RM, Guthichaur RM, Tatopani RM, Tila RM, Hima RM, Palata RM, Pachal Jharana RM, Raskot Mun, Sanni Tribeni RM, Naraharinath RM, Khandachakra Mun, Tilagupha Mun, Naumule RM, Mahabu RM, Bhairabi RM, Thantikandh RM, Aathbis Mun, Chamunda Bindrasaini Mun, Dullu Mun, Barekot RM, Kuse RM, Junichande RM, Chhedagad Mun, Shivalaya RM, Bheri Mun, Nalagad Mun, Aathabisakot Mun, Tribeni RM, Banagad Kupinde Mun, Simta RM, Panchapuri Mun, **(41 local levels)**	Jagadulla RM, Mudkechula RM, Chharka Tangsong RM, Dungeshwor RM, Gurans RM, Musikot Mun, Kumakh Malika RM, Bagachour Mun, Bagachour Mun, Chhatreshwori RM, Sharada Mun, Kalimati RM, Kapurkot RM, Barahatal RM **(13 local levels)**	Dolpo Buddha RM, Shey Phoksundo RM, Namkha RM, Kanaka Sundari RM, Chandannath Mun, Mahawai RM, Lekabeshi Mun **(7 local levels)**

Figure 2. 1.12 Vaccine Wastage Rate

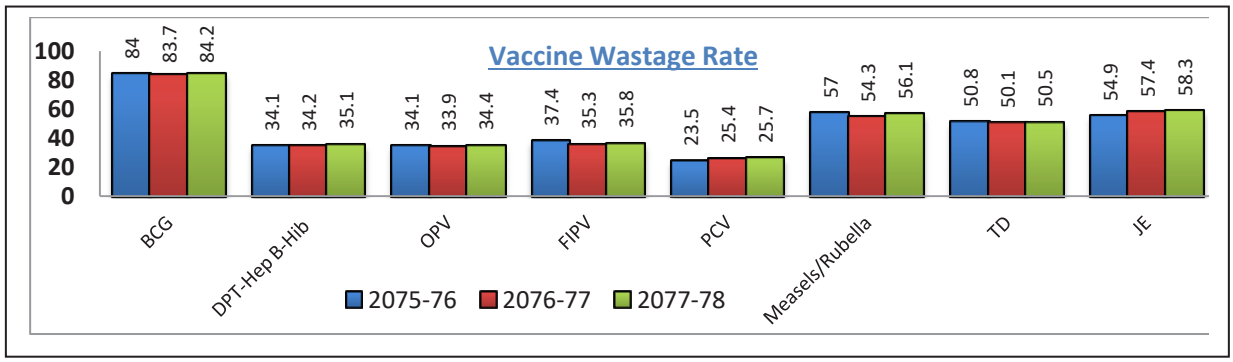


Figure 2.1.12 illustrates the trend of vaccine wastage rate of all antigens in three fiscal years ie. 2075/76 to 2077/78. The wastage rate of most of the antigen for the fiscal year 2077 /78is higher than the cut-off of wastage rate. Wastage rate of all the antigen slightly increased in compared to last fiscal year 2076/77. The graph also shows that the wastage rate for last consecutive 3 years is above the acceptable wastage rate. Hence, it is recommended to implement MDVP policy effectively to reduce the wastage of Vaccine.

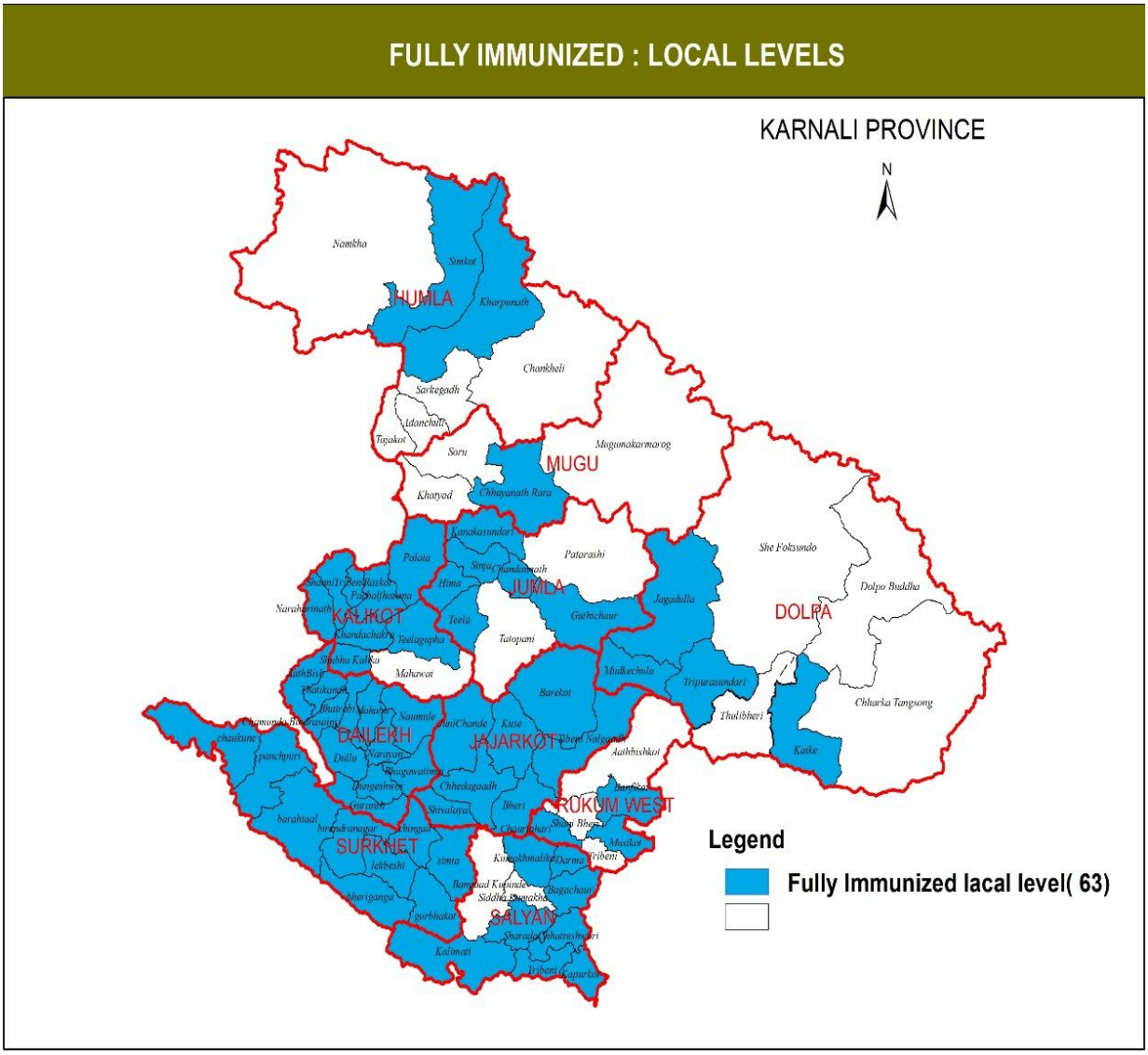
Fully Immunized Local levels

The figure 2.1.13 shows the fully immunization declared local level. Out of 79 local level, 63 (79.74%) local levels have declared their all wards as fully immunized. Some of the local levels as well as districts are yet to declare full immunization. There are some local levels which are waiting for approval from respective authorities for declaring their local level as fully immunized.

Table 2.1. 2. Full Immunization Declared Local Levels

Districts	Declared Local Level
Dolpa	3 among 8
Mugu	1 among 4
Humla	3 among 7`
Jumla	6 among 8
Kalikot	9 among 9
Dailekh	All 11
Jajarkot	All 7
Rukum West	All 6
Salyan	8 among 10
Surkhet	All 9
Karnali Province	**63 among 79 (79.74%)**

Figure 2.1.14 Immunization Coverage status of local levels of Karnali Province



Immunization Preventable Diseases Surveillance

Accelerate, achieve, and sustain vaccine preventable diseases control, elimination and eradication is one of the strategic objectives of the cMYP 2017-21. The strategic approaches within this objective are to sustain polio free status for global eradication of the disease and eradicate and eliminate vaccine preventable diseases (VPDs) Measles & Rubella, Neonatal Tetanus and JE. The surveillance of VPDs is important to know the present status of these VPDs. World Health Organization-Immunization Preventable Diseases (WHO-IPD) has been supporting in conducting the surveillance of VPDs. The surveillance conducted in this fiscal year 2077/78 showed 114 measles case from Karnali. The table below shows the distribution of measles and Rubella cases in 2021 in Karnali province.

Table 2.1.4 Distribution of mealses Rubella cases fiscal year 2077/78

SN	Districts	Total Mesles Cases	Mealses Povitive Cases	Rubella Positive Cases	No. of Outbreak	Outbreak Cases	Total Measles Confirmed cases	Lab Confirmed Measles Cases	Remarks
1	Dolpa	0	0	0	0	0	0	0	
2	Humla	2	0	0	0	0	0	0	
3	Salyan	45	1	1	1	28	28	4	
4	Rukum W	21	1	0	0	0	0	0	
5	Jajarkot	44	0	2	1	29	29	3	
6	Dailekh	1	1	0	0	0	1	1	
7	Kalikot	0	0	2	0	0	0	0	
8	Surkhet	0	0	2	0	0	0	0	
9	Jumla	0	0	0	0	0	0	0	
10	Mugu	1	1	1	0	0	1	1	
Total cases		114	4	8	2	57	59	9	

Integration of Hygiene Promotion in Routine immunization

Hygiene Promotion through Routine Immunization project, led by the Ministry of Health and Population, Family Welfare Division is being implementing from the fiscal year 2076/77. The project is designed based on hygiene behavior changes approach i.e., Behavior Centered Design – BCD. As a part of nationwide integration, the hygiene intervention into routine immunization Programme, the capacity of health workers from province to local level is strengthened through training. Training on hygiene promotion to health workers has been completed in all 10 districts of Karnali reaching 2036 health workers. Training to health workers was conducted using hygiene package. As at the time of hygiene integration in routine immunization, we face the global pandemic of COVID-19. So, to combat with the pandemic COVID 19 preventive messages were also integrated in the hygiene promotion training. After the training, health workers conducted hygiene promotion sessions integrating preventive messages during immunization sessions at immunization centers to sensitize mothers visiting immunization clinic on hygiene behavior and COVID preventive measures. The mothers attending immunization sessions are also provided with take home materials such as mirror and dangler to reinforce the key messages of hygiene behavior.

Issues

- Maintenance of refrigerators, functionality of cold chain sub-centers
- Sustainability of full immunization declaration of districts and local levels
- Immunization agenda on Mothers' group meeting and HFs meeting
- Data quality of Immunization
- Documentation of Micro planning of HFs and Districts
- Compliance of MDVP policy and EVM-SOP during immunization session
- Insufficient activities at local levels for declaring full immunization and sustainability
- Irregular Supply of vaccines and syringes
- Inadequate IEC materials to be used in immunization sessions

2.2 Nutrition Program

National Nutrition Program is a priority programme of the government and is being implemented by nutrition section of Family Welfare Division (FWD) for improving nutritional status of children, pregnant women, lactating and adolescents. It aims to achieve nutritional well being of all people to maintain healthy life to contribute to the socio-economic development of the country. Nutritional well-being is crucial for attaining many of the Sustainable Development Goal 2- *End hunger, achieve food security and improved nutrition and promote sustainable agriculture*. The Multi Sectoral Nutrition Plan-II provides a broader policy framework within and beyond the health sector under a Food and Nutrition Security Secretariat of National Planning Commission that coordinates its implementation. Steering committee is also in place at Provincial level.

Ministry of health and population has been implementing various nutrition specific as well as nutrition sensitive interventions across the country to address maternal, adolescents and child malnutrition. However, malnutrition remains a public health threat in Karnali Province. A huge prevalence of stunting among children under five (55 percent) calls for comprehensive and sustainable nutrition interventions. According to Nepal Multiple Indicator Cluster Survey (NMICS) 2019, the underweight children under 5 years of age in Karnali Province is 37.4 %, Stunting stands at 47.8%, Wasting 17.6%, Overweight 3.7%, while Nepal's Underweight stands at 24%, Stunting 31.5%, Wasting 12% and Overweight 2.6%.

Nationwide programs

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

Scale-up programs

- Maternal, Infant, and Young Children Nutrition (MIYCN) program
- Integrated Management of Acute Malnutrition (IMAM)
- Micronutrient Powder (MNP) distribution linked with infant and young child feeding (IYCF) in 5 districts (Surkhet, Salyan, Dailekh, Jajarkot and RukumW
- School Health and Nutrition program
- Vitamin A supplementation to address the low coverage among children aged 6–11-months
- Multi-sector Nutrition Plan (MSNP)
- Maternal and Child Health Nutrition program
- Comprehensive Nutrition Sensitve Interventions (CNSI) in 5 districts

Goal

National Nutrition program aims to achieve nutritional well-being of all people to maintain healthy life to contribute to the socioeconomic development of the country by implementing improved nutrition program in collaboration with other sectors. The overall objective of the national nutrition program is to enhance nutritional well-being, reduce child and maternal mortality and contribute to equitable human development.

The specific objectives of the program are as follows:

- To reduce protein-energy malnutrition among children under 5 years of age and women of reproductive age
- To improve maternal nutrition
- To reduce the prevalence of anemia among adolescent girls, women, and children
- To eliminate iodine deficiency disorders and vitamin A deficiency and sustain elimination
- To reduce the infestation of intestinal worms among children and pregnant women
- To reduce the prevalence of low birth weight
- To improve household food security to ensure that all people can have adequate access, availability and use of food needed for a healthy life
- To promote the practice of good dietary habits to improve the nutritional status of all people
- To prevent and control infectious diseases to improve nutritional status and reduce child mortality
- To control lifestyle related diseases including coronary disease, hypertension, tobacco related diseases, cancer and diabetes
- To improve the health and nutritional status of schoolchildren
- To reduce the critical risk of malnutrition and life during very difficult circumstances
- To strengthen the system for analyzing, monitoring and evaluating the nutrition situation Behavior change communication and nutrition education at community levels
- To align health sector programs on nutrition with the Multi-Sectorial Nutrition Initiative

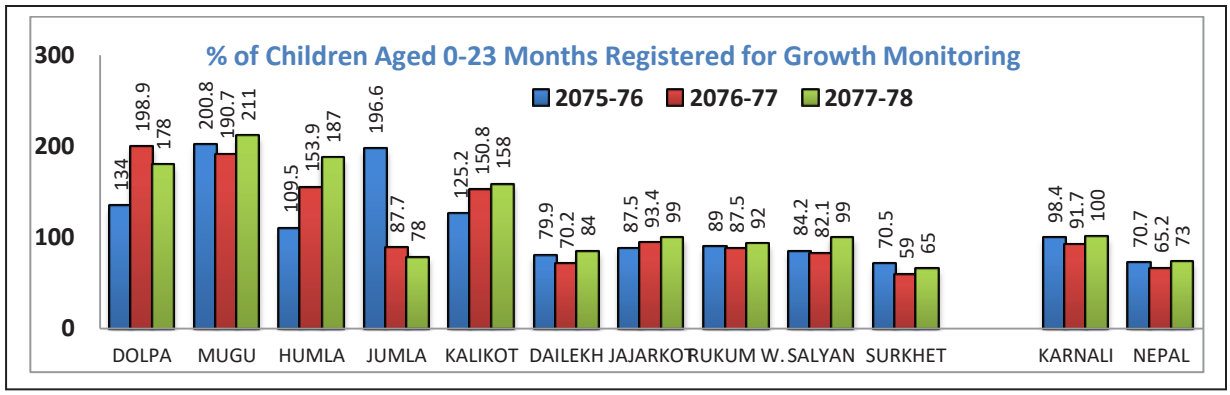
Major Activities Carried Out in fiscal year 2077/78 (2020/21)

- Ensured the delivery of Growth monitoring and counselling services through Health Facilities (HF)
- Conducted two rounds of National Vitamin A distribution to all 6-59 months children
- Celebrated Breastfeeding Week (August 1-7)
- Other nutrition related day, Egg day, Nutrition week, world food day observed
- Continuation of Integrated Management of Acute Malnutrition at districts
- Celebrated IDD month in all the Districts at the month of February for intensification of promotional activities.
- Continued Weekly IFA supplementation to Adolescent girls
- Continued Distribution of Super Flour to improve Maternal and Child health Nutrition (MCHN) in higher hills of Karnali province
- Continued distribution of iron and folate tablets to pregnant and lactating women through Hospital, PHCC, HPs, ORCs, and FCHVs

Analysis of Service Statistics

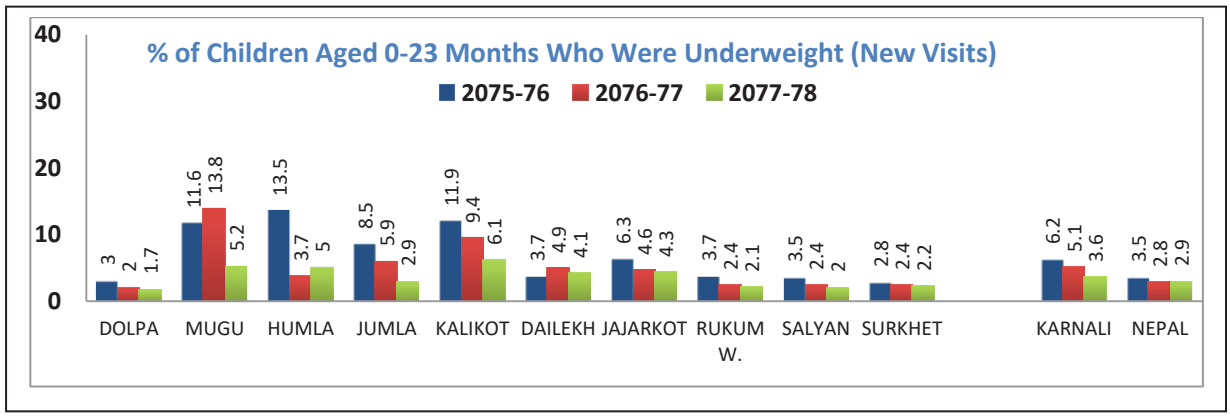
New Growth monitoring

Figure 2.2. 1 Percentage of Children Age 0-23 Months Registered for Growth monitoring



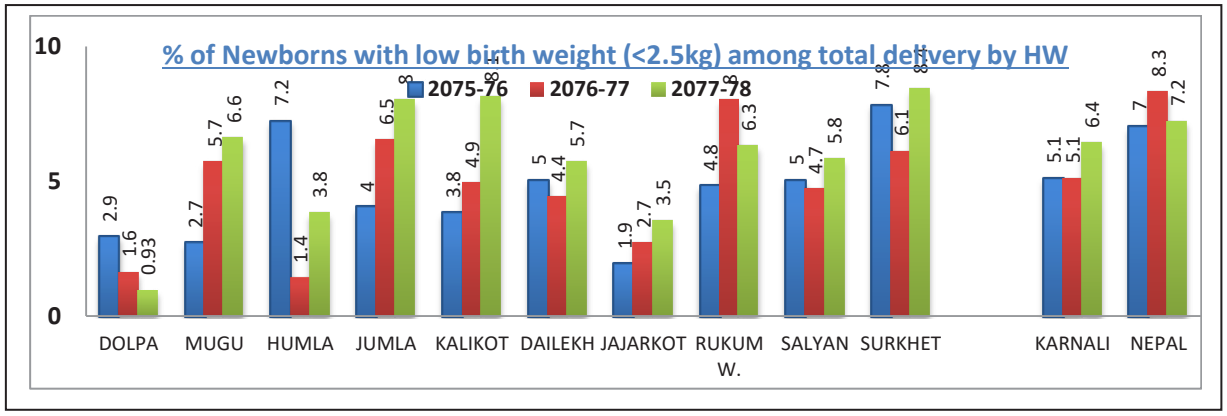
Weight for age is one of the important parameters to assess the nutritional status of <2 years of children. Health facilities along with PHC/ORC deliver growth monitoring and counselling services. Growth monitoring is also regarded as cost effective evidence based basic health service to accelerate the reduction of malnutrition. The above figure shows the percent of children aged 0-23 months registered for growth monitoring in fiscal year 2077/78(100%). It has been observed that more than 100% of the children aged 0-23 month of age of Dolpa, Mugu, Humla and Kalikot have received Growth Monitoring and Counseling service while 22% of children of Jumla, 16 % children of Dailekh, 1% children of Jajarkot and Salyan, 8% children of Rukum West and 35 % children of Surkhet are still left behind from receiving monitoring and nutrition counseling service in this fiscal year (Fig 2.2.1).

Figure 2.2. 2. Percentage of children Aged 0-23 months who were Under Underweight



The Figure 2.2.2 illustrates the proportion of underweight among new growth monitored (0-23) months children. The proportion of underweight children among new growth monitoring has decreased from 5.1% in fiscal year 2076/77 to 3.6 in the fiscal year 2077/78. The graph shows that underweight proportion is decreasing trend across all the districts. However, it is still higher in compare to the national average (2.9) in the fiscal year 2077/78.

Figure 2.2. 3. Percentage of Newborn with Low birth weight



The figure 2.2.3 and 2.2.4 shows the newborn with low birth weight (LBW) among total delivery reported by health workers. The figure shows the percentage of LBW significantly increased from 5.1 in the year 2076/77 to 6.4 in the year 2077/78 in the province. The graph shows only the district Dolpa has decreased LBW compared to the last fiscal year 2076/77.

Prevention and control of iron deficiency Anemia

National representative survey NDHS-2016 shows around half of pregnant women are anemic. Iron Folic Acid supplementation program is being implemented in all districts of all provinces of the country to prevent iron deficiency anemia among pregnant and postpartum mothers. The protocol for IFA supplementation for pregnant women is to provide 180-Tab IFA for 225 days from their second trimester and that for postpartum mother is till 45 days from first day of delivery. In fiscal year 2077/78 in Karnali, more than 8 out of every 10 pregnant women were supplied with IFA. The lowest coverage of IFA is in Mugu, where about 4 out of every 10 women had received IFA supplementation in their last pregnancy (Fig 2.2.5).

Figure 2.2. 4. Percentage of newborn with low birth weight among total delivery by HW (Disaggregated by local levels)

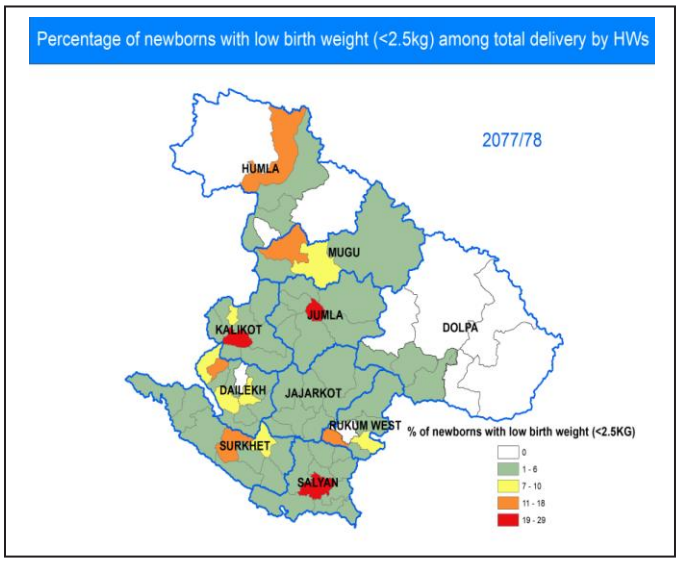


Figure 2.2.5. Percentage of Women who receive 180-day supply of Iron Folic Acid during Pregnancy

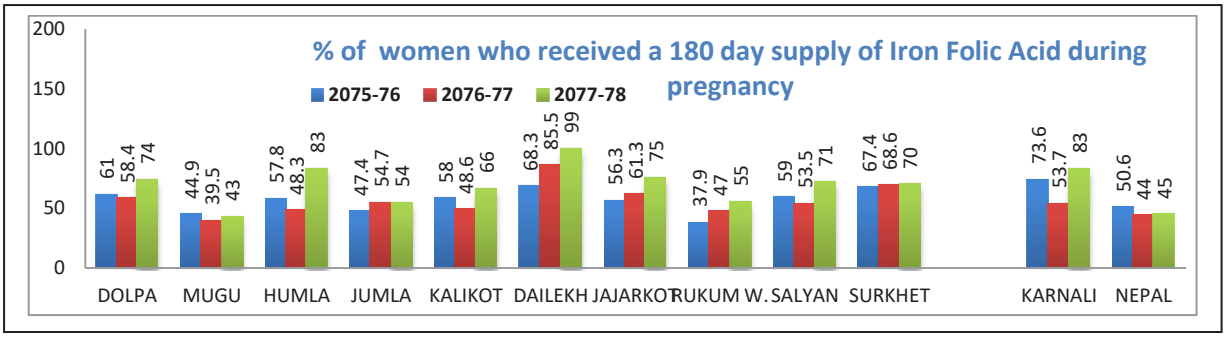
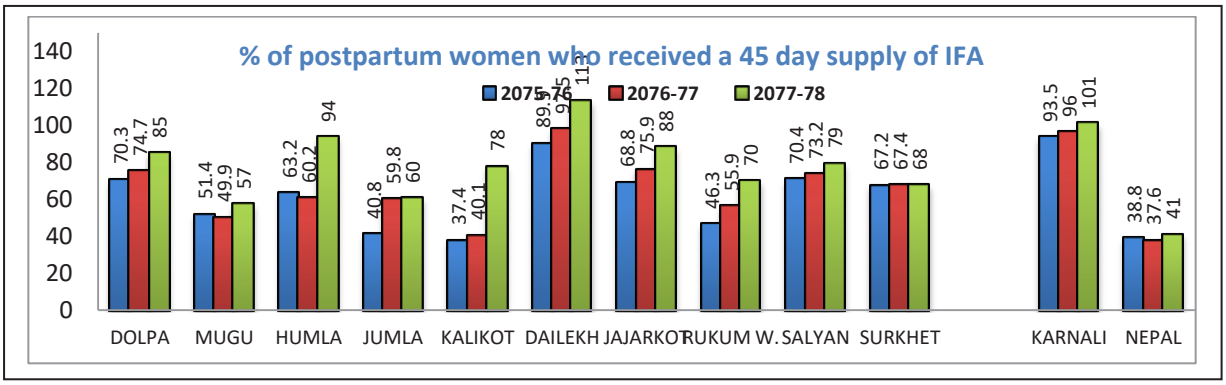


Figure 2.2.6. Postpartum Iron Distribution Coverage

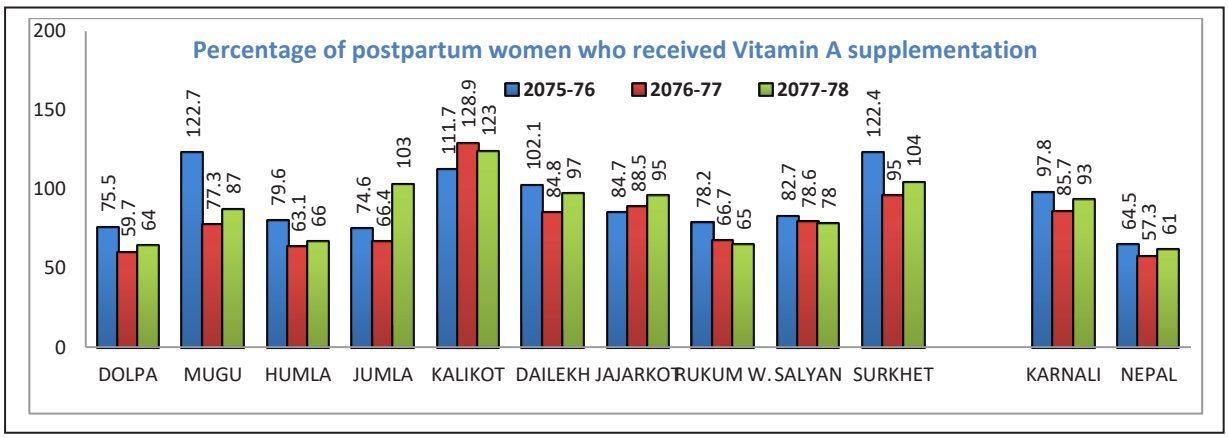


Postpartum mothers are given IFA tablets till 45 days after delivery. In Karnali province all of the postpartum mothers recived IFA supplementation in the fiscal year 2077/78.Figure 2.2.6). IFA supplementation of postpartum mothers is increased across all the districts of the province in this fiscal year 2077/78 compared to last fiscal year 2076/77.

Postpartum Vitamin A supplementation

As postnatal care, mothers are given 1 dose of Vitamin A supplementation after delivery.

Figure 2.2.7. Postpartum Vitamin A Distribution Coverage



A total of 93 % postpartum mothers received vitamin A supplementation in Karnali province in fiscal year 2077/78. Province experienced a significant rise in its coverage (Figure 2.2.7) in year 2077/778 (93%) compared to last fiscal year 2076/77 (85.7%). The increase in coverage of Vitamin A supplementation for postpartum mothers is observed in all the districts except in Kalikot, Rukum West and Salyan.

Integrated Infant and Young Child Feeding and MicroNutrient Powder (Baal Vita) Community Promotion Programme

The NDHS 2006 showed that 78% of the children aged 6-23 were anemic mostly due to poor IYCF practices which resulted in the endorsement of multiple micronutrient powder sprinkles as a key intervention to address iron deficiency anemia among this age group. The national Nutrition Priority workshop endorsed micronutrient powder in 2007 as a preventive measure. In 2009, MOHP piloted the home fortification of MNP with complementary feeding in 6 districts and was expanded to additional 9 districts. In Karnali province, MNP program is being implemented in Surkhet, Salyan, Jajarkot, Dailekh and Rukum West. Howerver the table below shows that the distribution of Baal vita is reported even from the Non-Baal vita implementing districts Mugu and Humla.

Table 2.2.1. MNP (Baal vita) coverage

District	% of children aged 6-23 months who received at least one cycle (60 Sachets) Baal Vita (MNP)			% of children aged 6-23 months who received 3 cycle (180 Sachets) Baal Vita (MNP)		
	2075 /76	2076/77	2077 /78	2075 /76	2076/77	2077 /78
*DOLPA	0.23	11	0	0	0	0
*MUGU	0.46	0	27.3	0	0	0.16
* HUMLA	0	0	6.6	0	0	0
*JUMLA	0.42	1.1	0	0.1	0.53	0
*KALIKOT	0	0	0	0	0	0
DAILEKH	54	24.2	104.9	1	0.61	2.6
JAJARKOT	0.18	42	27.2	0	2.3	0.95
RUKUM WEST	72	52.5	45.3	11.7	8.7	5.3
SALYAN	0	0	0.07	0	0	0
SURKHET	0	0.05	0.02	0	0	0.02
KARNALI	15.9	14	25.8	1.3	1.2	1.1
Nepal	50.8	33.4	29.6	6.5	5.5	4.7

Note: * districts which are not MNP supplementation program implemented districts.

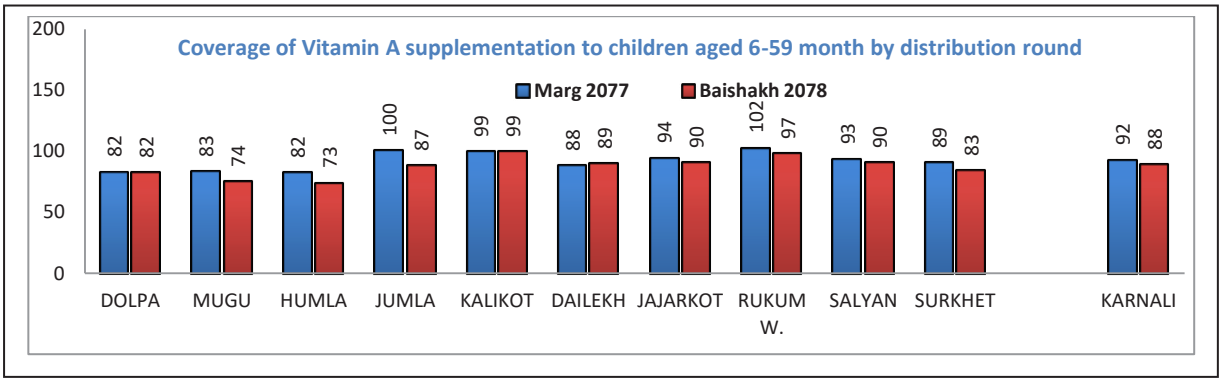
The table 2.2.1 shows all the children (104.9%) of age 6-23 received baalvita the first cycle of MNP supplementation in this fiscal year 2077/78. The province experienced the decrease MNP supplementation in last 3 fiscal year.

Control of Vitamin A deficiency Disorder

National Vitamin A program was initiated by government since 1993 to prevent the vitamin A deficiency among the children of 6-59 months of age and reduce the child mortality associated with vitamin deficiency disorders. Vitamin A supplementation program is continuing as biannual supplementation to all the targeted children of age 6-59 months. This program is recognized as one of successful programs of global public health. The program is done in campaign model in which FCHVs distribute Vitamin A capsule to the targeted age group of children twice in a year i.e., Kartik (October) and Baisakh (April) every year.

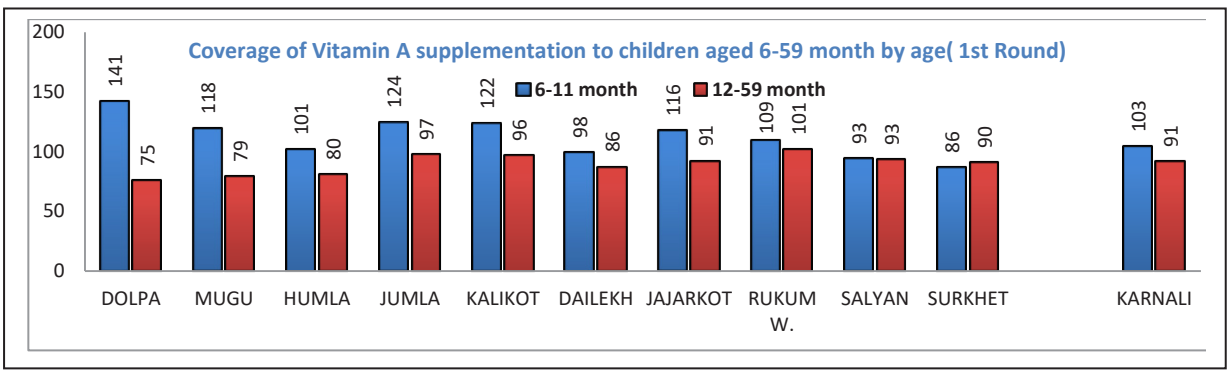
The figure 2.2.8 shows that the coverage of vitamin A of Karnali conducted in Mangsir and Baisakh. The coverage in Mangsir 2077 was higher (92%) than that conducted in Baisakh 2078 which stood at 88%. Humla and Mugu has the low vitamin coverage 73% and 74% respectively in the vitamin A campaign conducted in Baisakh 2078. Generally, target for vitamin A coverage is above 90%. However, in the fiscal year 2077/78, the coverage of Vitamin A in Baisakh 2078 is less than 90%.

Figure 2.2.8. Coverage of Vitamin A supplementation to children aged 6-59 months by distribution Round



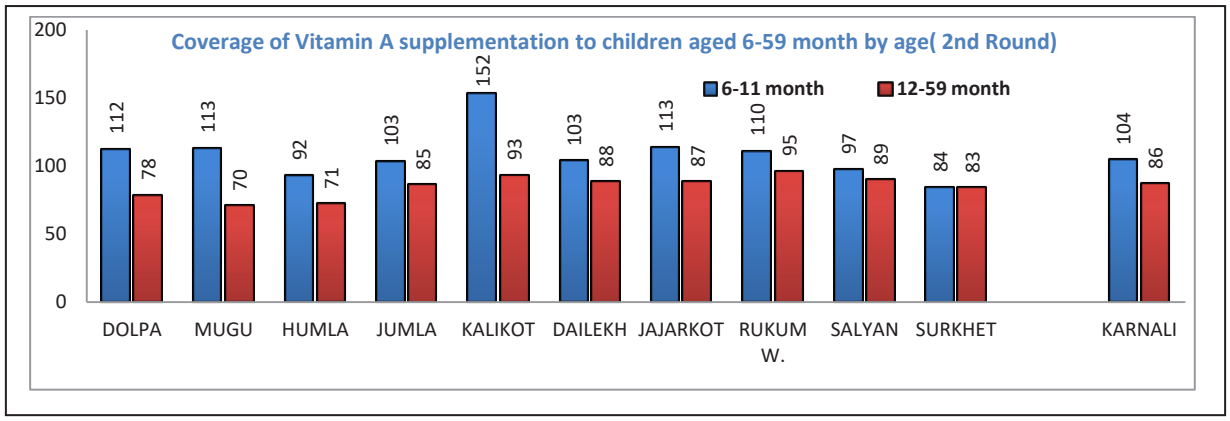
The graph below 2.2.9 shows that all the children of age 6-11 months received vitamin A in Mangsir 2077. However, the coverage for the age group 12-59 months children is 91% in the fiscal year 2077/78. Dolpa and Mugu has the coverage less than 80%. Looking at the districts, the coverage of Vitamin A among 12-59 months age group children is relatively low in Dolpa (75%), Mugu (79%) and Humla (80%) and for coverage of Vitamin A among 6-11 months, Surkhet has the relatively low coverage.

Figure 2.2.9 Coverage of Vitamin A supplementation to children aged 6-59 month by age groups marg 2077



The graph below shows the 2nd round of vitamin A supplementation conducted in Baishakh 2078. The the graph shows that all the children of age group 6-11 months received vitamin A whereas only 86 % of the children of age group 12-59 months received Vitamin A supplementation. The graph shows that Surkhet has the lowest coverage (84%) for Vitamin A distribution among children age 12-59 months. For the age group 6-11 months children, Mugu and Humla has the lowest coverage.

Figure 2.2.10 Coverage of Vitamin A supplementation by age groups for Baishakh 2078

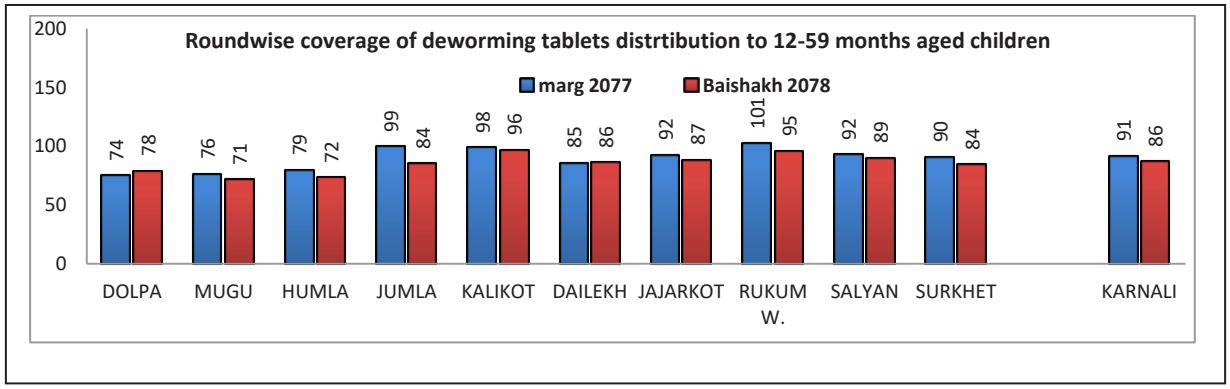


Biannual Deworming Tablet Distribution to the children aged 12-59 months

Government of Nepal has been implementing biannual distribution of deworming tablets to children of age 12-59 months to reduce childhood anemia controlling parasitic infestation through supplementation of deworming tablets to the targeted children. Distribution of deworming tablets is integrated with biannual distribution of vitamin A i. e. in Kartik (October) and Baisakh (April) every year.

The figure 2.2.11 illustrates that the province has the higher coverage of deworming tablet distribution in Mangsir 2077 than that in Baisakh 2078.

Figure 2.2.11 Round wise coverage of deworming tablets distribution of 12-59 months aged children



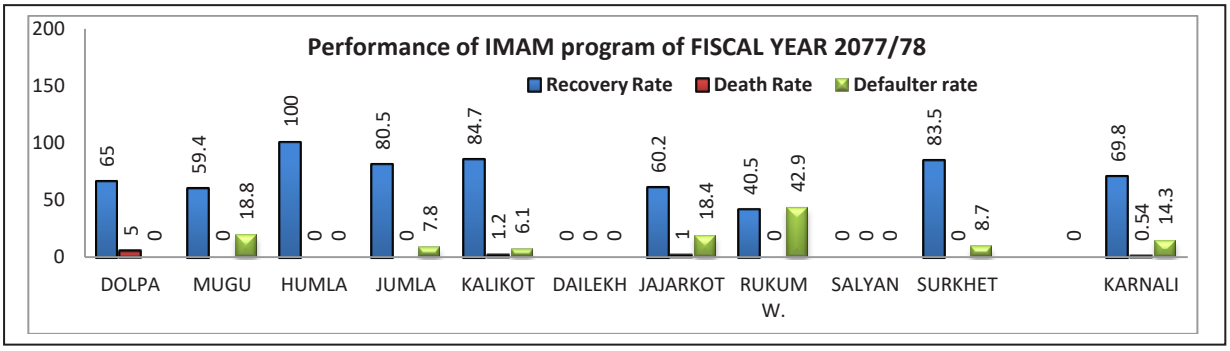
Integrated Management of Acute Malnutrition (IMAM) Service statistics

Integrated Management of Acute Malnutrition (IMAM) program previously known as community-based management of acute malnutrition is being implemented in all 10 districts of Karnali province to provide the treatment to the children aged 0-59 month suffering from severe acute malnutrition (SAM) through outpatient treatment services at health facility and community level. The program contributes to address the wasting as well as the emergency nutrition situations. IMAM is a scale up program where the selected health facilities are serving as the OTC (Outpatient Therapeutic Center). At the OTC, anthropometric measurement of the children is taken and children having <-3 z-score or having oedema + or ++ i.e., MUAC <115 are admitted for the treatment. These admitted children are treated with Ready to Use therapeutic food (RUTF) for minimum of 42 days and maximum of 90 days whereas the malnourished children with medical complications are referred to higher centers-Stabilization center (SC) established at each District level hospitals. The table below illustrates the service statistics of IMAM in each district. The service statistics of the province is presented in Table 2.2.1.

Table 2.2.1. IMAM Service Statistics fiscal year 2077/78

District	New Admission		Re Admission		Recovered		Defaulter		Death		Total Admission		Total Discharge	
	<6 Month	6-59 Month	<6 Month	6-59 Month	<6 Month	6-59 Month	<6 Month	6-59 Month	<6 Month	6-59 Month	<6 Month	6-59 Month	<6 Month	6-59 Month
DOLPA	0	17	0	0	0	13	0	0	0	1	0	17	0	14
MUGU	0	202	0	1	0	142	0	45	0	0	0	203	0	187
HUMLA	0	2	0	0	0	2	0	0	0	0	0	2	0	2
JUMLA	6	66	1	4	5	57	1	5	0	0	7	70	6	62
KALIKOT	1	137	0	17	0	138	0	10	0	2	1	154	0	150
DAILEKH	10	0	0	0	0	0	0	0	0	0	10	0	0	0
JAJARKOT	0	100	0	3	1	58	0	18	0	1	0	103	1	77
RUKUM WEST	0	46	0	1	0	17	0	18	0	0	0	47	0	35
SALYAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SURKHET	19	84	0	0	17	69	0	9	0	0	19	84	17	78
Karnali Province	**36**	**654**	**1**	**26**	**23**	**496**	**1**	**105**	**0**	**4**	**37**	**680**	**24**	**605**

Figure 2.2.12 Performance of IMAM Program of fiscal year 2077/78



In fiscal year 2077/78, out of total discharge of 629 SAM cases in Karnali Province, 69.8% were recovered, 0.54% were death rate and < 14.3% defaulted from the program. This shows that recovery rate, death rate and defaulter rate of Karnali Province is within the SPHERE standard. The SPHERE standard for IMAM program is recovery rate is > 75 %, death rate is < 10% and defaulter rater is < 15% among total SAM cases.

Mother and Child Health Nutrition (MCHN) Program

Mother and Child Health Nutrition (MCHN) program is being implemented by Ministry of Health and Population (MoHP) Nepal to improve the health and nutritional status of pregnant and lactating women (PLW) and their young children. The mothers and children receive take-home rations of fortified food at the health facilities, where they also access basic services such as Ante-Natal Care (ANC), Post-Natal Care (PNC), growth monitoring and MIYCN counseling services linked with Social Behavior Change Communication (SBCC) messaging and health education prior to food distribution each month. Upon mandatory receipt of the above-mentioned basic health and nutrition related services, a monthly take-home ration of 3 KG Fortified Blended Food (FBF), known as "Paushtik Ahaar", is provided to each pregnant and lactating woman, or a child aged 6 to 23 months.

The current MCHN programme is effective for the five-year Country Strategic Plan (CSP) from 2019 to 2023 as per the Operational Agreement signed between the Government and WFP. The programme has been implemented in Mugu, Jumla, Humla, Dolpa and Kalikot districts. In the fiscal year 2077/78, total 757.68 MT of fortified flour "Super Cereal" was distributed to the targeted population.

Key indicators	Annual Plan	Achievement (Yearwise)					
		2016 (2072/073)	2017 (2073/074)	2018 (2074/075)	2019 (2075/076)	2020 (2076/077)	2021 (2077/078)
Pregnant women receiving ANC	3817	3746	3823	4476	3944	3845	4003
Pregnant women receiving 180 iron tablet	606	502	541	614	647	626	742
Pregnant women receiving deworming tablets	1371	1098	1205	1184	1143	877	1166
Lactating women receiving Vitamin-A tablets	625	565	595	702	644	549	692
6 to 23 months children growth monitored	19252	22386	19973	20285	18872	18757	16860
Underweight children	2328	2012	1765	1841	1598	1157	1137
PLW received fortified blended food	10025	11186	11201	11970	10647	11180	11568
Children 6 to 23 months received fortified blended food	19378	22386	19973	20285	18872	18757	18092
Fortified blended food distributed (MT)	1058.508	512.448	255.135	681.088	405.738	724.124	757.697

Issues of the Nutrition Program

- Coordination between the Nutrition Rehabilitation Home (NRH) and nutrition related program
- Functionality of Stabilization centers (SCs)
- Recording, Reporting, and data quality
- Practice of growth monitoring in health facilities
- Low growth Monitoring and consistent information for growth monitoring
- Functionality of OTC sites

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

Background

Community-Based Integrated Management of Neonatal and Childhood Illness (CB-IMNCI) program is an integrated package of newborn/child-survival interventions and addresses major newborn & childhood diseases like Pneumonia, Diarrhea, Malaria and Measles. Since fiscal year 2071/72, CB-IMCI & CB-NCP programs have been merged as CB-IMNCI program and has been scaled up to all districts of Karnali. It is a cost-effective evidence and community-based child survival intervention contributing SDG-3.2. By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births. CBIMNCI also includes management of infection, Jaundice, Hyperthermia, and counseling on breastfeeding for newborn & young infants less than 2 months of age.

Karnali province has higher mortality rate of Newborn (29), Infants (47) and children (58) per thousand live birth which is grossly higher than national level mortality data for Newborn (21), Infant (32) and children (39) respectively (NDHS, 2016). Therefore, a vigorous effort is deemed essential for reducing mortality and morbidity in Karnali province.

Goal - *Improve newborn and child survival and healthy growth and development.*

Targets (Nepal Health Sector Strategy 2015-2020)

- To reduce neonatal mortality from the current rate of 17.5 per thousand live birth by 2020.
- To reduce under five mortality rates to 28 per thousand live birth by 2020

Objectives

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

Strategies

The following strategies have been adopted by CB-IMNCI program:

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

CB-IMNCI program has a vision to provide targeted services to 90 percent of the estimated population by 2020 as shown in the diagram below.

Vision 90 by 2020

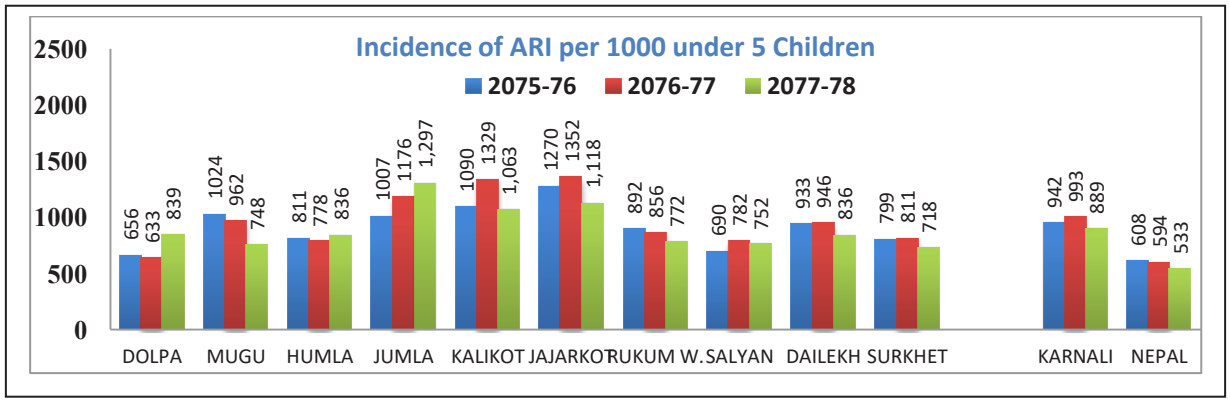
Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

- Ensuring effective implementation of free newborn care program and IMNCI program
- 3 batches of CB-IMNCI training to health workers through a province level
- Province level review and workshop for CB IMNCI program planning

Analysis of Service Statistics

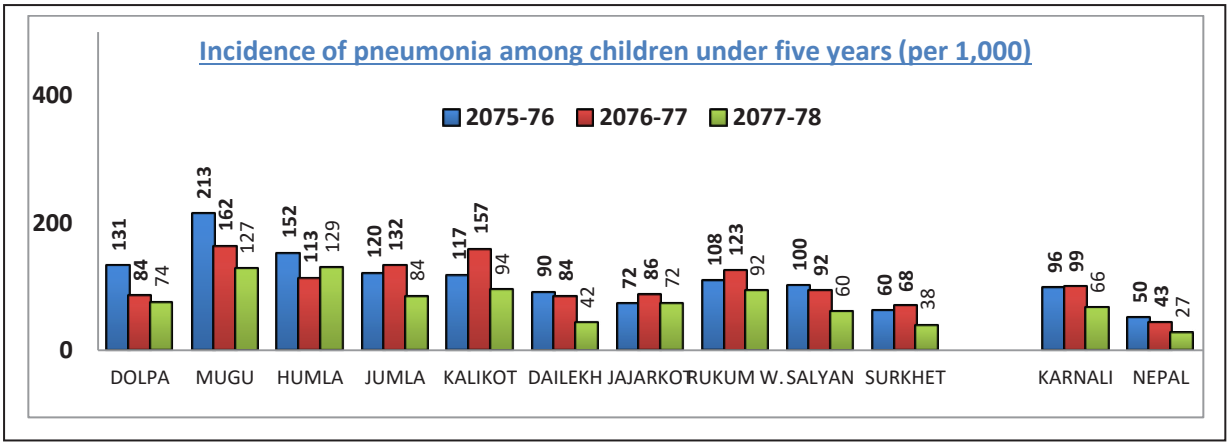
Control of Acute Respiratory Infection (ARI)

Figure 2.3. 1. Incidence of ARI per 1000 under 5 Children



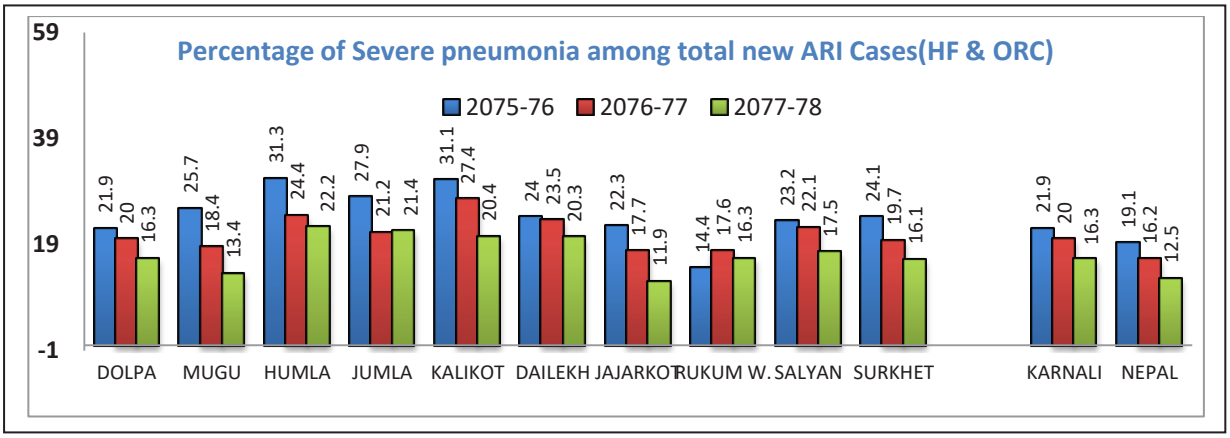
Reported ARI cases per thousand under-five population in Karnali province decreased to 889 in this fiscal year 2077/78 from 993 cases in the year 2076/77 (Figure 2.3.1). Incidence of ARI has decreased in Mugu, Kalikot, Jajarkot, Dailekh, Rukum West, Salyan and Surkhet and increased in Dolpa, Humla and Jumla districts in this fiscal year compared to that in 2077/78.

Figure 2.3.2. Percentage of Pneumonia among New ARI Cases



The incidence of Pneumonia among New ARI cases is given in figure 2.3.2. The incidence of pneumonia among under-five children of Karnali Province in fiscal year 2076/77 is 99 which decreased to 66 in the fiscal year 2077/78 which is higher than the incidence of national level.

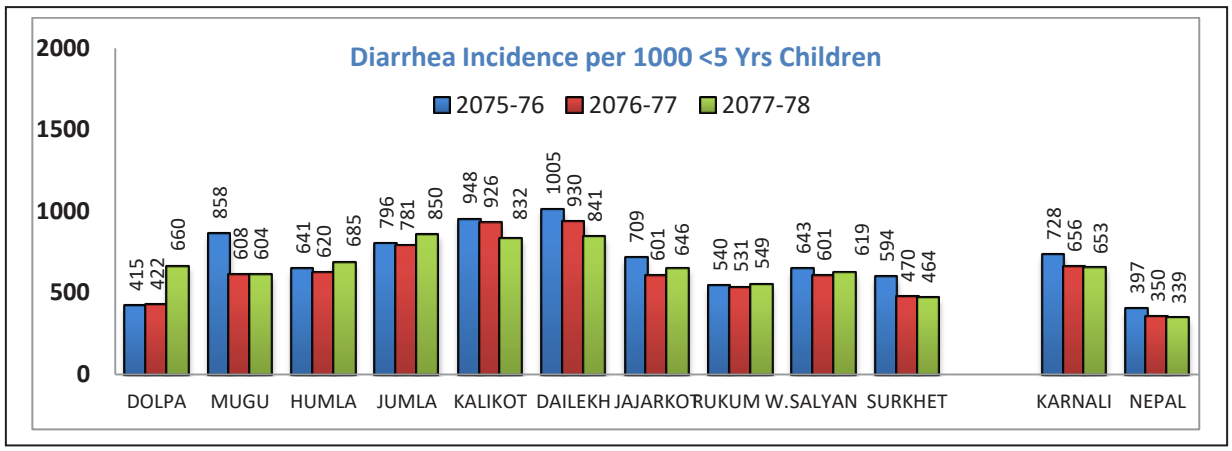
Figure 2.3. 3. Percentage of Severe pneumonia among total new ARI Cases



Percentage of severe pneumonia among total ARI cases for under-five children in Karnali is presented in figure 2.3.3. The figure reveals that there is slight reduction of severe pneumonia among total new ARI cases. Dolpa reported more than 16.3 percent of severe pneumonia cases among the total new ARI cases. In Mugu, severe pneumonia cases significantly decreased in year 2077/78 i.e. (13.4%) compared to previous fiscal year 2076/77 i.e. (18.4%).

Diarrhea

Figure 2.3. 4. Diarrhea Incidence per 1000<5 years children



The figure 2.3.4 illustrates that the incidence of diarrhea per thousand under five children is slightly decreased to 653 in this fiscal year 2077/78 from 656 in previous year 2076/77. The figure shows decreasing trend of incidence of diarrhea cases in the province. However, Dolpa shows drastic increase in incidence of diarrhea compared to the previous fiscal years. Similarly, Humla, Jumla, Jajarkot, Rukum west showed increase in the incidence of diarrhea compared to the previours fiscal years.

Figure 2.3. 5. Percentage of Severe Dehydration among Total Diarrheal Case

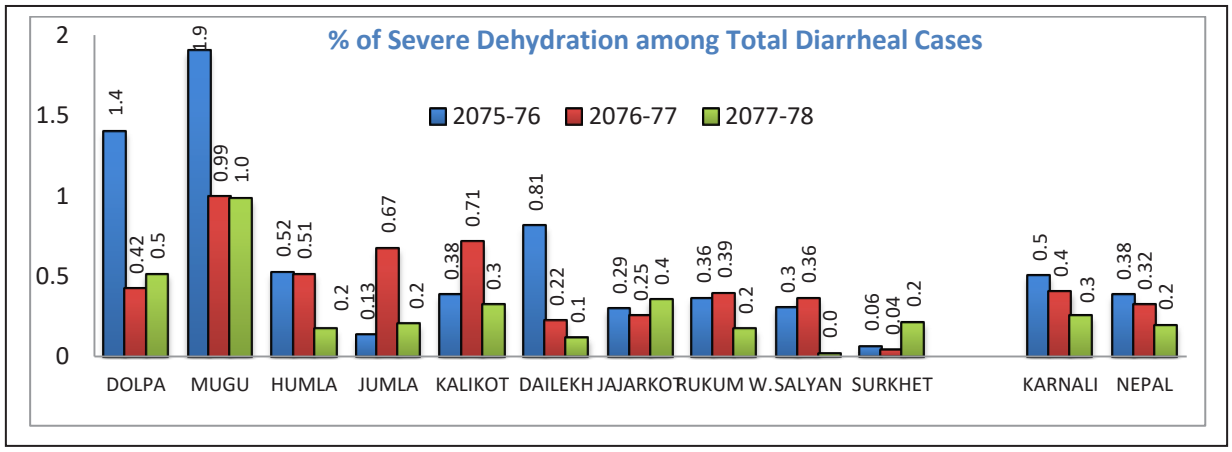
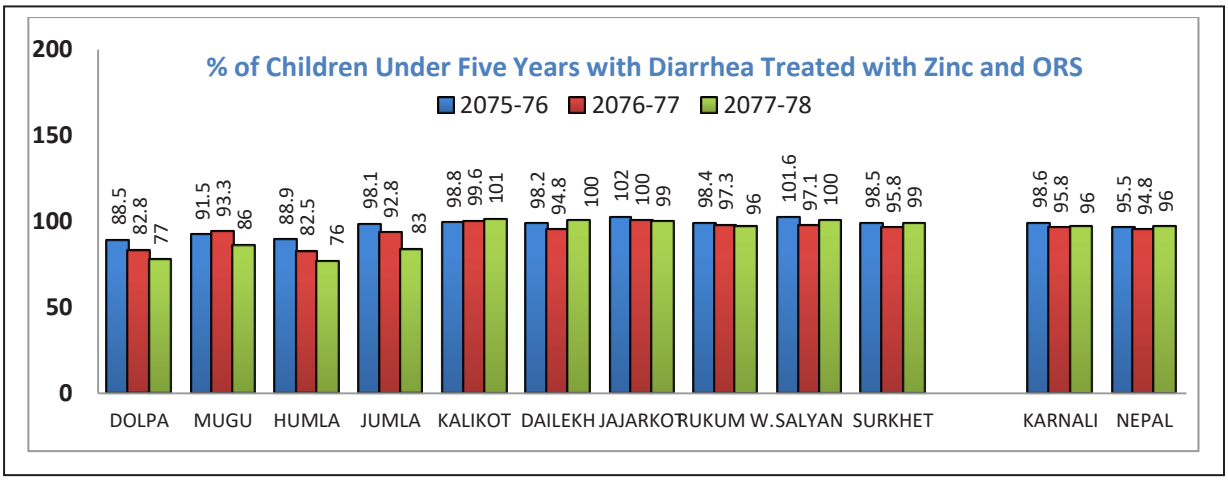


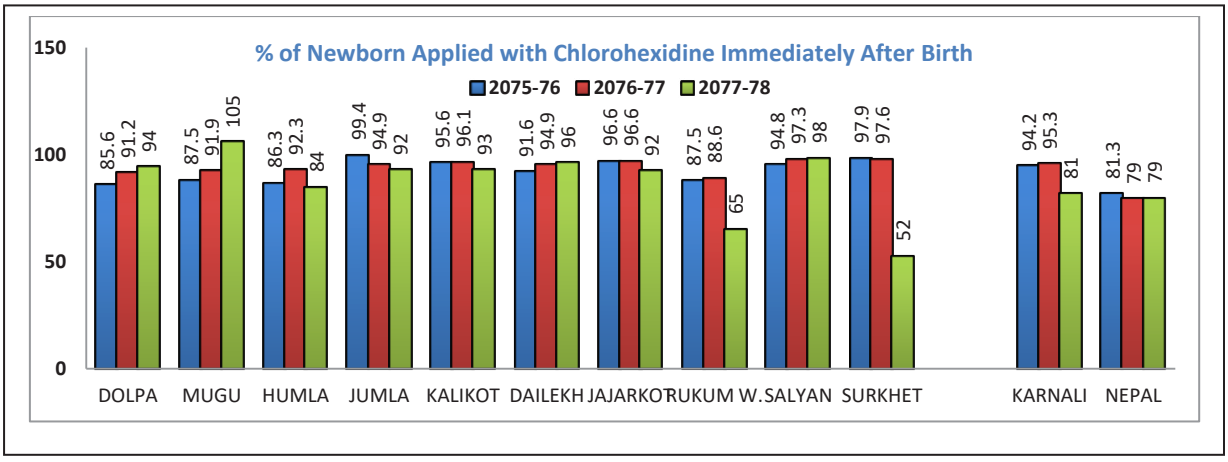
Figure 2.3.5 depicts the decreasing trend of severe dehydration among total diarrheal cases in the province compared to previous fiscal years. Despite of decreasing trend of incidence regarding severe dehydration in the province, Jajarkot and Surkhet showed the increased cases of severe dehydration among total diarrheal cases this fiscal year 2077/78 compared to previous fiscal year 2076/77.

Figure 2.3. 6. Percentage of Children Under Five Years with Diarrhea Treated with Zinc and ORS



Administration of Zinc and ORS for treatment of diarrhea has been found to be cost effective evidence-based intervention for reducing severity and reducing diarrheal output. In fiscal year 2077/78, percent of diarrheal cases treated with both Zinc and ORS in Karnali Province stood stagnant at 96 %. Treatment of diarrheal cases treated with Zinc and ORS is observed to be slightly increased in Kalikot, Dailekh, Salyan and Surkhet compared to previous year.

Figure 2.3. 7. Percentage of Newborn Applied with Chlorohexidine Immediately After Birth



According to the essential newborn care guideline of Nepal, the newborn should provide Chlorohexidine (CHX) immediately after birth. Chlorohexidine gel 4% w/w has been identified as an evidence-based intervention and regarded as a 90-90-90 indicator. The provincial coverage of CHX has slightly decreased (81%) in 2077/78 than that in 2076/77 (95.3%). Also, the overall progress shows that Karnali has better compliance with CHX than the National level (Figure 2.3.7). The coverage of CHX has decreased in Rukum West in fiscal year 2077/78. Following the similar trend overall reducation in percentage in the province been reported.

Table 2.3. 1. Status of CB-IMNCI Programme monitoring indicators by districts for different fiscal years

District	% of PSBI Cases treated with first dose of gentamycin			% of PSBI cases received complete dose of Gentamicin		
	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
Dolpa	15.2	43.6	37.9	15.2	61.5	62.1
Mugu	8.2	66.7	13.3	2	33.3	20
Humla	41.9	131.3	60	13.9	25	60
Jumla	58.3	90.5	69.2	25	52.4	38.5
Kalikot	69.2	85.7	60.2	67	100	63.9
Dailekh	59.1	76	80.2	55.2	66	70.8
Jajarkot	87.3	73.3	95.7	67.3	43.6	71.7
Rukum west	101.5	85.8	88.6	76	72.3	77.7
Salyan	81.3	92.7	96	65.2	64.5	51.5
Surkhet	77.8	79.4	84.7	56.3	66.9	67.1
Karnali	71.2	81.3	79	56.7	67	65.2
Nepal	58.3	60.4	60.2	46.3	44.6	50

The two different indicators of the CB-IMNCI program are presented in Table 2.3.1 for the recent three fiscal years. The percentage of PSBI treated with the first dose of gentamycin and the percentage of PSBI cases received a complete dose of gentamycin is compared for the last three fiscal year. In fiscal year 2077/78, 79.0 % PSBI cases of Karnali Province were treated with first dose of gentamycin. The table shows that there is an improved trend of using the first dose gentamycin for the treatment of PSBI in all the districts except for Rukum west and Salyan in this fiscal year 2076/77. However, the trend discontinued in fiscal year 2077/78 where the overall progress reduced to 79% with districtwise reduction on use of first dose of gentamycin. The above table shows that less than 2/3rd of children with PSBI who had started gentamycin treatment had completed the required dose of gentamycin as per protocol in fiscal year 2077/78.

Issues

- Recording, reporting and data quality
- Proper use of CB-IMNCI register
- Adherence to CB-IMNCI treatment protocol for treatment and use of antibiotics
- Implementation of facility based IMNCI
- Establishment of SNCU, NICU at remote districts
- Trained human resource

2.4 Safe-Motherhood and Newborn Health

Background

The goal of the National Safe Motherhood Program is to reduce maternal and neonatal mortalities by addressing factors associated with morbidities, death and disabilities caused by complications of pregnancy and childbirth. 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-hour birthing facilities alongside Aama Suraksha Program promotes antenatal checkup and institutional delivery
- The expansion of 24-hour emergency obstetric care services (basic and comprehensive) at selected health facilities in all districts

Goal

Goal: Improved maternal and neonatal health and survival, especially of the poor and excluded. The key indicators for the goal are:

- A reduction in the maternal mortality ratio from the current 239 per 100,000 live births1 to 125 per 100,000 by 2020, and 70 per 100000 live birth by 2030 as per SDG
- A reduction in the neonatal mortality ratio from the current 21 per 1,0002 to 17 per 1,000 by 2020, and 12 per 1000 live birth and end preventable neonatal death by 2030 as per SDG

Strategies

1. Promoting inter-sectoral coordination and collaboration at Federal, Provincial, Districts and Local levels to ensure commitment and action for promoting safe motherhood with a focus on poor and excluded group
2. Strengthening and expanding delivery by skilled birth attendants and providing basic and comprehensive Obstetric care services (including family planning) at all levels. Interventions include the following:
    - Developing the infrastructure for delivery and emergency obstetric care
    - Standardizing basic maternity care and emergency obstetric care at appropriate levels of the healthcare 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 service sites
    - Establishing a functional referral system with airlifting for emergency referrals from remote areas, the provision of stretchers in Local level wards and emergency referral funds in all remote districts

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

Major Activities carried out in fiscal year 2077/78

- Ensured regular ANC, PNC services, Institutional delivery from service delivery points
- Free referral services for complicated pregnancy and delivery of remote district to appropriate site
- Implementation of Free Newborn Care program in all the hospitals of Karnali Province
- Maternal and Perinatal Death Surveillance and Response (MPDSR) monitoring and on-site coaching
- Provincial MPDSR and Adolescent Sexual and Reproductive Health (ASRH) Review
- SBA, MNH update training conducted by provincial hospital and districts
- Conduction of uterine prolapse screening camps

Analysis of Service Statistics

Availability of safe motherhood services

Table 2. 4. 1 Status of CEONC/BEONC and Birthing Sites (fiscal year 2075/76 to 2077/78)

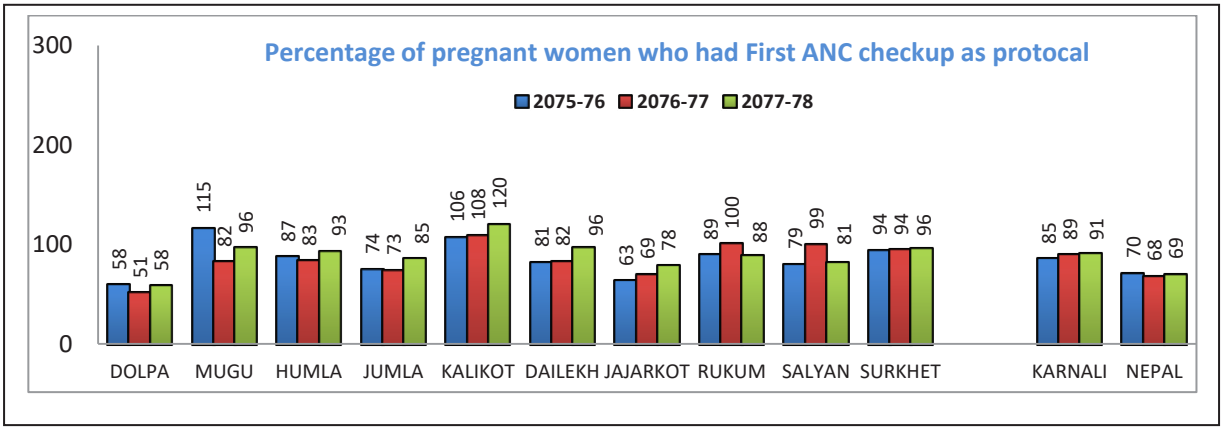
S. N.	Districts	CEONC			BEONC			Birthing Centers		
		2075/76	2076/77	2077/78	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
1	Rukum West	2	2	2	1	1	0	17	18	19
2	Salyan	1	1	1	2	2	2	35	38	45
3	Surkhet	1	1	1	4	4	4	47	47	46
4	Dailekh	1	1	1	3	3	3	54	57	68
5	Jajarkot	1	1	1	3	3	3	26	27	27
6	Dolpa	1	0	1	0	0	0	9	14	13
7	Jumla	1	1	1	1	1	1	20	22	25
8	Kalikot	1	1	1	1	1	0	28	28	31
9	Mugu	1	1	1	0	1	1	12	18	16
10	Humla	1	1	1	0	0	0	22	23	28
Karnali Total		**11**	**10**	**11**	**15**	**15**	**14**	**275**	**292**	**318**

The Basic Emergency Obstetric Newborn Care (BEONC) site offers six signal functions (Antibiotics administration, Oxytocin injection, management of Anti-convulsion (Magnesium Sulphate), Manual Removal of Placenta, Removal of retained products (MVA) and Assisted Vaginal Delivery (Vacuum or forceps). Whereas the Comprehensive Emergency Obstetric Newborn Care (CEONC) Site offers additional two signal functions i. e. C/S operation and Blood transfusion services. The above table shows district -wise availability of designated services over the last three year. The number of CEONC sites is increasing where as BEONC

service delivery point is decreased since BEONC has been upgraded to CEONC. All district of Karnali except Dolpa used to offer CEONC service till fiscal year 2075/76. However, in fiscal year 2077/78 Dolpa also established CEONC service site in Dolpa hospital. The table shows the increasing number of birthing centers 292 in fiscal year 2075/76 to 318 in fiscal year 2076/77. Eleven hospitals provide CEONC services, 14 health facilities provide BEONC services. Additionally, BHSCs, CHUs and UHCs are also providing birthing centers. However, the strategic location, continuation of CEONC in remote districts like Mugu, Humla, Dolpa etc. and quality of health services has become the biggest challenge of birthing center despite of their number (Table 2.4.1).

Antenatal Care

Figure 2. 4.1. Percentage of pregnant women who had First ANC checkup as protocol



The figure 2.4.1 illustrates that first ANC visit (as per protocol) has increased from 89% in fiscal year 2076/77 to 91% in fiscal year 2077/78. The provincial average in fiscal year 2077/78 is 91%, lowest in Dolpa (58%) and highest is in Kalikot (120%).

Figure 2.4.2. Four ANC Visit as per protocol as % of Expected Live birth

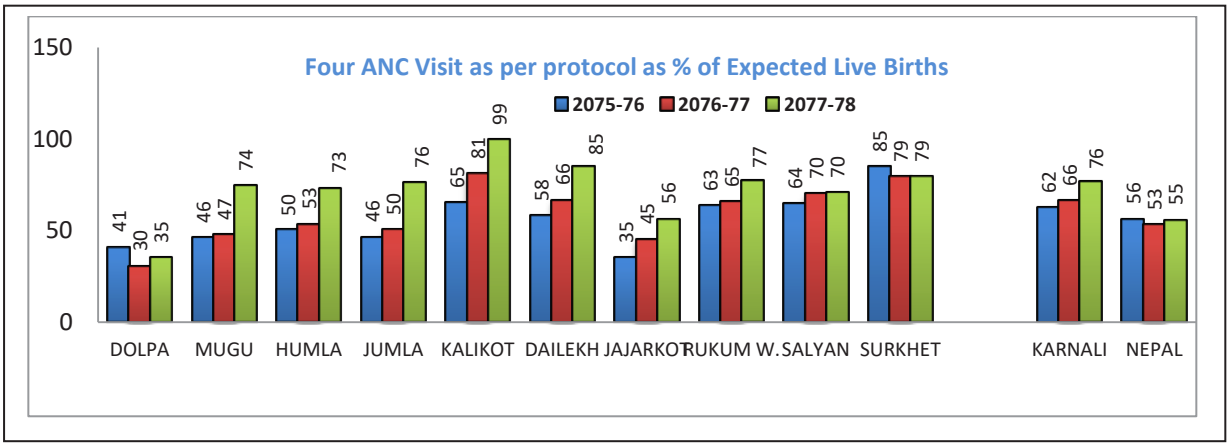
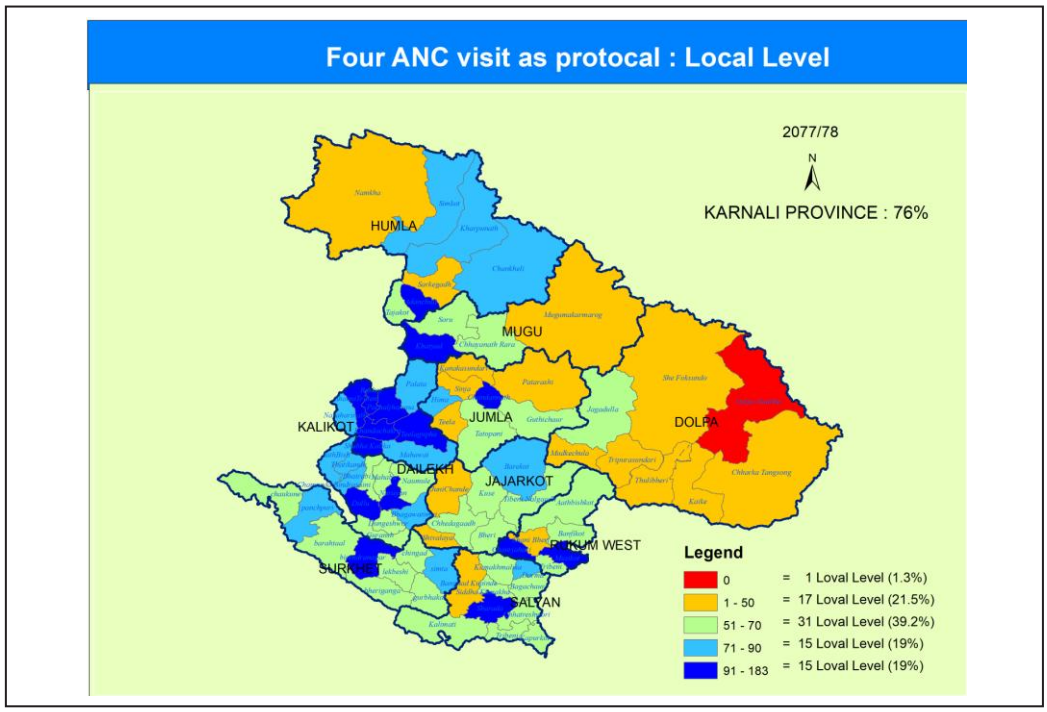


Figure 2.4.2 shows that 76% pregnant women of Karnali Province in fiscal year 2077/78 had received four ANC services as per protocol, with the variance of district coverage from

minimum 35% to maximum 99.0% found Dolpa and Kalikot respectively. Municipality-wise ANC 4 visit as per protocol is shown in Figure 3.4.3. The respective coverage of ANC visits is mentioned in figure with color coding.

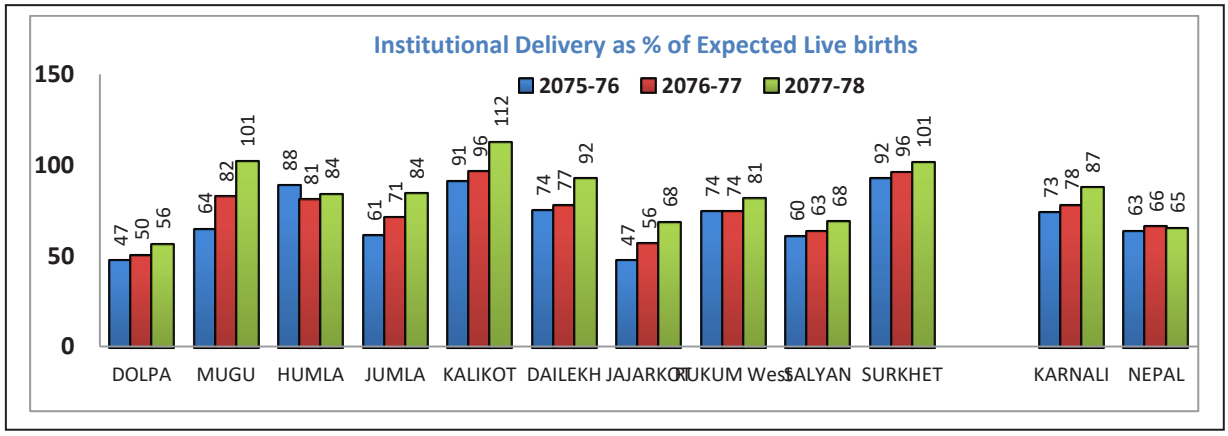
Figure 2.4.3. Percentage of Pregnant women with four ANC visit (as per protocol) 2077/78



Institutional Delivery

The figure 2.4.4 presents the percentage of delivery conducted in institutional as percentage of expected live births of Karnali is 87.0 percent which is higher than National average.

Figure 2.4.4. Institutional Delivery as percentage of Expected live birth



The figure 2.4.4 presents the percentage of delivery conducted in institutional as % of expected live births of Karnali. The institutional delivery rate is 87%. Looking at the coverage of

institutional delivery, the three districts (Kalikot -111 %, Mugu-101 %and Surkhet-101%) have the highest institutional delivery rate. The institutional delivery status by local levels of Karnali is shown in color coding system (figure 2.4.5)

Figure: 2.4.5. Percentage of Institutional delivery by local level

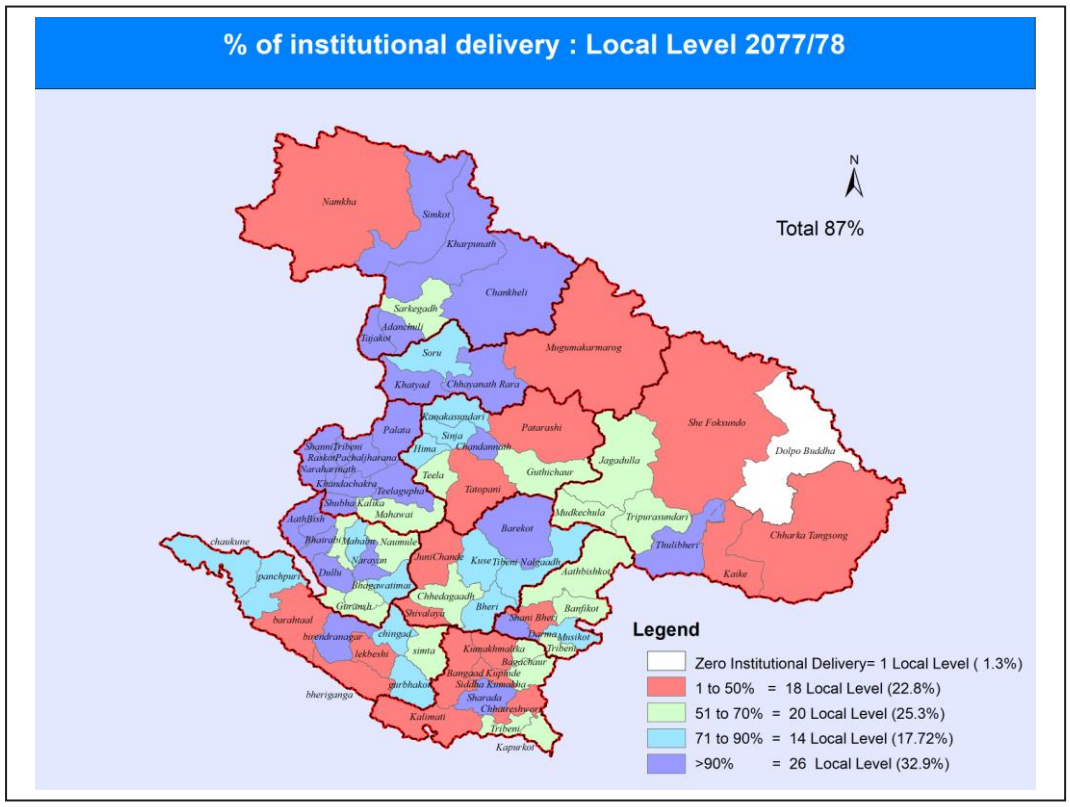
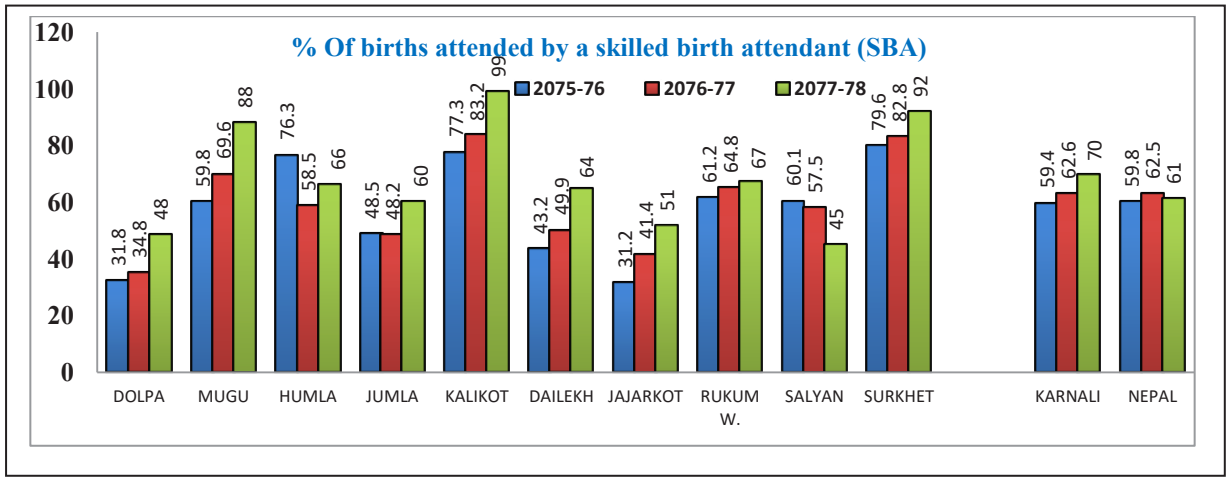


Figure 2.4.6. Coverage of births attended by SBA



The figure 2.4.6 presents the district-wise SBA delivery of Karnali Province. A total of 70% of deliveries were assisted by SBA among expected live birth. Lowest births were assisted by SBA in Dolpa district and highest births were assisted in Mugu, Kalikot and Surkhet.

Figure 2.4.7. %of women who had four ANC check-ups as per protocol (4th, 6th, 8th and 9th months) and delivered in a health facility)

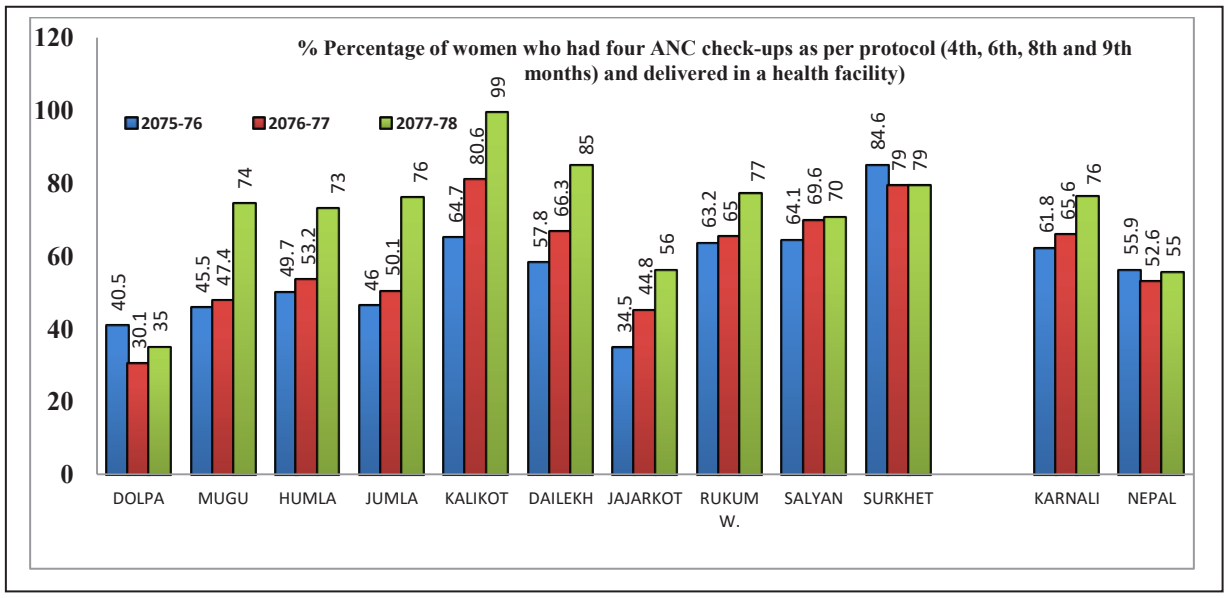
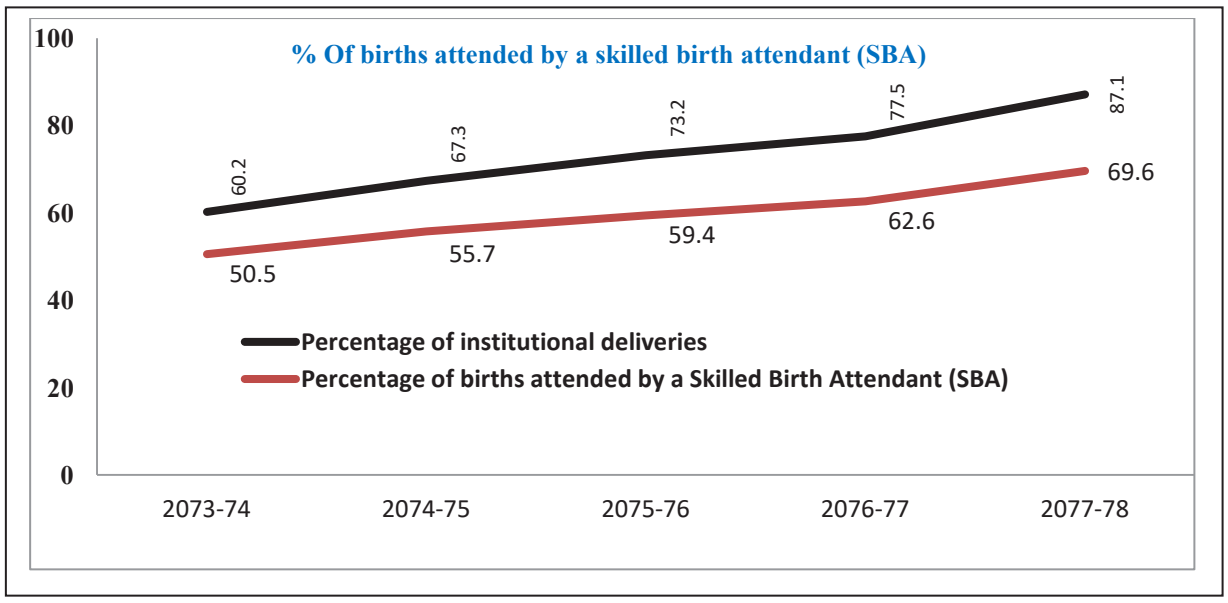


Figure 2.4.8 Trend of health worker delivery vs institutional delivery vs SBA delivery (Fiscal Year 2073/74-Fiscal Year 2077/78) in the last three years



The figure 2.4.8 illustrates the last five years trend of institutional delivery and SBA delivery. Rate of SBA assisted delivery is increasing but is less progress in institutional delivery. This clearly demands the need of SBA training and optimum utilization of SBAs for assisting delivery.

Postnatal Care

Figure 2.4.9. PNC first visit within 24 hours of delivery as percentage of expected live birth

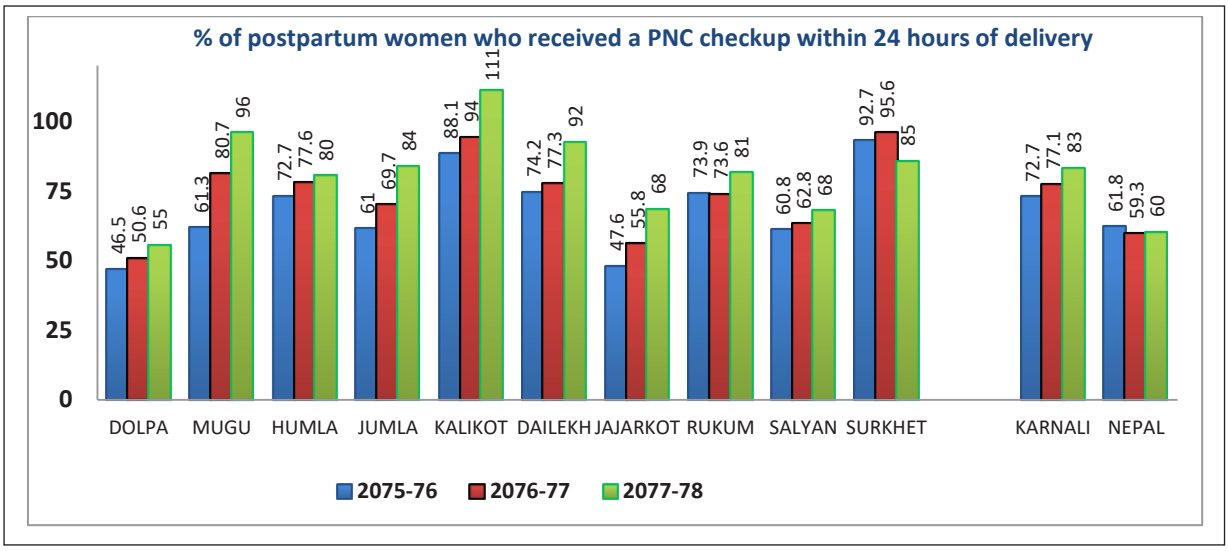
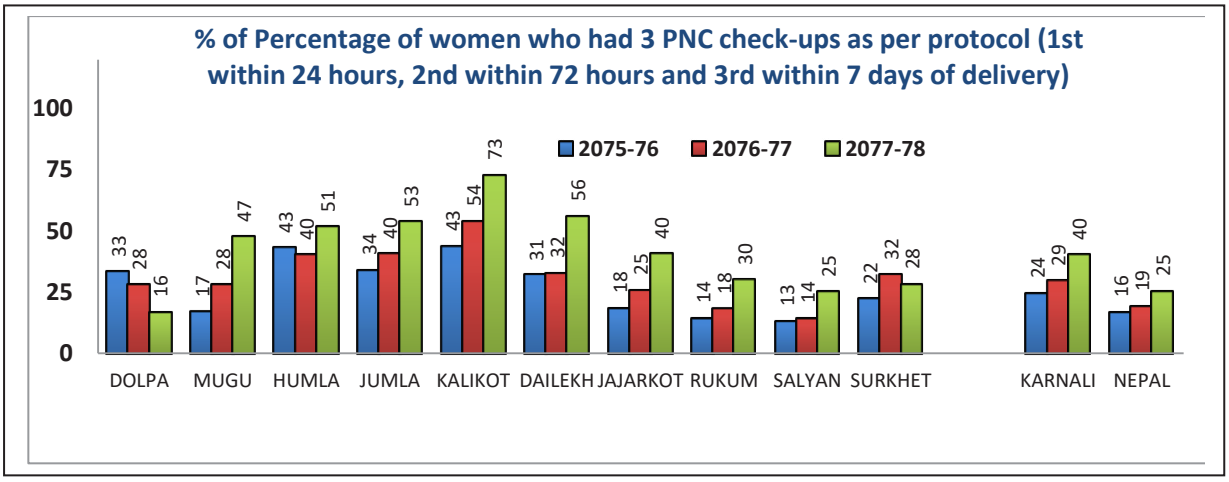


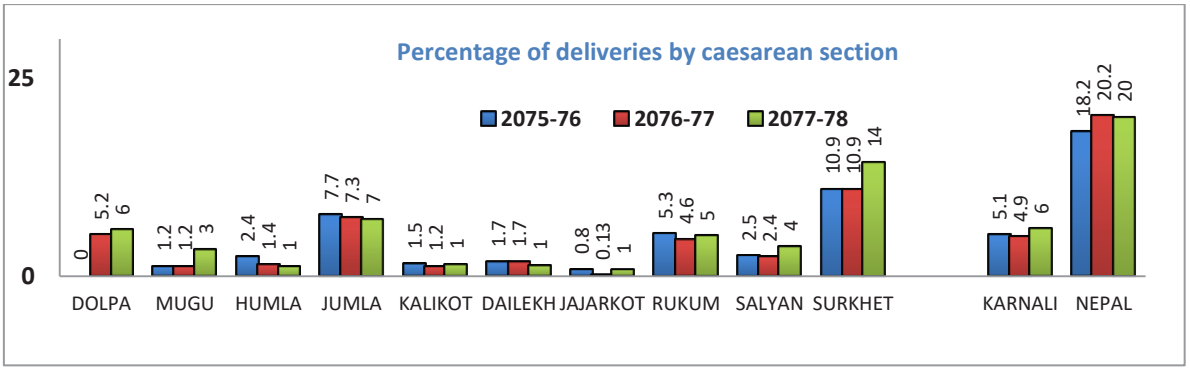
Figure 2.4.9 presents comparison of the PNC first visit as % of expected live births in the last three fiscal year 2075/76 to fiscal year 2077/78. Provincial PNC visit within 24 hours was 83%, highest in Kalikot (111%) and lowest in Dolpa (55%).

Figure 2.4.10. Percentage of 3rd PNC visits as per protocol as % of expected live births



The figure 2.4.10 above shows the proportion of women having PNC 3rd visit as per protocol among expected live birth in Karnali Province. A total of 40 % of women had received 3 postnatal care as per protocol in fiscal year 2077/78. Highest PNC 3rd visit as per protocol is reported from Kalikot and lowest from Dolpa. In Karnali province, the trend of PNC visits as per the protocol is increasing. In fiscal year 2075/76, the PNC coverage was 24.1% and it reached to 40.0 % in fiscal yar 2077/78 whereas it was 29.0 % in fiscal year 2076/77. The PNC coverage for Karnali province is higher than the national coverage of PNC visits as per protocol.

Figure 2.4.11 Hospital-wise Caesarean section situation of Karnali Province for Fsical year 2075/76-2076-77



The figure 2.4.11 represents the districtwide and total percentage of caesarean deliveries of Karnali Province for the last three fiscal year. Two higher level care centersof Karnali province such as Karnali Academy of Health Sciences and Province hospital are the major refeeral hub for delivery services. Among the non-governmental service provider, Chaurjhari Hospitals is providing C/S service. Among total deliveries, 6 % of delivery is conducted by caesarean section process in fiscal year 2077/78. The highest proportion CS rate in Surkhet (14.0%) followed by Jumla (7.0%). As compared to the Fiscal year 2076/77, the CS delivery slightly increased in Karnali for recent fiscal year 2077/78. However, there has been reported increasing trend only in Dolpa. Due to global pandemic of COVID 19 also, there might have some hurdles in reaching and taking care for pregnant women. If we compare, total CS delivery as compared to WHO standards we can say that the delivery by CS is within the WHO global standards (<15%).

EOC Met Need in Karnali

Out of total expected live birth, 15% women are expected to have obstetric complication and need emergency obstetric services (EOC). At least 10% of women estimated to have obstetric complications should be treated in EOC facilities. The figure 2.4.12 presents district-wise met need of emergency obstetric care. The obstetric met need of Karnali Province is 6%, which is below estimated service provision. The data became stagnant for last two fiscal year 2076/77 and 2077/78. Only two districts: Humla and Mugu have only met, obstetric complication met need. Round the year non-functionality of CEONC and BEONC services due to lack of trained human resources is one of the reasons of high unmet need for obstetric complications in Karnali.

Figure 2.4.12. Percentage of Met Need for Emergency Obstetric Care in Karnali for last three fiscal years

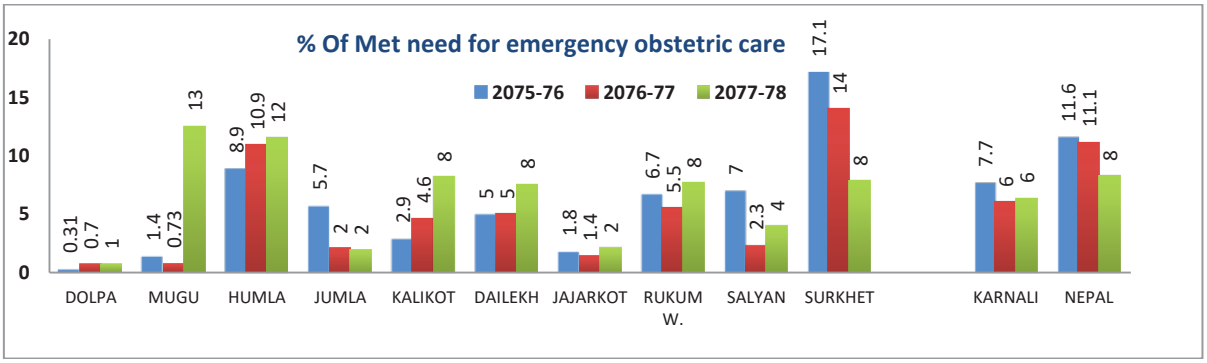


Figure 2. 4. 13 Number of Clients who received abortion services (2077/78)

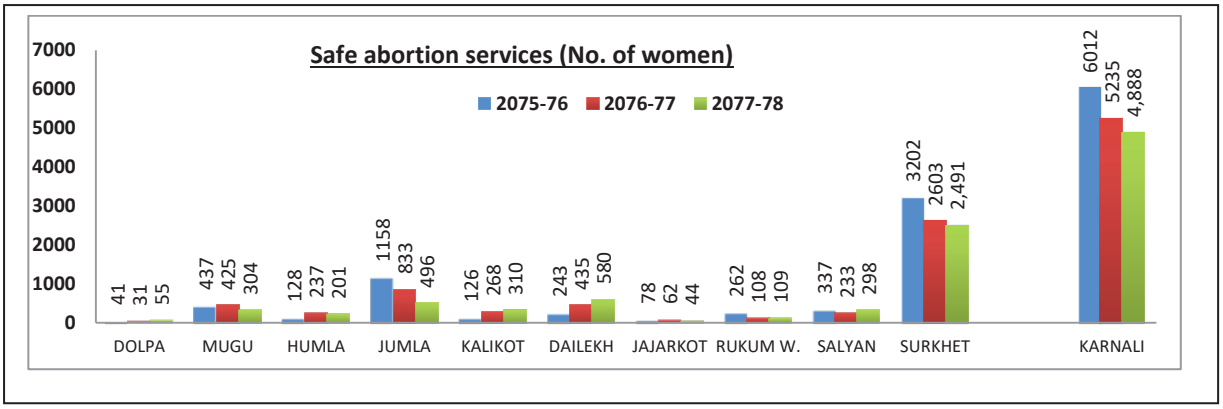


Figure 2.4.13 reflects total number of clients for Safe Abortion Services (SAS) in Karnali. A total of 4,888 abortion was conducted in fiscal year 2077/78 in health facilities of Province and the service was done from 47 service delivery sites. Among total cases, majority services were provided by health facilities of Surkhet and Jumla. In an average, medical procedures out number the surgical procedure. However, in Rukum West and Dailekh there is higher number of surgical abortions compared with medical for recent fiscal year. None of the abortion was performed by surgical procedure in Dolpa and Jajarkot.

Table 2. 4. 1. District Wise Maternal, Neonatal Death and Still Births

Districts	Maternal deaths			Neonatal deaths			Still births		
	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
Dolpa	0	0	1	8	5	3	12	6	12
Mugu	0	2	0	3	15	10	29	12	24
Humla	0	1	1	0	0	4	20	7	6
Jumla	2	0	1	21	22	39	41	31	37
Kalikot	3	6	4	9	22	16	32	40	60
Dailekh	1	0	1	11	19	22	92	51	86
Jajarkot	1	3	5	16	27	32	28	28	36
Rukum	0	3	0	11	8	10	33	47	50
Salyan	2	2	0	21	22	22	57	37	59
Surkhet	4	4	7	52	68	60	156	106	148
Karnali	13	21	20	152	208	218	500	365	518

Total number of maternal deaths, neonatal deaths and still births are 20, 218 and 518 respectively in Karnali for fiscal year 2077/8. Districtwise maternal, neonatal deaths and still birth is presented in table 2.4.1. A total of 20 maternal deaths has been reported of which 66.6% deaths were reported by FCHVs. A total of 208 neonatal deaths has been reported of which, 58% were from community, and 479 still births reported, among them 23.7% were reported by FCHVs. Highest maternal deaths were registered in Kalikot, highest neonatal deaths and still births were reported from Surkhet district.

Figure 2.4.14 Reported Maternal death

Maternal and Perinatal Death Surveillance and Response (MPDSR) activities would be useful in preventing the preventable maternal and newborn deaths. These activities are also important in preventing three delays for maternal death. Interventions for Preventing illnesses, obstetric complication, and maternal nutrition along with improving access to health information, maternity emergency services, health services, positive care practices are in place for improving maternal health. However, to address the basic causes of maternal death at societal level improving women's status in society, control over the resources and decision making multi-sectorial response from all development sector is crucial. In Karnali Province, hospital based MPDSR has been implemented in 7 hospitals (Humla, Dolpa, Mugu, Jumla, Kalikot, province hospital and Mehelkuna hospital) and community based MPDSR has been implemented in three districts of Karnali (i.e. Surkhet, Jumla and Dailekh).

Findings of MPDSR

The followings are the findings from MPDSR review at hospital of Karnali province.

- The major cause of perinatal deaths is birth asphyxia, prematurity, congenital anomalies, Meconium Aspiration, Trauma, LBW and neonatal sepsis.
- The major cause of maternal deaths is septic shock, pulmonary embolism among delivered women
- Major response taken to prevent maternal and perinatal deaths in future are orientation of staff's members specially sisters, onsite coaching, and procurement of equipment
- Review meeting conducted among maternal death in Dailekh- 3, Surkhet-2, Mugu- 2, province hospital surkhet- 4, Kalikot hospital-11, Humla hospital-5.
- Review meeting for perinatal death conducted in Mugu-11, Dolpa hospital-9, Province hospital-3, KAHS-4, Kalikot hospital-11, Humla hospital-5, Mehelkuna-8, Mugu hospital- 11.

Free Newborn Care Services

Despite of tremendous progress in reduction in child mortality, there are still unfinished agenda in child health. Still, the reduction of neonatal mortality rate is not satisfactory to achieve the SDG target of Nepal. The constitution of Nepal has clearly stated the basic right of people to have access to health services. In this regard, neonatal mortality due to poverty and inequality is another aspect to address. In order to address the access everyone in reach of free newborn care services this program has been rolled out. The program has been implemented in all the public hospital of Nepal. In this aspect, all the hospital at district level of Karnali have been providing free newborn care services based on its package.

The goal of the FNC package is to increase access to newborn care services and hence reduce newborn deaths. The FNC program makes the provision of disbursing cost of care to respective health institutions required for providing free care to inpatient sick newborns. As per the FNC Guideline, the cost per care will be disbursed in line with the packages of care provided by the institutions.

The package 0 referred to the newborn care activities on government's free health services and package A are offered through the newborn corners in the birthing centers. The last two packages are meant for special newborn care unit (SNCU) and the neonatal intensive care unit (NICU). To keeping the up-to date record of service data, the hospitals offering free newborn care package were provided 'In-patient Sick Newborn Registers'.

Table2.1.12. Packages, services and costs under free newborn care program in Nepal

Packages	Services	Cost
Package 0	• Resuscitation • KMC • Antibiotics as per IMNCI protocol	No cost
Package A	• Medicines- Antibiotic and other drugs as per national neonatal clinical protocol, NS, RL, 5% Dextrose, 10% Dextrose, Potassium chloride, adrenaline, Buro set, IV canula • Laboratory services- Blood TC, DC, Hb, Micro ESR, CRP, Blood Sugar, Blood Grouping, Serum Bilirubin (total and direct) • Oxygen supply by box/ nasal prong • X- ray/ USG	Rs 1000
Package B	• Photo therapy • Laboratory services- Blood Culture, RFT (Sodium, Potassium, Urea, Creatinine), Serum calcium • Lumber Puncture and CSF analysis • Medicine- Dopamine, Dobutamine, Phenobarbitone, Phenytoin, Midazolam, Calcium Gluconate, Aminophylline • Bubble CPAP (Continuous positive airway pressure)	Rs 2000
Package C	• NICU Admission (Must) • NICU beside ultrasonography (USG) • NICU bedside portable X- ray • Lab: ABG, Magnesium, chloride, Serum Osmolality, Urine Specific Gravity, Urine Electrolyte • Double Volume exchange transfusion, blood transfusion • Medicine: caffeine • Mechanical ventilation	Rs 5000

Proportion of Male female in out come of delivery

Table 2.1.13. Proportion of male female in different fiscal years from 2075/76 to 2077/78

Outcome of Delivery	2075/76			2076/77			2077/78		
	Single	Twins	Triplet	Single	Twins	Triplet	Single	Twins	Triplet
Mothers	27901	128	12	29355	151	0	33033	157	2
Live birth									
Female	13227	107	6	14053	147	0	15574	115	4
Male	14310	105	1	15043	150	0	17107	162	0

The table shows the proportion of male and female as outcome of delivery. There was single child, twin's child and triplet child delivered throughout the fiscal years from 2075/76 to 2077/78. In every successive fiscal year, the number of males were found higher than the female.

Issues

- Availability of Trained human resources (SBA, IUCD, Implant, FB IMNCI, Level II, COFP, ASRH) in health facilities
- Physical facilities as per minimum service standards
- Provision for PNC/ Newborn corner unit in birthing center
- Coverage of 4th ANC & 3rd PNC visits as per protocol
- Round the year availability of HR at CEONC, BEONC, birthing sites and its Continuation
- Provision of heating system in Birthing centers especially in Mountain area
- Early marriage & Teenage Pregnancy
- Maternity Waiting home
- Poor Referral Mechanism

2.5 Family Planning and Reproductive Health

Background

Family Planning Program helps to improve the quality of life of people and thereby develop a healthy nation. Family planning is one of priority program (P_1) of Government. It is also considered as a component of reproductive health package and as a major component of basic health care package under Nepal Health Sector Strategy 2015-2020 which contributes SDG3, target **3.7** By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs.

Objectives, Policies and Strategies

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

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

Policies

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

Major Activities carried out in fiscal year 2077/78 (2020/2021)

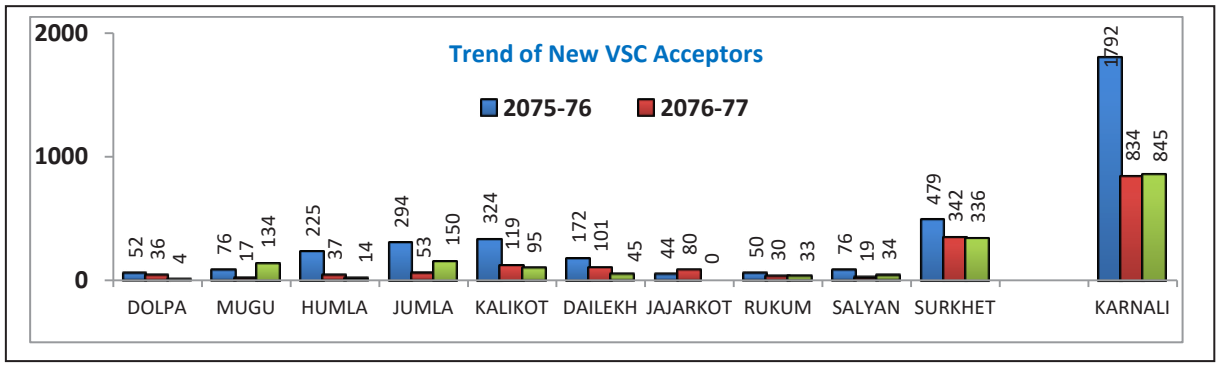
- Ensured Voluntary Surgical Contraception (VSC)- Institutional and camp
- Family Planning Counseling and Referral services continued by districts
- FP Service expansion on private institutions

- FP strengthening, DMT-MEC Wheel training
- Province level training for integration of Integration of immunization program in family planning program
- FP microplanning
- FP LARC Service through VP Program in different districts

Analysis of Service Coverage

New Acceptors – Voluntary Surgical Contraception (VSC)

Figure 2. 5. 1. New Acceptors of Voluntary Surgical Contraception (VSC)



The Figure 2.5.1 shows the trend of new VSC Accepter for the last three fiscal years. In fiscal year 2077/78, a total of 845 male and female were new acceptor of VSC. There is a little increase in the new acceptors compared to last fiscal year. New acceptors of VSC have increased in Mugu and Jumla in fiscal year 2077/78 compared to fiscal year 2076/77. The VSC services are available in hospitals of Karnali Province.

Table 2. 5. 1. Disaggregation of VSC New Acceptors of fiscal year 2075/76-2077/78

District	Total Sterilization			Disaggregation by			
				Facility type		Service through	
	2075/76	2076/77	2077/78	Public	Non-Public	Institutions	Camp
Dolpa	36	4	0	0	0	0	0
Mugu	17	134	119	61	58	6	113
Humla	37	14	115	115	0	0	115
Jumla	53	150	53	53	0	27	26
Kalikot	119	95	48	48	0	33	15
Dailekh	101	45	115	115	0	0	115
Jajarkot	80	0	2	0	2	0	2
Rukum W	30	33	14	0	14	14	0
Salyan	19	34	69	69	0	38	31
Surkhet	342	336	294	294	0	221	73
Karnali	834	845	829	755	74	339	490

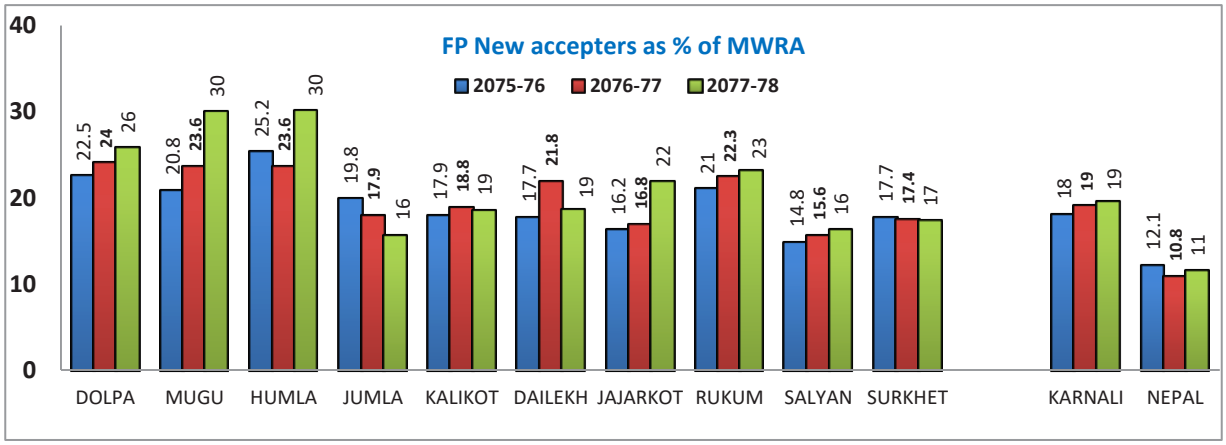
The above table 2.5.1 shows the district wise disaggregated new acceptors of VSC of consecutive three fiscal years from 2075/76 to 2077/78 in the province. The overall tend of new VSC new acceptors have decreased in the last two fiscal years. Total VSC new accepters were 845 in 2076/77 which increased from 834 in 2075/76 to 829 in 2077/78. Service of

majority of clients were provided from the public health facilities and camp settings which still shows over reliance on camp rather than round the year service delivery through static clinic.

New Acceptors - All FP Services

The figure 2.5.2 shows the service statistics of family planning new acceptance among married women of reproductive age group. In Karnali, the new acceptor for new family planning method is increasing trend the last three years and is higher than the national status. In fiscal year 2077/78, the FP new acceptor rate among MWRA is lower than provincial average in Jumla, Salyan and Surkhet district.

Figure 2. 5. 2. Family Planning Acceptors as percentage of MWRA

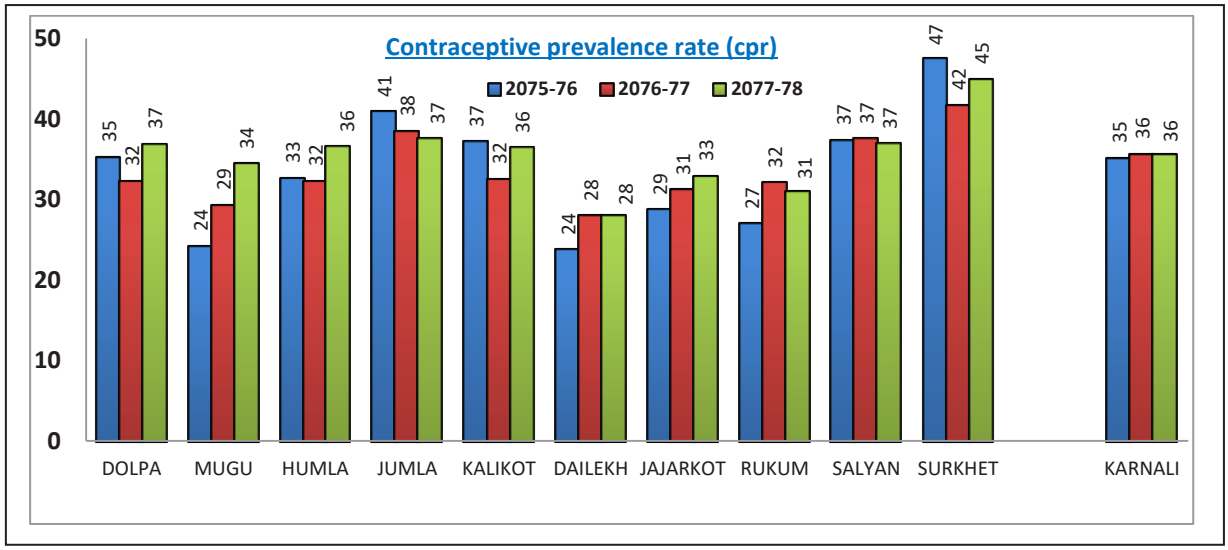


Contraceptive Prevalence Rate (CPR) as percentage of MWRA

The contraceptive prevalence rate (CPR), the percentage of currently married women who are currently using a method of contraception in Karnali slightly increased (36.1 %) in fiscal year 2077/78. Districts with lower CPR (less than 30) is Dailekh, and Surkhet have higher CPR (44.81%) (Figure 2.5.3).

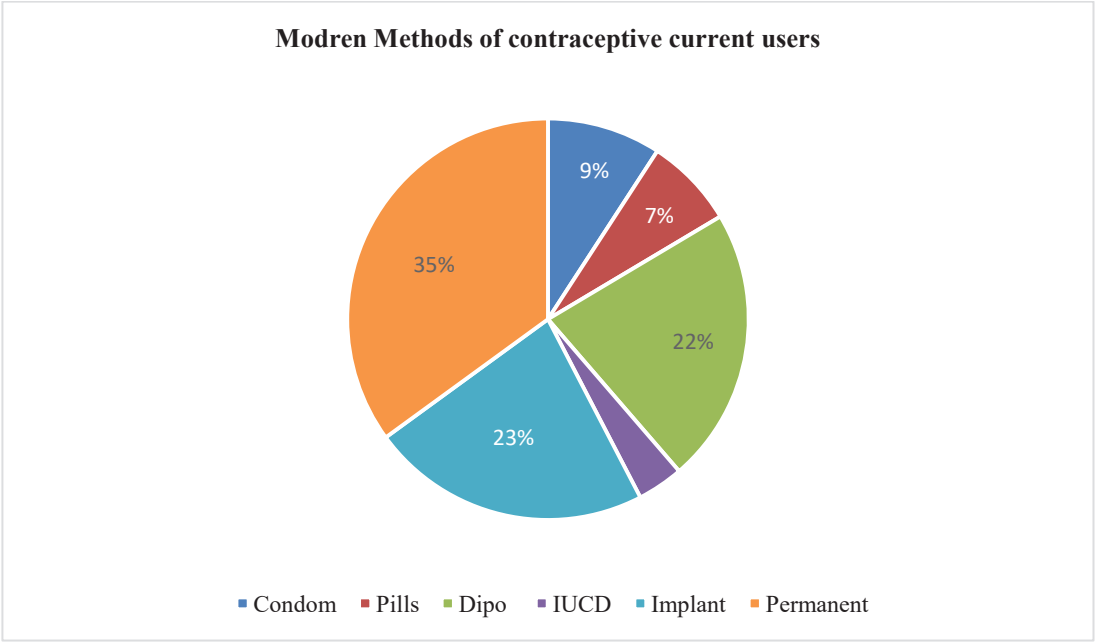
District	MWRA 2077/78	Temporary Method (Current User)						Permanent			All Total	CPR
		Condom	Pills	Depo	IUCD	Implant	Total	Female	Male	Total		
Dolpa	8950	261	411	1083	21	600	2376	16	895	911	3287	36.73
Mugu	13197	262	298	1025	49	1058	2692	25	1807	1832	4524	34.28
Humla	12319	323	695	1418	0	253	2689	45	1754	1799	4488	36.43
Jumla	26443	734	461	1734	63	978	3970	281	5639	5920	9890	37.40
Kalikot	33293	1340	742	4063	235	2739	9119	39	2930	2968	12087	36.30
Dailekh	64636	2191	1707	4351	911	3125	12285	106	5599	5705	17990	27.83
Jajarkot	42356	790	1263	4028	351	3691	10123	285	3486	3770	13893	32.80
Rukum W	39997	1542	1172	3153	246	4215	10328	164	1861	2025	12353	30.88
Salyan	62172	2890	1274	4885	2031	6683	17763	656	4482	5138	22901	36.83
Surkhet	92982	2800	2387	6043	1416	8985	21631	9786	10244	20030	41661	44.81
Karnali	396345	13131	10410	31783	5323	32327	92974	11403	38696	50099	143071	36.10

Figure 2. 5. 3. Contraceptive Prevalence Rate (CPR) among married women of reproductive age group



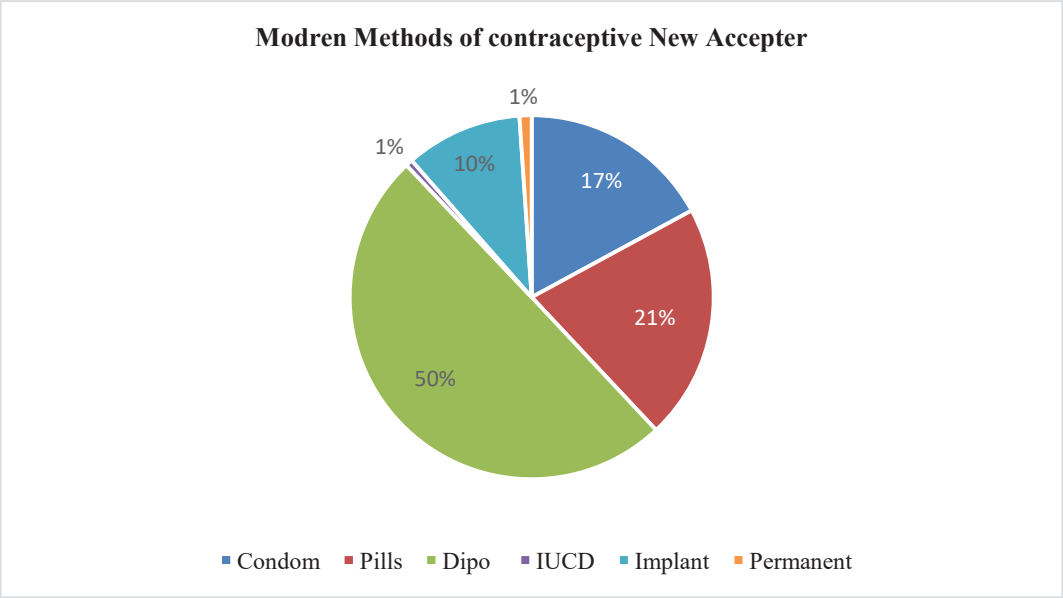
The figure 2.5.4 and 2.5.5 illustrates the Method-Mix of FP modern methods among the new acceptors in the fiscal year 2077/78 in Karnali province. More than one third (36%) of new acceptors were contributed by permanent methods, followed by Depo, Implant, pills and condom. Least contribution towards family planning methods is from IUCD.

Figure 2.5.5 Modern methods of Family planning of current users in Karnali province for fiscal year 2077/78



Among total new users, majority new users were Depo (22%) followed by Pills (7%) and Condom (23%), Implant (9%). However, among current users' sterilization is reported to have highest percentage i.e. 35 percentage.

Figure 2.5.6. Modren Methods of Contraceptive New Accepter



Among total new acceptor, majority new acceptors were Depo (50%) followed by Pills (21%) and Condom (17%), Implant (1%). Though, the lowest percent is reported for permentent method.

2.6 Adolescent Sexual and Reproductive Health (ASRH)

Background

Nepal is 3rd highest country in child marriage though the legal age for marriage is 20 years. According to Nepal Demographic and Health Survey 2016 report, median age of first marriage in Karnali province is 17 years. It indicates that the girls are in risk of adolescent sexual and reproductive health in their adolescent age. Occupying around 25 percent of the population, adolescent (age 10-19) has diverse health needs and should be catered with friendly health services. The rapid physical, mental, and psychosocial changes might push risk at their health state. Recognizing their special health needs, National Adolescent Health and Development (NAHD) Strategy has been revised in 2018. An implementation guideline on Adolescent Sexual and Reproductive Health (ASRH) was developed in 2007 to support district health managers to operationalize the strategy. Piloted in 2009 in 26 public health facilities, National ASRH Program was designed in 2011.

Goal

To promote the sexual and reproductive health status of adolescents**.**

Objectives

General Objectives

- By the year 2025, all adolescents will have positive lifestyles to enable them to lead healthy and productive lives.

Specific Objectives

- To create safe, supportive and protective environment for all adolescents.
- To increase adolescents' access to scientifically sound and age-appropriate information about their health and development
- To enhance life skills and improve the health status of adolescents
- To increase accessibility and utilization of adolescent friendly quality health and counseling services**.**

Target

- To make all health facilities as adolescent friendly as per the envision of National Health policy (2014) and NHSS (2016-2021)
- To ensure universal access to ASRH services, the Nepal Health Sector Strategy Implementation Plan (2016-2021) aims to:
  - Scale up Adolescent Friendly Service (AFS) to all health facilities.
  - Behavioral skill focused ASRH training to 5,000 Health Service Providers and
  - More than 100 health facilities to be certified with quality AFS by 2021
- The programme aims to reduce the adolescent fertility rate (AFR) by improving access to family planning services and information.
- Prioritizing the integration and effective program management, FWD established Family planning and reproductive health Section in four thematic areas: Adolescent Sexual and Reproductive Health (ASRH); Family Planning (FP); Reproductive health morbidity and PHC-Out reach Clinic.

Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

- Adolescent friendly Service provided through listed AFS health facilities
- ASRH Training to health care providers
- Promotional activities for ASRH

Major Service Statistics fiscal year 2077/78 (2020/2021)

Service utilized by Adolescent populations

Table 2.6.1 provides the information on service utilization by new clients of age 10 to 19 years old. A total of 3,87,508 new clients have received service in Karnali province in year 2077/78. The service utilization by 10 to 19 years old clients is increasing trend when compared to the previous two fiscal years i.e. 2075/76 and 2076/77. However, in recent fiscal year 2077/78, the number is found to be decreased. It is also observed from the table that female clients are more compared to male clients in all three fiscal years.

Table 2.6.1 Service Utilization by new clients of age 10 to 19 years old

S. N.	District	New Clients Served 10 to 19 Years, Female			New Clients Served 10 to 19 Years, Male			New Clients Served 10 to 19 Years, Total		
		2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078
1	Dolpa	5816	5939	5743	4640	5108	4911	10456	11047	10654
2	Mugu	6269	6898	7545	5620	6349	6586	11889	13247	14131
3	Humla	6989	8076	12299	6671	7486	8994	13660	15562	21293
4	Jumla	13453	15130	12574	12163	13738	11484	25616	28868	24058
5	Kalikot	19651	21774	18514	18414	20087	17627	38065	41861	36141
6	Dailekh	28617	31865	29118	22598	24951	22643	51215	56816	51761
7	Jajarkot	18729	20710	23688	12968	14261	17462	31697	34971	41150
8	Rukum	25327	29438	33246	18718	22962	24368	44045	52400	57614
9	Salyan	32105	30828	28901	21713	21709	20230	53818	52537	49131
10	Surkhet	57120	55219	47598	43957	43320	33977	101077	98539	81575
	Total	**214076**	**225877**	**219226**	**167462**	**179971**	**168282**	**381538**	**405848**	**387508**

Table 2.6.2 reveals about the family planning new users. In fiscal year 2077/78, Depo service was highest number of <20 new users followed by Pills and Implant. The least preferred family planning service is IUCD. The comparison of two recent fiscal years shows increasing trend of Pills new users in the last three years. Depo new users has found decreasing trends in recent three fiscal years. Thus, it was found that there is decreasing trends of Depo, Pills, IUCD, Implant in comparison to last three fiscal years from 2075/76 to 2077/78.

Table 2. 6. 2. Major FP Services to adolescents (FP New users < 20 yrs)

S. N.	Districts	AFS Sites	Female Adolescents' population (10-19)	Depo			Pills			IUCD			IMPLANT		
				2075/76	2076/77	2077/78	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
1	Dolpa	3	8189	125	188	164	121	64	71	0	0	0	6	7	2
2	Mugu	5	12393	160	117	370	142	64	71	0	0	0	0	21	10
3	Humla	3	11375	210	291	179	205	156	146	0	0	0	70	13	14
4	Jumla	15	24199	341	292	246	149	111	84	0	0	0	12	8	5
5	Kalikot	28	30869	114	217	151	53	74	36	0	1	0	24	3	19
6	Dailekh	13	57413	471	623	452	319	908	263	7	8	18	56	79	45
7	Jajarkot	11	38377	560	610	684	208	236	249	0	8	1	21	43	42
8	Rukum	13	33209	503	487	535	237	273	295	3	1	1	62	27	32
9	Salyan	13	52360	573	665	601	109	154	138	19	0	1	59	52	73
10	Surkhet	13	80823	879	921	979	580	432	555	28	25	9	198	175	134
	Total		349207	3936	4411	4361	2123	2472	1908	57	43	30	508	428	376

Table 2.6.3 shows major safe motherhood and safe abortion statistics of less than 20 years age. The data shows that among the <20 years age group, the number of ANC visits as per protocol, PNC visits as per protocol have been found increased in fiscal year 2077/78 compared to consecutive fiscal year. However, the safe abortion service usage among these age group have been decreased. Similarly, there is decreased trend of safe abortion service through surgical methods in recent fiscal year 2075/76 to fiscal year 2077/78.

Table 2.6.3. Major Safe motherhood and safe abortion Service statistics (< 20 yrs)

District	First ANC Visit as per Protocol			Four ANC Visits as per Protocol			Safe Abortion Service Women			Safe Abortion Service Surgical		
	2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078
Dolpa	127	107	109	56	39	34	8	1	2	0	0	0
Mugu	503	306	280	99	145	154	54	56	52	4	0	1
Humla	310	271	207	154	152	149	57	53	50	1	35	20
Jumla	541	477	574	269	253	353	128	85	30	13	20	13
Kalikot	542	558	626	235	299	390	1	5	4	1	0	1
Dailekh	1098	1007	1225	747	700	851	17	53	29	6	19	23
Jajarkot	963	912	954	476	532	618	6	4	5	0	0	0
Rukum	1146	1218	1087	768	702	981	0	0	0	33	10	12
Salyan	1610	1403	1327	1266	974	957	12	10	9	7	4	3
Surkhet	2108	1933	2102	1753	1532	1533	353	190	169	295	85	73
Karnali Province	8948	8192	8491	5823	5328	6020	636	457	350	360	173	146

Table 2. 6. 4 Proportion of adolescent ANC among total ANC visit by district

S. N.	District	Depo New Acceptors			Pills New Acceptors			1st ANC visit as per protocal			Four ANC visit as protocal		
		2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078	2075/ 2076	2076/ 2077	2077/ 2078
1	Dolpa	15.32	15.36	14.56	16.11	15.31	11.56	25.25	24.43	22.02	16.00	15.06	11.37
2	Mugu	12.01	7.52	17.81	16.23	10.90	10.03	34.22	29.37	23.06	17.07	24.09	16.44
3	Humla	15.31	16.61	8.31	21.81	19.21	15.42	30.16	27.68	18.85	26.15	24.17	17.35
4	Jumla	12.41	11.84	10.78	13.96	12.91	11.34	28.67	25.58	26.72	22.95	19.89	18.37
5	Kalikot	5.12	6.91	4.89	7.64	8.47	4.46	15.88	16.09	16.40	11.33	11.59	12.33
6	Dailekh	9.28	10.50	7.26	14.76	23.38	10.94	21.64	19.68	20.61	20.67	16.97	16.23
7	Jajarkot	16.59	14.94	12.28	16.01	16.70	11.72	37.57	32.40	30.20	33.85	29.21	27.26
8	Rukum	13.64	11.72	11.64	13.11	11.78	13.12	33.25	31.35	31.79	31.19	27.76	32.89
9	Salyan	16.14	15.49	13.69	10.60	10.64	9.29	33.93	23.65	27.47	33.00	23.44	22.77
10	Surkhet	15.25	14.83	14.34	14.54	11.18	13.89	25.39	23.13	24.67	23.35	21.80	21.77
Total		13.14	12.67	11.38	14.53	15.00	11.87	27.59	24.17	24.51	24.68	21.31	20.82

The above table depicts proportion of adolescent among total service recipient of first ANC visit (anytime), first ANC as per protocol, and Four ANC visit as per protocol. The proportion of adolescent visit for all ante-natal care has found almost stagnant in fiscal year 2077/78 compared to previous fiscal years.

Issues

- High prevalence of pregnancy among adolescents
- Strengthening and functionality of ASRH Sites
- Implementation of school based ASRH program
- Maintenance and Quality of AFS facilities
- Supervision and monitoring by concerned authority to check the adherence to standards

2.7 Primary Health Care Outreach Program (PHC/ORC)

Background

Primary Health Care Outreach (PHC/ORC) Program was initiated aiming to increase the access of basic health service including family planning, child health and safe motherhood in rural households. PHC outreach clinics are the extension of service outlets beyond PHCC, HP and other health facilities at the community level. On an average, three to five clinics are established in each catchment area of HFs in which AHWs and ANMs are assigned to run the clinic monthly at a pre-determined time. AHWs or ANMs provide basic PHC services (FP/ANC services/Health Education/ Minor Treatment) to a pre-arranged place close to communities on a predetermined day once in a month. FCHVs and local level organization also supports to conduct the clinics.

Objectives

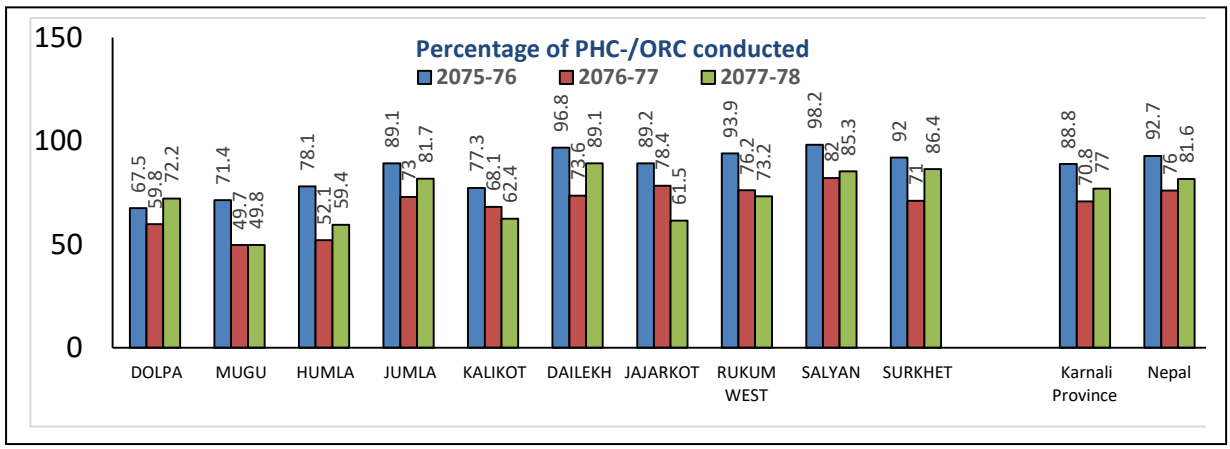
- To improve the accessibility and coverage of primary health care through the development of a network of 3-5 outreach clinics per peripheral health facilities per month

Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

- Conduction of 960 PHC/ORCs of Karnali annually
- Continuation of PHC/ORC clinic by health facilities

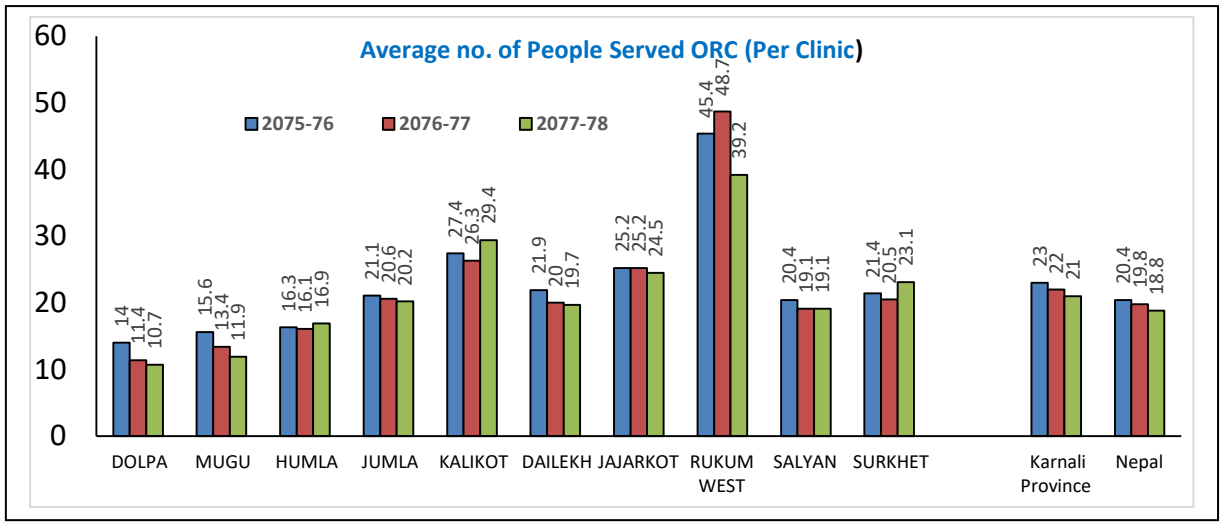
Analysis of Service Statistics

Figure 2.7.1. Percentage of PHC/ORC conducted



Percentage of PHC outreach clinic (PHC-ORC) at provincial and by districts for the last three fiscal years is shown in Figure 2.7.1. In Karnali among the total targeted PHC-ORCs, 70.8 % of clinics were conducted in fiscal year 2076/77 which is lower than the previous fiscal year. However, around 33 % of non-functional PHC-ORCs clearly indicate the need of re-strengthening of the PHC-ORC clinic and services. About 40-50% of clinics were not conducted in Mugu and Humla districts.

Figure 2.7.2. Average Number of people served per clinic



The figure 2.7.2 shows the district-wise trend of number of people served from each outreach clinics in the last three years (fiscal year 2076/77 to 2077/78). In an average, one outreach clinics has served 21 people in the Karnali Province. Rukum West has served 39 people served per outreach clinic in fiscal year 2077/78 which is the highest in Karnali Province and lowest in Dolpa (11 person/clinic).

Issues

- Supplies for PHC/ORCs
- Functionality of PHC/ORC clinic
- Reporting from PHC ORC clinic

3. NURSING AND SOCIAL SECURITY

3.1 Female Community Health Volunteer (FCHV) Program

Background

Government initiated a Female Community Health Volunteer program since fiscal year 2045/46 in 27 districts and expanded to all districts. The major role of FCHV is to advocate healthy behavior focusing on counseling and education of local mothers and community members for the promotion of safe motherhood, mother and child health, family planning and community health are mobilized by local health facilities. Additionally, FCHV distribute pills, condom, ORS packet and vitamin A capsule, along with they are directly involved in immunization campaigns, iron distribution and deworming. The FCHVs are selected through the health mothers' group members. In Karnali 4261 FCHVs are dedicated to promoting the health of mother and children in FY 2077/78. FCHVs are recognized for having played a major role in reducing maternal and child mortality and general fertility through community-based health interventions.

Goal

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

Objectives

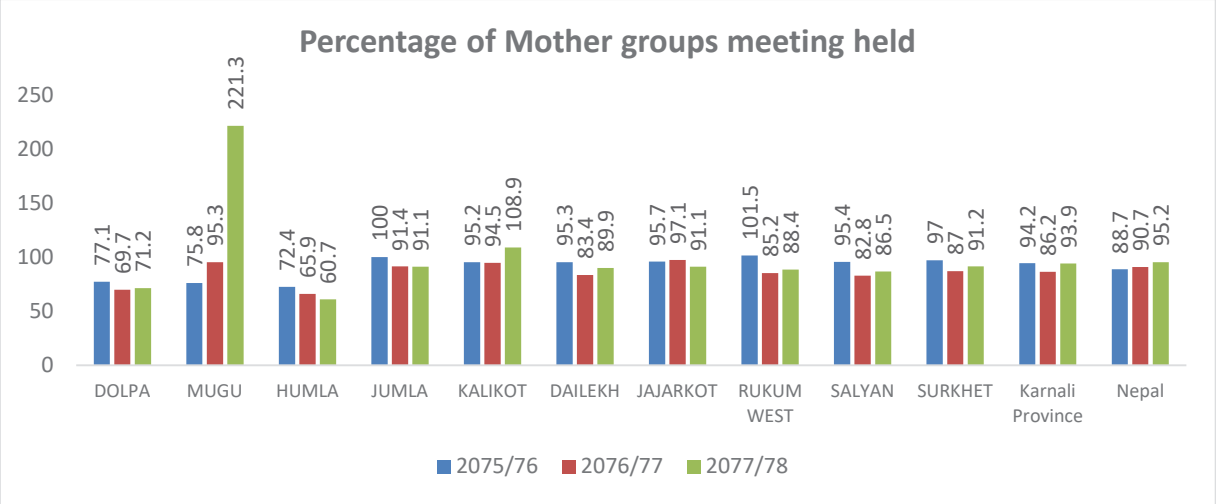
- Mobilize a pool of motivated volunteers to connect health programs with communities and to provide community-based health services,
- Activate women to tackle common health problems by imparting relevant knowledge and skills,
- Increase community participation in improving health,
- Develop FCHVs as health motivators and
- Increase the use of health care services

Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

- Continued Behavioral Change Communication (BCC) activities through FCHVs.
- FCHVs Day Celebration
- Strengthening and revitalization of Health Mother's Group
- Reward for voluntary retirement
- Dress allowance to FCHV
- FCHV Fund
- Training orientation and mobilization for health activities
- FCHVs mobilization for COVID 19 reponse, Vaccination against COVID 19 and routine immunization

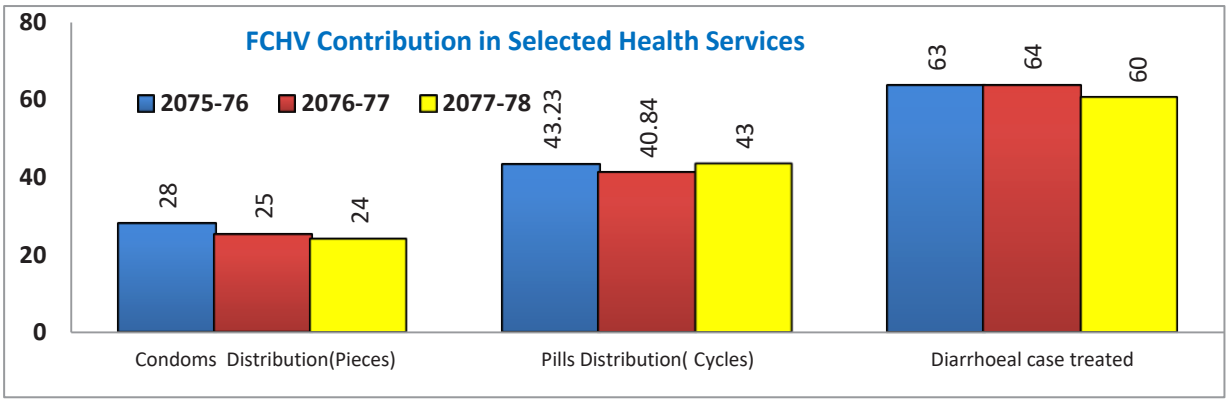
Analysis of Service Statistics

Figure 3.1.1 Percentage of Mothers Group Meeting Held



Health Mothers' Group is the strong community network of health system of Nepal. There is profound opportunity of community mobilization, advocacy, communication, heading towards increasing equitable access and utilization of available health services especially basic health services by active and meaningful participation in mothers' group meeting. Each FCHV is expected to conduct mothers' group meeting to discuss on health issues monthly. As shown in figure 3.1.1 above, FCHVs conducted almost 94 % mothers' group meeting in the fiscal year 2077/78, which is increased than that of the previous fiscal years. The higest mothers' group meeting is observed in Mugu and lowest in Humla (60.7%).

Figure 3.1.2. FCHV's contribution in selected health services



There has been slight decrease in the distribution of condom, Pills and ORS supply by female community health volunteers. FCHVs distributed 472,679 pieces of condom, 44,822 cycles of pills and 69,170 diarrheal case treated in fiscal year 2077/78 (Figure 3.1.2). Total contribution on condom distribution by FCHVs accounts for 24 percent and pills distributions accounts for 43 percent. Similarly, in diarraheal cases treatment their contribution is sixty percent.

Average Number of People served by FCHVs per month

Table 3.1.1. Average Number of People served by FCHVs per month

Districts	Fiscal Year 2075/76	Fiscal Year 2076/77	Fiscal Year 2077/78
Dolpa	3.4	3.7	6.1
Mugu	8.2	8.9	8
Humla	6.3	7	7
Jumla	12.7	15.2	16.3
Kalikot	34	34.6	31.2
Dailekh	19.7	18.4	18.8
Jajarkot	25.3	28.5	30.9
Rukum West	17.4	16.8	17.6
Salyan	25.5	25.4	24
Surkhet	16.1	16.8	17.3
Karnali	18.3	18.9	19.1
Nepal	25.8	25.1	23.9

Table 3.1.1 shows that the number of people served by per FCHV per month in three consecutive fiscal years. On an average, 19 people were served by a single FCHV per month in fiscal year 2077/78 in Karnali province. The difference between mountain and hilly districts were reported for all the consecutives fiscal years. District with low population density such as Dolpa, Mugu and Humla reported lower number of people served by a FCHV per month whereas hilly district such as Kalikot, Salyan and Jajarkot district reported higher number of people served per FCHV per month. Despiste of these, Jajarkot (30.9) and Salyan (24.0) reported higher number of people served per FCHVS which is also higher than the national average (23.9).

Issues

- Basic training to newly selected FCHV
- Utilization of FCHV fund
- Effectiveness of mothers group meeting and meaningful participation
- Regular and effective FCHV meeting
- Involvement of FCHVs in COVID 19 response and their reporting in HMIS system

3.2 Gender- Based Violence

One Stop Crisis Management Center

In the fiscal year 2077/78, total of 172 cases of gender based reported in DHIS-2 through hospital of Karnali. Table 3.1.2 shows the distribution of cases by their ethnicity for different fiscal years in Karnali.

Table 3.1.2. Number of cases of Gender based violence by cases and ethnicity reported by health facilities

Caste/ Ethnicity	Fiscal Year 2075/76			Fiscal Year 2076/77			Fiscal Year 2077/78		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Dalit	3	0	3	13	5	18	60	14	74
Janajati	3	0	3	2	0	2	5	0	5
Madhesi	0	0	0	1	0	1	0	0	0
Muslim	0	0	0	0	2	2	8	1	9
Bramin/ Chhetri	16	1	17	18	14	32	46	15	61
Others	0	7	7	6	2	8	11	12	23

Sources: - DHIS-2

Table 3.1.3. Number of cases of Gender Based Voilance by district for different fiscal years

Organization/Unit	Fiscal Year 2075/76	Fiscal Year 2076/77	Fiscal Year 2077/78
Province	**30**	**63**	**172**
Dolpa	1	7	6
Mugu	0	0	0
Humla	0	0	0
Jumla	0	14	14
Kalikot	4	25	33
Dailekh	12	13	118
Jajarkot	0	1	1
Rukum West	1	0	0
Salyan	3	1	0
Surkhet	9	2	0

Sources: - DHIS-2

4. EPIDEMIOLOGY AND DISEASE CONTROL

4.1 Malaria

Background

Malaria control program begun in 1954 through a program “Insect Borne Disease Project”. In 1958, the malaria eradication program was launched as a vertical program, which was the first national public health program in the country. It was originated with the objective of eradication malaria from the country in a limited period. Experiences eventually showed that eradicating malaria required more time and therefore the malaria control strategy was adopted in 1978.

Nepal’s current **National Malaria Strategic Plan** (NMSP-2014-2025) has been divided into two phases: "achieve malaria Pre- elimination by 2018" and "attain Malaria Elimination by 2025" has identified following vision, mission, goals and objectives:

Mission

To empower the health staff and the communities at risk of malaria to contribute towards the vi sion of malaria-free Nepal by 2025

Goals

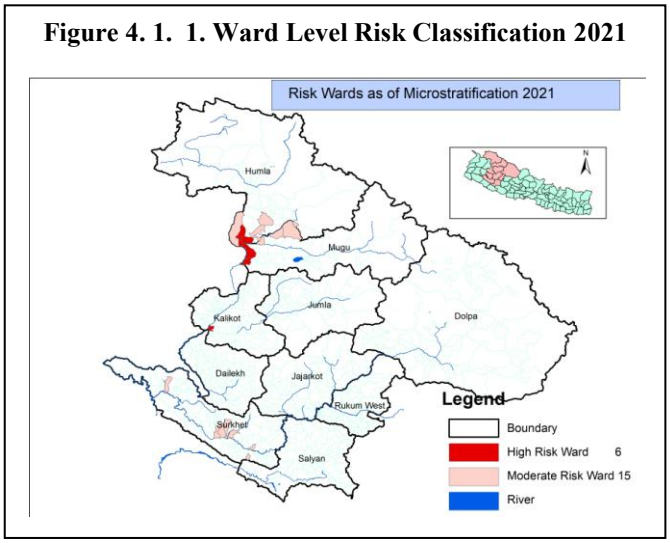
- To sustain zero death due to malaria from 2012 onwards.
- To reduce the incidence of indigenous malaria cases by 90% by 2018 (relative to 2012);
- To reduce no. of VDCs having indigenous malaria cases by 70% by 2018 (relative to 2012);
- To receive WHO certification of malaria free status by 2025.

Objectives

- To enhance strategic information for decision making towards malaria elimination.
- To further reduce malaria transmission and eliminate the foci.
- To improve quality of and access to early diagnosis and effective treatment of malaria.
- To sustain support from the political leadership and the communities towards malaria elimination.
- To strengthen programmatic technical and managerial capacities towards malaria elimination.

The malaria micro- stratification carried out by EDCD in 2021. In Karnali Province 6 wards as high-risk wards and 15 wards are identified as moderate risk wards. The high risk wards are from Humla 3 (Tanjakot 2,3,4), Kalikot 1 (Khadachakra-2), Mugu 2 (Khatyad 8 and 10), and Moderate risk ward is Humla 4 (Adanchuli 2,4 , Chankheli 2, Sarkegad 2, and Tanjakot 1), Mugu-2 (Soru 3, 4 and 5), and Surkhet (Bheriganga-7, Birendranagar 10, 11, Gurbhakot 13, Lekbenshi 7, 10 and Panchpuri 9).

Figure 4. 1. 1. Ward Level Risk Classification 2021



Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

In lining with the country strategic target to sustain zero malaria death and to achieve zero indigenous case by 2020, Karnali province government has been conducting the following activities with the support from Global Fund malaria program:

1. **Malaria disease surveillance:**
   To eliminate any disease, high standard surveillance system should be in place. Same thing applies in malaria disease too. The preformed surveillance in malaria has adopted surveillance in 1, 3, 7 modalities for every case of malaria detected. All 33 cases of malaria cases detected in the Karnali Province in F/Y 2077/78 have been reported in the real time Malaria Disease Information System (MDIS), thoroughly investigated during Case Based Investigation (CBI) with in stipulated time frame and Foci Investigation (FI) and other intervention applied for every indigenous case reported.

2. **Foci Investigation:**
   All 8 foci identified (one each in Aathbish Dailekh, Pachaljharana Kalikot, Khatyad and Soru of Mugu; and Adanchuli, Chankheli and Tajakot of Humla) in this fiscal year have been investigated and response with appropriate intervention. Besides, all residual active foci have been updated.

3. **Entomological Surveillance/ Vector bionomics study:**
   Entomological/ vector surveillance by the entomologists through the HSD and districts in Karnali province through the support from global fund.

4. **Malaria outbreak response:**
   Support has been provided to transport and conduct IRS in Khatyad GP Mugu and in other districts too.

5. **LLIN distribution for mass protection and for ANC women:**
   Coordinating with EDCD, HSD, districts and municipalities, a total of 6950 LLINs were distributed to the people residing in high and moderate risk areas of Surkhet, Salyan, Mugu and Humla districts. Also, an additional LLIN has been provided to the pregnant women of these areas during ANC visit from the HFs.

6. **ACD in Upper river Valley:**
   Malaria is considered as a local and focal disease. It's prominent that malaria is also prevalent in the places of upper river valley but there is a gap in diagnosis due to various reasons. To address this gap, dedicated HWs are being appointed in Kahatyad Mugu, Tanjakot Humla and Sani Bheri Rukum-W to conduct ACD and other activities in the community.

7. **System Strengthening for malaria elimination:**
   Not prominent yet having long term impact in health system, system strengthening activities have been conducted for better outputs with close coordination with HSD. Support has been provided to transport logistic like antimalaria drugs, RDTs, insecticides, LLINs to the districts and Palikas; especially that of Humla and Mugu districts. Also, trainings/ orientations/onsite coaching to the HWs has been provided in the districts and Palika and continuous technical support has been provided to the HSD/ districts programs whenever needed.

Analysis of Service Statistics

Table 4. 1. 1. Malaria Positive cases

District	Fiscal Year 2075/76				Fiscal Year 2076/77				Fiscal Year 2077/78			
	Pf	Pv	Pmix	Total	Pf	Pv	Pmix	Total	Pf	Pv	Pmix	Total
Dolpa	0	0	0	0	0	0	0	0	0	0	0	0
Mugu	0	173	0	173	2	0	0	2	0	2	0	2
Humla	0	13	0	13	10	0	0	10	1	6	0	7
Jumla	0	0	0	0	1	0	0	1	0	0	0	0
Kalikot	0	0	0	0	11	1	0	12	1	5	0	6
Dailekh	0	7	0	7	7	1	0	8	0	0	0	0
Jajarkot	0	0	0	0	0	0	0	0	0	0	0	0
Rukum	0	0	0	0	1	0	0	1	0	2	0	2
Salyan	0	2	0	2	0	0	0	0	0	0	0	0
Surkhet	1	44	0	45	16	1	0	17	0	16	0	16
Karnali	1	239	0	240	48	3	0	51	2	31	0	33

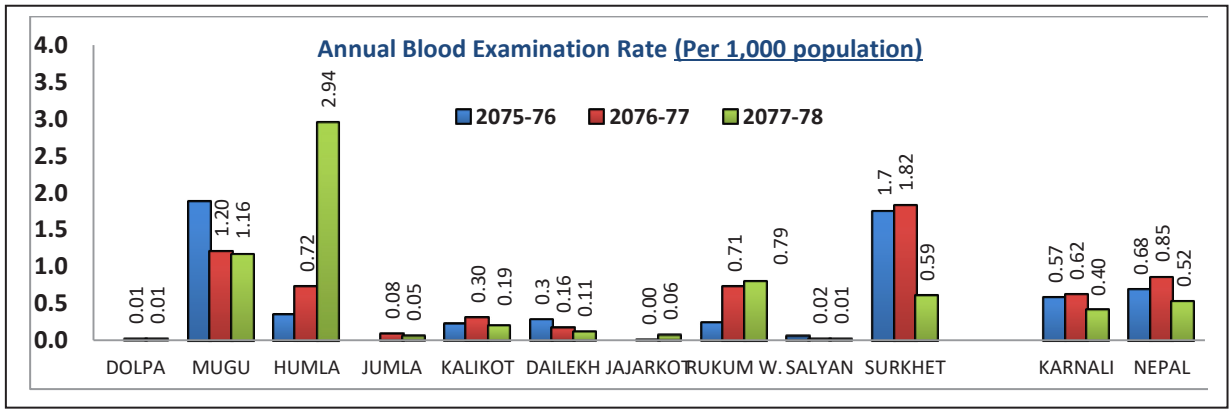
The three years trend shows the decrease in malaria cases in Karnali. Previously, there was an outbreak of malaria in Mugu in FY 2075/76 however in recent two FYs the cases in Mugu decreases to 2 in two fiscal years FY 2076/77 and FY 2077/78. Moreover, Surkhet reported 16 and 17 cases of Malaria in last two FYs. The reporting of malaria and other endemics diseases might have affected by pandemic of COVID 19 in last two fiscal years.

Table 4.1.2. District wise Malariometric Indicators

District	Annual Blood Examination Rate			Malaria Parasite incidence Rate/1000			% of Plasmodium falciparum case			% of Imported Case			Malaria Slide Positivity rate		
	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
Dolpa	0.0	0.0	0.0	0.00	0.00	0.00	-	-	-					0	0
Mugu	1.9	1.2	1.2	2.76	0.03	0.03	-	-	-	0	0	0	14.8	0.26	1.6
Humla	0.3	0.7	2.9	0.23	0.17	0.12	-	-	14.29	0	0	14.3	6.6	2.4	0.4
Jumla	0.0	0.1	0.1	-	0.01	-	-	-	-		0			0.96	0
Kalikot	0.2	0.3	0.2	-	0.08	0.04	-	8.33	16.67		8.3	16.7	0	2.5	1.9
Dailekh	0.3	0.2	0.1	0.02	0.03	-	-	12.50	-	0	12.5		0.88	1.7	0
Jajarkot	0.0	0.0	0.1	-	-	-	-	-	-					0	0
Rukum West	0.2	0.7	0.8	-	0.01	0.01	-	-	-		0	0	0	0.08	0.15
Salyan	0.0	0.0	0.0	0.01	-	-	-	-	-	0			1.6	0	0
Surkhet	1.7	1.8	0.6	0.11	0.04	0.04	2.22	5.88	-	2.2	5.9	0	0.63	0.23	0.64
Karnali	0.6	0.6	0.4	0.14	0.03	0.02	0.42	5.88	6.06	0.42	5.9	6.1	2.4	0.46	0.59
Nepal	0.7	0.8	0.5	0.04	0.02	0.01	5.07	8.72	12.83	5.4	9	13.6	0.53	0.24	0.25

Table 4.1.2 shows the annual blood examinate rate (0.4%) and malaria parasite incidence 0.02/1000 population in fiscal year 2077/78 in Karnali province. Kalikot (2.9 ABER) and Humla (1.2 ABER) reported quite higher malaria slide positivity rate than others. Jajarkot (0.1 ABER) reported this year which had previously zero ABER. Moreover, Salyan and Dolpa reported zero ABER for last three fiscal years. As like previous fiscal years, Dolpa reported zero cases of malaria for this fiscal year. Humla (14.29%) and Kalikot (16.67%) reported cases of Plasmodium falcipartum. Moreover, these two districts also reported imported malaria cases i. e.14.3% and 16.7%. On an average, the positivey rate of Karnali increased from 0.46% to 0.59% in this fiscal year compared to FY 2076/77. Similarly, the national average of slide positivity increased from 0.24% to 0.25% in FY 2077/78 compared to FY 2076/77. The national and provincial data clearly indicates that the increasing trend of malaria positivity rate shows alarming needs for strengthening malaria control program.

Figure 4. 1. 1. Malaria Annual Blood Examination Rate (Per 1,000 Population)



Three years trend of Annual Blood Examination Rate of malaria is shown in figure 4.1.1 which indicates slight increase from 0.57/1000 population (fiscal year 2075/76), 0.62/1000 population (fiscal year 2076/77) howoever it decreased to 0.40/1000 population in recent fiscal year 2077/78. Previously (2076/77) except Jajarkot, all the districts reported about testing been done for malaria. However, in fiscal year 2077/78 all the districts reported about tesing of Malaria. Dolpa (0.1/1000 Popn ABER) reported stagnant. Moreover, Humla (2.94) and Rukum West (0.79) reported increase on ABER. However, Surkhet reported drastic change from 1.82/1000 population in FY 2076/77 to 0.59/1000 population in FY 2077/78. The results might be affected by increased cases of COVID 19 and given priority for COVID 19 reponse, control and management in Surkhet as well as in Karnali. Similar trend been reported in national level.

Figure 4. 1. 2. Malaria Slide Positivity Rate

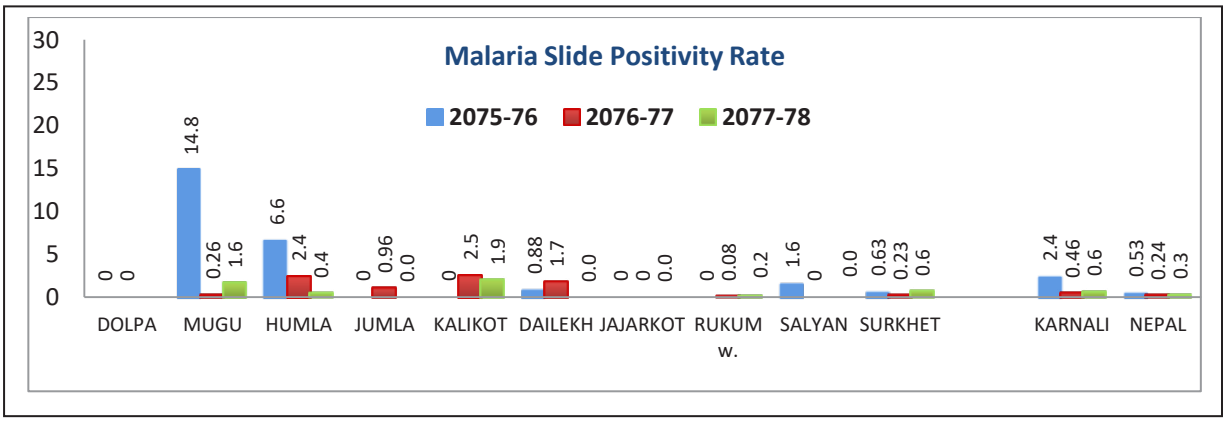


Figure 4.1.2 shows the three years trend of slide positivity rate of Karnali disaggregated by districts. SPR of province was at 2.4 (FY2075/76), 0.46 (FY 2076/77) and 0.6 (FY 2077/78). It indicates that there is decreasing trend of malaria slide positivity rate in the province. However, there is stagnant malaria positivity rate in Jajarkot and Dolpa. Moreover, decrease rate has been reported in Humla, Jumla, Kalikot, Dailekh, Rukum west, Salyan and Surkhet.

Issues

- Increasing indigenous malaria cases
- Early diagnosis and Complete treatment
- Insufficient range of Interventions for malaria elimination especially in upper hills
- Extending malaria microscopic sites
- Multisector involvement for malaria control
- Decreased Annual Blood Examination Rate but increased slide positivity rate
- Increasing % of Plasmodium falciparum rate
- Increasing % of imported cases

4.2 Kala-azar

Often known as the disease of poorest of the poor, the Kala-azar is a vector-borne disease caused by the parasite *Leishmania donovani,* which is transmitted by the sand fly *Phlebotomus argentipes.*

The government committed to the regional strategy to eliminate kala-azar and signed the memorandum of understanding that was formalized at the World Health Assembly in 2005, with the target of achieving elimination by 2015. In 2005, the EDCD formulated a National Plan for eliminating kala-azar across preparatory (2005-2008), attack (2008–2015) and consolidation (2015 onwards) phases.

Goal

To improving the health status of vulnerable groups and at-risk populations living in kala-azar endemic areas of Nepal by eliminating kala-azar so that it is no longer a public health problem.

Target

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

Objectives

- Reduce the incidence of kala-azar in endemic communities including poor, vulnerable, and unreached populations.
- Reduce case fatality rates from kala-azar.
- Treat post-kala-azar dermal leishmaniasis (PKDL) to reduce the parasite reservoir.
- Prevent and treat kala-azar and HIV–TB co-infections.

Strategies

Based on the regional strategy proposed by the South East Asia kala-azar technical advisory group and the adjustments proposed by the Nepal expert group discussions, MoHP has adopted the following strategies for the elimination of kala-azar.

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

Major Activities

- IEC/ BCC materials printing and distribution
- Suspected VL case detection
- Active case detection (ACD) in Kalikot and Dailekh district
- Sparying training in Kalikot
- Public Service Announcement (PSA) from radio station of Karnali

Achievement

- IEC/BCC materials have been printed and distributed to all the all the districts of Karnali.
- Five hundred flex printed and distributed to all the districts of Karnali.
- Kala-azar kit supplied in Jumla, Kalikot, Dailekh, Jajarkot, Rukum, Salyan, Surkhet
- Increased the number of Kala-azar treatment center from 3 to 7. Now, total of 7 treatment center has been functioning in Kalikot, Dailekh, KAHS, Province Hospital-Surkhet, Mehelkuna, Chaurjahari Hospital, Dullu Hospital
- Total of 72 new cases of Kalazar/ Leshmaniasis been reported through outpatient department in fiscal year 2077/78 in Karnali Province.

4.3 Lymphatic Filariasis

Well recognized as one of the Neglected Tropical Diseases, Lymphatic filariasis is a public health problem in Nepal. The disease is more prevalent in rural areas, predominantly affecting poorer people. *Wuchereria bancrofti* is the only recorded parasite in Nepal, the mosquito *Culex quinquefasciatus*, an efficient vector of the disease, has been recorded in all endemic areas. In Nepal 61 districts were identified as endemic for the disease and recent TAS survey suggests LF is eliminated from Karnali since Karnali completed 6 rounds of campaigns and prevalence rate is under the elimination level.

Goal

- The people of Nepal no longer suffer from lymphatic filariasis

Objectives

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

Strategies

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

Targets

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

Achievement

- Screening for hydorcel cases for surgery been done in 2 districts (Dailekh and Surkhet) of Karnali
- Patients have been operated for hydrocele in hospitals of Karnali
- Transmission assessment survey (TAS-II) been conducted in Surkhet and Dailekh, following the MDA intervention has been stopped.

4.4 DENGUE

Dengue is a mosquito-borne disease that occurs in Nepal as dengue fever, dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). The earliest cases were detected in 2005. Sporadic cases and outbreaks occurred in 2006 and 2010. Initially most cases had travelled to the neighboring country (India), although lately indigenous cases are also being reported. *Aedes aegipti* (the mosquito-vector) was identified in five peri-urban areas of the Terai suggesting the local transmission of dengue.

Goal

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

Objectives

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

Strategies

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

Activities

- Search and destroy operation have been conducted in Surkhet
- Activities on outbreak investigation and response was conducted in Surkhet

Achievement

- Total of 798 cases have been diagnosed in Karnali and they have been successfully managed

Issues

- Access to diagnosis of Dengue
- Timely orientation to health service providers
- Multi-sectoral involvement for dengue prevention and control
- Functinality of district level RRT team
- Shifted priority to COVID 19 rather than such edemics diseases
- No separate budget for Dengue control program

4.5 Leprosy

Background

Leprosy is a least infectious, stigmatizing and potentially disabling disease caused by Mycobacterium leprae. It is also known as Hansen disease. The disease burden may decrease chances of physical disability if treated promptly and completely. For ages, Leprosy was considered as one of the main public health problems in Nepal and existed here since time immemorial. Elimination and treatment of leprosy has always been a priority of the government's plan and policy. Activities to control leprosy effectively started from 1960 onwards. The Multidrug Therapy (MDT) was introduced in 1982/83 in few selected areas and hospital of the country which successfully reduced the leprosy cased to 21,537 with registered prevalence rate of 21 case per 10,000 population. Considering the seriousness of the disease, the vertical leprosy programme was integrated in the general health services in 1987. MDT service was gradually expanded and by 1996, MDT coverage had extended to all 77 districts.

Following the continuous efforts from the government, Ministry of Health and Population, Leprosy Control Division, WHO, district health/ public health service office and concerned agencies, leprosy was eliminated at national level in 2009 and declared so in Jan 19, 2010 with national registered prevalence rate of 0.79 case per 10,000 population. This rate is well below the cut-off point of below 1 per 10,000 population set by World Health Organization to measuring the elimination of leprosy as public health problems.

Vision

To make leprosy free society where there is no new leprosy case and all the needs of existing leprosy affected persons having been fully met.

Mission

To provide accessible and acceptable cost-effective quality leprosy services including rehabilitation and continue to provide such services as long as and wherever needed.

Goal

Reduce further burden of leprosy and to break channel of transmission of leprosy from person to person by providing quality service to all affected community.

Objectives

- To eliminate leprosy as a public health problem (Prevalence Rate below 1 per 10,000 population) and further reduce disease burden at national level.
- To reduce disability due to leprosy.
- To reduce stigma in the community against leprosy.
- Provide high quality service for all persons affected by leprosy.

Strategies

- Early case detection and prompt treatment of cases.
- Enable all general health facilities to diagnose and treat leprosy.
- Ensure high MDT treatment completion rate.
- Prevent and limit disability by early diagnosis and correct treatment.
- Reducing stigma through information, education, and advocacy by achieving community empowerment through partnership with media and community.
- Sustain quality of leprosy service in the integrated set up.

Major Activities

- IEC /BCC activities were undertaken for community awareness which increase passive case detection and reduced stigma.
- Celebration of World Leprosy day (Jan = Last Sunday, Jan 2021)
- Supervision, monitoring, and onsite coaching.
- Half yearly review meeting
- Stakeholder coordination committee meeting conducted in Province level
- Continuous logistics supply from province level to all Districts
- Transportation cost provided for complication management.
- Purchase of materials for disability management

Analysis of Service Statistics

Table 4.5.1 District wise NCDR per 100,000 population.

SN	DISTRICT	Total Leprosy New cases			New case detection rate of leprosy		
		2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
1	Dolpa	0	0	0	4.8	0	0
2	Mugu	0	0	0	0	0	0
3	Humla	1	1	1	0	1.7	1.7
4	Jumla	4	4	4	6.5	0.8	3.2
5	Kalikot	6	6	6	5.8	5	3.7
6	Dailekh	12	12	12	3.4	2.7	4
7	Jajarkot	10	10	10	5.7	4.1	5
8	Rukum West	9	9	9	7.1	2.4	5.3
9	Salyan	13	13	13	3	2.6	4.7
10	Surkhet	12	12	12	4.2	4.3	2.8
Karnali Province		78	67	67	4.4	3.7	3.1

District wise new leprosy cases are shown in table 4.5.1. The provincial New Case Detection Rate of Leprosy is 3.1 in fiscal year 2077/78. The case detection rate is decreasing in each successive fiscal year. NCDR was 3.7 in fiscal year 2076/77, 4.4 in fiscal year 2075/76 and 3.1 in 2077/78. Except Rukum West, all the districts reported <5 ncdr. However, Dolpa and Mugu reported zero NCDR.

Figure 4.5.1 District wise NCDR per 100,000 population.

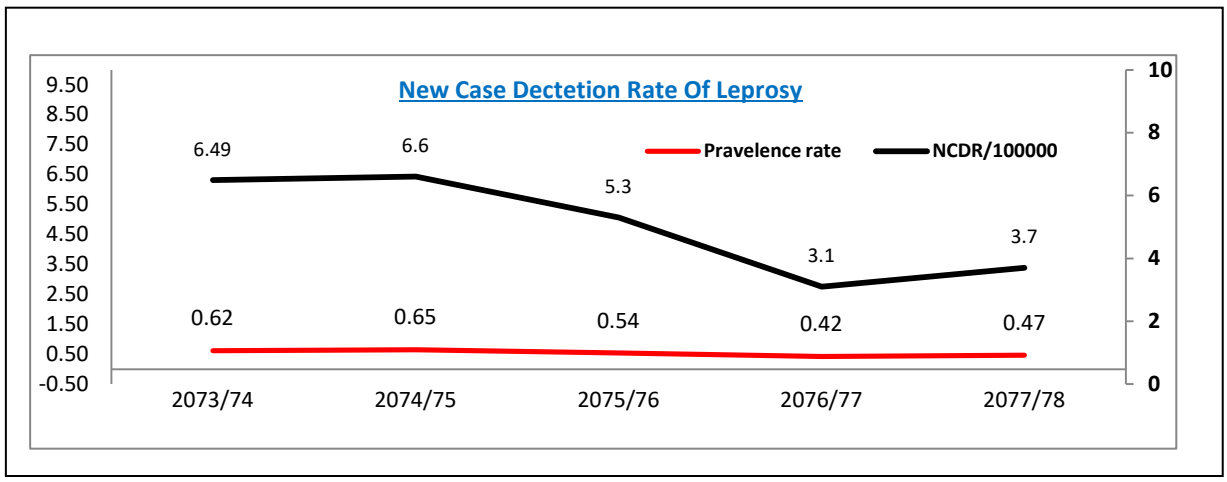


Figure 4.5.1 shows the trend of new case detection rate and prevalence rate of leprosy. The provincial New Case Detection Rate and prevalence rate of Leprosy is slightly increased from fiscal year 2073/74 to 2076/77 however the rate been increased to 3.7 in fiscal year 2077/78. Total prevalence of Leprosy was 0.62/100000 in fiscal year 2073/74, 0.42/100000 in fiscal year 2076/77 and it reached to 0.47/100000 in fiscal year 2077/78. Similarly, NCDR also decreased from 6.49/100000 in fiscal year 2073/74 to 3.1/100000 in fiscal year 2076/77. It further increased to 3.7/100000 in fiscal year 2077/78.

Table 4.5. 2 District wise Prevalence rate per 10,000 Population

S.N.	District	Patient at the End of this Month			Prevalence rate		
		2075/76	2076/77	2077/78	2075/76	2076/77	2077/78
1	Dolpa	2	0	0	0.48	0.47	0
2	Mugu	3	0	0	0.48	0.00	0
3	Humla	2	2	3	0.35	0.34	0.51
4	Jumla	5	4	8	0.41	0.32	0.63
5	Kalikot	10	13	13	0.64	0.82	0.81
6	Dailekh	11	12	11	0.38	0.41	0.37
7	Jajarkot	18	11	14	0.93	0.56	0.70
8	Rukum West	14	8	9	0.83	0.47	0.53
9	Salyan	13	10	15	0.49	0.37	0.55
10	Surkhet	17	15	13	0.42	0.36	0.31
	Karnali province	**95**	**68**	**86**	**0.54**	0.43	**0.47**

Table 4.5.2 presents the district-wise prevalence of leprosy that been reported till the end of fiscal year 2077/78. The overall prevalence of leprosy in this province was 0.54/ 10,000 (fiscal year 2075/76), 0.43 (fiscal year 2076/77) and 0.47 (fiscal year 2077/78). The trend of prevalence shows decreasing pattern for last two fiscal years. However, it was increased in fiscal year 2077/78. No cases were registered in Mugu and Dolpa for fiscal year 2077/78. Kalikot reported highest prevalence (0.81) for recent fiscal year 2077/78. However, progress has been reported in other districts.

Table 4. 5.3 Indicators of Leprosy Elimination program

Indicator	2073/74	074/75	075/76	2076/77	2077/78
No of New patients	117	110	93	55	67
New case detection rate/100000	6.49	6.6	5.03	3.06	3.7
No of Under tt cases at the end	110	114	95	67	86
Preavelence rate/10000	0.62	0.65	0.54	0.43	0.47
No of new child cases	6	4	4	6	1
Proportion of child case among new	5.21	3.5	4.49	11	1.49
New Grade 2disability cases	0	0	2	5	3

The table 4.5.3 shows the main indicators of leprosy elimination program for the past four years. It shows that NCDR is reduced to 3.06 (fiscal year 2076/77) from 5.03 (fiscal year 2075/76) whereas it was 6.6 in the fiscal year (2074/75). However, the NCDR reached to 3.7 in recent fiscal year 2077/78. Decreasing trend in prevalence rate was observed till fiscal year 2076/77 however the rate increase to in fiscal year 2077/78 i.e 0.47 (fiscal year 2077/78), 0.37 (fiscal year 2076/77), 0.54 (fiscal year 2074/75), 0.65 (fiscal year 2075/76). The proportion of child cases among new increased to 11 in fiscal year 2076/77 which further decreased to 1.49 in fiscal year 2077/78. Thus, it can be observed from 2074/75 the trend seems to be increasing for the new cases among the total cases. This increase in proportion of child cases is due to decrease in number of new patients in fiscal year 2076/77. New grade 2 disability for fiscal year 2076/77 was diagnosed to be 5 and it was 3 in fiscal year 2077/78.

4.6 Tuberculosis

Background:

Tuberculosis (TB) is a public health problem in Nepal, as it is responsible for ill health among thousands of people each year. TB is the seventh leading cause of death in the country. During this reporting year, National Tuberculosis Program registered 28677 TB cases. Among them 16258 (57%) were Pulmonary Bacteriological Confirmed (PBC), similarly 3816 (13%) were Pulmonary Clinically Diagnosed (PCD) and 8459 (30%) were Extra-Pulmonary (EP) TB cases. Out of total registered cases in NTP there were 9463 (33%) female and 19214 (67%) males. According to the Prevalence Survey Report 2020 Tuberculosis Deaths in Nepal is estimated 16000 every year. Majority of TB cases and deaths occur among men, the burden of disease among women seems significantly lower (2:1). TB mortality is unacceptably high given that most deaths are preventable if people can access tuberculosis care for diagnosis and the correct treatment is provided. Short-course regimens of first-line drugs that can cure around 91% of all cases (Treatment success rate reported in 2077/78) have been recorded. Nepal NTP has adopted the global Who's END TB strategy as the TB Control strategy for the country.

According to the latest WHO Global TB Report 2020, as estimated 1,00,00,000 population fell ill with TB in 2019 while estimated 12,00,000 TB death among HIV negative people and additional 2,08,000 deaths among HIV positive people in 2019. In context of Nepal, TB death among registered TB patients was 916(3%) among 27745 registered TB cases in FY 2076/77. TB mortality is high given the most deaths are preventable if people can access tuberculosis care for diagnosis and the correct treatment is provided.

The Directly Observed Treatment Short Course (DOTS) has been implemented throughout the country since April 2001. The NTP has coordinated with eth e public sector, private sector, local government, I/NGOs, social workers, educational institutions and other sectors to expand DOTS and sustain the good progress achieved by the NTP. There are 5503 DOTS treatment centers in Nepal and the NTP has adopted the Global END TB strategy and the achievement of the SDGs as the country's TB control strategy. The National Tuberculosis Program in Nepal (NTP_ was established in 1065 as a government program under the Ministry of Health, and it is responsible for administering and coordinating the entire tuberculosis program in the country.

Vision: TB Free Nepal

Goal:

To reduce the mortality, morbidity and transmission of tuberculosis until it is no longer a public health problem and ultimately to eliminate TB

Objectives

- **Increase case notification** through improved health facility-based diagnosis; increase diagnosis among children (from 6% at baseline, to 10% of total cases by 2021); examination of household contacts and expanded diagnosis among vulnerable groups within the health service, such as PLHIV (from 179 cases at baseline to over 1,100 cases in 2020/21), and those with diabetes mellitus (DM).
- **Maintain the treatment success rate** at 90% patients (all forms of TB) by 2021
- **Provide DR diagnostic services** for 50% of persons with presumptive DR TB by 2018 and 100% by 2021; successfully treat at least 75 % of the diagnosed DR patients
- Further **expand case finding by engaging providers for TB care** from the public sector (beyond MoHP), medical colleges, NGO sector, and private sector through results-based financing (PPM) schemes, with formal engagements (signed MoUs) to notifiscal year TB cases.
- **Strengthen community systems** for management, advocacy, support and rights for TB patients in order to create an enabling environment to detect & manage TB cases in 60% of all districts by 2018 and 100% by 2021
- **Contribute to health system strengthening** through HR management and capacity development, financial management, infrastructure, procurement and supply management
- **Develop a comprehensive TB Surveillance**, Monitoring and Evaluation system
- To develop a plan for **continuation of NTP services in the event of natural disaster** or
- public health emergency

Major Activities Carried out in fiscal year 2077/78 (2020/2021)

- Training to new health workers MDR related 3 days training
- Basic ZN microscopy training
- DS and DR TB half yearly review meeting
- Transportation and nutrition allowance to MR TB patients
- Promoted early diagnosis of people with infectious pulmonary TB by sputum smear examination.
- Provided effective chemotherapy to all patients in accordance with national treatment policies.
- Provided continuous drug supply to all treatment centers.
- Capacity building of Health Workers.
- Gene-Xpert service expansion and Installation.
- Case based surveillance.
- Special TB programs were conducted for marginalized population & hard to reach area (eg. microscopy camp)
- Planning, monitoring & evaluation workshop conducted.
- Sputum sample courier system in place
- Trimester planning workshop on DS and DR TB program conducted
- Supervision, monitoring, and onsite coaching
- LQAS Training
- eTB Register/ DHIS-2 Orientation
- Ancillary drug procument and distribution
- TB- HMIS Toold printed and distributed
- Active case detection (10 New cases detected)

Analysis of Service Statistics

Table 4. 6.1 DOTS center by districts & institutions, fiscal year 2077/78

District	Health Facility					DOTS center	DR TB Mgmt. Center		Microscopic center
	Hosp	PHC	HP	CHU	UHC		Center	Sub Center	
Dolpa	1	0	23	0		24	0	1	1
Mugu	1	1	24	7		27	0	1	2
Humla	1	0	26	0		28	0	0	1
Jumla	1	1	29	0	1	31	1	0	3
Kalikot	1	1	28	1	0	30	0	1	3
Dailekh	2	2	56	5	2	60	0	4	5
Jajarkot	1	3	31	0	0	35	0	2	7
Rukum West	2	1	26	1	0	43	0	1	6
Salyan	1	2	45	0	0	48	0	2	5
Surkhet	2	3	47	29	19	62	1	4	14
Total	13	14	335	43	22	388	2	16	47

Table 4.6.1 shows the status of DOTS centers and DR TB management Center in Karnali province. DOTs service is available in 388 health facilities. There are 2 centers and 16 sub-centers for DR TB management. Likewise, there are 47 microscopic centers in Karnali Province. The community-based DOTS has been implemented only in Surkhet & Rukum west.

Gene X pert Center:-

- Province hospital, Surkhet
- KAHS Jumla
- Dailekh Hospital
- Salyan Hospital
- Kalikot Hospital
- Mugu Hospital
- Rukum West Hospital
- Jajarkot Hospital

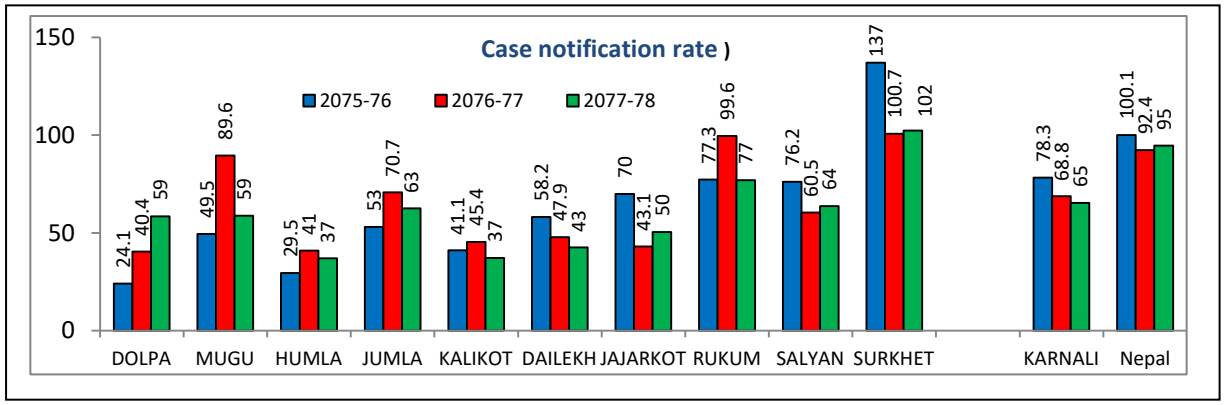
TB Case Notification, fiscal year 2077-78

Table 4. 6.2 New TB registered cases 2077/78

Case Registration	New		Relapse		Treatment After Failure		Treatment After Loss to Follow-up		Other Previously Treated		Previous Treatment History Unknown		Total
	F	M	F	M	F	M	F	M	F	M	F	M	
Pulmonary (BC)	169	373	17	55	0	3	2	6	1	2	0	1	629
Pulmonary (CD)	61	110	1	2			0	1	0	0	2	0	177
Extra Pulmonay (BC or CD)	170	205	1	2			0	1	2	3	1	2	387
Total	400	688	19	59	0	3	2	8	3	5	3	3	1193

The table 4.6.2. Illustrates that altogether 1193 cases were notified in fiscal year 2077/78. Among them 1088 were new cases and 78 were relapses. Likewise, 3 cases were treatment after failure, 10 was treatment after loss to follow up, 8 were other previously treated cases, and 6 were previous treatment history unknown. The cases were more in male than that of female. Similarly relapse cases were nearly triple in male then that of female in pulmonary cases.

Figure 4. 6.1 District wise case notification rate (all forms)



According to the figure 4.6.1 case notification rate is 65 per 100,000 population in Karnali Province in fiscal year 2077/78. Case Notification Rate (CNR) (per 100,000 population) was lowest in Humla (37) and Kalikot (37) & highest in Surkhet (102). Districts like Mugu, Humla, Jumla, Kalikot, Dailekh, and Rukum West were observed decreasing CNR in fiscal year 2077/78 as compared to last fiscal year 2076/77.

Figure 4.6.2 New TB registered case

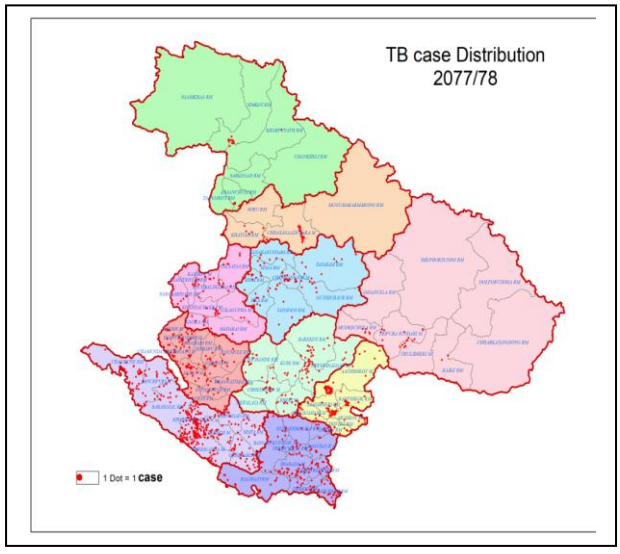


Figure 5.6.3 Case Notification rate /10000Local Level

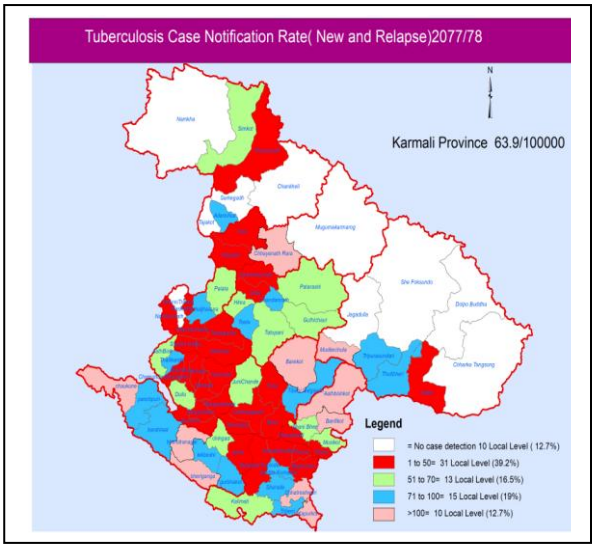


Figure shows the local level wise case registration and case notification rate for fiscal year 2077/78. Based on Case Notification rate, 16 local level has not reported TB cases, among the local levels that reported TB cases, 7 has 1-50 case notification rate, 15 has 51-70 CNR, 7 local has 91-100 CNR and 17 Local levels has >100 CNR (per 100000 population).

Figure 4.6.4 District wise Notified TB cases all form in fiscal year 2077/78

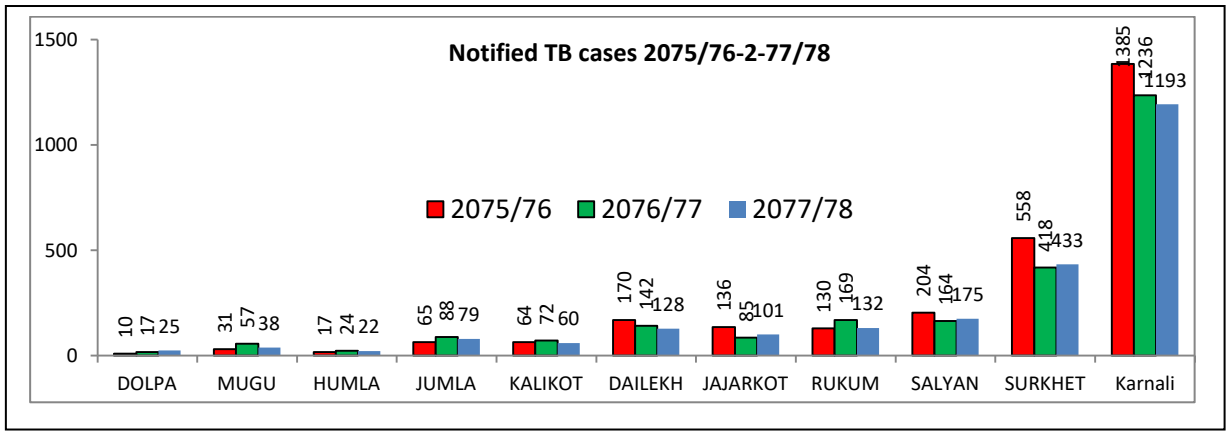
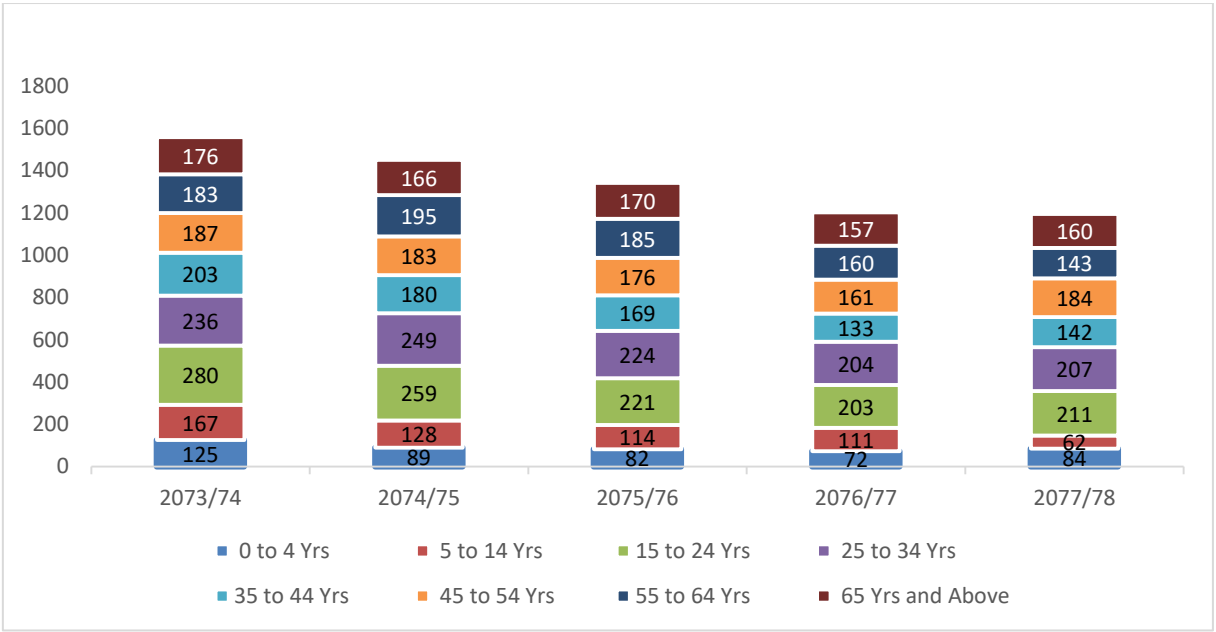


Figure 4.6.4 shows number of districtwise new and total tuberculosis case registration in Karnali Province. Highest cases were reported by Surkhet district (433) and the lowest by Humla District (22).

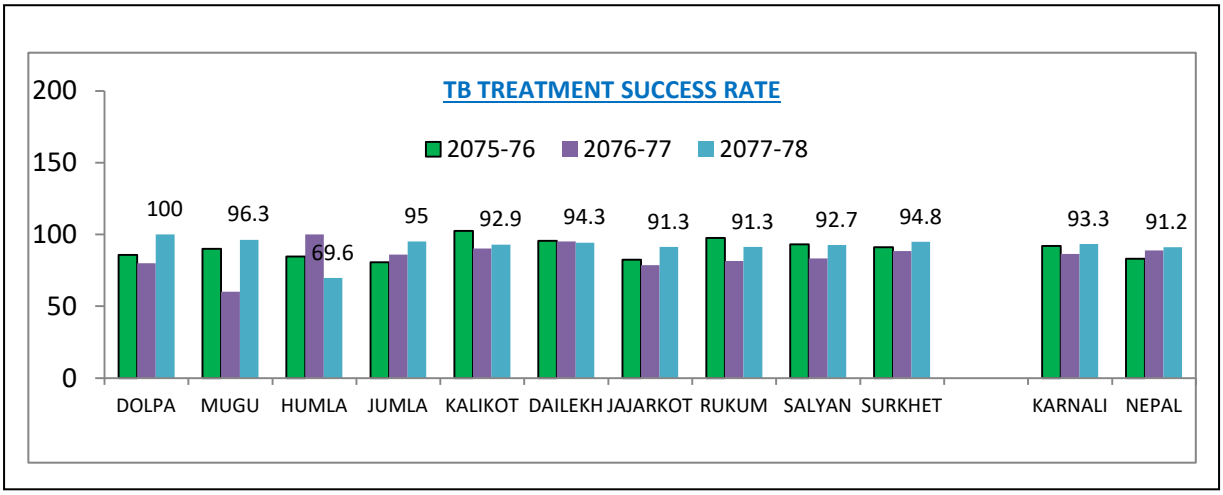
Figure 4. 6.5 Age wise distribution of new all forms of TB, fiscal year 2077/78



The table 4.6.5 shows the age wise distribution of new all form of TB cases in the last five fiscal year 2073/74 to 2077/78. The age wise distribution shows new cases among children aged (0-4 years) was 62 whereas it was 84 among 5-14 years child. Total under 15 years children accounted for 12% among total TB cases notified in Karnali Province. Nearly equal proportion of cases were identified among age group 45-54 years, 55-65 years, 65 + years. Among the age groups, higher cases load (>17%) were distributed among age group 15-24 years and 25-34 years. More twelve percent distribution were reported in each age group for age 45-54 years, 55-54 years, and 65+ years.

Treatment Outcome

Figure 4. 6.6 District wise treatment success rate (PBC) in fiscal year 2077/78

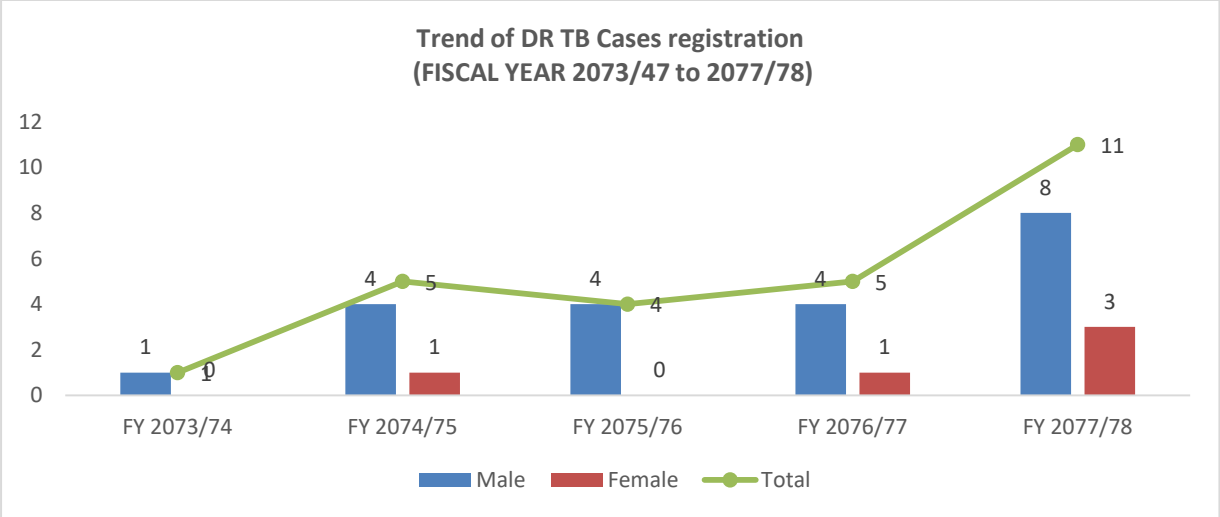


The figure 4.6.6 shows the treatment outcome of the TB patient in all 10 districts of Karnali province (aggregated 93.3 %). Humla has the least treatment success rate (69.6%). Except Humla all the districts of Karnali have greater than ninety percent success rate. Dolpa reported cent percent success rate for TB treatment in the recent fiscal year.

Drug Resistant TB Management

Province Hospital Surkhet and Karnali Academy of Health sciences (KAHS) are the DR- TB Treatment centers in Kanali province. Further, to increase access of DR TB treatment DR TB sub centers has been expanded to total 16 sites. Altogether there are 2 DR centers and 16 DR sub-centers providing services in the Karnali province. MDR TB service was introduced in fiscal year 2062/063 & XDR TB service was started from fiscal year 2067/68 in this part of the country.

Figure 4.6.7 Trend of DR TB Cases registration for recent fiscal years



4.7 HIV, AIDS & STI

Background

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 HIV and Sexually Transmitted Infections (STIs), 2011. A new National HIV Strategic Plan 2016-2021 has been launched to achieve global goals of 90-90-90 by 2020, 90% of all people living with HIV (PLHIV) will know their HIV status by 2020, 90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy, and by 2020, 90% of all people receiving antiretroviral therapy will have viral suppression. Starting from a 'low level epidemic' over the period of time HIV infection in Nepal evolved itself to become a 'concentrated epidemic' among key populations (KPs), notably with People Who Inject Drugs (PWID), female sex workers (FSW), Men who have Sex with Men (MSM), migrants' workers (MW) and Transgender (TG) People in Nepal. Nepal started its Prevention of Mother to Child Transmission (PMTCT) program in 2005. Pursuant to national strategy to eliminate new HIV infection community based PMTCT services has been expanded in all district of Nepal Where HIV screening and counselling is done among every ANC Visitors.

Karnali Province is categorized as low HIV prevalence zones in Nepal. There are 16 HTC sites in this province. Only migrants who migrate to high-risk areas including Indian cities where HIV prevalence is high can be key population in this province. There is only 6 ART sites in this province. Likewise, CB-PMTCT service are available in all districts of Karnali province and prevention treatment program is being implemented in one district. Community and Home-Based Care (CHBC) service is available in Surkhet, Kalikot, Dailekh, Salyan and Rukum West districts and Community Care Center (CCC) service in Dailekh, Rukum West and Surkeht districts as well as Harm reduction program in surkhet district of karnali province.

CD4 testing center 3 (Province hospital, KAHS and Dailekh hospital)

Viral load testing (Province hospital surkhet) only

Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

- Conducted HIV Counseling and Testing through HTC centers.
- Provided intact care to PLHIV through Community care centers
- Provided Anti-Retroviral Therapy (ART) Services through ART centers.
- Community Based Prevention of Mother to Child Transmission (PMTCT) of HIV
- Various day celebration programs like as world AIDS Day, National Condom Day and awareness activities through different program were done.
- Opportunitiestics Infection (OI) management
- Sexually transmitted infection (STI) management
- HIV test kit supply
- Condom supply to all health facilities including HTC sites, ART sites
- Medicine supply to manage opportunitistics infection (OI)
- Medicine supply to manage sexually transmitted infection (STI)

- Transport HIV Viral Load sample to NPHL for Viral Load testing of ART Clients.
- Migrant and PWID program in Surkhet
- Care and support program in Surkhet, Salyan, Dailekh, Kalikot and Rukum West
- Migrant program by Kapilvastu Integrated Development Services (KIDS) – HIV Reach, BCC, Condom distribution, HIV self testing etc.
- PWID Program by Nepal National Social Welfare Association (NNSWA)- HIV Reach, BCC, Condom distribution, safe needle syringe services etc.
- Care and Support program by NAP+N (National Association of People living with HIV in Nepal)
- Printing and distribution of BBC materials
- Counsleing at health facility
- HTC center and ART sites
- Three days Training to health workers
- Nutrition support to TB/HIV- CABA
- Coordination meeting with stakeholder
- Supervision and monitoring

HIV testing and Counselling Services in Karnali Province

HIV Testing and Counseling service was first started in Nepal in 1995. HIV Testing and Counseling is the entry point for overall HIV care services. It is provided free of cost to the key populations at higher risk and general population all over the country. Karnali province have 16 HTC sites from where 1497 population get tested for HIV in fiscal year 2077/78 from which 30 new cases were reported as HIV positive.

Table 4.7. 1. HIV testing and counselling Services in Karnali Province

Age Group	Indicator	Sex Workers	People who inject drugs (PWIDs)	MSM & TG	Blood or Organ Recipients	Clients of Sex Workers	Migrants	Spouse/ Partners of Migrants	Others
≤ 14 ys	Tested	15	3	0	12	0	0	6	72
	Positive	0	0	0	1	0	0	0	3
≥ 15 yrs	Tested	0	403	0	0	16	266	509	195
	Positive	0	0	0	0	4	7	1	6

The table 4.7.1 shows in fiscal year 2077/78 total 1497 test were performed among different key population out of which 30 were reported positive. The key population tested for the HIV in the recent fiscal years were sex workers, people who inject drugs, blood or organ recipients, migrant population, spouse/ partners of migrants and others.

Table 4.7.2. Distribution of HIV test by districts for recent fiscal years 2073/74 to 2077/78 in Karnali

District	FY 2073 /74		FY 2074/75		FY 2075/76		FY 2076/77		FY 2077/78	
	HIV Test	Positive	HIV Test	Positive	HIV Test	Positive	HIV Test	Positive	HIV Test	Positive
Dolpa	61	0	0	0	90	0	0	0	0	0
Mugu	274	0	33	0	0	0	0	0	0	0
Humla	0	0	0	0	0	0	0	0	0	0
Jumla	306	96	0	0	2	0	11	0	15	0
Kalikot	0	0	0	0	153	0	741	3	149	0
Dailekh	444	18	200	10	1405	13	507	9	606	3
Jajarkot	0	0	0	0	7	0	0	0	0	0
Rukum West	315	67	407	0	109	6	21	0	20	1
Salyan	253	7	302	1	57	0	19	0	0	0
Surkhet	398	34	389	46	1689	23	946	18	707	26
Karnali Province	2051	222	1331	57	3512	42	2245	30	1497	30

The table 4.7.2 shows the district wise trend of HIV test done and positive results reported in Karnali for last four fiscal years. In recent fiscal year 2077/78, dailekh diagnosed 3 positive cases from 606 testing, Raukum west reported 1 case from 20 testing and Surkhet reported 26 cases from 707 testing in Karnali. Thus, overall, 30 cases been reported in recent fiscal year through 1497 testing.

ART Services in Karnali Province

With a primary aim to reduce mortality among HIV-infected clients, the government, in 2004, started giving free ARV drugs in a public hospital and that was followed by the development of first ever national guidelines on ARV treatment. Since then, a wide array of activities has been carried out with the aim of providing Treatment, Care and Support services to People Living with HIV (PLHIV). Based on the National HIV Testing and Treatment Guidelines 2017, Karnali Province has also implemented 'test and treat' strategy for the treatment PLHIV. ART is provided in free of cost to all PLHIV. There are 5 ART sites (Province Hospital, Dailekh Hospital, Kalikot Hospital, Salyan Hospital, Rukum West Hospital, and Three CD4 sites (Province Hospital, and Karnali Academy of Health Science, Jumla & Dailekh Hospital) in Karnali province.

Table 4.7.3 District wise clients on ART fiscal year 2073/74-2077/78

Fiscal Year	Kalikot	Dailekh	Rukum-WEST	Salyan	Surkhet	Total number of Client on ART in Karnali
2073/74	19	140	0	14	258	432
2074/75	29	154	0	18	295	496
2075/76	33	178	43	19	317	590
2076/77	37	192	48	19	305	601
2077/78	43	193	56	26	333	651

Table 4.7.3 shows district wise clients in ART centers for last five fiscal years. The data shows the increasing trends of clients per year in ART sites. The increasing trend of clients can be due to the increasing number of testing for HIV/AIDS.

Table 4.7. 4. Outcome of ART Program in Karnali Province

Fiscal Year	Clients ever enrolled in ART at the end of last year (Asar 2076)	New client started ART	Transfer in	Transfer out	Death (Cumulative	Lost to follow up	Missing	Total number of clients currently on ART (Asar-2077)
2075/76	807	60	104	76	96	20	24	590
2076/77	590	35	25	26	109	18	15	601
2077/78	601	41	19	19	129	20	24	651

Table 4.7.4 shows the number of clients those ever enrolled in ART sites at the beginning and end of fiscal year. At the end of fiscal year of 2076/77, there were 651 cases in ART sites and the number was 651 in Asar 2076. Likewise, reaching to the end of fiscal year 2077/78, the total cases reached to 651 in Karnali. Thus, total of 41 new cases were added in ART sites. Among the total cases, 19 new cases were transfer in and 19 cases were transfer out. Total cumulative death till the time in Karnali is 129. Furthermore, there were 24 cases missing and 20 cases were lost to follow up.

PMTCT Services in Karnali Province

Community based PMTCT services has been expanded to all district also in Karnali province even that the coverage for PMTCT is still low. About fifty percent mothers those who have been visiting health facilities for ANC check up been tested tested for HIV/AIDS. Among those who have been tested for HIV/AIDS under PMTCT program, three women was tested positive. All the ten districts of Karnali performed testing for HIV through PMTCT program. Rukum west (62.7%) and Surkhet (38.7%) reported higher number of women coming in ANC visit who have been tested under PMTCT program. Less than one percent of ANC visitors were tested under PMTCT program in Humla in fiscal years 2076/77. PMTCT coverage in Mugu can be another challenge for the program since it has third lowest performing districts among ten.

Figure 4.7. 1. Number of pregnant women tested for HIV and coverage for last three fiscal 2077/78

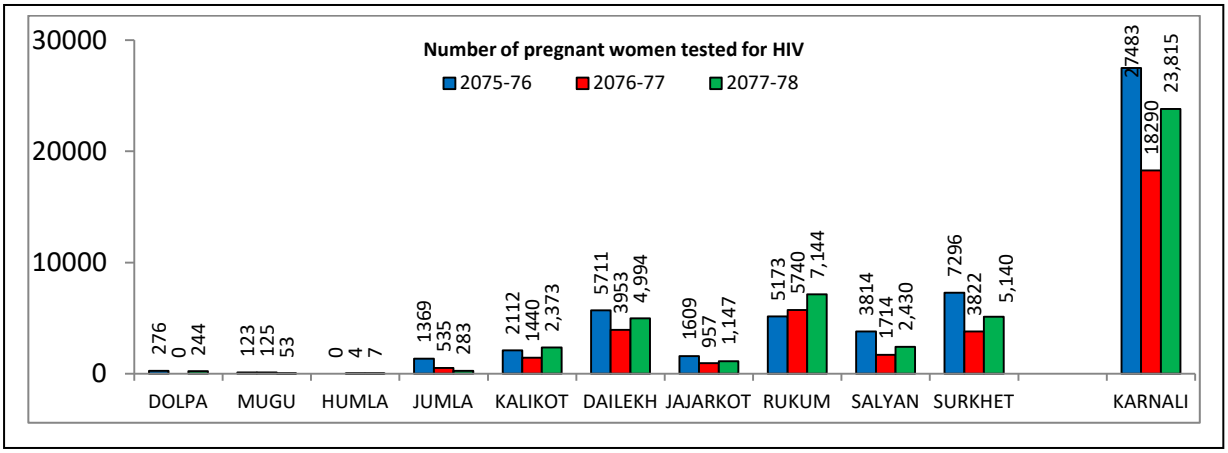
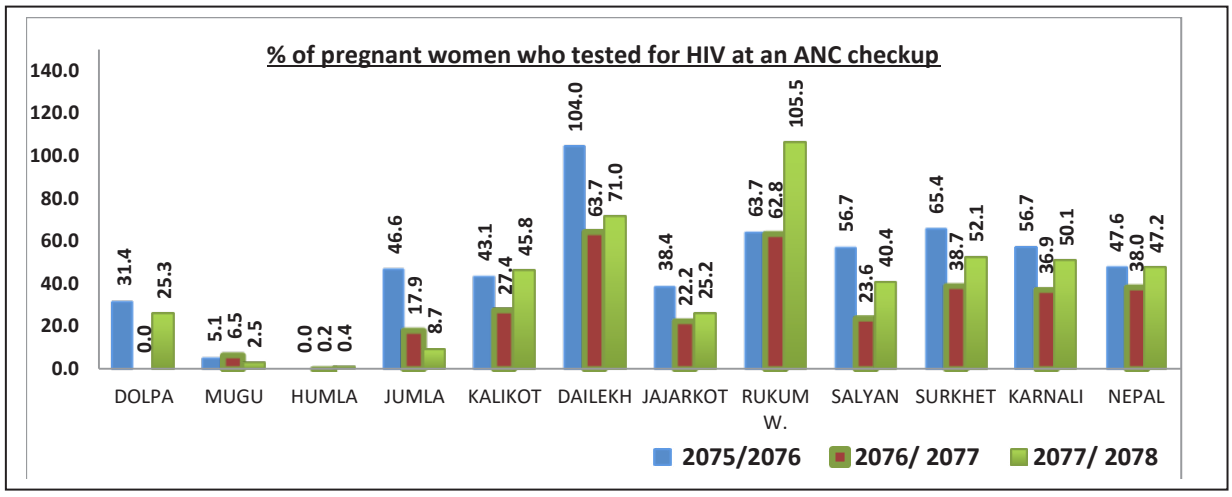


Table 4.7.5. HIV Testing and positive in PMTCT Program 2077/78

District	Pregnancy		Puerperium		Labour & Delivery	
	Test	Positive	Test	Positive	Test	Positive
Dolpa	244	0	12	0	21	0
Mugu	53	0	0	0	2	0
Humla	7	0	0	0	0	0
Jumla	283	0	10	0	52	0
Kalikot	2373	0	0	0	188	0
Dailekh	4994	0	7	0	305	0
Jajarkot	1147	0	29	0	272	0
Rukum West	7144	2	870	0	960	0
Salyan	2430	0	39	0	218	0
Surkhet	5140	1	0	0	4446	0
Karnali Province	23815	3	967	0	6464	0

Figure 4.7. 2. Percentage of pregnant women who tested for HIV at an ANC checkup

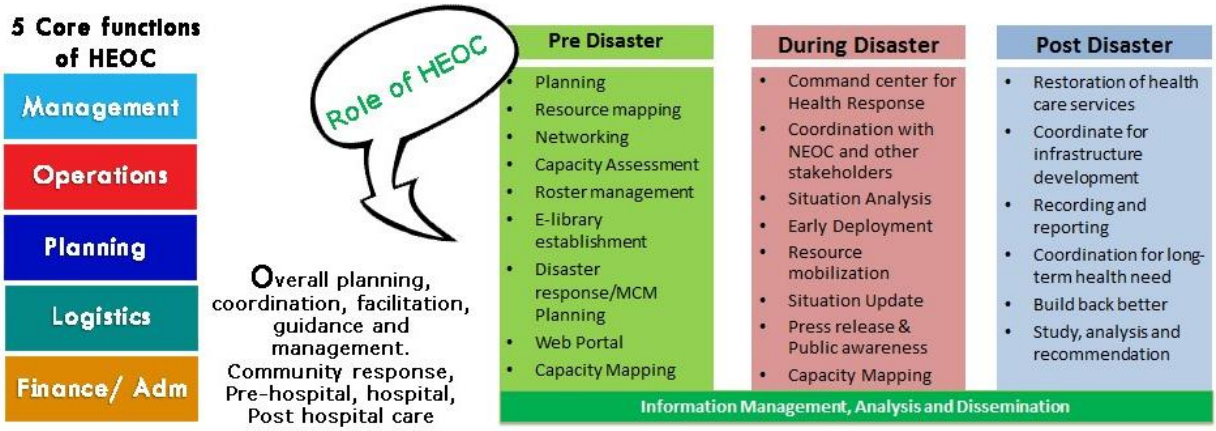


Issues

- Low Coverage of HIV testing Services
- Data gap and inconsistency in reporting
- Low access for CD4 count and Viral load testing
- Timely supply of three-layer testing kits
- Coverage areas of targeted investigation
- Capacity enhancement of health workers on national guidelines
- Shortage of HIV test kits and medicine (YNART)
- Insufficient activities on capacity building of health workers
- Inadequate Monitoring and Supervision to the ART Program
- Low Financial support to Client
- Irregular supply of HIV test kit specially for CB-PMTCT program
- Tracking HIV positive mother and Exposed Child for EID
- Stigma among clients for HIV testing

4.8 Provincial Health Emergency Operation Center and Epidemic, Outbreak Management Response

When emergencies occur, coordination is necessary. Good coordination means less gaps and overlaps in the assistance delivered by humanitarian organizations. Provincial Health Emergency Operation Center PHEOC Surkhet has been established in the premises of Health Directorate office Kalagaun Surkhet in fiscal year 2074/75 with Incident Command System. The Provincial Health Emergency Operation Centers PHEOC has major core functions of coordination, planning, facilitation, and community response during disaster, prior to disaster and pre disaster. Along with this, preparedness, and response readiness such as hub and satellite hospitals network, prepositioning and replenishment of emergency medical logistics, risk assessment, human resources management are the role and functions of provincial health emergency operation center.



The regular activities of PHEOC for outbreak preparedness and management in fiscal year 2077/78 were as follows:

Preparedness planning for outbreaks, epidemics, and unwanted health events

- Incidence Command System established with the leadership of health directorate.
- Monitoring and supervision of disease epidemics, outbreak preparedness, prevention, and control activities.
- Daily update and reporting of epidemic prone disease including global pandemic COVID-19
- Weekly video conferencing with MoHP and other provinces
- Hub and Satellite hospitals identified, and connection been establishded between these two types of hospitals
- Emergency medical deployment team formulated at provincial hospital.

- Health facility rapid assessment conducted for COVID response and preparedness in KAHS and provincial hospital.
- Virtual meetings and training conducted with health coordinator, district COVID focal person for Case Investigation, Contact tracing and data management.

Rapid Response Teams for Investigating and Responding to Outbreaks and Epidemics

- Ensuring the formation of rapid response teams at provincial, district and community levels and their mobilization during outbreaks and epidemics.
- Responding to outbreaks through awareness activities and IEC activities, risk communication, media monitoring and case management.
- One FMO, one IMA, two CSA from WHO on duty station for technical support.

Table 4.8.1. Major vector borne disease reported in PHEOC Surkhet fiscal year 2077/78

Events		Salyan	Jajarkot	Rukum West	Dailekh	Surkhet	Kalikot	Mugu	Dolpa	Humla	Jumla	Total
Dengue	Injured/Affected	1	0	0	4	782	6	0	0	1	1	795
	Death	0	0	0	0	0	0	0	0	0	0	0
Scrub typhus	Injured/Affected	0	0	0	11	115	0	0	0	0	0	126
	Death	0	0	0	0	0	0	0	0	0	0	0
Kalazar	Injured/Affected	0	0	0	0	28	43	0	0	0	1	72
	Death	0	0	0	0	0	0	0	0	0	0	0

Figure 4.8.1 Trend and cases of Kalazar in Karnali province for different fiscal years

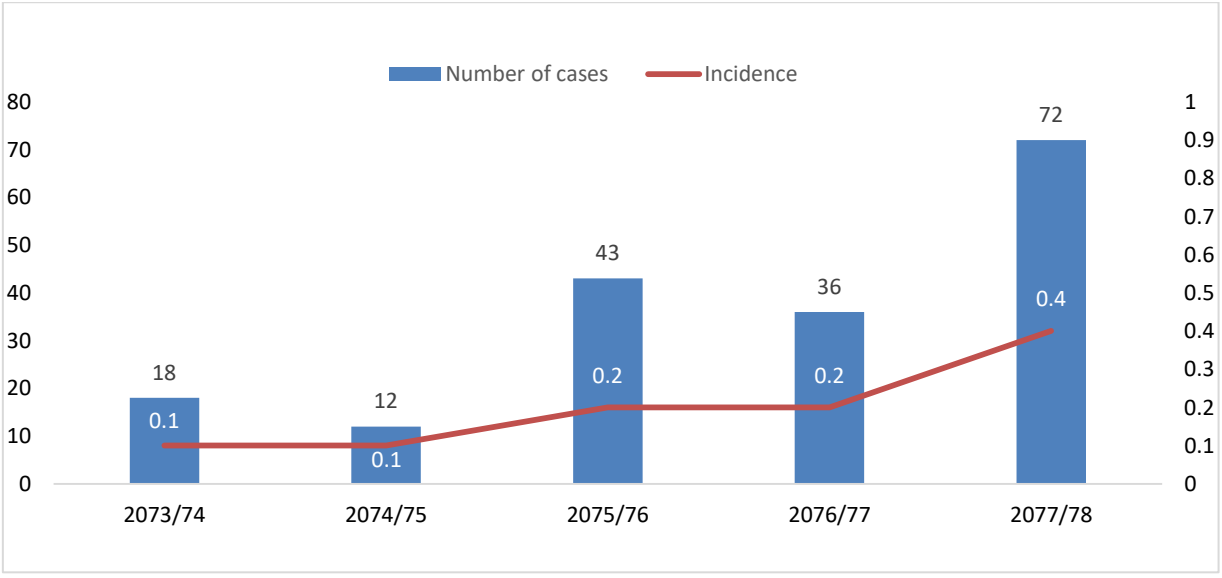


Table 4.8.2. Suicidal data in Karnali province of last two fiscal year 2076/77 and 2077/78

S. N	District	Fiscal Year 2076/77 Death			Fiscal Year 2077/78 Death		
		Male	Female	Total	Male	Female	Total
1	Surkhet	74	54	128	84	44	128
2	Dailekh	15	29	44	35	22	57
3	Jajarkot	2	4	6	13	17	30
4	Rukum west	14	12	26	21	14	35
5	Salyan	47	19	65	42	29	71
6	Jumla	4	7	11	6	12	18
7	Dolpa	1	0	1	0	0	0
8	Humla	2	0	2	1	2	3
9	Kalikot	3	1	4	4	11	15
10	Mugu	0	0	0	2	3	5
Total		162	126	288	208	154	362

Table 4.8.3. Number of road traffic accidents in the fiscal year 2076/77 and 2077/78

S. N.	District Name	Fiscal year 2076/77					Fiscal year 2077/78				
		Number of accidents	Death		Injured		Number of Accident	Death		Injured	
			Male	Female	Male	Female		Male	Female	Male	Female
1.	Surkhet	103	27	10	90	45	104	16	6	108	37
2.	Dailekh	44	10	2	98	24	25	10	1	26	8
3.	Salyan	60	10	5	81	32	31	9	1	56	26
4.	Rukum west	11	8	0	26	4	23	5	1	17	6
5.	Jajarkot	7	3	0	8	2	18	10	2	13	7
6.	Kalikot	19	6	4	17	6	19	5	1	14	1
7.	Jumla	9	3	1	10	1	21	6	0	39	9
8.	Mugu	3	2	0	5	5	39	13	3	30	18
9.	Dolpa	7	2	0	12	0	8	3	1	5	4
10.	Humla	2	4	2	13	1	3	4	1	6	13
Total		265	73	24	360	120	291	81	17	314	129

Table 4.8.4. Number of flood and landslide related accidents including number of death and injured fiscal year 2076/77 and fiscal year 2077/78

S.N.	Name of district	Fiscal Year 2076/77					Fiscal Year 2077/78				
		Number of events	Death		Injured		Number of events	Death		Injured	
			Male	Female	Male	Female		Male	Female	Male	Female
1.	Surkhet	106	2	0	0	1	76	2	3	5	8
2.	Dailekh	2	0	1	0	0	40	3	1	7	8
3.	Salyan	178	6	2	0	2	54	2	1	2	5
4.	Rukum west	146	2	4	1	0	12	2	2	0	0
5.	Jajarkot*	40	8	8	4	0	33	5	1	10	1
6.	Kalikot	120	20	22	13	10	30	25	26	15	13
7.	Jumla	0	0	0	0	0	23	0	0	4	0
8.	Mugu	4	0	0	0	0	42	2	0	2	1
9.	Dolpa	0	0	0	0	0	10	1	0	0	1
10.	Humla	15	0	0	0	0	57	0	0	1	0
Total		611	38	37	18	13	377	42	34	46	37

*4 Male missing in fiscal year 2076/77

Issues

- Formation, Activation and Mobilization of RRTs at different levels
- Resilience/Capacity enhancement of Hub and Satellite hospitals to better prepared for Disaster and Mass Casualty Events
- Increase no of RTA and Suicide Cases in Karnali Province and underreporting by districts.
- No regular reporting of VBD/NTD by districts.
- Risk Communication/ Media Management is low

4.9 Non-Communicable Disease (NCD)

Non-communicable disease (NCD) is emerging as the leading cause the morbidity and mortality due to changes of unhealthy lifestyles, urbanization, demographic and economic transition. These conditions are often associated with older age groups, but evidence shows that People of all age groups are affected by NCDs. In Nepal, deaths due to NCD (cardiovascular disease diabetes cancer and respiratory disease) has increased from 60 % of all death in 2014 to 66% in 2018 (WHO Nepal country profile 2018). Thus, Nepal has adopted PEN package for primary care in resource setting developed by WHO.

Nepal PEN package has been introduced to screen, diagnosis, treat and refer of cardiovascular disease, COPD, cancer and diabetes at health post and primary health care center for early detection and management within community. This package has 4 protocols as follows:

1. Prevention of heart attack, stroke, and kidney disease through integrated management of diabetes and hypertension
2. Health Education and counseling of healthy behavior
3. Management of chronic obstructive pulmonary diseases
4. Assessment and referral of women with suspected cancer (breast, cervical)

Key Statistics

Table 4.9.1. District-wise distribution of major non-communicable diseases

Data	Period	DOLPA	MUGU	HUMLA	JUMLA	KALIKOT	DAILEKH	JAJARKOT	RUKUM WEST	SALYAN	SURKHET	Karnali Province
Hypertension	2075/76	754	134	251	657	367	782	817	1028	3076	6974	14840
	2076/77	621	176	489	631	580	1298	658	1834	3563	7762	17612
	2077/78	748	174	1116	345	575	1575	667	2892	5029	7584	20705
Diabetes Mellitus (DM) Cases	2075/76	99	11	36	257	15	103	56	207	295	4780	5859
	2076/77	7	9	39	455	17	105	59	599	230	4475	5995
	2077/78	0	6	29	179	31	247	74	1434	366	4232	6598
Ischemic Heart Disease	2075/76	0	0	0	7	6	25	12	0	0	11	61
	2076/77	0	0	6	19	0	0	0	1	1	15	42
	2077/78	0	0	7	10	0	10	0	18	15	12	72
Cancer	2075/76	2	0	0	12	0	2	11	7	3	7	44
	2076/77	4	0	1	1	2	12	4	6	3	38	71
	2077/78	0	5	0	0	26	65	16	16	0	15	143
COPD	2075/76	244	914	980	2127	1572	1626	1897	2800	2398	5276	19834
	2076/77	524	934	1250	2316	2341	2355	1575	5091	2002	4985	23373
	2077/78	464	1398	2124	1872	2674	2002	10111	4357	2291	3692	30985

Table 4.9.1 shows the district wise distribution of major non-communicable disease for three different fiscal years reported to DHIS-2. Five non-communicable diseases were compared for last three successive fiscal years. The data shows that increasing trend of hypertension, Diabetes Mellitus (DM) cases and COPD. Ischemic heart disease status been increased than the previous years in Karnali. COPD were mostly reported from districts accounting for total of 30985 cases for overall Karnali province. The number of COPD is highly reported in Jajarkot and least in Dolpa. However, in both district the trend of COPD is increasing.

4.10 Mental Health

Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to her or his community.

World Health Organization (WHO) has estimated that in Nepal, 3.2% of total population are living with depression and 3.6% are with anxiety disorders resulting in 5.4% and 3.4% of total years lived with disability respectively. The recent pilot study (2018) carried out by the Nepal Health Research Council has revealed that the mental health problems is found 11.2% at the age from 13 to 17 years, whereas this problem is increased to 13.2% after the age of 18 years. Suicide, the proxy for mental disorders, is the largest killer among the women of reproductive age group.

In Karnali province, Ministry of Social Development provided mental health training to medical officers and paramedics covering all districts of the province. Joint effort with mental health partner in mental health program are implementing in Surkhet, Jajarkot and Dailekh districts.

Major Activities

- Training in Salyan, Rukum West, Surkhet to health workers and counselor
- Drug supply and provided drug to target patients
- Counseling and follow up

Table 4.10.1 District-wise distribution of mental diseases

Data	Period	Dolpa	Mugu	Humla	Jumla	Kalikot	Dailekh	Jajarkot	Rukum West	Salyan	Surkhet	Karnali Province
Depression	2075 / 76	136	17	0	272	114	31	133	227	214	550	1694
	2076 / 77	34	33	32	262	23	31	178	298	114	746	1751
	2077 / 78	1	46	84	67	13	76	270	694	113	705	2069
Phobic anxiety	2075 / 76	17	67	0	89	0	2	1	75	53	93	397
	2076 / 77	8	12	9	92	0	6	70	100	50	116	463
	2077 / 78	0	6	7	52	0	12	45	282	7	216	627
Other Anxiety	2075 / 76	74	62	0	318	25	86	124	556	1086	673	3004
	2076 / 77	17	63	21	199	38	100	146	1690	509	598	3381
	2077 / 78	6	21	20	66	76	181	204	940	576	529	2619
Psychosis	2075 / 76	0	0	0	126	12	0	0	32	43	6	219
	2076 / 77	0	0	0	84	0	5	0	25	20	49	183
	2077 / 78	0	0	5	41	0	22	16	38	24	52	198
Schizophrenia	2075 / 76	0	33	0	28	10	3	0	34	11	2	121
	2076 / 77	0	0	0	26	0	3	1	25	22	14	91
	2077 / 78	0	1	9	16	4	2	5	51	41	19	148
Epilepsy	2075 / 76	8	5	18	23	6	6	0	61	121	113	361
	2076 / 77	4	5	25	7	2	5	28	119	91	194	480
	2077 / 78	0	37	14	6	12	71	28	124	131	227	650

Data	Period	Dolpa	Mugu	Humla	Jumla	Kalikot	Dailekh	Jajarkot	Rukum West	Salyan	Surkhet	Karnali Province
Conversive disorder (Hysteria)	2075 / 76	0	1	0	75	25	123	0	39	196	52	511
	2076 / 77	3	10	10	69	3	72	15	142	58	48	430
	2077 / 78	0	0	1	42	8	25	61	121	13	20	291
Dementia	2075 / 76	4	3	3	1	17	167	0	74	1	25	295
	2076 / 77	0	9	33	0	2	188	1	19	7	21	280
	2077 / 78	0	14	3	0	5	3	8	7	2	14	56
Neurosis	2075 / 76	1	6	9	31	12	402	2	91	81	15	650
	2076 / 77	0	5	0	44	4	211	10	35	33	10	352
	2077 / 78	0	10	9	16	12	1	11	11	19	29	118

Mental health problems have been recognized to be significantly prevalent in Karnali province. The major mental health problems recognized in Karnali are Depression, Phobic anxiety, Psychosis, Schizophrenia, Epilepsy, Chronic Alcoholic Addiction, Hysteria, Dementia, Neurosis, Bipolar Disorder, Mental Retardation, Migraine, Obsessive compulsive disorder. The number of cases reported is dependent upon total population of Karnali visiting health facilities. Mountainous districts like Dolpa, Mugu and Humla has relatively low number of mental health cases.

4.11 COVID-19 PREVENTION, CONTROL AND RESPONSE

4.11.1 Background

Coronaviruses are a large family of viruses that can cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The first case with the pneumonia-like syndrome was detected on 30 December 2019 in Wuhan, China. On 9 January 2020, the "Novel Coronavirus 2019-nCoV" name was given to the newly discovered virus by WHO and declared a Public Health Emergency of International concern on 30 January 2020. The virus was named SARS-CoV-2 and the disease was named "COVID-19" on 11 February 2020. COVID-19 had been declared as pandemic on March 11, 2020 while 118,000 cases of coronavirus were detected in over 110 countries.

Reference of WHO source, the COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. COVID-19 affects different people differently. Most of the infected person experiences mild to moderate respiratory illness and recovered without hospitalization. Old age people and those with an underlying medical problem like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

Table.10.11.1 Symptoms of COVID-19

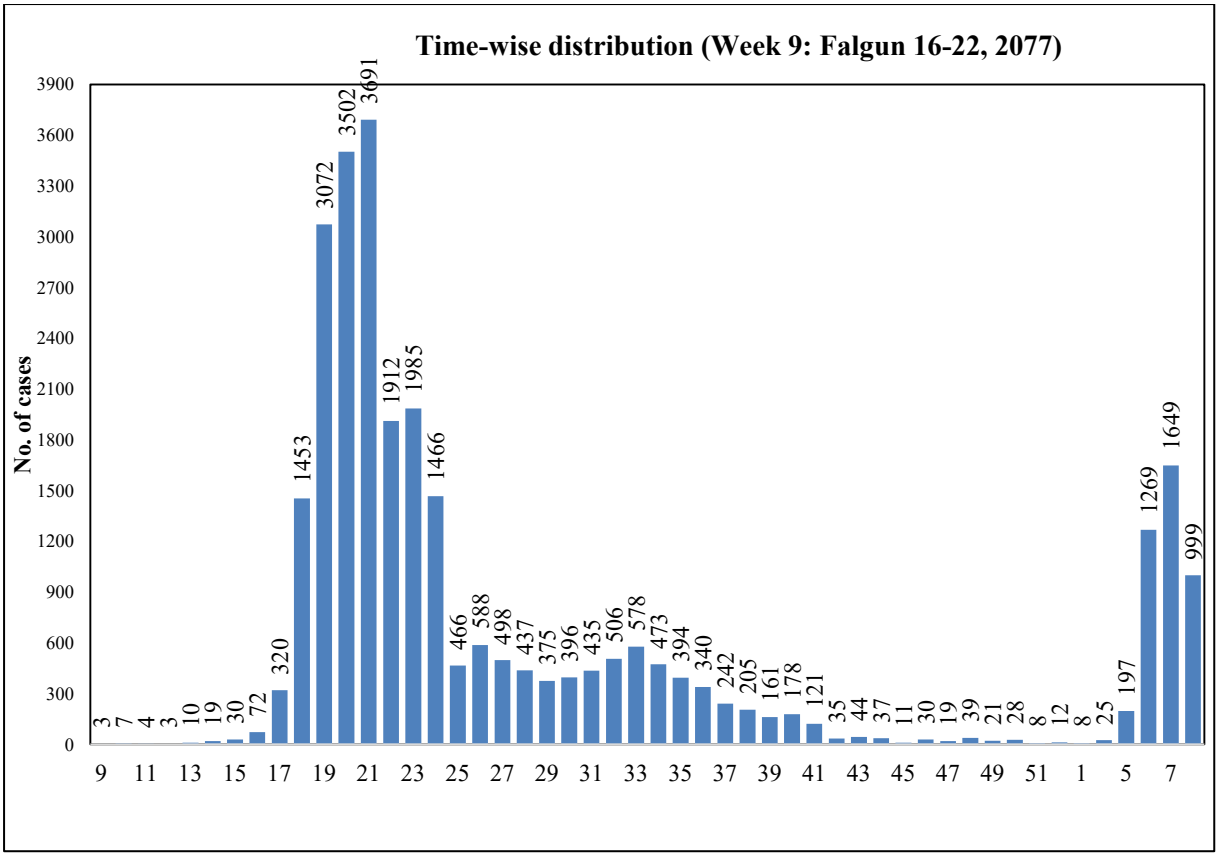
Most Common Symptoms	Fever, Dry cough and Tiredness
Less Common Symptoms	Aches and pains, Sore throat, Diarrhea, Conjunctivitis, Headache, Loss of taste or smell and rash on skin, or discoloration of fingers or toes
Serious Symptoms	Difficulty breathing or shortness of breath, Chest pain or pressure and Loss of speech or movement

4.11.2 Situation of COVID-19

The first case of COVID-19 was identified in Wuhan, China. The virus then spread around the world infecting many people. WHO declared COVID-19 as a pandemic on March 11, 2020, as the cases rise to over 118,000 in over 110 countries. Globally, there have been 409,111,395 confirmed cases of COVID-19, including 5,805,825 deaths, reported to WHO on 13 February 2022. According to the WHO, there are 54,278,257 confirmed cases in SEAR till 13 February 2022, which is 13 percentage of confirmed cases globally.

In Nepal, the first case of COVID-19 was reported on 15 January 2020. According to Ministry of Health and Population (MoHP), the total number of cases reported till 13 February 2022, is 1,110,471 including 22,584 active cases, 938,583 recovered, and 11,892 deaths. Bagmati province has a highest population density and high mobility of people which shows the increased number of COVID-19 cases. Likewise, Karnali province has 38,323 confirmed cases till the date of February 13, 2022.

Figure 10.11.1. Distribution of COVID-19 Cases

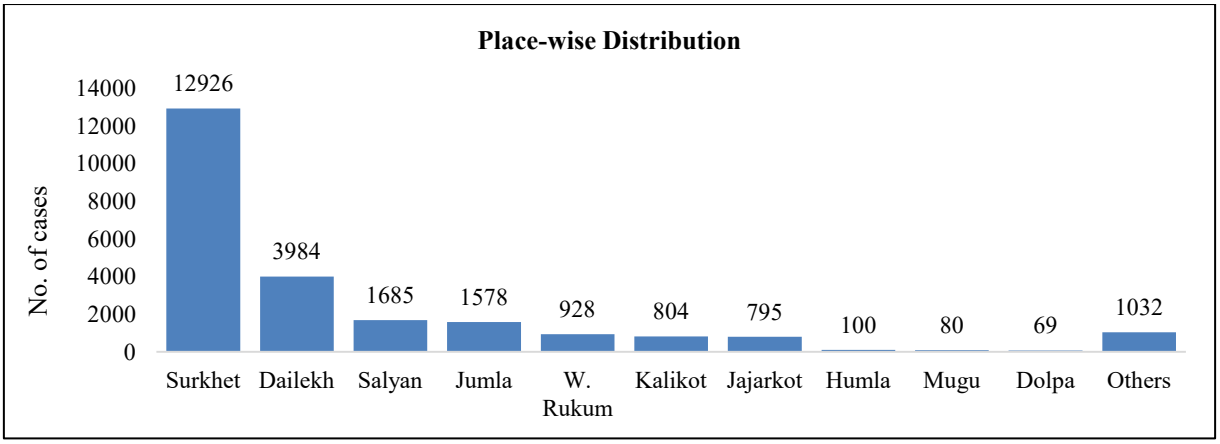


The figure -10.11.1 shows the trend of COVID-19 active cases on varies epidemiological weeks. The data extracted on 13 February 2022 shows that the number of cases rises to 3691 in the 21st week and the lowest with 3 cases in the 9th epidemiological week of 2021. It can be clearly observed that in Karnali province, there was sudden rise of cases during second wave and third wave.

Place Distribution

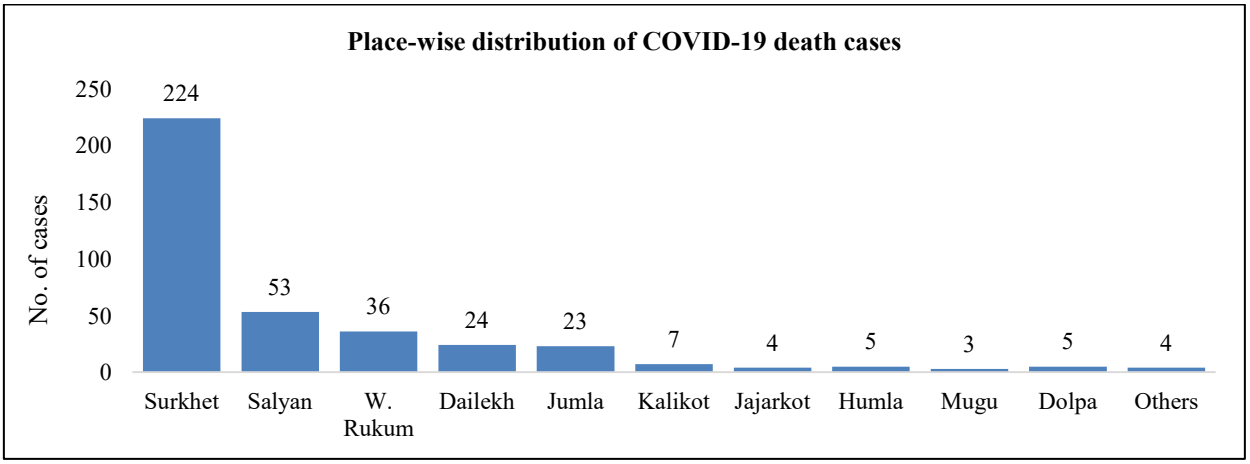
Figure 10.11.2 illustrates district wise distribution of confirmed COVID-19 cases in Karnali province dated 13 February 2022. The highest case load can be observed at Surkhet district with a total of 12926 cases. This was followed by Dailekh and Salyan with 3984 and 1685 confirmed cases respectively. Dolpa has the lowest number of confirmed COVID-19 cases (69) till date.

Figure10.11.2. Place wise Distribution of COVID-19 Cases



Similarly, among a total of 388 deaths at Karnali province, 224 deaths can be observed at Surkhet. This could be obvious if we look at the case burden. However, despite having second highest case load, Dailekh has comparatively lower number of deaths (24 deaths) due to COVID-19. The lowest number of deaths were observed at Mugu district. The figure below shows district wise distribution of COVID-19 death cases.

Figure10.11.3. Place wise Distribution of COVID-19 Death Cases

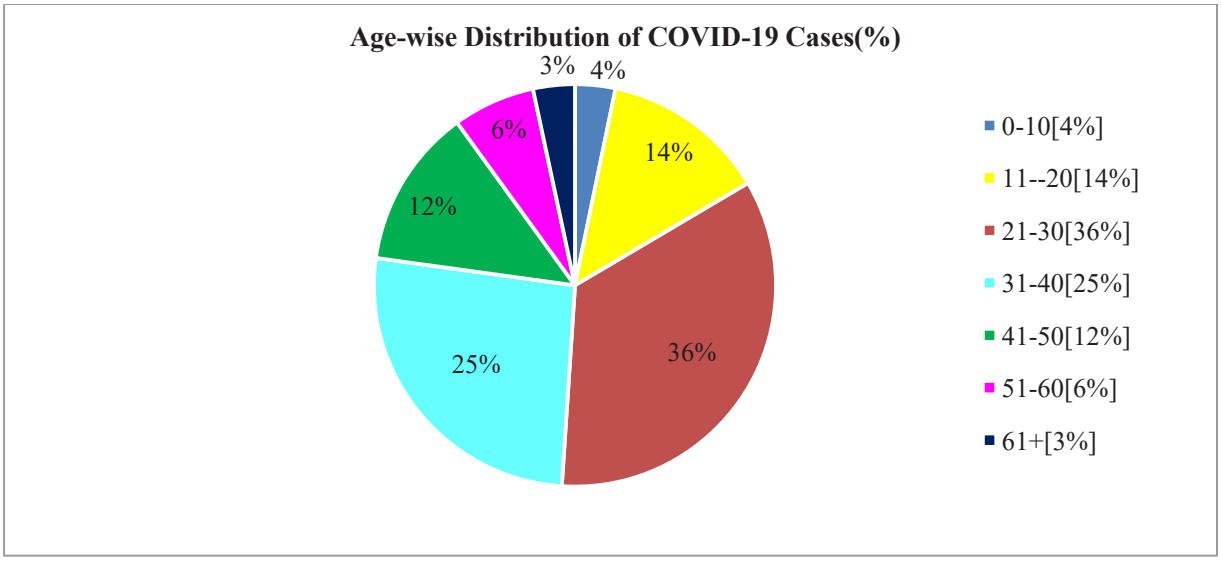


Person Distribution

Age-wise Distribution

The age wise distribution of COVID-19 cases at Karnali Province has been illustrated in the *Figure 10.11.3.* It shows that more than one third COVID-19 infection (36%) was among 21-30 age group. As this is the most active population in terms of travel and occupation. However, contrary to the Global and National data, COVID-19 infection among age group more than 60 years was found lowest (3%) in comparison with other age groups. This may be due to low mobility of older age group left behind by their younger family members to work as migrant workers.

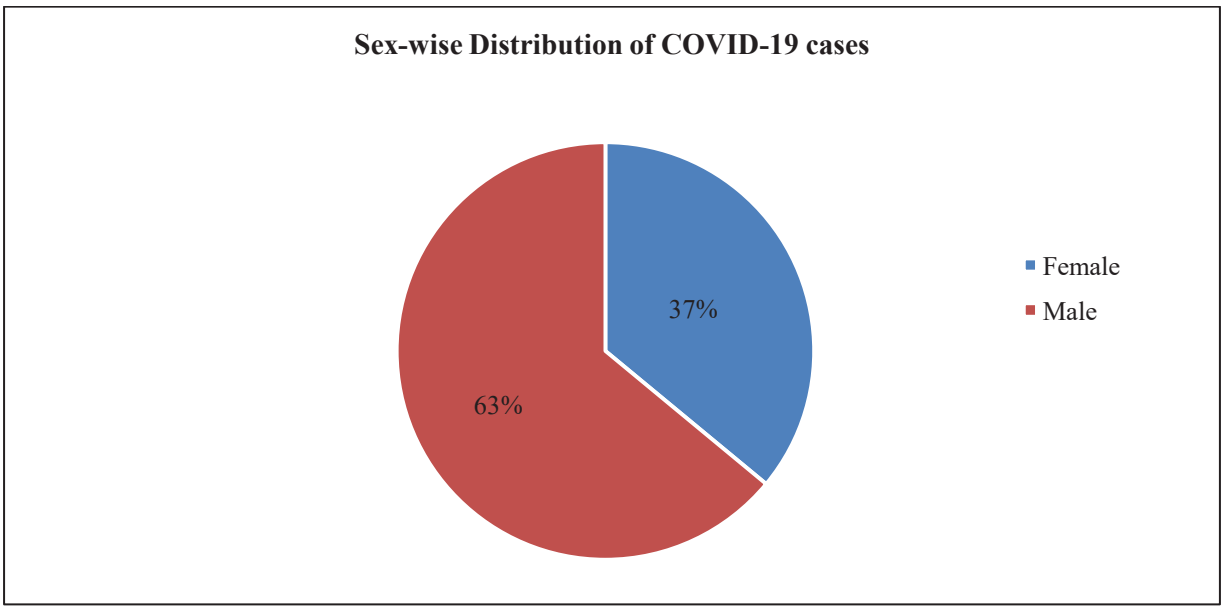
Figure 10.11.4. Age-wise Distribution of COVID-19 Cases



Sex-wise Distribution

The pie-chart below demonstrates the sex wise distribution of the confirmed COVID-19 cases at Karnali Province, till 13 February 2022. Adhering Global as well as National figures, at Karnali Province, males were found to be more infected with COVID-19 compared to females. Data shows that about two third (63%) of the confirmed COVID-19 cases were male. Among the total of 23181 confirmed cases, 14555 were males and 8626 were females.

Figure 10.11.5. Sex-wise Distribution of COVID-19 Cases



Current situation of COVID-19

Karnali province has hit hard during the second wave of COVID-19 with the highest spike of 3691 active cases. High transmissibility as well as high severity led to sudden rise in number of morbidity as well as mortality. However, the third wave was not found so brutal. The confirmed cases during the third wave rise to 1649 and a gradual fall in active cases is being observed.

The following *Table 10.11. 2* shows the situation of COVID-19 cases in Karnali province. There are 23181 confirmed cases and total 388 deaths in Karnali province. Surkhet district with 12926 cases have the highest number of confirmed cases. The death of COVID-19 cases was also highest (224) at Surkhet and lowest at Mugu district.

Table10.11.2: Situation of COVID-19

District	Current Situation (till 13 February 2022)				
	Male	Female	Total confirmed cases	Recovered cases	Deaths
Dailekh	2274	910	3184	3160	24
Dolpa	49	20	69	64	5
Humla	63	37	100	95	5
Jajarkot	499	296	795	791	4
Jumla	968	610	1578	1555	23
Kalikot	548	256	804	497	7
Mugu	64	16	80	77	3
Rukum west	554	374	928	892	36
Salyan	1203	482	985	1632	53
Surkhet	7474	5452	12926	12702	224
Others	859	173	1032	1028	4
Total	**14555**	**8626**	**23181**	**22793**	**388**

Variants of Concern

A SARS-CoV-2 variant that meets the definition of a Variant if Interest (VOI) and, through a comparative assessment, has been demonstrated to be associated with one or more of the following changes at a degree of global public health significance:
Increase in transmissibility or detrimental changes in COVID-19 epidemiology, OR
Increase in virulence or change in clinical disease presentation, OR
Decrease in effectiveness of public health and social measures or available diagnosis, vaccines, therapeutics.

Till date, there are five variants of concern given a nomenclature as Alpha, Beta, Gamma, Delta and Omicron. These variants were responsible for second wave and third wave of COVID-19 all over the world. The phenotypic impacts of variant of concern were illustrated in the table below:

Table No.10.11.3 Summary of phenotypic impacts of variant of concern*

WHO label	Alpha	Beta	Gamma	Delta	Omicron
Transmissibility	Increased transmissibility[6]	Increased transmissibility[7,8]	Increased transmissibility[8,9]	Increased transmissibility [8,10,11]	Increased transmissibility.[12–15]
Disease severity	Possible increased risk of hospitalization[16,17], possible increased risk of severe disease and death[18,19]	Possible increased risk of hospitalization[17], possible increased in-hospital mortality[20]	Possible increased risk of hospitalization[17], possible increased risk of severe disease[21]	Possible increased risk of hospitalization[22,23]	Reduced risk of hospitalization and severe disease [24–27]
Risk of reinfection	Neutralizing activity retained[28], risk of reinfection remains similar[29]	Reduction in neutralizing activity reported; T cell response elicited by D614G virus remains effective[30]	Moderate reduction in neutralizing activity reported[31]	Reduction in neutralizing activity reported[32–34]	Increased risk of reinfection [35,36]
Impacts on diagnostics	Limited impact – S gene target failure (SGTF), no impact on overall result from multiple target RT-PCR; No impact on Ag RDTs observed[37]	No impact on RT-PCR or Ag RDTs observed[34]	None reported to date	No impact on RT-PCR or Ag RDTs observed[38]	PCR continues to detect Omicron. Impact on Ag-RDTs is under investigation: Results are mixed as to whether or not there may be decreased sensitivity to detect Omicron. [12,27,39–41]

**Generalized findings as compared to previously/co-circulating variants. Based on emerging evidence, including non-peer-reviewed preprint articles and reports, all subject to ongoing investigation and revision.*

Source: COVID-19 Weekly Epidemiological Update Edition 76, published 25 January 2022

RESPONSE ACTIVITIES AGAINST COVID-19

Karnali Province has been working for the prevention and control of COVID-19 and has developed 4 main strategies.

Table.10.11.4. Strategies for Prevention, Control, and Response to COVID-19

Preparedness	Policy arrangements, preparedness, coordination and cooperation with stakeholders for risk reduction Human Resources, Self-Study, Medicine and equipment, Safety equipment Reserves, Distribution, Information and Communication and Rapid Response Team Operations at Local Level
Prevention and Control	At provincial level, operation of health desk, fever clinic, management of laboratory testing, quarantine site management, distribution and at district level, mobilization of rapid response team for prevention and control of COVID-19 Demand for additional medicines, equipment and essential materials, accumulated distribution and proper use
Treatment and service expansion	Expansion and monitoring of laboratory testing, Treatment of patients, extension of services, isolation, ventilator and laboratory examination strengthening Case Investigation and Contact Tracing and Patient Management
Restoration of health care	Rehabilitation of health services, health and nutrition for the vulnerable population Alternative medicine, psychosocial counseling and medical treatment

4.11.3 Key Activities in Response of COVID-19 Prevention and Control

Preparedness activities

- A coordinating meeting was organized under the chairmanship of the Honorable Minister for Social Development for the prevention and control of COVID-19 on January 15 (Magh 1) (the first case of COVID-19 identified in Nepal).
- Health workers were instructed and discouraged leave except the urgent work,
- Continuing medical education to hospital health workers on risk communication, prevention, control, and management of COVID-19,
- A five-bed isolation COVID Hospital has been set up in the province hospital for the cases of COVID-19 and necessary arrangement was done to set up isolation beds in the districts as well.
- Decided to set up health desks at various strategic locations in CM meeting chairmanship at CM Office,
- Instructed to all staff staff to coordinate and facilitate with the districts as the focal person of each district and Standard Checklist was prepared in order to collect hospital information while the emergency situation was raising everyday,
- A team of health workers, including doctors, was deployed to control the seasonal flu in Dolpa district on March 6 2020 and returned after the situation returned to normal
- The Provincial Health Coordination Team (PHCT) met on March 11(Falgun 28) and made important decisions on COVID-19 prevention, control, and response, as well as on areas of cooperation from multiple partners.
- Formation and activation of Health and Nutrition Cluster for Karnali province since April 2020. As provision the lead of cluster is provincial health directorate and co-lead position was played by WHO and UNICEF jointly.

Prevention, Control, and Response Phase

- Since the coordination meeting held on March 23(Chaitra 10), Province Hospital Surkhet, Karnali Institute of Health Sciences Jumla and Chaurjahari Hospital have been designated as Hub Hospitals for the treatment of COVID-19 and other district hospitals have been kept as satellite hospitals,
- After the Provincial Government coordinated with the Federal Government to operate a separate machine for RT-PCR testing in the state, the lab test of COVID-19 started from the province level on April 2, 2020(Chaitra 20 2076),
- The Ministry of Social Development was hired in contract basis as 32 Health Assistants, 10 Staff Nurses and 16 ANM i.e. on a total of 58 manpower on contract for 3 months to prevent, control, and respond to COVID-19,
- A team of health workers including doctors was deployed at 27 strategic locations in Karnali province to prevent and control COVID 19 at the local level.

Management of safety measure including medicines, PPE and required Logistics

- The essential medicines and materials stored and received in the directorate have been sent to all the districts
- Even the districts have procured and managed the essential medicines
- Medicines and equipment related to COVID-19 have been managed
- Increased number of ventilator and ICU beds in province hospital and health service offices
- Security and essential supplies sent to districts
- The Directorate has a Buffer Stock for emergency use,
- Freely distributed and regularly used medicines sent to the districts in time

Information and Communication

- All the health service offices have been instructed to be on high alert since November 29, 2019(Mangsir 13) with a focus on prevention of seasonal flu,
- COVID Focal Person has been appointed at the district level and daily updates are being received,
- Banners, flex related to COVID-19 are placed in various public places, markets, bus parks, and checkpoints,
- Broadcast through various media such as radio, TV, newspaper, and FM on the symptoms of COVID-19 and ways to prevent them,
- Production and distribution of different types of information materials for different groups(e.g. family members, community, market, business, etc. for mental health)
- Awareness programs have been conducted in provincial checkpoints,
- Information management and daily update from PHEOC

Monitoring, Supervision, and Coordination

- Regular supervision and monitoring of health desks at various checkpoints,
- Continuous monitoring of the district health service office as well as information on the condition of the fever clinic,
- Continuous facilitation for preparations of prevention, control, and response to all districts
- Collaborative supervision and facilitation of quarantine sites,
- Observation of isolation beds in the hospital and suggestions,
- Policy and implementation related to COVID-19 as well as coordination with stakeholders,

4.11.4 Achievements

- Significant works has been done in infrastructure development in the province, district, and local level. COVID-19 hospital in Kalikot (now named infectious Disease Hospital). Tropical Hospital at Chinchu Surkhet, isolation centers, HDU, ICU, NICU established at different hospitals. Oxygen plant established and operated.
- Adequate supply of essential materials related to COVID-19 (PPEs, IPC materials, antigen test kits, oxygen cylinders, oxygen concentrators, etc.)
- Preparation of guidelines for management of COVID-19 at community level, preparation of monsoon and epidemic preparation plan.
- Capacity building in critical care areas (ECCT, Paediatric ECCT trainings)

- Necessary human resources for management of COVID-19 including doctors.
- Compared to other provinces, the incidence and impacts of COVID-19 is less in Karnali.
- Health desks have been arranged at point of entry to Karnali province (Babai, Kapurkot, Kuine and Surkhet Airport)
- Laboratory testing was extended to local level including restoration of Provincial Public health laboratory (PPHL).
- Significant achievement has been made at various local levels through various activities of continuous vaccination campaigns against COVID-19.
- Cold room for storage of COVID-19 vaccines has been constructed and is in operation at the provincial level.
- For the family of those deceased from COVID-19, relief arrangement has been made.
- Risk allowance has been distributed to front line health workers.
- Budget has been allocated for ambulance arrangement and airlifting
- Health budget has been increased by prioritizing COVID-19 response.
- There has been continuous co-ordination and cooperation with the stakeholders.
- The response activity of local levels during the first wave of COVID-19 was commendable.
- Improvement in reporting and recording system due to COVID-19 and information is disseminated to the public
- Hand Washing Practice, social distancing reduces the incidence of disease and infection,
- Rise of awareness about prevention, control, and protection from disease among public,
- Support from the grassroots level for the prevention, control, and treatment of COVID-19
- Development, production, distribution of IEC materials as required

4.11.5 Key issues

- Insufficient critical care human resources on the basis of capacity and number.
- Necessary materials related to critical care such as ventilators are left unused.
- There was an enthusiastic response from local levels during first wave but there was hesitation during second wave.
- Insufficient resources to identify the variants at PCR laboratory.
- Sanctioned post are still vacant.
- Lower antigen testing.
- Use of CICT and IMU is low. Also, difficult to find out people returning from abroad.
- Issues with proper recording and reporting.
- Difficult to make people adopt healthy behavior.
- Lower COVID-19 vaccination coverage.
- Geographical difficulties.

4.11.6 Way Forward

1. Physical Infrastructure
   - Strengthening infrastructure, equipment and human resources of upgraded health institution.
2. Human resources Management
   - Appropriate action plan to fulfill the vacant posts of Karnali Province
   - Coordination and cooperation with other stakeholders for HR management
   - Capacity building of human resources on essential critical care

3. Vaccination campaign
   - Continuity of vaccination campaigns, adequate homework for effective and accessible vaccination to all citizens.
4. Continuity of health care for essential and chronic disease, quality health care and management.
5. Development and optimization of referral systems (satellite and hub hospital)
6. Expansion and continuity of services of established laboratories and provincial public health laboratory (PPHL).
7. Proper and effective implementation of public health and social measures
8. Need for collaboration and participation of local level to respond future waves of COVID-19 and other epidemic.

Covid vaccination

Covid vaccination in Nepal started from Magh 4- 14, 2077. The vaccination started on campaign approach based on priority groups based on the age, co-morbidity, immune compromised groups. In the year 2077/78, covishield and verocell vaccines were vaccinated according to the priority age groups. Second dose campaign covishield for those who received first dose covishield was conducted in Baisakh 7, 2078 and verocell started from Jestha 2078 and second dose for verocell was conducted in Asadh 2078. In the year, total number of 144218 of 18 years and above were vaccinated with 1st dose of covid vaccine whereas 52259 were vaccinate with 2nd dose of covid vaccine.
Table below shows that 7.9% of the total population (1824131) received first dose of covid vaccination regardless of any time of vaccine whereas just 2.9% received second dose of covid vaccination in the year 2077/78.

Table.10.11.4. Achievement of covid vaccination in year 2077/78 in total population

District	Target Population	1st dose achievement		2nd dose achievement	
		Number	Percent (%)	Number	Percent (%)
Dolpa	42767	6465	15.1	1671	3.9
Mugu	64651	7586	11.7	2347	3.6
Humla	59390	9745	16.4	4419	7.4
Jumla	126380	11075	8.8	4648	3.7
Kalikot	161109	11996	7.4	3254	2.0
Dailekh	300261	22344	7.4	6963	2.3
Jajarkot	200510	13104	6.5	3146	1.6
Rukum West	171361	12175	7.1	6090	3.6
Salyan	274565	16279	5.9	5442	2.0
Sukhet	423137	33449	7.9	14279	3.4
Karnali Province	**1824131**	**144218**	**7.9**	**52259**	**2.9**

Table below shows the vaccine wise achievement. A total of 115783 of 18 years and above received 1st dose of covishield vaccine and 28435 of same age group received 1st dose verocell vaccine. Likewise, a total of 28634 of 18 years and above received 2nd dose of covishield vaccine and 23625 of same age group received 2nd dose of verocell vaccine.

Table.10.11.5. Covid vaccine wise achievement in year 2077/78

District	Covishield		Verocell	
	1st dose	2nd dose	1st dose	2nd dose
Dolpa	4997	303	1468	1368
Mugu	4721	1451	2865	896
Humla	6424	1733	3321	2686
Jumla	9084	2948	1991	1700
Kalikot	10533	2177	1463	1077
Dailekh	18102	2736	4242	4227
Jajarkot	11248	1566	1856	1580
Rukum West	9902	4026	2273	2064
Salyan	13476	3105	2803	2337
Sukhet	27296	8589	6153	5690
Karnali Province	**115783**	**28634**	**28435**	**23625**

5. CURATIVE SERVICES

5.1 Curative Services

Background

Karnali Province Government 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. There are 22 hospitals, 14 PHCC, 333 HPs, 10 Ayurveda centers 37 private health facilities have been providing health services. Similarly, academic hospital, non-governmental hospitals, nursing homes, and private hospitals within the province are also providing curative services.

Objectives

- Reduce morbidity
- Reduce mortality
- Provide quality of health service (Early diagnosis, adequate and as well as prompt treatment)
- Utilize of referral system (if needed).

Major Activities Carried Out in fiscal year 2077/78(2020/2021)

- Curative health services were provided through the existing health facilities through inpatient including emergency services and outpatient services
- Emergency, in-patient and out-patient services were provided by government hospitals, INGOs/NGOs, academy hospitals, nursing homes, poly-clinics and private hospitals as per the report available.
- 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 logistics support.
- Medical camps were organized in different places of different districts.
- Supportive supervision & monitoring of public & non-public hospitals.

Analysis of Service Statistics

OutPatient Department

Outpatients' services of a district include services delivered through all service delivery outlets from health posts, PHCs, province, district, general and private hospitals within the province. As shown from the figure 5.1.1, overall, the percentage of new OPD visits is in increasing trend. The highest percentage of OPD visits was reported in Rukum West (140%) followed by Humla (131%) in FY 2076/77. Moreover, seven districts (Humla, Rukum west, Mugu and Dolpa) have outpatient new visits higher than the total target population of the district. The lowest percentage of OPD visits was reported in Dailekh (81%) in reporting fiscal year.

Figure 5.11. OPD Visit as percentage of Total Population for fiscal year 2075/76 to 2077/78

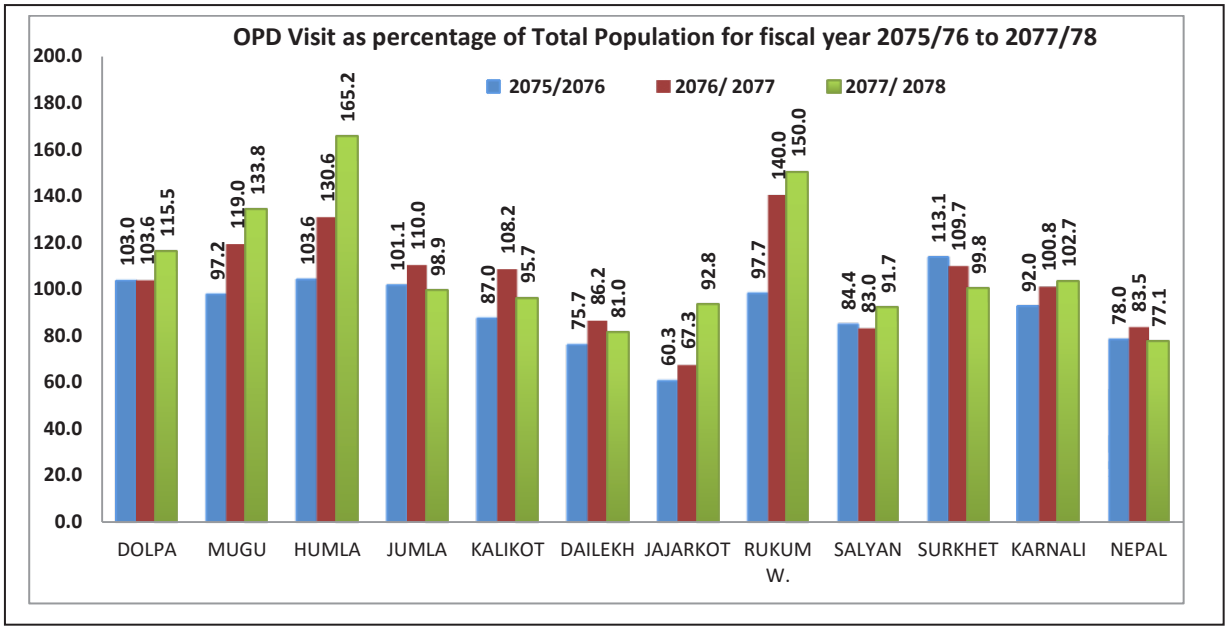
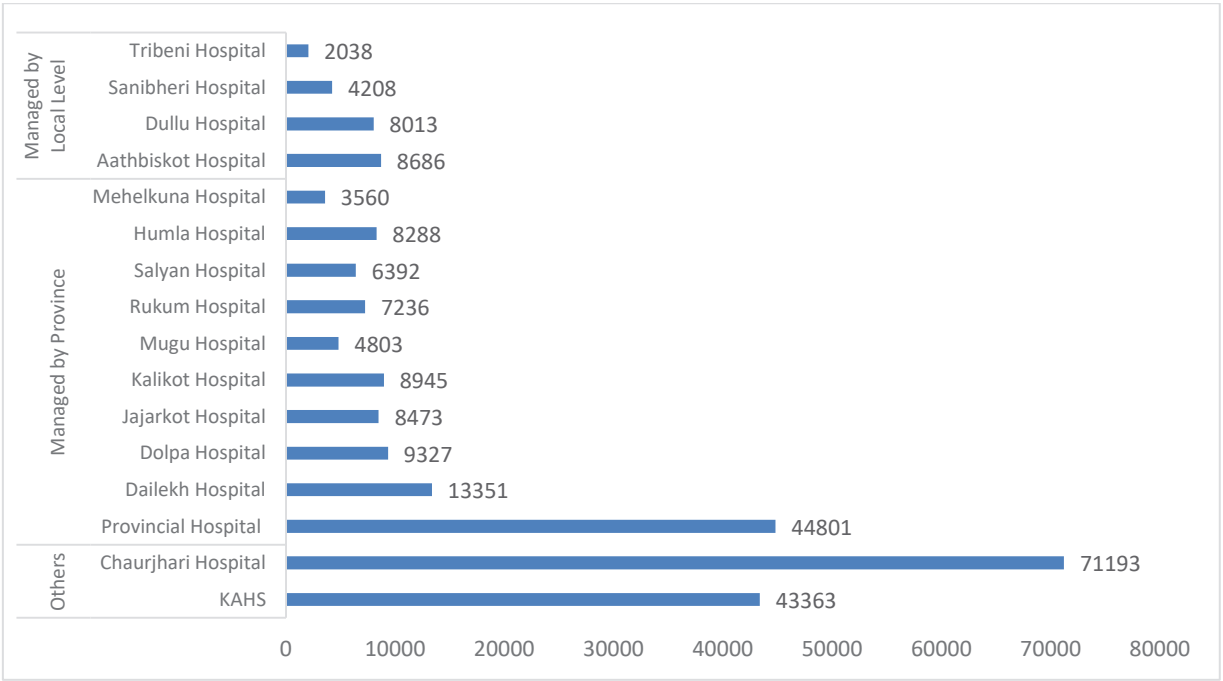


Figure 5.1.2. Total Number of New OPD visit by hospital for fiscal year 2077/78



In-Patient Department

As shown from the figure 5.1.2, The total number of new in patients admitted 43,136 in hospital of Karnali in fiscal year 2077/78.

Table.5.3. Total inpatients admission for fiscal year 2075/76 to fiscal year 2077-78

Organisation unit / Period	Fiscal year 2075/76	Fiscal year 2076/77	Fiscal 2077/78
Dolpa	296	628	507
Mugu	1004	1034	1244
Humla	714	786	925
Jumla	3307	4156	4464
Kalikot	1215	1112	1283
Dailekh	4014	3222	3257
Jajarkot	1113	395	337
Rukum West	8745	8391	7820
Salyan	3487	3078	3186
Surkhet	19619	19541	20113
Karnali Province	43514	42343	43136

As shown from the table above, the total number of hospitals admissions of major public and non-public Hospitals. Among hospitals managed by the Province, the highest No of admission was reported by Surkhet (20,113) followed by Rukum West (7,820) and Jumla (4464). Lowest hospital admission was reported by Jajarkot (337) and Dolpa (507).

Table: 5.1.1 Summary of Inpatient Outcome

Out of Total 42977 patients' discharged from hospital, 94.2 % of them recovered in fiscal year 2077/78. The death rate is 0.64 percent of Karnali province.

Age Group		≤ 28 Days	29 Days-1 Year	01-04 Years	05-14 years	15-19 Years	20-29 Years	30-39 Years	40-49 Years	50-59 Years	≥ 60 Years
Recovered/Cured	Female	3087	624	772	1227	2845	9435	2863	1455	1153	2278
	Male	3240	785	1072	1482	910	1369	1312	1160	1048	1982
Not Improved	Female	10	4	3	14	19	47	22	21	12	24
	Male	4	2	10	6	16	14	22	19	20	30
Referred Out	Female	37	24	32	46	79	227	88	54	52	91
	Male	56	41	31	76	34	55	56	64	53	86
DOR/LAMA/DAMA	Female	47	21	25	31	46	132	48	29	35	81
	Male	43	28	30	37	24	34	52	39	45	57
Absconded	Female	1	1	1	5	7	21	12	5	2	6
	Male	3	3	6	7	2	9	11	2	7	4
Death < 48 Hours	Female	30	1	2	6	2	7	3	9	3	25
	Male	34	3	1	1	1	1	6	9	7	23
Death ≥ 48 Hours	Female	12	1	1	1	2	3	1	5	11	14
	Male	9	0	0	0	1	2	4	8	15	14

Out of Total 42932 patients admitted to different hospital of Karnali province in fiscal year 2076/77. Among them 40,449 recovered, 322 did not improved, 1237 were referred out, 721 left against medical advice and 59 were absconded. Additionally, 120 people died within 48 hours of admission and 111 persons died after 48 hours of admission.

Figure 5.1.3. Bed Occupancy Rate of government owned hospitals in fiscal year 2077/78

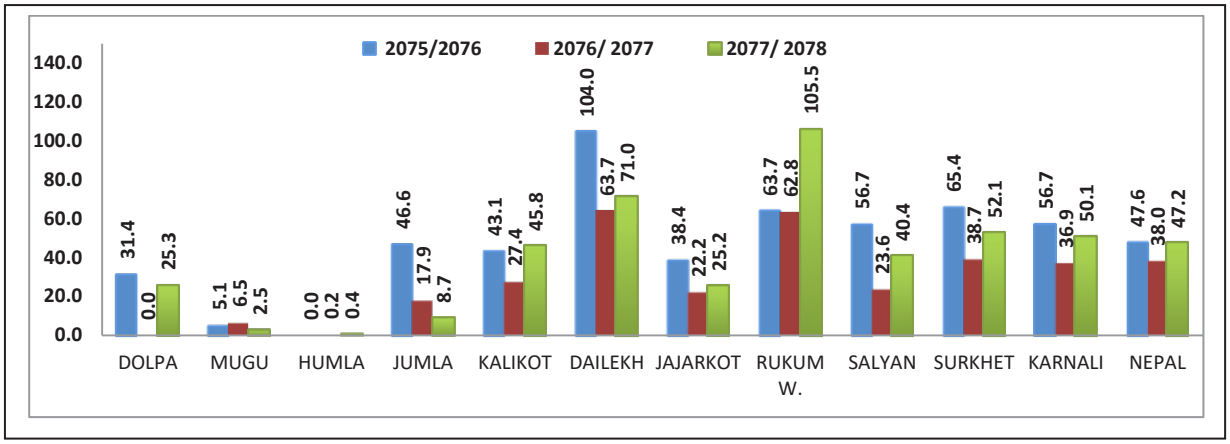


Figure 5.1.4 Bed occupancy rate of major hospital of Karnali for last three fiscal year 2075/76 to 2077/78

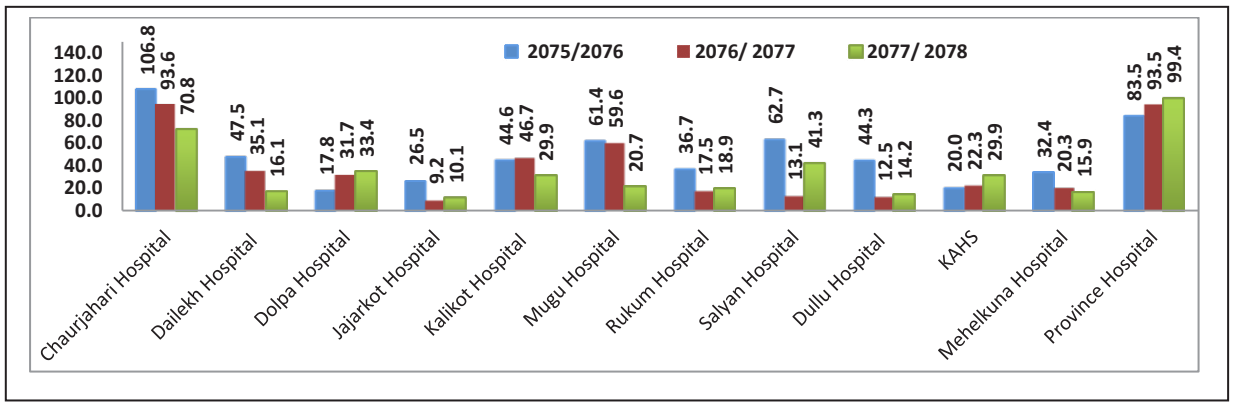


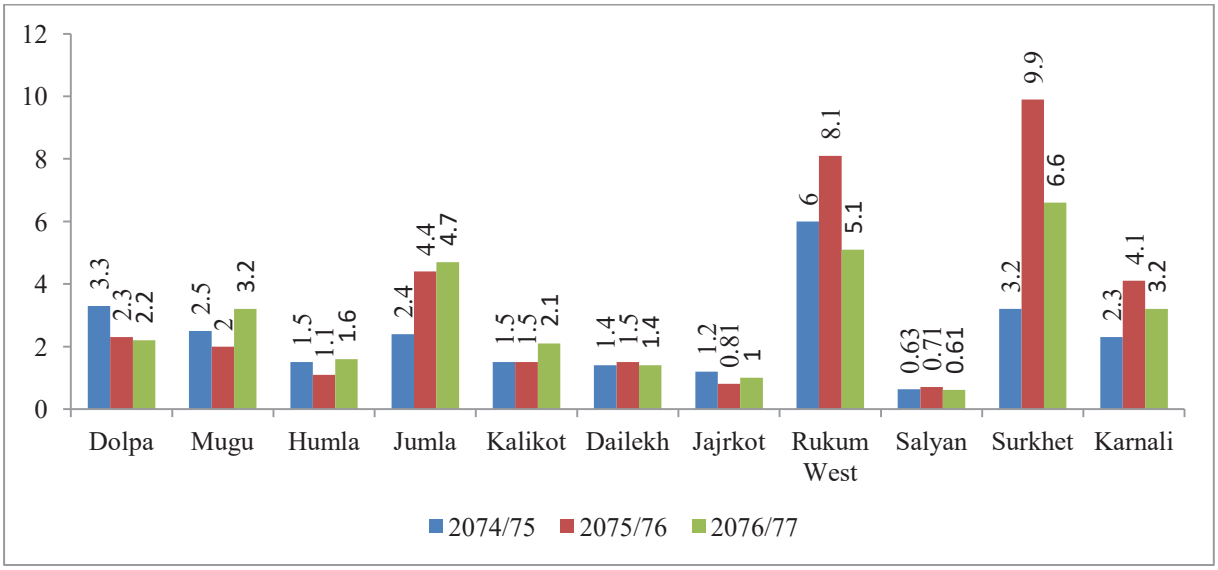
Table below depicts the average bed occupancy rate of non-government owned hospitals in the province for last three fiscal year.

Table. Distribution of bed occupancy rate for three different fiscal years for 2075/76 to fiscal year 2077/78

Period	Fiscal year 2075/76		Fiscal year 2076/77		Fiscal year 2077/78	
Organisation unit / Public/Non-Public	Non-Public	Public	Non-Public	Public	Non-Public	Public
Dolpa	0	17.8	0	31.7	0	33.4
Mugu	0	61.4	0	59.6	0	20.9
Humla	0	110	0	29.2	0	36.9
Jumla	0	20	0	22.3	0	29.6
Kalikot	0	44.6	0	46.7	0	29.9
Dailekh	0	47.1	0	28.9	0	15.8
Jajarkot	0	26.5	0	9.2	0	10.9
Rukum West	123.8	81	60	64.1	59.9	36.8
Salyan	0	62.7	0	13.1	0	41.3
Surkhet	14.9	73.8	16	72.9	19.4	68.7
Karnali Province	21	49.5	22.6	41	23.3	37.3

Emergency Department

Figure 5.1.4. Percentage of Population Utilizing Emergency Services for fiscal year 2075/76 to 2077/78



As depicted from Figure 5.1.4, the percent of population utilizing emergency services is 3.2 in fiscal year 2076/77, a slight decrease compared to the previous year (4.1%). As far as the districts are concerned, Surkhet has the highest percent (6.6%) of emergency visits, followed by Rukum-west (5.1%) & Jumla (4.7%) while Salyan & Jajarkot reports lower utilization of hospital emergency services.

Table5.1.2. MMS Score of Hospital

S. No.	Name of Hospital	Level	Total Score point of MSS	MSS score	
				Fiscal year 2076/77	Fiscal year 2077/78
1	Jajarkot District Hospital	Secondary A	939	37%	58%
2	Mehalkuna Hospital	Secondary A	939	43%	55%
3	Dailekh District Hospital	Primary	761	78%	83%
4	Kalikot District Hospital	Primary	761	57%	-
5	Mugu District Hospital	Primary	761	38%	-
6	Humla District Hospital	Primary	761	55%	-
7	Dolpa District Hospital	Primary	761	43%	-
8	Rukum West District Hospital	Primary	761	60%	65%
9	Salyan District Hospital	Primary	761	66%	62%
10	Dullu Hospital	Primary	761	57%	52%
11	Province Hospital Surkhet	Secondary B	1356	-	45%

Table 5.1.2 shows the MSS score for different hospital of the province. The MSS Score range in between 42% (Province hospital) to 83% (Dailekh hospital) for fiscal year 2077/78. Since MSS is continous program, there is ongoing MSS grading in current fiscal year 2078/79.

5.2 Ayurveda and Alternative Medicine

Background

Ayurveda and alternative medicine branch (AAMB) primarily manage the delivery of Ayurveda services and promotes healthy lifestyles through its network facilities across the Karnali province. The Ayurveda and alternative medicine branch on of the ministry of social development (MOSD) Karnali province is responsible for programming, management of information, and supervision, monitoring and evaluation of the Ayurveda service programmes.

Ayurveda is an ancient medical system and indigenous to Nepal with deep roots. The sources of ayurvedic medicine are medicinal herbs, minerals, and animals' products. The system works through simple and therapeutic measures along with promotive, preventive, curative and rehabilitative health of people. Karnali province Ayurveda health services are being delivered though two Zonal Ayurveda Dispensaries (Surkhet, Jumla), 8 District Ayurveda Health Centers, 18 Ayurveda Dispensaries across the Karnali province. The Ayurveda and alternative medicine unit in the ministry of social development is responsible for formulating policies and guidelines for Ayurveda and other traditional medical system.

Objectives:

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

Strategies:

- Provide preventive, promotive & curative health services in the rural areas.
- Establishment & development of Ayurveda institution.
- Strengthen & expand the Ayurveda health services.
- Develop skilled manpower required for various health facilities.
- Strengthening of monitoring & supervision activities.
- Development of information, education & communication center in the province.
- Establishment of District Ayurveda center & Ayurveda Dispensaries.
- Province level training for the capacity buildup of its human resources.
- Analysis of Achievement.

Table 5.2.1. Service Statistics for Fiscal Year 2077/078

District	OPD	Panchakarma	Surgery	Yoga	Senior Citizen	Lactating Mother program	PHC/ORC
Dolpa	4951	144	11	77	578	295	1395
Mugu	7502	2745	0	0	2227	78	656
Humla	8058	936	0	13	973	446	1807
Jumla	8692	2558	0	30	1364	90	2514
Kalikot	6246	1132	11	158	539	156	541
Dailekh	21930	4376	105	118	3244	748	950
Jajarkot	563	0	0	0	230	116	281
Rukum West	3330	1053	0	191	1091	579	1322
Salyan	14522	3916	426	4102	6562	780	844
Surkhet	27252	3016	110	11270	4953	778	2484
Total	103046	19876	663	15959	21761	4066	12794

Achievement:

The table provides information about clients served by various district Ayurveda hospital and service delivery points at districts. There were 130059 clients served under Ayurveda program for fiscal year 2077/78.

Table 5.2.1. Distribution of total clients visiting the OPD services in Province Ayruveda

Fiscal years	Annual OPD	Other Services	Total
2074/75	14130	6414	20544
2075/76	124490	48313	172803
2076/77	71137	23209	94346
2077/78	103046	27013	130059

Table 5.2.2. Services statitistics for last three fiscal years from 2074/75 to fiscal year 2076/77

Services	FY 2074/75	FY 2075/76	FY 2076/77	FY 2077/78
OPD	14131	124490	71137	103046
Panchakarma	418	13904	10483	9376
Istanpayi	494	3785	1120	1597
Senior Citizen	3148	7692	3506	8217
Free Health Services	563	4787	1752	2625
PHC ORC	1791	1809	3510	0
Charsutra	11	18	48	0
yoga,0ther		16318	2790	5198
Total	20544	172803	94346	130059

Table 5.2.3. Service delivery from different Ayruveda Health facilities in fiscal year 2077/78

Health Facilities	Total Clients Served
Province Ayruveda,surkhet	30436
Ayurveda health center jumla	16841
Ayurveda health center Humla	9035
Ayurveda health center Dolpa	6046
Ayurveda health center Kalikot	6416
Ayurveda health center Mugu	10643
Ayurveda health center Dailekh	18783
Ayurveda health center Jajarkot	2084
Ayurveda health center Salyan	23001
Ayurveda health center Rukum west	6774
Total	**1,30,059**

Table5.2.4. Top ten morbidity among the OPD cases in Ayruveda

Diseases	Number	% of Top Morbidity
External APD	17999	35.0
External Udarroga	5499	10.7
External Kas	4849	9.4
External Amavata	4453	8.7
External Swash Ashtm	4016	7.8
External Balroga	2962	5.8
External Anamarda	2936	5.7
External Sandhivata	2923	5.7
External Arsha	2906	5.6
External Vatrakta	2896	5.6

Issues:

- Appropriate recording & reporting system
- Experts and qualified manpower
- Financial support for district & local level Ayurveda institutions to conduct monitoring supervision & publicity program
- Poor storage & dispensing practices of medicines in curative aspects of Ayurveda institutions.
- Inter sectoral co- ordination
- Lack of adequate human resources and allocation of sanctioned post
- Limited infrastructure
- No upgrading Ayurveda Ausdhalaya into Province Ayurveda hospital
- Allocation of only one office in whole province
- No alignment of Ayurveda into health insurance program

5.3 Health Laboratory Service (Quality Control)

Background

Quality control unit of Health Service Directorate Surkhet is responsible for providing laboratory support (especially TB) within the province by conducting laboratory training (basic and refresher), logistics supply and supervision.

Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

- Re-checked the Sputum slide for AFB according to the LQAS system.
- Chemical (AFB) preparation and distribution throughout the Province.
- TB microscopy basic training for BHS lab staff
- Malaria microscopy (Basic refresher) training for BHS lab staff
- LQAS (Lot Quality Assurance Sampling) trainings
- Basic laboratory training
- Supervision and onsite coaching
- Basic Leprosy slite Skin smear training

Analysis of Service Statistics

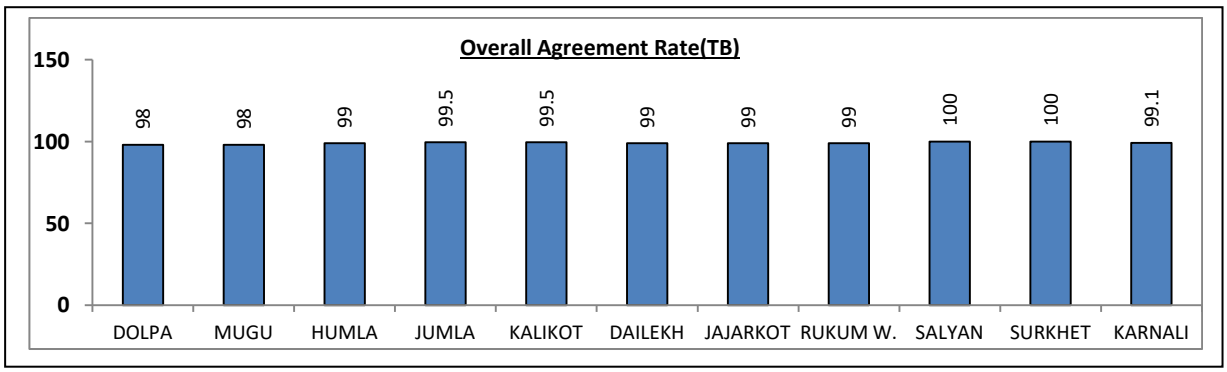
Table 5. 3. 1. Screening & Quality Control Summary of Fiscal year 2077/78*

Microscopy Centers	Total Screened Slides for AFB (Sputum)	MC report					Cross checked				
		Negative Slides	Positive Slides	Positivity Rate	QC Total	MC(-)	MC(+)	False (-)	False (+)	Number of Agreement	Rate of Agreement (%)
47	13660	13031	629	3.2	3895	3692	203	25	3	3864	99

Source: QC Lab report, *only the information of Q1 of Fiscal year 2077/78

During fiscal year 2077/78, a total of 13,660 slides were screened for the TB diagnosis. Among those around 629 cases positive and 13031 were negative. About 3895 slides were rechecked for quality assurance purpose. The provincial overall agreement rate was 99.0% that is almost stagnant compared to the previous year. However, due to the COIVD 19 pandemic in Nepal, limited performance on QC Laboratory report was obtained.

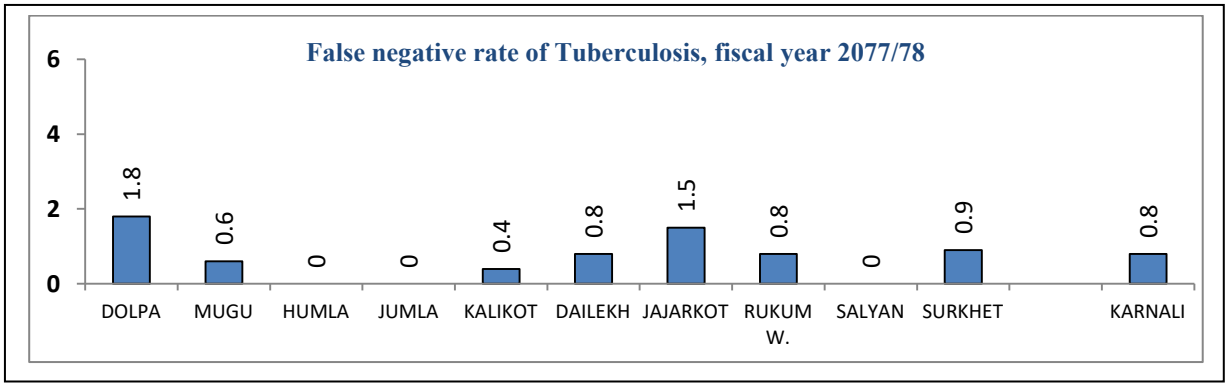
Figure 5. 3. 1. Overall Agreement Rate (TB) for fiscal year 2077-78



Source: QC Lab report, *Only the information of Q1 of fiscal year 2077/78

The above figure 5.3.1 shows the overall Provincial agreement rate is 99.1 % in fiscal year 2077/78. All the district except Surkhet and Salyan reported less than 100 percent overall agreement rate for TB.

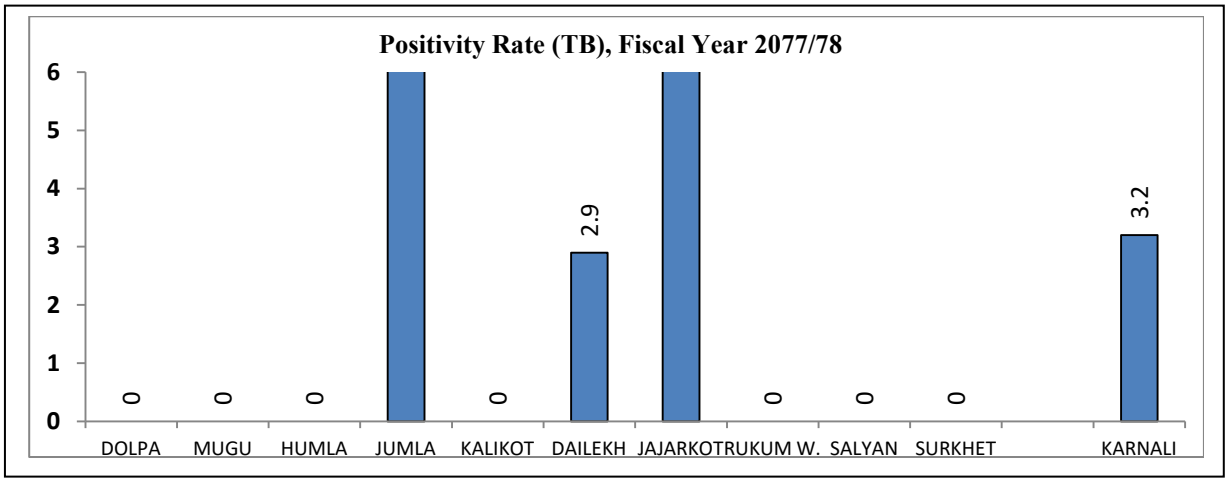
Figure 5. 3. 2. False Negative Rate of Tuberculosis 2077-78*



Source: QC Lab report, * only the information of Q1 of fiscal year 2077/78

As shown in the figure 5.3.2 Dolpa has the highest percent of false negative report (1.8%), followed by Jajarkot (1.5%). Humla and Jumla did not report any false positive rate for fiscal year 2077/78. Overall false negative rate of the province is 0.8%.

Figure 5. 3.3. Positivity Rate (TB) for fiscal year 2077/78



Source: QC Lab report, * only the information of Q1 of fiscal year 2077/78

The National sputum slide positivity rate is 3.2 % but now a days due to contact tracing, Microscopic camp and Gene-xpert facility the positivity rate is significantly decreased.

Issues

- Lack of mechanism of collection/ transporation of QC slides is difficult from the periphery
- TB Basic microscopy training Manual and Module need to be revised
- Poor quality of microscope in local level's hospital
- Lack of skilled HR in local level for laboratory management
- No proper standards in recruitment of Human Resource in local level

6. SUPPORTING PROGRAMS

6.1 Personnel Administration

Background

The administration section of the Provincial Health Service Directorate takes the responsibility to organize day-to-day internal administrative and personnel management. This section is the focal point for the general administration and human resource management. Major tasks carried out by the section are attendance management, correspondence, contract recruitment and performance appraisal management etc.

Major activities carried out in fiscal year 2077/78

The following were the major activities carried out in province during fiscal year 2077/78.

- Collected human resource information from health facilities & districts as per need
- Managed annual performance appraisal for different post personnel & health workers
- Regular technical support to the districts of Karnali for implementation of program
- Supervision and monitoring to districts to solve the issues of human resources management

Table 6.1. 1. Human Resource Situation

Institutions	Sanctioned Post	Filled Posts	Vacant Posts	Filled%
Health Service Directorate	37	21	16	56.75
Province Hospital	325	72	253	22.15
Province Ayurveda Aushadhayala	8	8	0	100
Public/Health Service Offices	472	191	277	40.46
Mehelkuna Hospital	53	22	31	41.50
Total	**895**	**314**	**577**	35.08

HR situation of Public/Health Service Offices

District	Doctors			Paramedics			Nursing		
	Sanctioned	Filled	Contract	Sanctioned	Filled	Contract	Sanctioned	Filled	Contract
Dolpa	10	1	7	7	4	5	10	2	4
Mugu	9	2	6	7	3	4	10	3	5
Humla	6	2	7	7	1	4	10	2	2
Kalikot	9	2	5	7	2	9	10	4	8
Dailekh	13	0	11	6	5	17	12	4	21
Jajarkot	13	1	14	6	6	5	12	4	9
Rukum	9	0	10	7	6	10	10	2	7
Salyan	10	1	12	12	7	0	8	2	0
Surkhet	0	0	0	3	3	0	1	1	0
Provincial hospital	122	17	65	12	11	19	133	35	107
Melkuna Hospital	15	3	10	6	3	4	11	10	2
Ayurveda hospital	1	1	2	0	0	0	0	0	0
HSD	0	0	0	2	2	0	2	1	0
Total	161	27	89	78	46	70	234	77	106

Table 6.1.2 No. of Human Resource at Local level

District	Doctors	Paramedics	Nurse
Dolpa	1	77	53
Mugu	2	99	73
Humla	0	95	96
Jumla	0	126	108
Kalikot	1	152	130
Dailekh	11	236	255
Jajarkot	3	151	132
Rukum	2	138	112
Salyan	2	185	147
Surkhet	4	250	213
Total	26	1509	1319

Source: Public/ health office provided on Provincial Annual Review 2077/78

6.2 Financial Administration

Background

Financial Section of the Health Service Directorate takes the responsibility of obtaining timely disbursement of funds; keeping books of account, preparing & submitting financial report, and facilitating internal & external auditing that are necessary to support the effective implementation of health programs.

Major Activities carried out in fiscal year 2077/78

The following were the major activities carried out in province during fiscal year 2077/78

- Prepared monthly & trimester reports and submitted to treasury offices & province.
- Prepared yearly report and submitted to treasury offices & province
- Facilitation for Internal and external audit
- Assisted for carrying out different programs and activities e. g. trainings, seminars, reviews, monitoring-supervisions, assessments, procurements etc. in financial perspective.
- Facilitated for clearing irregularities in significant amount.
- Supervision and monitoring of financial activities carried out by different health related public offices within the province
- eBiding for procument of logistics

Target Vs Achievement for fiscal year 2077/78

Out of Rs. 390249000 budgets allocated for HSD to execute different health program, a sum of Rs. 209376402 (53.65%) was absorbed during fiscal year2077/78. Table below summarizes the budget allocation and expenditure by line items of Health Service Directorate.

Table 6.2.1. Releases and Expenditure by Program Activities- HSD (2077/78)

Budget Code	Allocated		Total	Expenditure		Total	Remarks
	Government of Nepal	Foreign Aid		Government of Nepal	Foreign Aid		
350001203	195693000	20142000	215835000	133675818	9092702	142768520	FC
350020113	65760000	7465000	73225000	4176907	2456168	44224076	FC
350021013	54389000	0	54389000	6849857	0	6849857	CC
350021014	46000000	0	46000000	14746187	0	14746187	CG
350020114	800000	0	800000	787762	0	787762	NG

FC- Federal Current, CC- Covid Current, CG- Covid Grant, NG- Non-conditional Grant

Issues

- Late release of authorized letter & budget

6.3 Planning, Monitoring, and Information Management System

Background

Health Management Information System (HMIS) is important for planning, programming, budgeting, implementation & monitoring evaluation of programs to ensure access availability & quality of the services delivered through different outlets.

Major Activities carried out in fiscal year 2077/78

- Collect information to support planning, monitoring, and evaluation (PME) of all health programs;
- Strengthen bottom-up planning process from local to the district level;
- Expand regular periodic performance review down to community level;
- Strengthen existing monitoring / supervision system at each level;
- Conduct performance review meetings and operationalize the outcomes;
- Information dissemination improvement using advance and contemporary technology.
- Expand computerized information system at all levels.
- Human resource development for health information management, use of information technology, monitoring, and evaluation.
- Develop and implement integrated supervision and monitoring plan.
- Annual performance reports preparation & publication in district and provincial level.
- Monthly provincial level reports.
- District level training on HMIS tools.
- Provincial level training on HMIS software i.e. DHIS-2
- Provincial/District review and planning meetings.
- Annual & monthly work plan preparation.
- HMIS tools supply and distribution.
- Routine data quality assessments.
- Supervision & monitoring of private health facilities.
- Integrated supervision & onsite coaching.
- Data verification and review meetings.
- Maintenance of email, internet, telephone, computer, and photocopy.
- Orientation and capacity building of local level health care manager on program planning

Analysis of Service Statistics

Table. 6.3.1 Health Facilities reporting on DHIS2 in fiscal year 2077/78

Organization	Academy	Secondary Hospital B	Secondary Hospital A	Basic Health Service Center	Community Health Unit	Dental Clinic	Eye Centre	General Hospital	Health Post	Nursing Home	Poly Clinic	Primary Health Centre	Primary Hospital	Private Hospital	Urban Health Centre
Dolpa	0	0	0	6	6	0	0	0	23	0	0	0	1	0	0
Mugu	0	0	0	19	9	0	0	0	24	0	0	1	2	0	0
Humla	0	0	0	8	16	0	0	0	26	0	0	0	2	0	0
Jumla	1	0	0	3	4	0	0	0	29	0	0	1	0	0	0
Kalikot	0	0	0	47	8	0	0	0	28	0	0	1	3	0	0
Dailekh	0	0	0	21	12	0	0	0	56	0	0	2	2	0	3
Jajarkot	0	0	1	39	11	0	0	0	31	0	0	3	0	0	0
Rukum West	0	0	0	38	0	0	0	1	24	0	2	1	5	3	1
Salyan	0	0	0	29	6	0	0	0	45	0	0	2	2	0	4
Surkhet	0	1	1	29	29	10	1	2	47	2	12	3	0	3	9
Karnali Province	1	1	2	239	101	10	1	3	333	2	14	14	17	6	17

Table 6. 3.2. Reporting Status by Health Institutions (fiscal year 2077/78)

District	Reporting %						PHCORC	UHCC
	Hospital	PHC	HP	BHSC	EPIC	FCHV		
Dolpa	100	100	100	NA	76.3	65.6	72.2	NA
Mugu	100	100	100	100	87.9	52.7	49.8	NA
Humla	100	100	100	100	83.2	61.3	59.4	NA
Jumla	100	100	100	100	97.6	85.4	81.7	NA
Kalikot	100	100	100	100	99.0	91.8	62.4	NA
Dailekh	100	100	100	100	94.9	96.7	99.2	100
Jajarkot	100	100	100	100	91.7	99.3	61.5	NA
Rukum West	100	100	100	100	96.7	81.2	73.2	100
Salyan	100	100	100	100	94.3	97.9	85.3	100
Surkhet	100	100	100	100	97.7	97.0	86.4	100
Karnali	100	100	100	100	93.4	87.9	77.1	100

All Public Hospitals, & PHCCs, reported to HMIS in fiscal year 2076/77. In average HP, ORC, EPIC & FCHV in the province were 99 %, 79.8%, 95.1% & 88.8%, respectively during fiscal year 2075/76.

Table 6. 3.3. Average Number of People Served (Fiscal year 2077/78)

District	Average Number of People Served		
	EPIC (Per Clinic)	FCHV (Reporting Period)	ORC (Per Clinic)
Dolpa	9.4	6.1	10.7
Mugu	12.6	8.0	11.9
Humla	14.2	7.0	16.9
Jumla	21.9	16.3	20.2
Kalikot	22.6	31.3	29.4
Dailekh	17.2	18.8	19.7
Jajarkot	25.0	30.9	24.5
Rukum West	27.2	17.6	39.2
Salyan	16.3	24.0	19.1
Surkhet	26.6	17.3	23.1
Karnali	**20.0**	**19.1**	**21.0**

The table 6.3.3 shows district wise average number of people served per clinic & per reporting period EPI clinic, FCHV & ORC. Out -reach clinics & EPI clinics have served on an average of 21 people per clinic , while FCHVs have served 19 people in average per reporting period (month).

Reporting status of hospitals

Analysis of hospital services are based on reports mainly from public hospitals. Not all non-public hospitals are regularly reporting to HMIS. Overall, at the provincial level the reporting status of hospitals was 100 % in 2075/76, 94.2% in 2076/77 and 93.4% in 2077/78 (Table 6.3.4).

Table 6.3.4. Hospital reporting rate of government hospitals of Karnali by districts

Organization	Hospital Reporting rate		
	2075/76	2076/77	2077/78
Karnali Province	100	94.2	94.3
Dolpa	100	100	100
Mugu	100	100	100
Humla	100	100	100
Jumla	50	66.7	100
Kalikot	100	66.7	77.8
Dailekh	41.7	65	91.7
Jajarkot	50	50	50
Rukum West	53.6	100	100
Salyan	100	100	100
Surkhet	100	100	94.6

Issues

- Insufficient and delayed supply of HMIS tools
- Timeliness, completeness & accuracy in HMIS reporting
- Online reporting by health facilities

6.4 Logistic Management

Background

An efficient management of logistics is crucial for effective and efficient delivery of health services as well as ensuring rights of citizens having quality health care services. Overall objective of logistic management is to plan and carry out the logistics activities for the uninterrupted supply of essential medicines, vaccines, contraceptives, equipment's, HMIS/LMIS forms and allied commodities (including repair and maintenance of bio-medical equipment's) for the efficient delivery of healthcare services from the Government health institutions.

To systematize the management of logistics, the Logistics Management Information System (LMIS) unit was established in LMD in 1994. LMIS Unit collects and analyses quarterly (three monthly) LMIS reports from all the health facilities across the country; prepares report and disseminates it to

- Forecast annual requirements of commodities for public health programs
- Help to ensure demand and supply of drugs, vaccines, contraceptives, essential medical supplies at all levels;
- Periodically monitor the national pipeline and stock level of key health commodities.

Major Activities Carried Out in fiscal year 2077/78 (2020/2021)

The following were the major activities carried out during fiscal year 2077/78.

- Receiving and Storage of drug, vaccines & other commodities supplied from center (MD, EDCD, FWD, NTC, NPHL) and HSD
- Repacking and supply of drugs, vaccines & key commodities including essential drugs and other items of regular program.
- Monitoring and supervision on logistics activities.
- Monthly and trimester reporting through Web-based LMIS.
- Provide feedback to the concern district after receiving the quarterly LMIS reports.
- Support to national campaigns.

Table 6. 4. 1. Quarterly LMIS Reporting Status Fiscal year 2076/77 and 2077/78.

S. N.	Districts	FY 2076/77				FY 2077/78			
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1	Dailekh	100	100	100	100	100	100	100	100
2	Dolpa	91.67	100	91.67	100	100	100	91.67	91.67
3	Humla	81.48	77.78	70.37	66.67	100	88.89	100	81.48
4	Jajarkot	80.56	94.44	72.34	97.22	97.14	100	100	100
5	Jumla	100	96.67	93.33	100	93.33	100	100	100
6	Kalikot	100	100	100	100	100	100	100	100
7	Mugu	100	100	100	100	100	100	100	100
8	Rukum West	100	100	100	100	100	100	100	100
9	Salyan	100	100	100	100	100	100	s100	100
10	Surkhet	98.04	98.04	98.04	100	98.04	100	100	100

Note: This report is only of HP, PHC and Hospital

The above table 6.4.1. depicts district wise quartery LMIS reporitng status of 2076/77 and 2077/78 of Karnali Province. It reveals that in previous fiscal Year 2077/78, LMIS reporting status of Dailekh,Kalikot, Mugu,Rukum West and Salyan is cent percent for all quarters. However, it seems that Humla has the low LMIS reporting status compared to four quarter of other districts .

Issues

- Timely and complete LMIS reporting
- Inadequate space for storage of essential drugs.
- Insufficient human resources for logistic management
- Delay in medicine and equipment procurement and transport contract
- Data on Online e-l IMS were not updated timely due to slow software/internet.
- Lack of Training and Monitoring (onsite couching) of Online LMIS to Computer Operator.
- Lack of Technically sound staff

6.5 Health Education Information and Communication

Background

The Health Education, Information and Communication program is one of the most important supporting health programs which is as old as the modern health services in Nepal. The general objective of the program is to raise the health awareness of the people to promote health status and to prevent disease through full utilization of available resources. With the behavior change communication efforts, people will adopt and sustain healthy lifestyles, use judiciously and wisely the health services available to them and make decisions both individually and collectively to improve their health status.

The specific objectives of the program are

- To increase awareness and knowledge of the people on health issues.
- To increase positive attitudes towards health care;
- To promote healthy behavior.
- To increase participation of the people in health intervention programs at all levels of health services through the mobilization of local leaders, FCHVs, religious people and community people itself.
- To increase access to new information and technology on health and health programs for the people.

Strategies

- Promotion of SBCC through IEC activities at all levels.
- Use of individual, group and mass media in health education, information, and communication along with social mobilization for disseminating health messages through health institutions involving its volunteers as well.

Major Activities Carried Out in fiscal year 2077/78(2020/2021)

- Celeberation of Full Mask campaign in Karnali to control spread of COVID 19
- Community health promotion campaign and interaction in the context of Covid 19 Pandemic through development of IEC materials targeting community people, parents, shopkeeper, customer and organized campaign in various places of Karnali.
- Awareness program for disease control on Malaria, Kalazar, Tuberculosis, Lymphatic Filariasis, dengue, leprosy and VPDs producing and distributing health education materials
- FM radio program production on COVID-19, Immunization, and its broadcasting.
- School health education program
- Communication and Socialization Mobilization to strengthen Routine Immunization through:
  -Advocacy to implement HBR card in school enrollment
  -Development of jingle in Local Language and its broadcasting
  -Development and printing of IEC materials and its distribution to the districts

- IEC program on tobacco control and non -communicable diseases like heart attack, stroke, kidney disease and mental health
- Awareness program for environmental health
- Continued Mero Barsha promotion program

Issues

- Underutilization of IEC materials
- Unavailability of IEC corner at hospitals
- Contionus support and follow up of implemented activities

6.6 Supportive Supervision, Monitoring and Evaluation

Introduction

Supervision, Monitoring and Evaluation is one of the core management function of Health Service Directorate and is regarded as vital task with profound importance for technical backstopping the districts as well as health units of local level. Continuously ensuring the activities implementation as per plan is the major task of HSD and public/health offices as well. Supportive supervision helps to enhance the skill, knowledge and help develop positive result to achieve given target. Health Service Directorate strives for focused, integrated, team based, holistic monitoring and supervision visit rather than fault finding visits.

At the same time, visit is carried out from districts up to local level level to make them enable to their own strength, weakness, opportunity and challenges as well as other supports as per need. During on site coaching discussions, for further commitment improvements, written feedback, meeting minutes are the task performed during supervision. After supervision, the findings are shared and presented in monthly meeting at Health Service Directorate and feedback was provided to respective districts/ health institutions. The issues that should be addressed by center are communicated formally.

Tools and Techniques for Monitoring, Supervision and Program Implementation

- Staff meeting, Meeting minutes
- Interview- Questionnaire
- Observation- Checklist
- Programmatic presentation- slide
- Experience sharing and discussion
- Record Review- registers
- Onsite coaching- checklist
- Result based planning
- Supportive supervision
- Commitment gathering and periodic review on achievements

Priority Areas for technical support during monitoring and supervision

- Citizen Charter, Help desk, complaint box
- Social audit, Public Hearing
- Irregularities settlements
- Financial reporting and improved budget absorption and utilization
- Cost effective program implementation
- PLMBIS Implementation

Ensuring Delivery of Quality Health Service

- Availability of Essential Medicines
- Equity and Access on Health services
- Health care waste management

- Clients' satisfaction
- Regulation of private health facilities
- Planned versus implemented Redbook reflected activities
- Monitoring and Supervision.

Hospital Management strengthening

- Hospital Pharmacy operation and availability of medicine throughout the year
- Implementation of MSS
- Emergency preparedness at hospital

Information management and use

- Data quality Assessment and Improvement
- Accuracy, Completeness and timeliness of HMIS through DHIS-2

Outbreak preparedness and management

- Updating contingency plan and Implementation plan
- Buffer stock at strategic location
- Media management
- Facilitating the response

Full Immunization Declaration

- Cooperation, coordination with local levels
- Facilitating health coordinators
- Advocacy for sustainable immunization coverage at local level

Major Issues and Way Forward

Annual provincial health review was held from 11-13 Mangsir, 2078. Each district shared issues and challenges which compilation of municipal level challenges were together with challenges faced at district level. The findings of the discussion are presented in Table 6.7.1. Based on the problems and issues identified, an appropriate recommendation has been suggested.

Table 6.7.1. Major issues, recommendations and efforts to solve the problems in health systems of Karnali

Issues on Infrastructure and HR	Recommendations	Efforts
Irregular supply and fluctuation of electricity Safe drinking water supply Buildings not as per the standard (MSS) RRT not active and functional OTCs not functional	Sustainable back up plan for continuous electricity and safe water supply Establishment of building as per MSS guideline Regular supply of RUTF and other logistics should be managed on time by local governments, regional medical store and health service office to activate OTC	Additional budget was allocated for office utilities and water supply and safe drinking water Alternative power back up was managed in many places, Expansion of OTC center CNSI Training Four hospital are under construction as the standard Regular supply of RUTF Reactivation and mobilization RRT
Majority of Sanctioned positions vacant (mostly key positions) Unequal distribution of human resource	Need to fulfill sanctioned vacant posts	Vaccant positions were fulfilled in contract agreement
Issues in Service Delivery	**Recommendations**	**Efforts**
• High vaccine dropout rate (DPT1 Vs Measles) • Vaccine coverage of most of the districts is in decreasing trend • Province still to be declared as Fully Immunized • Vaccine waste rate is high	• Declaration of the Palikas as fully immunized • Continuous logistics supply • Strict Implementation of MDVP • Demand generation among unreached population • Implementation of Immunization card in school admission	Interaction program with Palika level for full immunization, Installation of Hoarding boards in strategic locations Integrated supervision and monitoring visits Vaccine handlers training
• ANC and PNC visits as per protocol • Institutional delivery has been increased but not reached target • MPDSR program (recording and reporting) • Low birth weight babies is in increasing trend (Mugu, Rukum west)	• Micro planning to increasing ANC and PNC visit as per protocol • At least one SBA in HF • MPDSR program should be strictly implemented	Capacity building of HWs Focused for marginalized population SBA training is expanded,
• Low service utilization (low CPR rate)	• Address unmeet need • Availability of FP devices	Efforts is continued
Issues in Service Delivery	**Recommendations**	**Efforts**
• Problem in data verification • Malnutrition among children increasing in some districts • Compliance of IFA program	• Monitoring and periodic Assessment of program from different level • Strictly follow MSNP	Continued the RDQA, On site coaching Blanket supplementation program Sanctioned for dietician position at Hos. Health education to mothers' group, Monitoring and feedback
• No regular supply of NCDs drugs and other logistics (Register,)	• Expansion of PEN package	Regularized the medicine at HFs Training is ongoing and program reviewed.
• Less priority to communicable	• Separate strategy for TB notification	Regular operation of OPD during

disease due to COVID 19 • Low case notification of TB • Increased vector born diseases	• Promote testing for VBDs • Community engagement • Search and destroy	COVID pandemic, Gene Xpert service expanded and strengthened, Case based surveillance and contact tracing
Issues Drugs, Equipment and Procurement	Recommendations	Efforts
• Stock out of most of the essential medicines like TB drugs in Dolpa • Delay in supply of medicines to the health facilities	Maintain Demand and Supply chain Emphasis on pull system in logistics	Regular supply of essential drugs and medicine
• Dilemma and delay in drug procurement	Clear and timely procurement planning	Procurement of medicine Process of reestablishment of PHLMC
• Maximum utilization of equipment (Ventilator, ICU etc.) • Ambulance service in some of the districts	Trained HR for utilization of equipment	ECCT Training organized, Purchase of Ambulance in partnership approach with Palika.
Issues on Governance, Information and Financing	Recommendations	Efforts
• Implementation of Health Policy • Need and Ownership of Health Policy at local level	• Need to develop strategy and implementation plan	Local level Health Policy Development has been increased
• Role of HFOMC • Training need assessment and plan accordingly	• Revitalization of HFOMC, Initiation of TIMS • Evaluation of trained HR • Periodic refresher training, Onsite Coaching and Joint Monitoring	Onsite coaching HF level MSS
• Timeliness and quality of reporting • Reporting from Basic health center, UHC, PHC • Registration of health institution in DHIS2	• Develop a mechanism for regular data verification and rectification (Monthly or quarterly reviews within Palikas, RDQA, DQSAs)	Increased reporting to DHIS-2 RDQA implementation Physical data verification
• e-LMIS reporting is not functional • Timeliness and quality reporting	• Offline e-LMIS • Quality Specification	Offline e-LMIS reporting HR management for e-LMIS support.Technical support
• Under utilization of allocated budget • Irregularities of Budget • Use of evidence on budgeting and planning	• Timely budget release • Follow standards norms and guidelines • Evidence based planning process should be implemented.	Accounting and procurement training Assessment initiated of National Health Account by MoHP

7. MULTISECTORAL COORDINATION

7.1 Provincial Health Co-Ordination Team (PHCT)

Background

PHCT exists as one of the vital structures for multisector coordination in Karnali province as the decision of ministerial level of MoSD. Various public, private and non-governmental organizations (including NGOs, INGOs, Donors as well as bilateral organizations) are working to improve health status of Karnali Province through improving access and strengthening of health care delivery systems. All projects and organizations are supporting Ministry of Social Development (MoSD) to achieve its health goal through the activities and as per their scope and mandate, priorities and geographical coverage. A coordination mechanism and platform were needed to ensure that activities of different organizations are coordinated resulting synergy and avoid duplication of efforts and resources. The mechanism will also help the MoSD and its divisions and directorate to set priorities and to best utilize the expertise and resources of these organizations and projects. The mechanism fosters systematic ways of collaboration to ensure that the external supporting partners, private organizations and government institutions with MoSD and Provincial Health Service Directorate. To support collaboration and foster partnership, a coordination team comprising government representatives and representatives of private and external support partners working in Karnali Province is necessary. A Provincial Health Coordination Team (PHCT) is formed to facilitate coordination between MoSD and its Health Service Directorate with development partners and other stakeholders.

Rationale for Provincial Health Coordination Team

The PHCT is useful for MoSD, Health Service Directorate and development partners for following reasons:

- Strategic support at provincial level to effectively implement global, national and provincial health policies and strategies (including local priorities) in coordination with federal Ministries and other stakeholders to achieve health sector goals set by Nepal Health Sector Strategy and other policy documents
- Strengthen harmonization and coordination of actors at the provincial level focusing on the health sector to develop synergy
- Facilitate efficient use of health resources and minimize duplication of resources by minimizing ad-hoc, scattered and unaligned implementation of activities
- Promote mutual accountability and promoting health sector governance and stewardship
- Promote joint monitoring and sharing of learning that can be replicate in the province

The key objective of PHCT is to create a forum for developing common understanding of the priority's areas, make plan to implement those priority areas, rational use of resources and avoid duplication of time, effort and financial resources.
This coordination team can be a forum to:

- Share information, knowledge and lessons learned,
- Make collective decisions based on the issues and challenges, and
- Support MoSD to strengthen its health system, to improve access to, utilization of and quality of health services.

A similar platform (Provincial Health Coordination Team) was in place before restructuring of Nepal and lessons learned from that will be utilized. The proposed team is expected to be more comprehensive, participatory and will serve as link and facilitate communication between federal, provincial, and local level.

Objective of setting up of PHCT:

The main objective of the PHCT is to bring all actors together working in the health sector at Karnali Province (public, private, non-government, donor and external development partners) to coordinate programme, project and resources to achieve health sector results through strategic direction, policy and programme development, support in implementation and progress monitoring and evaluation.

Core areas of coordination and collaboration:

1. Health sector leadership and governance - sector planning, multi-sectoral coordination/collaboration and networking, accountability and synergy
2. Essential Health Care Services – equitable access and utilization of health services, universal coverage, and systematic quality improvement of health care,
3. Human resource management and capacity building
4. Health Management Information System – recording, reporting and strengthening management information system and capacity of municipalities
5. Supply chain management to ensure year-round availability of essential drugs and supplies to deliver quality health services
6. Health service promotion and behavior change communication
7. Emergency health, epidemic and disaster preparedness and management functionalization of provincial health emergency operation center and Rapid Response Team
8. Promoting gender equity and social inclusion in health sector,
9. Joint monitoring and periodic review of health services,

Composition of PHCT

The agencies (public, private, non-government, donor and external development partners) working in health sector at Karnali province are the members of PHCT. There is a committee under the chairpersonship of the Health Service Director as below:

Team:

1. Director, Health Service Directorate - Chairperson
2. Chief, Health Division – MoSD, Co-Chair
3. Medical Superintendent, Surkhet Hospital
4. Chief, District Public Health Service Office, Surkhet
5. Member Secretary: Program Officer from Health Service Directorate

Members:

1. Representative, UNICEF
2. Representative, WHO
3. Representative, WFP
4. Representative, USAID/SSBH

5. Representative, USAID/Breakthrough Action
6. Representative, Save the Children
7. Representative, AIDS Healthcare Foundation Nepal
8. Representative, BNMT
9. Representative, Humanity and Inclusion
10. Representative, NSI
11. Representative, Centre for Mental Health Counseling
12. Representative, SUAAHARA II
13. Representative, Global Procurement and Supply Chain Management Project
14. Representative, Swachchhata
15. Representative, Pharmacy Association
16. Representative, INF
17. Representative, Nepal Red Cross Society

Note: Representatives from other health related organization, groups or networks will be called upon as invitees as and when required. Periodic review of the composition will be done and changes in the membership will be updated on annual basis.

PHCT Membership Process

All the organization (public, private, non-government, donor and external development partners) working in health sector at Karnali province could be the member of PHCT in principle. But to obtain formal membership of the team, interested organization must fill the form with required information including the scope and operation modality, contact persons as requested by the Health Directorate.

Roles and Responsibilities of PHCT

The primary role of the team is to play the coordination and facilitation role to strategically move the health sector in the province forward. Specific roles and responsibilities of the team will be the following:

- Work as key steering body in coordinating programme/activities and resources of all actors of the sector - including control and regulation
- Make strategic alignment of program and resources to achieve the results pursued by Federal MoHP and provincial MoSD
- Jointly working for effective implementation of Provincial health sector policy/strategy and periodic Plan
- Map out working areas (e.g. districts, municipalities) supported/focused by different actors in the health sector and update the provincial health profile and resource map on periodic basis
- Facilitate public sector's health programs' implementation process for its effectiveness in wider coverage and equity.
- Strengthen joint planning, monitoring, supervision and review of the programs and projects (e.g. participate and facilitate the local and provincial level joint Annual Health Performance Review Meeting).
- Develop an Emergency Health and Epidemic Preparedness and Disaster Management Plan and mobilize Rapid Response Team (RRT) as needed

- Take initiatives for learning and innovation in health sector by promoting studies and operational researches, introducing new approach/tool or technology and/or technical update
- Formation of different sub-groups/task group for effective implementation of technical themes (eg. quality improvement group, MNCH/RH group, Governance and accountability group) for further support.
- Facilitate interaction and communication between the provincial government with development partners primarily at provincial level but also with federal and local level as needed

Any other action demand as needed and as jointly agreed by PHCT

7.2 Development Partners in Karnali

The outcome discussed in the previous chapter are the results of collective efforts of the Ministry of Social Development, Karnali province, Health Service Directorate, and its development partners. This chapter lists the program focuses of these organizations and their achievements obtained in FY 2077/78.

Partners working in Karnali Province

1. AIDS Healthcare Foundation (AHF), Nepal

Name of Project/Program	Increasing access to treatment, care & prevention services by PLHIV in Nepal
Objectives of the Organization/ Project	• To improve and expand prevention, testing and linkage services targeting high risk populations in the communities • To increase access to quality treatment and care services from project supported ART sites • To strengthen coordination, networking and advocacy for quality ART services
Geographical Coverage	Only at Province Hospital, Surkhet
Thematic Area (Program implementation thematic area)	Health, HIV AIDS
Implementation Modality and Partners (if any)	Partnership with government Hospital ART clinic, Province Hospital Surkhet
Target Group	People Living with HIV AIDS (PLHIV), Key Populations
Duration of Project/Program	April 2017- March 2022
Key Achievements: • HIV Prevention: condom distributed from ART clinic and during events, IEC (brochures) on condom use, STIs HIV and TB. HIV Testing: Static clinic and CBT, Hoarding board display with HIV prevention message • Support to increase access to treatment and care services	

- Transportation support, Laboratory Investigation Support, Medicine/Pharmacy support for OIs management, food support Complicated case management, Client education sessions focusing treatment adherence, Clients Appointment reminder calls. Adherence and treatment support. VL testing supports.
- Capacity building for better service delivery from ART clinic: Continued medical education (CME), Hospital technical working group/quality improvement meetings, Clinical case discussion sessions through Skype, team and Online CME
- Networking coordination and advocacy. Annual DPAC Meeting, Stakeholder meeting, advocacy/interaction workshop and meetings for quality treatment and support activities to the PLHIV, Commemoration of National and international days. Enroll clients in Gov health insurance , support to prepare recording and reporting HMIS and DHIS
- HR support to Province Hospital Surkhet ART
- 1 counsellor, 1 Peer Educator

2. Helen Keller International (HKI)

Name of Project/Program	SUAAHARA II
Objectives of the Organization/ Project	To improve the nutritional status of women and under 2 years children
Geographical Coverage	District: Surkhet, Dailekh, Jajarkot, Salyan and Rukum (west)
	Palikas: all Palikas of 5 districts
Thematic Area (Program implementation thematic area)	Health & Nutrition, WASH, Agriculture, Governance
Implementation Modality and Partners (if any)	Through local NGOs
Target Group	1000 days women and under 2 years children
Duration of Project/Program	Apr-2016- Mar-2022

Key Achievements:

Food demonstration	**233**
Key life events	**5399**
IFA roll out to Palika and FCHVs in HF level	**45**
On site coaching at health facilities including OTCs	**40**
Routine Data Quality Assessment (RDQA)	**5**
IMAM training for health workers and FCHVs	**11 Palikas**
Support to CB-IMNCI coaches at district level aligned with GoN/FWD/Child Health Section workplan	**5 Districts**
Support orientation of health workers on revised pneumonia treatment protocols	**1 palika**
Community Health Score Board review meeting	**13**
Endorse ward-level Emergency Health and Nutrition Contingency Plan (EHNC)	**13**
NFSSC meeting and Sustainability workshops	**10**
DTOT and Palika level CNSI training support	5 distrticts

3. International Nepal Fellowship (INF) Nepal

Name of Program	Shining Hospital INF Nepal Surkhet
Objectives of the Organization/ Project	To eradicate leprosy and End Obstetric Fistula in Nepal and improve health and quality of life of people infected and affected by leprosy, physical impairment & disability and obstetric fistula.
Geographical Coverage	Districts of Karnali Province and Western part of Nepal for Obstetric Fistula
	All Palika
Implementation Modality and Partners (if any)	Hospital Activities are directly implemented Community Development Work (Dailekh & Jajarkot) is implemented through local churches and community-based organizations
Target Group	• People with Leprosy and persons affected by Leproy and their families • People with physical impairments and disability • Survivors of Obstetric Fistula • Local Community of Community Holistic Service Center Dailekh and Jeewan Jyoti Church Jajarkot working areas
Duration of Project/Program	INF Nepal Surkhet started working on 1977. It will continue until funds will be available.

Key Achievements:

- 14 patients with disability were admitted in the hospital and received medical treatment and therapeutic interventions.
- 198 OPD visits for basic medical screening
- 3770 therapeutic sessions were provided to disabled patients at IPD and OPD settings.
- 92 assistive and orthotics devices provided
- 10 patients' home modified for disable friendly purpose
- 16 Poor patients supported for their treatment
- 22 women received free fistula surgeries and treatment in the INF Fistula Centre situated at Karnali Provincial Hospital
- 12 Uro-Gynaecology consultation service at Fistula centre
- 45 Gynae OPD in fistula centre
- 29 new fistula patients identified
- 996 counselling support to Provincial Hospital Patients
- 227 Fistula Orientation events to FCHV,Mothers group,High School Student, Community groups,CBNOs and NGOs.

4. Nick Simons Institute (NSI)

Name of Project/Program	Hospital Support Program (Rural Staff Support Program, Rural Staff Support Partnership Program, Hospital Management Strengthening Program) / Training
Objectives of the Organization/ Project	• Expand the capacity and improve the quality of curative healthcare services in government district hospitals in Nepal. • Create models in human resource deployment and hospital management that are appropriate for scale up by Nepal's Ministry of Health. • Refine and clarify national service standards for district hospitals • To innovate solutions in rural healthcare - through training and hospital support - and to advocate for their scale up with the government of Nepal
Geographical Coverage	District: All Districts of Karnali Province (RSSP- Salyan, Kalikot, RSSPP- Dailekh, Jajarkot and Humla, HMSP- All district hospitals, mehalkuna and Dullu Hospital). Training Partnership with Provincial Hospital Surkhet and KAHS

Thematic Area (Program implementation thematic area)	Curative Health Service (Rural Staff Support, retention and Capacity Building, Hospital Management Strengthening), In service clinical trainings to rural health care workers
Implementation Modality and Partners (if any)	Partnership with MoHP, MoSD and Hospital Management Committee NSI works through a network of partner with government, NGOs and mission hospitals. NSI is helping to develop trainers, standardize clinical practice, provide equipment, market and manage the intake of trainees, liaise with government and supervise to assure quality training.
Target Group	All Hospital Clients and Rural Health Care Workers
Duration of Project/Program	2006-2025

Key Achievements:

- Continuous C/S, emergency surgeries and medical services at 6 Hospitals (with MDGP)of Karnali provinces (C/S: 316 , Major Surgeries:188, Deliveries: 3551)
- Started OT service at Mehalkuna Hospital.
- Available OT Team round the year (MDGP, SBA trained MO, AA, OTTM nurse)
- Biomedical Equipment Techmician : Salyan , Kalikot, Dailekh
- MSS Implementation
  - Implemented at Province Hospital Surkhet.
  - MSS follow up of 6 Hospitals (partial support).
- Training (Total Participants of Karnali): 100
- Initiated new training : Essential Critical Care Training (ECCT)
- UAM : Kalikot , Salyan

5. Save the Children International

Name of Program	Healthy transition for Nepali Youth Project (HTNYP) and Subarambha Project
Objectives of the Organization/ Project	• Improve the Reproductive and Maternal Health and Wellbeing of young women aged 15-24 years • Girls and boys aged 0-3 years survive and thrive in a healthy, protective and stimulating environment and develop to their potential • To eliminate child marriage and early pregnancy in accordance with the national strategy to end child marriage in Nepal
Geographical Coverage	District: Surkhet, Jajarkot, Kalikot and Dailekh
	Palika: Bheri ganga Muncipality, Gurvakot Muncipality, Attbish Muncipality, Chamundabindrasaini Munciaplity, Chedagadh Munciaplity, Bheri Munciaplity, Tilgaufa Muncipality, Khadachakra Muncipality, Raskot Munciaplity, Naraharinath Rural Munciaplity
Thematic Area (Program implementation thematic area)	Health and Nutrition, Reproductive Maternal, Neonatal and Child Health
Implementation Modality and Partners (if any)	Triparty agreement with palika, local partner organization and SC (Existing local partner organizations: SAC Nepal, Surkhet, Everest Club, Dailekh, PTYSM, Jajarkot and Kirdarc & VDSEF in Kalikot)
Target Group	Young girls /women aged (15-24 years) and children 0-3 years
Duration of Project/Program	May 2018- April 2021

Key Achievements:

- 15463 adolescent girls and young women from 720 AGYW group reached through curriculum-based awareness group sessions.

- 45 health facilities strengthened with essential equipment and infrastructure.
- 9 health facilities supported for AFS site.
- Trained HWs on RMNCH training, total 63 HWs (ASRH, IUCD, Implant, SBA, CoFP) and 20 high schools supported to establish AFIC
- 6683 in-laws, 1787 Newly wed couples and 5551 husbands reached through home visits
- Curriculum based Radio Drama (12 episodes)
- TA support for policy and strategy developments at province and local level
- Distributed 3000- LLIN to pregnant
- Indoor Residual spray (IRS
- Supported in TB case identification, Supported in data management and internal consistency
- HIV testing in Key population and BCC package
- CABA children enrolled and receiving cash -49 children
- Distributed Condom -24859, Logistic supply ARV and Test kits
- Community and Home base care(CHBC) to PLHIV-946
- Needle syringe distributed to PWID-15090 PCs

6. SNV Netherlands Development Organization (in partnership with PSI Nepal and SIDeF)

Name of Program	Swachchhata
Objectives of the Organization/ Project	• Improve the quality of health service delivery • Improve hygiene behaviours
Line Ministry	Ministry of Health and Population
Geographical Coverage	District: Rukum-west, Salyan, Jajarkot and Dolpa
	Palikas: All Palikas of the 4 districts
Thematic Area (Program implementation thematic area)	WASH Infrastructure (Water Supply, Toilet, Health Care Waste Management), Solar System, Infection Prevention, Hygiene Bechaviour Change Communication
Implementation Modality and Partners (if any)	Collaboration and partnership with different WASH partners, government agencies, local bodies, community organizations as well as entities representing marginalized groups, women and private sectors.
Area of Expertise	WASH
Target Group	Community group
Duration of Project/Program	February 2016. - February 2021.

Key Achievements:

Infrastructure

- 80 Health Facilities supported with safe drinking water supply, CGD friendly toilets, with solid waste management, 50 HFs in progress
- Solar Power System in 60 HFs

Infection Prevention/Provider BCC

- Whole-site Infection prevention and Provider's BCC training in 140 health facilities, 50 HFs in progress

Behavior Change Communication

- BCC and WASH behaviors change communication training in 80 HFS and in progress in 50 HFs

7. UNICEF-Health and Nutrition

Name of Program	• Maternal Neonatal Child and Adolescent Health • Nutrition Program (Multi-Sectoral Nutrition Plan-MSNP)
Objectives of the Organization/ Project	• Health-Newborn, Children adolescents and women of reproductive age have improved and equitable access to and use of high impact quality health interventions and improved healthy behaviors • MSNP-To ensure that all children in Nepal are well-nourished with healthy and balanced nutrition to survive and grow.
Geographical Coverage	Immunization: 79 local levels and 10 districts through Technical Support Unit based at Province Health Service Directorate, MoSD, Karnali Health-District: Jumla, Kalikot, Mugu, Humla, Dolpa
	Palikas: 13 Palikas (Khadachkra Muncipality, Raskot Municipality, Palata Rural Municipality of Kalikot, Chandanath Municipality, Kankasundari Rural Municipality of Jumla, Chhyanath Rara Municipality, Khatyad, Mugumkrararung, Soru Rural Municipality of Mugu, Sarkeguard rural Municipality, Simikot Rural Municipality of Humla, Thuliveri Municipality, Mudkechula Rural Municipality of Dolpa) for supply chain in Immunization covers overall province MSNP- all districts and local levels of Karnali province
Thematic Area (Program implementation thematic area)	Health-Capacity building, instrument/equipment support, advocacy and and social mobilization on maternal, newborn child and adolescent health, Immunization Program, supply chain management in immunization, DHIS 2, local level evidence-based planning including emergency response in health with logistic like Zinc, ORS, IEHK Kit etc. MSNP-Under the Umbrella of MSNP (MIYCN, Micornutrient Programe icluding Baal Vita, IMAM, Adolescent Iron Folic Acid Supplementation Program, Nutrition in Emergency)
Implementation Modality and Partners (if any)	Health-Provincial and Local government (on Budget off treasury-Direct Cash Transfer to Implementing partner) MSNP-Through Central, Provincial and Local government (On Budget on Tresaury)
Target Group	Newborn, under 5 children, adolescents, pregnant women
Duration of Project/Program	2018-2022

Key Achievements:

- Supported for Capacity building of Health workers /Stakeholders in partnership with Province and local Governments.
- Technical Assistance in National Immunization Program
- Social mobilization and Demand creation activities at community level
- Provided technical assistance in Full immunization declaration process (Jumla, Mugu and Kalikot)
- Conducted Pre- Effective Vaccine Management(Pre-EVMA) assessment in 7 District's Vaccine Store
- Sensitization on Adolescent Health Issues- Raskot and Palata Gaupalika.
- Provided technical support monsoon preparedness plan and COVID-19 response plan.
- Distributed 100,000 flyers and 750 colored flex related to H/N
- Provided technical support to establish the 14 OTCs in Dailekh district
- Ensured the nutritional commodities at HFs
- Facilitated CNSI training
- Provided Technical support for implementation of MSNP in all 10 districts.

8. United Nations World Food Programme (UN WFP)

Name of Program	• Mother and Child Health and Nutrition Programme (MCHN) • COVID Response- Health Logistics/Transportation Service.
Objectives of the Organization/ Project	• Prevent and reduce stunting among children aged 6 to 23 months. • Prevent and reduce anemia among pregnant women, lactating mothers and children aged 6 to 23 months. • Improve maternal and infant young child nutrition practices among pregnant and lactating women and caregivers. • Enhance emergency health logistics supplies for COVID-19 from Kathmandu to Province and Province to districts of Karnali Province, received from Government and UN/humanitarian agencies in Nepal.
Geographical Coverage	District: Kalikot, Jumla, Mugu, Humla, Dolpa, Surkhet, Dailekh, Jajarkot, Salyan and West-Rukum
	Palikas: 34 Palikas - 128 health posts (for MCHN Programe) and Across Karnali Province for health logistics.
Thematic Area (Program implementation thematic area)	Nutrition and Health Logistics-COVID Response
Implementation Modality and Partners (if any)	**MCHN:** Government of Nepal is responsible for food procurement of an estimated 1059 mt Super Cereal, fortified blended food for an estimated 29,000 Pregnant and Lactating Women (PLW) and children 6 to 23 months each year. WFP supports in… • Logistics handling of food quantities at district level warehouses procured/delivered by HSD/MOSD and transportation from warehouses and monthly distribution schedules at HFs. • Facilitate delivery of ANC, PNC, growth monitoring and IYCF services • Capacity development of Palikas' representatives, health workers, FCHVs, partner NGO staff and local stakeholders linked with regular nutrition training activities, in coordination with Health Service Offices • Regular, periodic and monthly reporting to HSD on progress updates • HSD's capacity for timely initiation and completion of food procurement process starting each Nepali fiscal year **Health Logistics (COVID Response):** Logistic support for COVID - 19 in Karnali Province under specific transportation arrangements from Kathmandu to Surkhet and from Surkhet to districts within Karnali Province as per need and demand from MoHP, Department of Health Services (DoHS), Teku, Kathmandu, and Health Service Directorate (HSD), Birendrangar, Surkhet, Karnali Province and provided free storage and transportation service from Kathmandu to Provincial Headquarter and Province to districts.
Target Group	**MCHN:** All pregnant and lactating women and children 6 to 23 months. **Health Logistics (COVID Response):** MoHP, UN/other humanitarian agencies working in the Karnali Province.
Duration of Project/Program	1-Jan-2019-31-Dec-2023

Key Achievements:

- 11431 PLW received fortified blended food: 114%
- 17128 children 6 to 23 months received fortified blended food: 88%
- 163.029 metric tons fortified blended food distributed: 15%
- 5913 participants received training/orientation: 75% (75% female participants)

Key Interventions to support:

- Technical and logistical assistances in the implementation of Blanket Supplementary Feeding Programme (BSFP), and Capacity Strengthening

Key Achievements

- Over 7,000 beneficiaries reached
- 88% food distributed (45.36mt planned Vs 40.01mt)

9. USAID's Strengthening Systems for Better Health Activity (SSBH)

Name of Project/Program	USAID's Strengthening System for Better Health Activity (SSBH) 1. Abt. Associates 2. Save the Children 3. Karnali Academy of Health Sciences (KAHS) 4. Management Support Services (MASS) - (a consortium of four partners managing the project)
Objectives of the Project Program	• Improve access to and utilization of equitable healthcare services • Improve quality of health services at facility and community levels • Improve health system governance, in context of federalism
Geographical Coverage	Karnali Province and all 79 local levels
Thematic Area (Program implementation thematic area)	1. Health system and governance 2. Health information systems 3. Maternal, newborn, child health and family planning 4. Health equity and Private sector engagement 5. COVID-19 Response and Management
Implementation Modality and Partners (if any)	Technical assistance to Province and Local government
Target Group	• Women of reproductive age, • Expected and postpartum mothers, • Under-five children and newborns (with focus on disadvantaged population; men and youth for family planning)
Duration of Project/Program	Jan-2018- Jan-2023

Key Achievements:

Maternal, Neonatal, Child Health and Family Planning Service-related Trainings (SBA, IUCD, implant-MNH update,CBIMNIC)	**571**
Information System and Logistic (LMIS, DHIS, HMIS, RDQA)	**865**

HFOMCs formation and orientation	**246**
GESI training to elected bodies	**326**
In-kind support for the continuation of MNCH services	**All**
Conduct Provincial annual health reviews/annual health report/e-provincial health profile/Municipal health profile	**All**
Support in strengthening and installing Electronic Health Recording System (EHR)	**1**
PCR lab supported: 4 PCR lab personnel trained: 85 Supported on Establishment of waste management unit Support: 1 Clean Bench and Laboratory software for PPHL PCR Lab.: 1 COVID-19 performance review, planning sessions and Covid-19 Vaccine micro-planning: All districts Case identification and contract tracing (CICT) and IMU application: 891 Swap collection, Sample transport and Antigen Test orientation on Lab workers: 148 Physician and nurses trained on Essential Critical Care – Full course: 32 Infection Prevention and Control Training for COVID-19 (1079): 1079	

10. World Health Organization- Health Emergency

Name of Program	WHO Health Emergency
Objectives of the Organization/ Project	• To provide Technical Assistance in Public Health initiatives of GoN • To Assist Government in Disaster Preparedness and Response • To Provide Technical Assistance in Containment and Investigation of Outbreaks.
Geographical Coverage	Karnali Province
Thematic Area (Program implementation thematic area)	▪ Disaster Risk Reduction, Preparedness & Response, Surveillance of Diseases and Outbreak, Capacity Building of Health Workers ▪ Immunization Preventable Diseases ▪ Health system strengthening
Target Group	All type population
Duration of Project/Program	November 2017- Continuous

Key Achievements:

- VPD surveillance Detect, characterize and monitoring of all cases,
- Strengthening RI to achieve high coverage with equity
- Data verification and validation monthly basis both routine immunization,
- Capacity development through onsite and technical support visits
- Operationalize Provincial Health Emergency Operation Center (PHEOC),
- Outbreak response (rumor verification, investigation, sample transportation, risk communication),
- Involve to develop Policy, strategies, guideline and implementation support to MoSD/HSD
- Health data collection, analysis , interpretation, dissemination and feedback improvement
- Advocacy, monitoring, surveillance and supportive supervision, documentation and reporting
- Annual program planning and budgeting to ensure the basic and emergency health services to province govt.
- Focus for evidence-based planning, strengthening health information and documentation,
- Coordination with UN agencies and other development partners for for effective implementation of planned activities and sharing learnings.

11. Plan International

Name of Program	Plan International
Objectives of the Organization/ Project	• To support Early childhood Development- Promoting positive parenting through nurturing care and parenting education
Geographical Coverage	Jumla District (3 Palika's)
Thematic Area (Program implementation thematic area)	Early childhood Development- Promoting positive parenting through nurturing care and parenting education

Key Achievements:

- Capacity building of 171 FCHVs, 67 health worker's and 18 community level facilitator's on parenting education and collective dialogue on gender responsive parenting
- More than 3450 parents were directly provided with positive parenting related skills through sequence of parenting sessions
- Regular interaction and discussion with 2850 different community key people from different 139 communities for promoting gender responsive parenting
- All together we reached 12050 people through different activities to promote positive parenting for creating enabling environment for early childhood development
- Promoted male engagement through separate male group sessions and through HHs visits
- Parental punishment to children is decreasing in trend as reported by FCHVs and HW's/Community level facilitators
- ECD program has been found one key priority program of local government where we supported

12. Water Aid Nepal

Name of Program	Water Aid Nepal
Objectives of the Organization/ Project	Hygiene Promotion through routine Immunization
Geographical Coverage	All 79-local level of Karnali Province
Thematic Area (Program implementation thematic area)	Hygiene Promotion in Routine Immunization
Target Group	Mothers/parents visiting at EPI Clinic
Duration of Project/Program	2019 onward

Key Achievements:

- Capacity building of health workers in hygiene promotion.
- Supply of hygiene promotion package & hygiene promotional material i.e. mirror & dangler.
- Technical support at province level to integrate hygiene & COVID preventive Message.

13. CMC Nepal

Name of Program	CMC Nepal has been implementing 9 projects currently but in Karnali Province, only 5 projects has been implementing which are: School Mental Health Program (funded by Felm), Community Mental Health and Psychosocial Support Program (funded by TEAR Australia), Inclusive Community Mental Health Programme (funded by cbm), Psychosocial Support to Safer Migration Project (funded by SaMi/Helvetas) and GBV Response in COVID-19 context (funded by EU/UNFPA).
Objectives of the Organization/ Project	To increase access of mental health and psychosocial service and create awareness and advocacy to integrate mental health into the existing health service care, education and development of government of Nepal
Geographical Coverage	CMC Nepal working in all Province in 45 districts and 193 Municipalities/RM. **In Karnali Province:** Surkhet (Birendranagar M, Gurbwakot M, Lekhbesi M, Panchapuri M, Chingadh RM, Bheriganga M, Barahatal RM, Simta RM) Jajarkot (Bheri M & Nalgadh M) Salyan (Siddhakumakh RM, Baghchaur M, Chatreswori RM, Saradha M, Kalimati RM & Bangadh M) Dailekh (Dullu M, Aand Narayani M) Jumla (Chandannath M)
Thematic Area (Program implementation thematic area)	Health and Education
Target Group	Person with mental and psychosocial disability, GBV Survivors, children and adolescents, migrant workers and their families, people affected by natural disasters, COVID pandemic situation Health professionals (Medical Officers, HA, SN,AHW & ANM), school teachers, FCHV, mother groups, media people, local NGOs, CBOs, Self Help Groups, DPOs, Local and Provincial Governments
Duration of Project/Program	Project duration varies as per the project; however, the current project gives mandate to work until December 2022.

Key Achievements:

- MHS to more than 3000+ persons
- MH, GBV and disability rights awareness to more than 25000+
- 24 persons trained in 6 months counselling training (NHTC)
- More than 45 Health workers trained in mhGAP
- More than 50 health workers trained in MHPSS
- Facilitated and supervised for regular mental health services in 35 Health Facilities
- Initiation for Province level Mental Health Strategy
- Mental Health Toll free number
- 20 SH group are formed and involved in self advocacy
- Ensured allocation of budget for mental health in all project municipalities
- Launch multiyear MHPSS project to Conflict Victim in Karnali
- Contribution in National Mental Health Strategy, development of Counselling Training Package

8. HEALTH INSURANCE PROGRAMME

Background

Nepal is committed to access to quality health care for all its citizens. Although good progress has been made on improving access, much remains to be done. Out-of-pocket expenditure still puts vulnerable households at risk of catastrophic spending and prevents then from using services. Existing social health protection schemes are fragmented and often fail to provide financial protection against catastrophic spending and are not always based on medical needs. Thus, there was a need to develop a health care financing pre-payment system and to pool risks to minimize financial hardships. The Health insurance program (HIP) was funded in the government's budget for 2011/12 (2068/69). The government then adopted the National Health insurance policy in 2014. Under the policy the government established the semi-autonomous Social Health (Health Insurance) Security Development committee (SHSDC) in 2015 to implement the program to promote pre-payment and risk pooling to mobilize financial resources for health. The SHSDC is chaired by the Ministry of Health Secretary with membership form Ministry of Finance, MoHP, DoHS and experts.

Vision, objectives and Strategies

Vision: To improve the overall health situation of the people of Nepal.

Objectives:

- Ensure access to quality health service (equity and equality).
- Protect from financial hardship and reduce out of pocket payments
- Extent to universal health coverage

Strategy:

To implement health insurance program gradually throughout the country by increasing enrolment through awareness activities at the community level and special protection for poor and marginalized people by coordinating with government and private health service providers.

The main features of the Social Health (Health Insurance) Security Program are as follows:

- It is a voluntary program based on family contributions. Families of up to five members must contribute NPR 3,500 per year and NPR 425 per additional member.
- It provides subsidized rates for families whose members have a poverty identity card.
- Enrolment continues throughout the year in implemented districts.
- Insurance enrolled people have to renew their membership through annual contributions.
- Benefits of up to NPR 50,000 per year are available for families of up to five members with an additional NPR 10,000 covered for each additional member. The maximum amount available per year is NPR 100,000.
- Insurance enrolled people have to choose their first service point but can also access services from government PHCCs and hospitals and listed private hospitals.
- Insurance enrolled people can access specialized services elsewhere that are not available at the first service point on production of a referral slip from their first contact point.

- It is cash-less system for members seeking health services. Upon presenting their SHSP membership ID card at a health facility, members are able to receive the health services and drugs covered by the benefit package without having to pay at any stage
- Can access services from any service point and any referral specifies hospitals without a referral slip.
- The program is IT-based with enrolment assistants using smart phones.
- SHSDC acts as the service purchaser while government and listed private hospitals provide the services.

Program Implementation

Health insurance program is being implemented in all 10 districts of Karnali province. This list of health facilities implementing Health insurance program across the districts are listed in the table below.

District	Health Facility	District	Health Facility
Jumla	KAHS	Jajarkot	Jajarkot Hospital
	Kalikakhetu PHCC		Dalli PHCC
Humla	Humla Hospital		Limsa PHCC
			Jajarkot PHC
Dailekh	Dailekh Hospital	Salyan	Salyan Hospital
	Dullu Hospital		Tharmare PHC
	Lokandra PHC		Lokandra PHC
	Naumule PHC	Rukum	Aathbiskot Hospital
Surkhet	Awalching PHCC		Chaurjhari Hospital
	Dasharatpur PHCC		Rukum Hospital
	Salkot PHCC		Eye Hospital, Sallay
	Surkhet Eye Hospital		Kotjhari PHCC
	Melkuna Hospital	Kalikot	Kamalgaun PHCC
	Province Hospital		Kalokot Hospital
Dolpa	Dolpa Hospital	Mugu	Mugu Hospital
			Kotdanda PHCC

Utilization of Social Health Service

The attached table shows the target group for health insurance program in Karnali. The target group includes all people with or without disabilities, senior citizen, ultra poor, FCHVs, Null disability, HIV, Leprosy, MDR- TB.

Target group for health insurance program of Karnali

Types	Dailekh	Dolpa	Humla	Jajarkot	Jumla	Kalikot	Mugu	Rukum West	Salyan	Surkhet	Grand Total
Normal	1042	455	503	3728	5166	1792	687	8623	706	**8748**	**31450**
Senior Citizen	3828	79	350	2461	2178	1275	448	3366	1999	**8406**	**24390**
Ultra Poor		1	805	2939	3517	**4154**	65	1536	24	1	**13042**
FCHV	103	41	37	43	123	17	58	86	53	**232**	**793**
Null Disability	**204**	15	12	8	45	55	22	117	114	177	**769**
HIV	29				1	29		43	2	**46**	**150**
Leprosy	2					2	1		2	3	**10**
MDR-TB	1				2		1		2	3	**9**
Grand Total	**5209**	**591**	**1707**	**9179**	**11032**	**7324**	**1282**	**13771**	**2902**	**17616**	**70613**

Table below shows 269903 population insured across 10 social health insurance implementing districts. Till the end of fiscal year 2077/78, total of 269903 people been insured in Karnali province. According to the report, 1570418 targeted people in Karnali a total of 269903 (17.18%) been insured in province.

District	Total population *(CBS 2068)*	FY 2076/77	FY 2077/78
		Insured Population	
Surkhet	350804	43763	55451
Kalikot	136948	33357	53764
Jajarkot	171304	36721	52899
Rukum-West	154272	44832	40471
Jumla	108921	43111	36845
Humla	50858	6049	10424
Dolpa	36700	1970	7333
Mugu	55256	2701	5957
Dailekh	261770	1670	4490
Dolpa		-	2269
Total	1326863	214074	269903

Source: Annual review, 2076/77 and 2077/78, HIB presentation

Annex 1: NATIONAL HEALTH POLICY 2076

राष्ट्रिय स्वास्थ्य नीति २०७६

निर्देशक सिद्धान्त

१. गुणस्तरीय स्वास्थ्य सेवाको सर्वव्यापी पहुच अविच्छिन्न पर्याप्तता, पारदर्शिता र व्यापकता ।
२. संघीय संरचना अनुरुप स्वास्थ्य प्रणालीमा बहुक्षेत्रीय सहभागिता, सहकार्य र साझेदारी ।
३. अति सिमान्तकृत दलित र आदिवासी समुदायलाई लक्षित विशेष स्वास्थ्य सेवा ।
४. स्वास्थ्य सुशासन र पर्याप्त आर्थिक लगानीको सुनिश्चितता ।
५. समतामूलक स्वास्थ्य बिमाको विविधीकरण ।
६. स्वास्थ्य सेवामा पुनर्संरचना ।
७. सबै नीतिमा स्वास्थ्य तथा बहुक्षेत्रीय समन्वय र सहकार्य ।
८. स्वास्थ्य सेवा प्रवाहमा व्यवसायिकता, इमान्दारी, पेशागत नैतिकता ।

भावी सोच

स्वस्थ तथा सुखी जीवनलक्षित सजग र सचेत नागरिक ।

ध्येय

साधन स्रोतको अधिकतम प्रयोग गरी सहकार्य र साझेदारी मार्फत नागरिकहरूको स्वस्थ्य सम्वन्धी मौलिक अधिकारको सुनिश्चित गर्ने ।

लक्ष्य

संघीय संरचनामा सवै वर्गका नागरिकहरुका लागि सामाजिक न्याय र सुशासनमा आधारित स्वास्थ्य प्रणालीको विकास र विस्तार गर्दै गुणस्तरीय स्वास्थ्य सेवाको पहुँच र उपभोग सुनिश्चित गर्ने ।

उद्देश्यहरू

१. संविधान प्रदत्त स्वास्थ्य सम्वन्धी हक सबै नागरिकले उपभोग गर्न पाउने अवसर सिर्जना गर्नु ।
२. संघीय संरचना अनुरुप सबै किसिमका स्वास्थ्य प्रणालीलाई विकास, विस्तार र सुधार गर्नु ।
३. सबै तहका स्वास्थ्य संस्थाहरुबाट प्रदान गरिने सेवाको गुणस्तरमा सुधार गर्दै सहज पहुच सुनिश्चित गर्नु ।
४. अति सीमान्तकृत वर्गलाई समेटदै सामाजिक स्वास्थ्य सुरक्षा पद्धतिलाई सुदृढ गर्नु ।
५. सरकारी, गैर सरकारी तथा निजी क्षेत्रसंग बहुक्षेत्रीय साझेदारी सहकार्य तथा सामुदायिक सहभागितालाई प्रबर्द्धन गर्नु ।
६. नाफामूलक स्वास्थ्य क्षेत्रलाई सेवामूलक स्वास्थ्य सेवामा रुपान्तरण गर्दै जानु ।

नीतिहरू

१. सबै तहका स्वास्थ्य संस्थाहरुबाट तोकिए बमोजिम निःशुल्क आधारभूत स्वास्थ्य सेवा सुनिश्चित गरिनेछ ।

२. स्वास्थ्य बिमा मार्फत विशेषज्ञ सेवाको सुलभ पहुच सुनिश्चित गरिने छ ।

३.. सबै नागरिकलाई आधारभूत आकस्मिक स्वास्थ्य सेवाको पहुच सुनिश्चित गरिने छ ।

४. स्वास्थ्य प्रणालीलाई संघीय संरचना अनुरूप संघ, प्रदेश र स्थानीय तहमा पुनर्संरचना, सुधार एवं विकास तथा विस्तार गरिनेछ ।

५. स्वास्थ्यमा सर्वव्यापी पहुच (universal health coverage) को अवधारणा अनुरूप प्रवर्द्धनात्मक, प्रतिकारात्मक, उपचारात्मक, पुनर्स्थापनात्मक तथा प्रशामक सेवालाई एकीकृत रूपमा विकास तथा विस्तार गरिनेछ ।

६. स्वास्थ्य क्षेत्रमा सरकारी, नीजि तथा गैरसरकारी क्षेत्रबीचको सहकार्य तथा साझेदारीलाई प्रबर्द्धन, व्यवस्थापन तथा नियमन गर्नुका साथ्कअर्बा थभबचै स्वास्थ्य शिक्षा, सेवा र अनसुन्धानका क्षेत्रमा निजी, आन्तरिक तथा बाह्य लगानीलाई प्रोत्साहन एवं संरक्षण गरिनेछ ।

७. आयुर्वेद, प्राकृतिक चिकित्सा, योग तथा होमियोप्याथिक लगायतका चिकित्सा प्रणालीलाई एकीकृत रूपमा विकास र विस्तार गरिनेछ ।

८. स्वास्थ्य सेवालाई सर्व सुलभ, प्रभावकारी तथा गुणस्तरिय बनाउन जनसंख्या, भूगोल र संघीय संरचना अनुरूप सीप मिश्रित दक्ष स्वास्थ्य जनशक्तिको विकास तथा विस्तार गर्दै स्वास्थ्य सेवालाई व्यवस्थित गरिने छ ।

९. सेवाप्रदायक व्यक्ति तथा संस्थाबाट प्रदान गरिने स्वास्थ्यसेवालाई प्रभावकारी, जवाफदेही र गणुस्तरीय बनाउन स्वास्थ्य व्यवसायी परिषद्हरूको संरचनाको विकास, विस्तार तथा सुधार गरिने छ ।

१०. गुणस्तरीय औषधी तथा प्रविधिजन्य स्वास्थ्यसमाग्रीको आन्तरिक उत्पादनलाई प्रोत्साहन गर्दै, कुशल उत्पादन, आर्पूर्ति, भण्डारण, वितरणलाई नियमन तथा प्रभावकारी व्यवस्थापन मार्फत पहुच एवं समुचित प्रयोग सुनिश्चित गरिने छ ।

११. सरुवा रोग, किटजन्य रोग, पशुपन्छी जन्य रोग, जलवायु परिवर्तन र अन्य रोग तथा महामारी नियन्त्रण लगायत विपद् व्यवस्थापन पूर्वतयारी तथा प्रतिकार्यको एकीकृत उपायहरू अवलम्बन गरिनेछ ।

१२. नसर्ने रोगहरूको रोकथाम तथा नियन्त्रण का लागि व्यक्ति, परिवार, समाज तथा सम्बन्धित निकायलाई जिम्मेवार बनाउदै एकीकृत स्वास्थ्य प्रणालीको विकास तथा विस्तार गरिनेछ ।

१३. पोषणको अवस्थालाई सुधार गर्न, मिसावटयुक्त तथा हानिकारक खानालाई निरुत्साहित गर्दै गुण स्तरीय एवं स्वास्थ्यवर्द्धक खाद्य पदाष्कअर्बा थभबर्चको प्रबर्द्धन, उत्पादन, प्रयोग र पहुँच लाई विस्तार गरिनेछ ।

१४. स्वास्थ्य अनसुन्धानलाई अन्तर्राष्ट्रिय मापदण्ड अनरूप गुणस्तरिय बनाउदै अनसुन्धानबाट प्राप्त प्रमाण र तथ्यहरूलाई नीति निर्माण, योजना तर्जुमा तथा स्वास्थ्य पद्दतिको विकासमा प्रभावकारी उपयोग गरिनेछ ।

१५. स्वास्थ्य व्यवस्थापन सूचना प्रणालीलाई आधुनिकीकरण, गुणस्तरीय तथा प्रविधि मैत्री बनाई एकीकृत स्वास्थ्य सूचना प्रणालीको विकास गरिनेछ ।

१६. स्वास्थ्य सम्बन्धी सूचनाको हक तथा सेवाग्राहीले उपचार सम्बन्धी जानकारी पाउने हकको प्रत्याभूति गरिनेछ ।

१७. मानसिक स्वास्थ्य, मुख, आखँ, नाक कान घँटी स्वास्थ्य सेवा लगायतका उपचार सेवालाई विकास र विस्तार गरिनेछ ।

१८. अस्पताल लगायत सबै प्रकारका स्वास्थ्यसंस्थाबाट प्रदान गरिने सेवाको गुणस्तर सुनिश्चित गरिनेछ ।

१९. स्वास्थ्य क्षेत्रमा नीतिगत, संगठनात्मक तथा व्यवस्थापकीय संरचनामा समयानकुल परिमार्जन तथा सुधार गर्दै सुशासन कायम गरिनेछ ।

२०. जीवनपथको अवधारणा अनरूप सुरक्षित मातृत्व, बाल स्वास्थ्य, किशोर-किशोरी तथा प्रजनन स्वास्थ्य, प्रौढ तथा जेष्ठ नागरिक लगायतका सेवाको विकास तथा विस्तार गरिनेछ ।

२१. स्वास्थ्यक्षेत्रको दिगो विकासका लागि आवश्यक वित्तीय स्रोत तथा विशेष कोषको व्यवस्था गरिनेछ ।

२२. बढ्दो सहरीकरण, आँन्तरिक तथा बाह्य बसाइ सराइजस्ता विषयहरूको समयानुकूल व्यवस्थापन गर्दै यसबाट हुने जनस्वास्थ्य सम्बन्धी समस्याहरूलाई समाधान गरिनेछ ।

२३. जनसांख्यिक तथ्यांक व्यवस्थापन, अनसुन्धान तथा विश्लेषण गरी निर्णय प्रक्रिया तथा कार्यक्रम तर्जुमासँग आबद्ध गरिनेछ ।

२४. प्रतिजैविक प्रतिरोधलाई न्यूनीकरण गर्दै संक्रामक रोग नियन्त्रण तथा व्यवस्थापनका लागि एकद्वार स्वास्थ्य पद्धतिको विकास तथा विस्तार गरिनुका साष्कअर्बा थभबचै वायु प्रदूषण, ध्वनि प्रदूषण, जल प्रदूषण लगायतका वातावरणीय प्रदूषणका साष्कअर्बा थभबचै खाद्यान्न प्रदूषणलाई वैज्ञानिक ढंगले निमयन तथा नियन्त्रण गरिनेछ ।

२५. आप्रवासन प्रक्रियाबाट जनस्वास्थ्यमा उत्पन्न हुन सक्ने जोखिमलाई न्यूनीकरण गर्न तथा विदेशमा रहेका नेपाली नागरिकहरूको स्वास्थ्य सुरक्षाका लागि समुचित व्यवस्थापन गरिनेछ ।

Annex 2: PROVINCIAL HEALTH POLICY 2076

प्रदेश सरकार स्वास्थ्य नीति २०७६ कर्णाली प्रदेश

१. दूरदृष्टि

सबै प्रदेशबासीको पहुचमा सबल स्वास्थ्य प्रणाली - सचेत, स्वस्थ र सुखारी कर्णाली ।

२. ध्येय

उपलब्ध साधन-स्रोतको प्रभावकारी प्रयोग गरी सम्बन्धित सरकार, सेवाप्रदायक एवं सरोकारवालाबीच समन्वय र सहकार्य मार्फत प्रदेशबासीको स्वस्थ रहन पाउने मौलिक हक सुनिश्चित गर्ने ।

३. लक्ष्य

प्रदेशबासीको गुणस्तरीय स्वास्थ्य सेवामा पहुँच तथा यसको उपभोगलाई सुनिश्चित गर्न समतामूलक एवं जवाफदेही स्वास्थ्य प्रणालीको माध्यमबाट अविच्छिन्न सेवा उपलब्ध गराउने ।

४. उद्देश्यहरू

क. संविधान प्रदत्त स्वास्थ्य सम्बन्धी हकको उपभोग गर्ने परिवेश सुनिश्चित गर्नु ।
ख. प्रभावकारी एवं मैत्रीपूर्ण स्वास्थ्य सेवाको विकास र विस्तार गर्नु ।
ग. स्वास्थ्यमा पर्याप्त लगानीलाई दिगो बनाई कुशल व्यवस्थापन गर्नु ।
घ. स्वास्थ्यमा सरकारी, गैरसरकारी तथा निजी क्षेत्रसँग साझेदारी, सहकार्य र जनसंलग्नता प्रवर्द्धन गर्नु ।
ङ. आयुर्वेद तथा वैकल्पिक लगायतका स्वास्थ्य प्रणालीहरूको सन्तुलित विकास एवं विस्तार गर्नु ।
च. स्वास्थ्य संस्थाहरूबाट प्रदान गरिने सेवाको गुणस्तर सुनिश्चित गर्नु ।
छ. स्वास्थ्य सम्बन्धी सामाजिक सुरक्षा कार्यक्रमहरूमा सामन्जस्यता स्थापित गर्दै थप सुदृढ गर्नु ।

५. नीतिहरू

५.१. प्रदेशबासीलाई निःशुल्क आधारभूत स्वास्थ्य सेवा प्रवाहित भएको सुनिश्चित गरिनेछ ।
५.२. आकस्मिक स्वास्थ्य सेवाको पहुँच वृद्धि गरी सेवाको व्यवस्थापनलाई सुदृढ गरिनेछ ।
५.३. प्रदेशभित्रका स्वास्थ्य संस्थामा विशेषज्ञ स्वास्थ्य सेवाको पहुँच सुलभ गराइनेछ ।
५.४. स्वास्थ्य सेवाको प्रभावकारिता वृद्धि गर्न पूर्वाधार विकास, स्वास्थ्य उपकरणको व्यवस्था तथा स्वास्थ्य संस्थालाई प्रविधिमैत्री बनाइनेछ ।
५.५. प्रचलित स्वास्थ्य सम्बन्धी सूचना प्रणालीलाई एकिकृत गरी सुदृढ बनाइनुका साथ्कअर्बा थभबचै प्रदेशभित्र स्वास्थ्य अनुसन्धानलाई प्रवर्द्धन गरिनेछ ।

५.६. स्वास्थ्य सेवालाई प्रभावकारी र गुणस्तरीय बनाउन सीप मिश्रित स्वास्थ्य जनशक्ति विकास र विस्तार गरिनेछ ।

५.७. गुणस्तरीय औषधि तथा प्रविधिजन्य सामग्रीमा पहुच वृद्धि गर्न उत्पादन, आपूर्ति, भण्डारण तथा वितरण र प्रयोगलाई व्यवस्थित गरिनेछ ।

५.८. प्रदेश भित्र सञ्चालित स्वास्थ्य संस्था मार्फत प्रवाह हुने सेवाको गुणस्तरियता सुनिश्चित गर्न प्रभावकारी समन्वय, सहकार्य, अनुगमन तथा नियमन गर्ने व्यवस्था मिलाइनेछ ।

५.९. जनस्वास्थ्यको क्षेत्रमा प्रदेशको लगानीलाई वृद्धि र व्यवस्थित गरी व्यक्तिगत खर्च गर्नुपर्ने अवस्थाको न्यूनीकरण गरिनेछ ।

५.१०. आपत्कालीन स्वास्थ्य अवस्था तथा अन्य सरुवा रोग एवं महामारी नियन्त्रणका लागि बहुपक्षीय सहकार्य गरी यसका असरको न्यूनीकरण र सेवामा निरन्तरता प्रदान गरिनेछ ।

५.११. स्वास्थ्य क्षेत्रमा समुदायको संलग्नता सहितको सुशासन तथा स्वास्थ्यकर्मीको सूरक्षाको प्रत्याभूति गरिनेछ ।

५.१२. सूरक्षित मातृत्व, बाल स्वास्थ्य, किशोरावस्थाको स्वास्थ्य, परिवार नियोजन तथा प्रजनन स्वास्थ्य सेवाको विकास र विस्तार गरी पहुँचमा थप सहजता ल्याइनेछ ।

५.१३. व्यक्ति, परिवार र समाजलाई परिचालन गरी स्वस्थ जीवनशैली अपनाउन अभिप्रेरित गर्दै नसर्ने रोगको उपचारलाई आधारभूत स्वास्थ्य सेवास्तर देखिनै व्यवस्थापन गरिनेछ ।

५.१४. जनस्वास्थ्यको संरक्षण र प्रवर्द्धन गर्नका लागि प्रवर्द्धनात्मक तथा प्रतिकारात्मक सेवाको विकास र विस्तार गरिनेछ ।

५.१५. प्रदेशबासीको पोषण अवस्थामा दीगो सुधार गर्न स्थानीयस्तरमा उत्पादन हुने स्वास्थ्यवर्धक रैथाने खाद्यवस्तुको प्रयोग र पहुचलाई विस्तार गरिनेछ ।

५.१६. सीमान्तकृत लक्षित वर्गलाई समेट्दै स्वास्थ्य सेवामा उनीहरूको पहुच सुनिश्चित गरी सामाजिक सुरक्षा कार्यक्रमलाई सुदृढ गरिनेछ ।

५.१७. प्रदेशबासीलाई स्वास्थ्य सेवा सुविधा उपलब्ध गराउनका लागि आयुर्वेद तथा वैकल्पिक चिकित्सा पद्धतिलाई सन्तुलित रूपमा विकास, विस्तार र सुदृढ गरिनेछ ।

५.१८. प्रदेशको स्वास्थ्य तथा जनसांख्यिक तथ्यांक तथा सूचनाको संकलन, विश्लेषण तथा प्रयोगलाई विकास कार्यक्रम तर्जुमाको मूल आधार बनाइनेछ ।

Annex 3: SDG TARGET AND INDICATOR FOR NEPAL (2014-2030)

Target with proposed indicators, current status and future projection

Target and Indicators	2014	2017	2020	2022	2025	2030
Target 2.1 by 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants to save, nutritious and sufficient food all for all year round						
2.1 a Households with in educate food consumption (%)	36.1[a]	29.52	22.94	18.55	11.97	1
2.1 b Population spending more than two thirds of total consumption on food (%)	20[b]	16.44	12.88	10.50	6.94	1
2.1c per capita food grain production(kg)	341[c]	373	404	426	457	510
Target 2.2 by 2030, end all forms of malnutrition, including acheiving by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age and addressing the nutritional needs of adolescent girls, pregnant and lactating women and older persons						
2.2a Prevalence of underweight children < 5 years (- 2 SD)(%)	30.1[d]	24.64	19.19	15.55	10.09	1
2.2b Stunted children under 5 years(- 2 SD)(%)	37.4[d]	30.58	23.75	19.20	12.38	1
2.2c Prevalence of wasted children < 5 years -2 SD	11.3[d]	9.37	7.44	6.15	4.22	1
2.2d Proportion of population below minimum level of dietary energy consumption	22.8[d]	18.71	14.63	11.90	7.81	1
2.2 e Prevalence of anaemia among women of literary age adults and girl percent	38.5[e]	31.47	24.44	19.75	12.72	1
2.2 f prevalence of anaemia among children under 5 years of age(%)	46 [e]	37.56	29.13	23.5	15.06	1
Target 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births						
3.1.Maternal mortality ratio(per 1000, Live births)	258[a]	151 [b]	127 [b]	116	99	70
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age,						
3.2.a Neonatal mortality rate	23[c]	17[b]	14[b]	11.3	8.5	1
3.2.b Under-five mortality rate	38[C]	28[b]	23[b]	18.4	13.8	1
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases						
Target 3.3a by 2030 end the epidemic of AIDS						
3.3a.1 HIV prevalence for the overall population,15-49 years(%)	0.2[d]	0.163	0.125	0.1	0.063	0
3.3.a2 HIV prevalence among men and women population,15-49 years(%)	0.03[e]	0.015	0.009	0.006	0	0
3.3a3 proportion of population with advanced HIV infection receiving antiretroviral combination therapy(%)	38.8 [e]	50.28	61.75	69.4	80.88	100
Target 3.3b by 2030, end the epidemics of Tuberculosis						
3.3.b Tuberculosis incidence per 1,000 population	211	171	132	106	66	0
Target 3.3c by 2030 in the epidemic of malaria						
3.3c Confirm malaria cases(Number)	1674[g]	1360	1046	837	523	0
Target 3.3d by 2030, end the epidemics of neglected tropical disease						
3.3d1 register prevalence rate(per 10000 population) for leprosy	0.83[h]	0.67	0.52	0.42	0.26	0
3.3d2 Kala-azar cases(Number)	325 [g]	264	203	163	102	0

Target and Indicators	2014	2017	2020	2022	2025	2030
3.3d3 Average prevalence of lypphatic filariasis(%)	13[i]	10.56	8.13	6.5	4.06	0
3.3d4 Cases of Dengue	728[j]	592	455	364	228	0
3.3d5 People die annually due to rabies(Number)	100[j]	81	63	50	31	0
3.3d6 Active trachoma cases(Number)	136[j]	111	85	68	43	0
3.3d7 Average prevalence of soil transmitted helminthes among school going children(%)	15[j]	12.19	9.38	7.5	4.69	0
Target 3.3e by 2030 combat hepatitis						
3.3e1 Confirm case of hepatitis A(Number)	174[j]	141	109	87	54	0
3.3e2 Confirm case of hepatitis B(Number)	101[j]	82	63	51	32	0
3.3e3 Causes of unspecified viral hepatitis(Number)	173[j]	141	108	86.5	54	0
Target 3.3f by 2030 combat water borne diseases						
3.3f1 Annual incidence of diarrhoea(per 1000 under 5 years children)	578[j]	470	361	289	181	0
3.3f2 Children under age 5 years with diarrhoeal in the last 2 weeks(%)	12[j]	10	8	6	4	0
3.3f3 causes of typhoid (number)	9549[j]	7759	5968	4775	2984	0
3.3f4 causes of Cholera (number)	33[j]	27	21`	16.5	10	0
Target 3.3g by 2030, combat number other communicable diseases						
3.3g1 confirm cases of Japanese encephalitis (JE) number	118[g]	96	74	59	37	0
3.3g2 to confirm cases of Influenza H191 (number)	204[g]	166	128	102	64	0
Target 3.4 by 2030 reduced by one third premature mortality from non communicable disease in cities through prevention and treatment and promote mental health and wellbeing						
Target 3.4a by 2030 reduced by one third premature mortality from non communicable disease						
3.4.a1 Death (aged 30-70) from cardiovascular disease(CVDs), cancer, chronic respiratory disease and diabetes(%)	22.0[k]	19.2	16.5	14.7	11.9	7.3
3.4.a2 Death from NCDs out of all deaths (%)	43.7[l]	38.2	32.8	29.1	23.6	14.5
3.4.a3 Death from CVDs out of all deaths (%)	22.3[l]	19.5	16.7	14.9	12.1	7.4
3.4.a4 Death from cancers out of all deaths (%)	7.0[l]	6.1	5.2	4.7	3.8	2.3
3.4.a5 Death from chronic obstructive pulmonary disease out of all deaths (%)	4.9[l]	4.3	3.7	3.3	2.6	1.6
3.4.a6 Death from diabetes out of all deaths (%)	1.7[l]	1.5	1.3	1.1	0.9	0.5
Tiger 3.4b 2030 reduced by one third premature mortality from non communicable disease through prevention and treatment						
3.4b1People (aged 15-69years) with rised total cholesterol	22.7[m]	19.9	17.0	15.1	12.3	7.5
3.4b2 People (aged 15-69 years) with rise blood pressure level (%)	88.3[m]	77.3	66.2	58.9	47.8	29.4
3.4b3 People (age 15-69 years) not engaging in vigorous activities %	53.6[m]	46.9	40.2	35.7	29.0	17.8
3.4b4 People(aged 15-69 years) who are overweight(%)	21.6[m]	18.9	16.2	14.4	11.7	7.2
3.4b5 People (age 15-69 years) who currently drink or drank alcohol in the past 30 days(%)	17.4[m]	15.2	13.1	11.6	9.4	5.8
3.4b6 People(aged 15-69 years) who smoke tobacco daily (%)	15.8 m	13.8	11.8	10.5	8.5	5.2
Target 3.4c by 2030, promote mental health and wellbeing						
3.4c1 mental health problem percent	14.ol	12.26	10.51	9.35	7.6	4.7

Target and Indicators	2014	2017	2020	2022	2025	2030
3.4c2 suicide rate per (100,000 population)	25 n	20	16	13	8	1
3.4c3 Women (aged15- 24 years who are very or some what satisfied with their life (%)	80.8 c	83.5	86.1	87.9	90.6	95
Target 3.5 strengthen the prevention and treatment of substance abuse including drug abuse and harmful use of alcohol						
3.4 hard drug users estimated number	91534o	78662	65790	57209	44337	22884
Target 3.6 by 2020, halve the number of gold Global death and injuries from road traffic accidents						
Target 3.6a by 2020 halve the number of Global deaths from road traffic accidents						
3.6a1 Road Traffic accident mortality(per 100,00 population)	33.7[p]	25.25	16.8	-	-	-
Target 3.6b by 2020, halve the number of injuries from road traffic accidents						
3.6b1 Serious Injuries (per 100,000 population)	71.7[p]	53.8	35.9[b]			
3.6a2 Slight Injuries (per 100,000 population)	163.7[p]	122.8	81.9 [b]			
3.7 by 2030 Ensure Universal access to sexual and reproduction reproductive health care service including for family planning information and education and integration of reproductive health International strategy and programs						
3.7a Contraceptive prevalence rate modern method percent	49.6 [c]	54.4	59.1	62.3	67.1	75
3.7.b proportion of birth attended by SBA(%)	55.6 [c]	62.1	68.5	72.8	79.3	90
3.7c Adolescent fertility rate (birth per 1,000 women age 15 to 19 years)	71 [c]	63.3	55.6	50.5	42.81	30
3.7d antenatal care(ANC) coverage at least 4 vigit (%)	59.5 [c]	65.2	70.9	74.75	80.5	90
3.7e Institutional delivery(%)	55.2 [c]	61.73	70	74.35	80.88	90
3.7f Postnatal care (PNC) for mothers(%)	57.9 [c]	63.92	70	74.01	80.03	90
3.7g Unmet need for family planning(%)	25.2 [c]	22.4	19.5	17.6	14.75	10
3.7h Proportion of demand satisfied for family planning(%)	-	-	-	-	-	-
3.7 I Total Fertility rate(TFR) (births per women)	2.3 [c]	2.3	2.20	2.16	2.106	2
3.7j Household within 30 minute travel time to a health facility(%)	61.8 [q]	67.09	85	86	87.5	90
3.7 k prevalence of uterine prolapse among women of reproductive age (15 - 49)(%)	7 [r]	5.7	4.4	3.6	2.25	0.1
Target 3.8 Achieve Universal health coverage, including financial risk protection, access to quality essential Health-care service and access to safe, effective, quality and affordable essential medicine and action for all						
3.8a Government health expenditure as % of GDP	5.3[s]	5.81	6.31	6.65	7.16	8
3.8a Health facilities meeting minimum standard of quality of care(%)	-	-	-	-	-	-
3.8 Children is 12 - 20 months who received all vaccinations(%)	84.5 [c]	87.41	90.31	92.25	95.16	100
3.9 2030, substantially reduce the number of death and illness from hazardous Chemicals and air, water and soil pollution and contamination						
3.9a Daeths from hazardous chemicals(toxic substances, etc.) number)	22 [j]	18	14	11	7	0
3.9b Illness from hazardous Chemicals toxic substance, etc (number)	1205 [j]	998	791	653	445	100

Sources: a WHO et al 2015,[b] MOHP,2015,[c]CBS,2014a, [d] MOHP2014a, [e] MOHP2014a, [f] MOHP2014c, [g]MOHP2014d, [h] MOHP2014a, [i] MOHP2012a, [j]MOHP2013a, [k] WHO2012, [l]MOHP/WHO2014, [m] NHRC,2013, [n] WHO,2014, [o] MOHP,2012a, [p]Thapa2013, [q]CBS,2011, [r]MoHP,2006a, [o] MOHP,2009c.

Source: SDG 2016-2030 National (Preliminary) Report

Annex 4: **TARGET POPULATION OF KARNALI PROVINCE FISCAL YEAR 2076/77**

DISTRICT	DOLPA	MUGU	HUMLA	JUMLA	KALIKOT	DAILEKH	JAJARKOT	RUKUM WEST	SALYAN	SURKHET	KARNALI PROVINCE
Total Population	42111	63636	58468	124503	158482	296147	197353	169732	271187	415203	1796822
Exp. Live Births	861	1270	1183	2541	3200	6224	4066	3888	5971	8892	38096
00 - 11 Months	835	1231	1147	2464	3103	6036	3943	3770	5790	8623	36942
02 - 11 Months	807	1190	1109	2383	3001	5837	3813	3646	5599	8338	35723
12 - 23 Months	867	1322	1209	2567	3280	6048	4057	3450	5450	8425	36675
00 - 23 Months	1701	2553	2356	5031	6383	12084	8000	7220	11240	17048	73616
06 - 23 Months	1284	1938	1783	3799	4832	9066	6029	5335	8345	12734	55145
00 - 35 Months	2564	3869	3560	7597	9648	18106	12039	10664	16666	25436	110130
00 - 59 Months	4271	6466	5936	12632	16092	29990	20012	17483	27374	41992	182248
06 - 59 Months	3854	5851	5303	11400	14541	26972	18041	15598	24479	37678	163777
12 - 59 Months	3436	5235	4789	10168	12989	23954	16069	13713	21584	33369	145306
00 - 14 Years	12265	18550	17030	36244	46163	86051	57418	50315	78569	120507	523112
Total: 10-19 Years	8358	12649	11613	24718	31480	58707	39160	34109	53631	82228	356653
Male: 10-19 Years	4462	6903	6259	13220	17001	30542	20762	16371	26612	41992	184124
Female: 10-19 Years	3896	5746	5354	11498	14479	28165	18396	17738	27019	40236	172529
Female: 15-44 Years	10569	15590	14528	31199	39286	74422	49924	47449	73315	109180	467462
WRA 15-49 Years	11621	17141	15974	34304	43196	84029	54892	51882	80612	120046	513697
MWRA 15-49 Years	8809	12993	12108	26002	32743	63694	41608	39327	61104	90994	389382
Expected Pregnancy	1015	1498	1395	2996	3774	7340	4795	4585	7041	10486	44925

Annex 5 : TARGET POPULATION OF KARNALI PROVINCE FISCAL YEAR 2077/78

Geographic Name	Dolpa	Mugu	Humla	Jumla	Kalikot	Dailekh	Jajarkot	Rukum West	Salyan	Karnali
Total Population	42767	64651	59390	126380	161109	300261	200510	171361	274565	1824131
Exp. Live Births	859	1266	1182	2537	3194	6202	4064	3883	5965	38073
00 - 11 Months	834	1229	1147	2463	3101	6020	3945	3769	5790	36958
02 - 11 Months	806	1188	1109	2382	2999	5821	3815	3645	5599	35738
12 - 23 Months	858	1307	1195	2537	3249	5976	4016	3387	5369	36257
00 - 23 Months	1692	2536	2342	5000	6350	11996	7961	7156	11159	73215
06 - 23 Months	1275	1922	1769	3769	4800	8986	5989	5272	8264	54736
00 - 35 Months	2561	3861	3553	7571	9641	18049	12028	10596	16597	109950
00 - 59 Months	4302	6515	5978	12717	16226	30158	20165	17501	27479	183481
06 - 59 Months	3885	5901	5405	11486	14676	27148	18193	15617	24584	165002
12 - 59 Months	3468	5286	4831	10254	13125	24138	16220	13732	21689	146523
00 - 14 Years	12271	18577	17048	36260	46254	85985	57488	50048	78377	523326
Total: 10-19 Years	8189	12393	11375	24199	30869	57413	38377	33209	52360	349207
Male: 10-19 Years	4386	6788	6143	12967	16725	29956	20385	15874	25951	180500
Female: 10-19 Years	3803	5605	5232	11232	14144	27457	17992	17335	26409	168707
Female: 15-44 Years	10726	15814	14763	31688	39897	77456	50757	48201	74503	475230
WRA 15-49 Years	11808	17410	16252	34885	43922	85272	55878	52767	82021	522883
MWRA 15-49 Years	8950	13197	12319	26443	33293	64636	42356	39997	62172	396345
Expected Pregnancy	1013	1493	1394	2992	3767	7314	4792	4579	7034	44897
60 & + Years	3721	5624	5166	10994	14015	26132	17444	13239	23908	157078

Annex 6: SOME LOCAL LEVEL'S INDICATORS FISCAL YEAR 2076/77

Organization unit / Data	BCG Coverage	DPT-HepB-Hib3 Coverage	MR 2 Coverage	growth monitoring Coverage(0-23 months)	% of hildren aged 0-23 who were Underweight	Incidence of ARI (per 1000)	incidence of Diarrhoea	four ANC %	SBA Delivery%	% of institutional deliveries %	FP Methods New acceptor among as % of MWRA	Leprosy New case	No. of new TB cases registered	OPD Visit %
DOLPA	109.4	92.8	72.4	134	3	655.7	353.7	40.2	31.8	46.2	22	2	10	103
Dolpo Buddha RM	161.2	153.1	223.3	45.6	0	14.9	34.8	25.5	5.9	5.9	43.9	0	0	110.1
Shey Phoksundo RM	27	24.3	13.2	78.4	0	152.7	30.5	9.2	5.3	2.6	10.5	0	0	64.2
Jagadulla RM	84.6	100	70.6	80	4.2	346.4	212.4	81.5	14.8	51.9	14	0	0	137
Mudkechula RM	123.5	84.3	55.3	198.2	6.6	812.1	512.7	42.4	16.9	50.8	18	0	0	101.8
Tripurasundari M	105.6	100.9	68.9	97	0.2	762.2	287.2	35	36.7	57.9	19	0	0	62
Thulibheri M	124.4	97	72.4	150.9	3.2	775.5	461.5	60.9	58.4	72.8	26.5	2	10	166.7
Kaike RM	115.5	82.1	75.7	143.7	4.4	486.3	261	20.7	33.3	19.5	22.6	0	0	75.1
Chharka Tangsong RM	129.4	120.6	142.1	386.8	0	1084	1 168.1	22.2	13.9	8.3	30.5	0	0	109.1
MUGU	122.2	119.8	77.1	200.8	11.6	1024	750.7	45.5	59.8	64.4	20.8	0	31	97.2
Mugumkarmarog RM	74.6	75.4	83.3	87	2.1	930.9	679.5	35.4	20.8	39.2	14.7	0	1	74.3
Chhayanath Rara M	136.8	126.9	86.1	176.9	5.3	648.5	416.8	49.2	66.5	72.9	17.8	0	20	107.3
Soru RM	125.3	111.2	50	270.3	23.9	1400.3	1 125.2	28.4	38.5	39.9	23.8	0	7	129.1
Khatyad RM	118.3	131.9	87.2	207.4	6.6	1 194	867.3	56.6	79.7	79.7	24.4	0	3	70.1
HUMLA	113.8	115.5	66.2	109.5	13.5	810.8	578.9	49.7	76.3	88.2	25.2	1	18	130.6
Chankheli RM	69.1	81.3	28.2	103.1	5.1	442.5	299.1	57.5	18.1	81.1	9.7	0	0	108.4
Kharpunath RM	104.4	102.9	78	80.4	6.5	1428.8	1135.5	57.4	63.1	83	25.7	0	0	145.8
Simkot RM	114.1	93.5	108.3	133.7	14.3	606.4	409.6	91.6	107.4	110.5	41.6	0	12	131.6
Namkha RM	49	67.6	64.2	194.8	8.9	717.5	571.4	0	9.5	7.6	22.7	0	0	105.3
Sarkegad RM	133.6	165	75.5	111	15.6	910.9	673.5	16.3	89	98.2	12.2	0	0	181.3
Adanchuli RM	166.2	163.7	51.1	4	26.7	320.4	247.2	31.3	77.9	81	28.7	1	6	78.9
Tanjakot RM	118.9	103.8	44.2	194.4	19.8	1405.6	856.8	62.8	107.3	107.3	23.9	0	0	130.4

Organization unit / Data	BCG Coverage	DPT-HepB-Hib3 Coverage	MR 2 Coverage	growth monitoring Coverage(0-23 months)	% of hildren aged 0-23 who were Underweight	Incidence of ARI (per 1000)	incidence of Diarrhoea	four ANC %	SBA Delivery%	% of institutional deliveries %	FP Methods New acceptor among as % of MWRA	Leprosy New case	No. of new TB cases registered	OPD Visit %
JUMLA	96.8	94.7	74.8	196.6	8.5	1004.5	743.2	46	48.5	60.8	19.8	8	64	101.1
Patarasi RM	93.3	87.5	78.1	107	4.9	952.2	769.2	26.9	35.5	35.5	9.5	0	12	66.8
Kanaka Sundari RM	83.7	81.4	46.3	208	12.1	1312.7	636.2	41.8	58.5	57.9	15.7	1	7	55.3
Sinja RM	99.3	117.4	69.1	73.2	2.5	719.9	580.1	23.7	42.3	42.3	5.9	0	3	86.3
Chandannath M	106.5	89.3	141.7	81.8	1.2	736	722	87.2	75.7	137.5	54	1	17	214.3
Guthichaur RM	84.8	75.3	70	295.4	4.8	869.2	856.5	38.5	48.5	48.5	13.7	0	9	124.1
Tatopani RM	101.8	90	49.7	127.6	8.2	651.3	474.1	29.7	29.7	29.7	8.1	0	9	39.4
Tila RM	95.7	112.6	74.1	381	10	1 624	1098.1	51.1	44.1	49.2	12.6	4	2	90
Hima RM	102.1	108.5	70.7	376.4	12	1112.2	801.4	43.6	37.9	35.4	14.6	2	5	72.9
KALIKOT	111.7	116.1	73.5	125.2	11.9	1091.9	898.6	64.7	77.3	90.6	17.9	9	59	87
Palata RM	135.1	130.7	70.7	202.4	16.9	1256.4	620.4	48	66.7	68.6	16.9	0	7	186
Pachal Jharana RM	111.4	128.6	84.9	132.9	12.6	1339.4	1 180.2	76.1	54.7	74	15	0	9	93.7
Raskot M	112.9	115.6	80	154.4	12.1	917.1	927.1	88.5	92.2	109.1	12.5	0	5	59.9
Sanni Tribeni RM	88	100.7	76.1	133.3	9.2	1002.1	807.3	63.5	69.4	71.4	15.3	1	2	71.6
Naraharinath RM	109.7	111.8	75.2	92	4.1	1165.2	871.3	70.6	70	97.6	16.6	4	7	76.4
Khandachakra M	128.1	132.3	76.1	116.7	12.4	1103.4	974.3	45	137.4	140.5	32.8	2	17	91.9
Tilagupha M	111.7	108.1	67.4	110.5	6.3	1115.3	996.8	77.3	41.6	78.1	18.4	0	6	69.3
Mahawai RM	103.7	98.4	60.1	66.6	11.4	969.9	927.7	49.2	59.5	61.5	9.6	0	2	83.8
Kalika RM	90.8	106	68.2	103.2	19.2	888.1	828.5	61.3	70.9	70.9	14.4	2	4	50.9
DAILEKH	92.2	100.8	77.3	79.8	3.7	1270.6	955.5	57.9	43.3	74.4	17.7	9	155	75.8
Naumule RM	87.2	91.4	79.6	103.2	3	1256.7	1359	47.6	28.9	60.7	21.9	0	10	94.4
Mahabu RM	95.9	95.2	71.6	88.4	3.3	1438.1	1200.6	46.7	30.5	59.9	16.1	1	5	76.4
Bhairabi RM	67.5	80.3	51.3	50.8	6.4	624.2	635.9	35.8	22.6	52	10.5	1	9	37.2

Organization unit / Data	BCG Coverage	DPT-HepB-Hib3 Coverage	MR 2 Coverage	growth monitoring Coverage(0-23 months)	% of hildren aged 0-23 who were Underweight	Incidence of ARI (per 1000)	incidence of Diarrhoea	four ANC %	SBA Delivery%	% of institutional deliveries %	FP Methods New acceptor among as % of MWRA	Leprosy New case	No. of new TB cases registered	OPD Visit %
Thantikandh RM	131.2	127.2	68.3	103.7	3.2	1062.4	972.9	64.9	74.1	104.7	20.6	0	19	72.8
Aathbis M	101.9	113.8	64.2	70.5	3.7	1011.7	801.8	47.2	43.6	65.8	13.6	2	16	73.5
Chamunda Bindrasaini M	95.3	107.2	57.9	57.5	4.9	854.2	723.9	56.5	33.4	81	13	2	17	39
Dullu M	102.6	119.4	97.6	112.4	3.1	1698.3	919.7	74.2	46.7	88.4	18.2	2	28	74
Narayan M	93.2	93.2	128.6	98.5	2.9	1621.5	1285.6	79.7	79	100.7	33.5	0	21	120.1
Bhagawatimai RM	81.2	82.8	74.8	56.3	6.3	1758.9	1278.4	51.5	23	69.2	14.4	0	4	89.8
Dungeshwor RM	64.7	84.8	93.5	57.2	4.7	1715.3	955.5	61.4	43.8	54.1	18	1	14	82.1
Gurans RM	77.1	89	65.9	52.4	2.5	1066.9	634.8	52.3	36.8	57.3	10.5	0	12	73.4
JAJARKOT	109.8	105	70.3	87.5	6.3	892	648.5	34.5	31.2	46.9	16.2	11	131	60.3
Barekot RM	115.9	118.1	83.3	121.6	6.3	820.3	770.8	65.5	63.9	81.1	17.6	2	18	69.4
Kuse RM	108.1	104.7	65.5	89	11.3	1503.2	1122.5	43.2	23.3	55.6	17.5	2	9	65.5
Junichande RM	99.8	86.7	45.6	75.5	6	593.6	477.8	15.6	20.2	20.8	10	2	13	56.4
Chhedagad M	113.3	114.3	80.1	105.8	4.4	841.6	666.7	38.1	32	47.8	14.1	1	15	58.4
Shivalaya RM	111.6	116.1	64.4	88.2	0.3	660.5	364	18.4	4.1	5.8	9.8	0	9	53.2
6 Bheri M	110.4	101.8	86.8	71	5.4	575.6	470.6	32.9	40.8	51.2	18.7	2	30	55.4
Nalagad M	108.2	96.3	60.8	68.4	10.9	1272.7	668	28.7	25.4	54.8	22.2	2	37	66.6
RUKUM WEST	104.5	101	86.4	89	3.7	690.3	460.4	63.2	61.2	74	21	12	119	97.7
Aathabisakot M	106.2	102.2	65.6	54.9	4.3	689.4	593.4	26.9	46.6	52.5	14.1	5	45	43.4
Sanibheri RM	83.9	82	62.8	105.4	3.2	327.5	236.9	18.7	20	21.1	17.5	0	6	49.9
Banphikot RM	105.8	112.6	77.2	80.7	0.5	999.1	666.5	71.5	48.8	48.8	17.6	1	14	103.4
Musikot M	96.7	95.2	112	88.3	3.7	613.7	372	66.7	81.1	84.1	31.9	0	29	137.2
Tribeni RM	117.8	105.5	110.2	118.9	5.9	839.8	476.4	66.8	58.6	60	22.2	0	11	78.2
Chaurjahari M	118.1	111	103.3	105.8	3.6	774.5	406.8	129.5	97	155.9	19	6	14	161.6

Organization unit / Data	BCG Coverage	DPT-HepB-Hib3 Coverage	MR 2 Coverage	growth monitoring Coverage(0-23 months)	% of hildren aged 0-23 who were Underweight	Incidence of ARI (per 1000)	incidence of Diarrhoea	four ANC %	SBA Delivery%	% of institutional deliveries %	FP Methods New acceptor among as % of MWRA	Leprosy New case	No. of new TB cases registered	OPD Visit %
SALYAN	88.8	91.5	85.7	84.2	3.5	933.1	615.8	64.1	60.1	60.3	14.8	9	165	84.4
Darma RM	96.2	94.5	76.8	97.8	1.3	1044.6	657.4	67.7	56	56	17.5	0	2	81.2
Kumakh Malika RM	88.5	89.9	70.1	94.1	2.6	793.7	599.8	40.4	20.1	20.6	12.9	1	8	70.4
Banagad Kupinde M	87.6	93.4	69.1	64.2	8	852.6	574.7	31	33	33.1	14.3	3	24	45.4
Dhorchaur RM	92.5	94.4	98	87.4	4.6	865.4	629.8	48.9	26.1	26.1	15.3	1	7	66.5
Bagachouunicipality	85.2	85.2	97.5	90.5	3	1209.5	641.6	67.3	62.7	63.3	14.1	3	14	98.3
Chhatreshwori RM	103.5	98.4	107.3	82.9	2.7	1170.1	639	49.2	44.7	44.9	11.3	0	33	88.2
Sharada M	88.2	92.5	107.4	76.2	3.2	860.6	592.2	151.7	168.1	168.1	19.4	0	16	134.1
Kalimati RM	68.2	75.9	68.6	80.6	4.4	873.7	576.2	44.5	33.8	34	14.1	0	18	80.9
Tribeni RM	98	106.8	115.9	95.6	2.2	1060.3	784.3	54	55.5	55.5	16.7	1	16	89.5
Kapurkot RM	88.8	92	71.5	91	2.9	556.7	550.6	48.2	42.2	42.2	11.6	0	27	71.6
SURKHET	103.7	91.1	79.3	70.5	2.8	798.6	581.1	84.6	79.6	92.2	17.7	16	471	113.1
Simta RM	81.1	83.6	70.3	61.8	2.8	1370.9	989.7	54.8	20.4	49.6	16.1	1	23	116.7
Chingad RM	80	90.4	62	53.8	2.4	1020.7	746.4	59.7	24	61.3	14.4	0	15	106.4
Lekabeshi M	54.5	71	63.9	84.2	2.6	697.9	551.4	49.8	28.2	38.4	11.4	0	37	80.2
Gurbhakot M	77.9	88.5	80.2	108.2	2.8	905.9	584.6	66	58.1	72.8	14.9	2	58	149.2
Bheriganga M	78.2	88.5	77	48.7	3.2	853.1	546.7	60.7	44.7	46.8	9.4	1	56	62.2
Birendranaga Mun	160.6	100.4	120.2	74.7	2	569.2	457.8	139.1	169.1	171.5	26.5	9	191	159.4
Barahatal RM	60.8	69.7	55	70.2	2	668.7	507.6	59.4	24.2	38	15.2	0	33	88.9
Panchapuri M	100.4	103.5	65	65.6	3.2	779	573.8	71.8	72.9	82.3	15.2	2	35	81.5
Chaukune RM	101.2	102.2	60.7	40.1	7.8	752	577.2	60.4	25.3	67.3	15.7	1	23	43.8
Karnali Province	101.5	99.4	78.1	98.4	6.2	941.6	683.6	61.9	59.4	73.2	18	77	1223	92

Annex 8: SOME LOCAL LEVEL'S INDICATORS FISCAL YEAR 2076/77

Organisation unit / Data	BCG Coverage	DPT-HepB-Hib3 Coverage	MR 2 Coverage	% of children 0-23 months	% of children aged 0-23 Underweight	Incidence of Diarrhea <5 years	Four ANC checkups as per protocol	Skilled Birth Attendant (SBA) %	% of Institutional deliveries	FP Methods New acceptor among as % of MWRA	Leprosy New case detection	TB - Case notification rate	Malaria ABER	% of OPD New Visits
Karnali Province	92.7	88.5	77.5	91.7	5.1	656	65.6	62.7	77.5	19	3.1	68.9	0.61	100.8
DOLPA	98.2	94.4	69.9	198.9	2	421.7	30.1	34.4	49.5	24	0	40.4	0.01	103.6
Dolpo Buddha Rural Municipality	77.6	73.5	120.7	19.2	0	227.7	12	0	0	25.2	0	0	0.00	104.8
Shey Phoksundo Rural Municipality	67.6	45.9	48.6	30.9	0	433.5	3.9	2.6	0	21	0	0	0.00	60.2
Jagadulla Rural Municipality	61.5	125	85.1	316.8	3.7	407.2	75.9	27.8	40.7	28.8	0	0	0.00	117.4
Mudkechula Rural Municipality	94.7	99.1	60.5	191.9	6.2	382.4	39	22	70.3	15.5	0	0	0.00	141.2
Tripurasundari Municipality	107.3	99.6	69	271.5	1.2	431.4	41.4	43.5	56.5	24.6	0	0	0.00	63.3
Thulibheri Municipality	120.9	85.2	60	236.3	0.3	434.7	25.6	73.4	81.8	30.5	0	172	0.05	155.8
Kaike Rural Municipality	97.6	126.2	94.6	51.3	3.7	448.1	9.3	0	23.3	25.9	0	0	0.00	70.5
Chharka Tangsong Rural Municipality	70.6	105.9	77.8	30.8	0	700	11.4	0	0	4.7	0	0	0.00	104.9
MUGU	102.4	100.4	90.3	190.7	13.8	606.4	47.4	69.6	82.3	23.6	0	89.6	1.20	118.9
Mugumkarmarog Rural Municipality	97.6	87.3	93.3	204.2	5.2	737.1	26.9	30	38.5	27.2	0	30.7	0.00	120.3
Chhayanath Rara Municipality	111	106.8	93.1	231.5	14	448	39.6	70.4	99.6	22.1	0	169.7	2.14	70.1
Soru Rural Municipality	110.4	109.7	78.9	182.2	20.4	903.6	48	60.6	62.1	26.4	0	57.6	0.00	156.7
Khatyad Rural Municipality	88.2	90.5	95.8	144.1	10.4	523.1	63.1	88	90.3	22.2	0	35.6	1.30	150.2
HUMLA	112.1	99.8	77.9	153.9	3.7	620.3	53.2	58.5	80.5	23.6	1.7	42.8	0.72	130.5
Chankheli Rural Municipality	113.8	103.3	82.7	89.8	3.5	559	42.1	44.4	69.8	19.3	0	0	0.69	107.6
Kharpunath Rural Municipality	141.2	117.6	97.3	303.5	0.8	1142.5	88.6	80	110	20.3	0	0	0.00	191.3
Simkot Rural Municipality	122.4	88.8	95.5	127.4	6.6	308.9	47.6	81.9	88.9	38.9	7.1	176.7	0.00	140.1
Namkha Rural Municipality	35.3	19.6	58.5	184.5	1	726.7	7.6	10.5	14.3	17.8	0	0	0.00	115.3
Sarkegad Rural Municipality	103.6	116.4	81.5	110.1	0.9	604.1	40.7	47.8	65.9	14.9	0	0	0.00	109.2
Adanchuli Rural Municipality	150.3	142	75.5	149.1	6.3	625.6	41.4	89.5	89.5	9.8	0	0	1.25	93.8
Tanjakot Rural Municipality	87.1	85.6	34.6	178.6	7.1	624.7	108.8	17.6	106.6	34.1	0	0	4.12	159.6
JUMLA	91	85	70.7	87.7	5.9	780.9	50.1	48.2	70.5	17.9	0.8	70.7	0.08	110
Patarasi Rural Municipality	103.1	97.9	59	62.1	8.1	822.1	23.7	32.8	34.6	6.6	0	96.7	0.07	68.4
Kanaka Sundari Rural Municipality	74.8	73.1	61.4	152.4	10.2	637.3	28.1	49.7	57.4	14.8	0	105.3	0.00	82.1
Sinja Rural Municipality	86.2	82.9	65.1	76.3	1.1	715.6	27.7	55.4	57.6	8.7	0	58.8	0.00	67.1
Chandannath Municipality	83.1	73.5	100	53.2	1.2	774.4	108.7	67.7	169.6	34.5	0	53.8	0.38	225.5
Guthichaur Rural Municipality	84.8	82.5	72.4	68.4	1.4	768.3	52.2	42.6	42.6	13.7	0	88.7	0.00	113.5

Organisation unit / Data	BCG Coverage	DPT-HepB-Hib3 Coverage	MR 2 Coverage	% of children 0-23 months	% of children aged 0-23 Underweight	Incidence of Diarrhea <5 years	Four ANC checkups as per protocol	Skilled Birth Attendant (SBA) %	% of Institutional deliveries	FP Methods New acceptor among as % of MWRA	Leprosy New case detection	TB - Case notification rate	Malaria ABER	% of OPD New Visits
Tatopani Rural Municipality	90.9	89.1	75.3	125.7	4.4	625.9	35.4	31.6	31.6	19	0	42.2	0.00	59.6
Tila Rural Municipality	107.3	91	74.1	94.1	9.2	1092	51.9	46.8	50	14.4	0	26.3	0.00	95.7
Hima Rural Municipality	102.1	97	60.9	70.5	4.6	750	37.4	49.8	57.6	19.9	8.4	117.7	0.00	103.3
KALIKOT	106.3	96.6	81.3	150.8	9.4	925.9	80.6	83.2	95.8	18.8	5	46.7	0.27	108.2
Palata Rural Municipality	120.5	105.3	81.7	323.6	12.8	560.6	77.9	57.5	97.7	26	17.2	57.3	0.00	174.9
Pachal Jharana Rural Municipality	94.6	101.1	99.7	103.9	17.3	1143.2	60.6	54.7	73.4	11.7	7	76.9	0.15	110
Raskot Municipality	130.7	96.5	66.5	144.2	16.7	946.1	84.3	107.3	111.7	12.7	0	26.4	0.00	120.9
Sanni Tribeni Rural Municipality	99	92.1	103.7	103	3.6	989.6	85.4	81.7	82.1	21	0	20.1	0.00	117.4
Naraharinath Rural Municipality	97.5	88	75.3	220.5	2.7	1068.7	88.6	76.8	95	20.4	4.1	24.3	0.19	89.2
Khandachakra Municipality	120.5	101.1	96.6	88.2	13	1057.5	97.7	135.4	140.7	27.6	0	87	1.48	99.4
Tilagupha Municipality	96.9	108.1	79.3	89.9	3.1	960.8	71.8	64.8	77.2	15.5	5.5	38.3	0.00	82.9
Mahawai Rural Municipality	82.5	93.7	52.4	94.8	8.3	782.1	49.2	57.9	59.5	11.2	0	41.5	0.00	131
Kalika Rural Municipality	96.2	82.2	71.5	138.2	7.4	734.2	83.4	77.5	84.3	15.4	12.4	43.4	0.00	68.3
DAILEKH	77	79.4	67.5	70.2	4.9	930	66.3	49.9	77.3	21.8	2.7	47.6	0.16	86.2
Naumule Rural Municipality	74.4	70.6	65.8	68.3	2	1140.3	44.2	34	57.6	17.8	4.3	68.4	0.02	102.4
Mahabu Rural Municipality	69.8	87.5	72.6	88.3	7	1185.6	45.4	23.6	55.9	20.7	0	32.4	0.00	99.2
Bhairabi Rural Municipality	78.6	79.6	62.1	68.1	3.4	693	47.2	48	57.1	12.2	0	45.7	0.00	41.9
Thantikandh Rural Municipality	91.6	92.8	54.7	112.3	11.4	902.7	68.3	56.1	98	18.4	0	47.5	0.00	71.3
Aathbis Municipality	90.4	80.2	57.6	69.3	5.8	817.7	52.2	41.4	67.7	13.4	12.2	45.8	0.19	78
Chamunda Bindrasaini Municipality	82.6	66.2	39.8	31.7	12.3	742.4	62.1	61.4	87.7	11.3	3.4	61.3	0.00	60.6
Dullu Municipality	76.9	87.9	85.1	73.4	2.4	843.3	72.1	50.1	89.5	19.3	4.2	61.5	0.27	73.9
Narayan Municipality	77.4	81.6	97.8	64.9	3.1	1309	122.7	92.1	102.8	60.6	0	36.9	0.80	140
Bhagawatimai Rural Municipality	74.2	82	59.2	69.6	1.5	1242.8	81.2	34.9	80.3	12.7	0	38.5	0.00	98.5
Dungeshwor Rural Municipality	62.5	66	81	63.2	3.6	940.1	58.2	52.5	52.5	27.8	0	43.7	0.12	109
Gurans Rural Municipality	60.3	72.2	72.9	76	2.2	667.4	54.2	37.3	76.5	14.2	0	27.7	0.02	81.9
JAJARKOT	92.9	96.9	76.6	93.4	4.6	600.7	44.8	41.4	56.1	16.8	4.1	43.1	0.00	67.3
Barekot Rural Municipality	90.6	100.7	91.8	101.9	6.6	662.2	82.9	74.8	99.3	21.4	0	77	0.00	73.3
Kuse Rural Municipality	110.5	109.6	78.1	107.2	7	1019.5	57.1	29.8	66.3	23.2	4.3	17.1	0.00	62.2
Junichande Rural Municipality	82.2	80	52.1	120	4.6	509.4	24.6	19.8	31	10.2	0	16.3	0.00	57
Chhedagad Municipality	89.8	100.2	77.6	74.6	5	574.2	45.2	41.5	54.6	13.1	7.5	24.9	0.00	64.3
Shivalaya Rural Municipality	76.7	91.2	83	112.2	0.7	330.6	25.6	6.6	7.7	10.1	0	28.4	0.00	46

Organisation unit / Data	BCG Coverage	DPT-HepB-Hib3 Coverage	MR 2 Coverage	% of children 0-23 months	% of children aged 0-23 Underweight	Incidence of Diarrhea <5 years	Four ANC checkups as per protocol	Skilled Birth Attendant (SBA) %	% of Institutional deliveries	FP Methods New acceptor among as % of MWRA	Leprosy New case detection	TB - Case notification rate	Malaria ABER	% of OPD New Visits
Bheri Municipality	101.7	102.9	89.6	80.8	3.7	467.4	40.6	51.5	58.1	18.9	7.2	58	0.02	69.5
Nalagad Municipality	90.8	88.6	69.7	83.2	4.1	639.2	41.6	51.3	66.7	19.5	3.4	74.8	0.00	89.7
RUKUM WEST	95.4	91.2	86.2	87.6	2.4	531.2	65.1	65	73.8	22.5	2.4	99.6	0.71	140
Aathabisakot Municipality	96.2	85.5	63.6	62.9	1.7	856.3	40.7	49.4	53.8	18.9	8.3	179	0.00	92.3
Sanibheri Rural Municipality	88.5	95.7	81.5	80	0.9	301.9	25	27.9	29.4	17.3	0	75.2	0.00	75.6
Banphikot Rural Municipality	103.5	104.2	95.3	107.1	2.5	688.1	55.8	44.8	44.2	29.8	0	88.6	0.00	155.2
Musikot Municipality	84.5	81.6	110.5	81.4	2.9	399.9	79.6	74.2	77.1	28.9	0	106.1	0.00	114
Tribeni Rural Municipality	92.6	100	98.5	97.1	2.1	357.7	52.7	52.1	52.7	18.2	0	28.3	0.00	98.9
Chaurjahari Municipality	110.1	91.8	82.5	113.9	3.3	428.5	123.1	124.1	163.8	20.6	3.3	72.7	3.99	299.4
SALYAN	85.5	85.2	82.8	82.2	2.4	601.5	69.7	57.5	63.1	15.6	2.6	60.5	0.02	83
Darma Rural Municipality	91.3	93.4	74.7	80.1	4.9	704.2	66	54.9	59.2	17	0	45.1	0.00	104.1
Kumakh Malika Rural Municipality	85.6	74.8	63.6	75.8	1.5	611.8	58.3	26.5	26.5	12.1	0	14.4	0.00	72.3
Banagad Kupinde Municipality	79.8	80.8	67.5	77	2.1	567.3	37.1	23.9	33.3	18.3	5	69.5	0.00	71
Siddha Kumakh Rural Municipality	99.1	95	83.2	62.4	1.3	621.4	44.3	28.3	29.8	11.7	6.6	79.6	0.00	84.9
Bagachour Municipality	82.9	82.3	83.6	86.1	2	596.9	64.5	65	65.1	14.9	2.6	20.9	0.00	78.8
Chhatreshwori Rural Municipality	92.6	89.2	100.9	85.1	3.6	571.5	46.5	28.7	45.5	12.1	0	96	0.00	84
Sharada Municipality	85.9	89.7	111.5	91	2.4	569.1	171.4	169.6	171.8	22.6	0	66.9	0.00	93.7
Kalimati Rural Municipality	78.2	78.9	77.4	102.1	1.8	606.9	50.5	30.6	38.2	14.1	3.9	54.3	0.16	81.9
Tribeni Rural Municipality	93.2	95	111	63.6	1.1	725.9	58.5	45.9	56.3	15.6	5.4	59.1	0.00	100.3
Kapurkot Rural Municipality	78.4	82.6	77.7	83.2	2.7	509.4	49.8	40.9	48.2	10.5	4.9	137.1	0.00	69.3
SURKHET	98.4	86.3	77.6	59	2.4	469.7	79	82.8	95.7	17.4	4.3	100.7	1.81	109.7
Simta Rural Municipality	77.3	88.8	65.6	66.9	1.8	837	55.2	37.9	57.5	19.8	3.2	54.9	0.35	133.7
Chingad Rural Municipality	76.5	79.6	59.7	61.1	2.3	700.6	58.1	27.2	62.6	15.5	0	99.6	0.05	127.7
Lekabeshi Municipality	49.6	64.9	65.5	41.2	1.4	401.2	45.6	24.3	39.5	10.6	0	87.1	1.34	92.8
Gurbhakot Municipality	73.2	85.1	75.4	75.7	2.2	400.7	59.3	60.2	70.2	16.1	3.8	97	2.89	101.7
Bheriganga Municipality	71.9	84.9	62.8	46.3	2.8	436.5	54	36.5	45.7	10.4	6.1	83.9	0.34	54.9
Birendranagar Municipality	162.6	97.6	126.1	56.3	2.9	393.9	134.2	185.7	187.6	22.7	8.7	126.4	3.33	156.9
Barahatal Rural Municipality	53.3	67.2	59.9	63.7	2.4	431	52.1	11.9	34.7	17.8	0	69.5	0.84	95.6
Panchapuri Municipality	79.9	88	64.3	82.6	2.9	471.7	62.6	62.3	71.8	17.3	2.7	133.4	1.32	80.4
Chaukune Rural Municipality	82.8	90.3	57.2	36.7	1.7	434.2	50.9	19.8	59.8	15.3	0	82.3	0.83	48.2


KARNALI PROVINCE
N
CHINA(TIBET)
SUDURPASCHIM PROVINCE
PROVINCE 5
PROVINCE 5
GANDAKI PROVINCE
HUMLA
MUGU
JUMLA
DOLPA
KALIKOT
DAILEKH
JAJARKOT
RUKUM
SURKHET
SALYAN
Namkha
Simkot
Kharpunath
Chankheli
Sarkegadh
Adanchuli
Tajakot
Soru
Mugumakarmarog
Khatyad
Chhayanath Rara
Kanakasundari
Patarashi
She Foksundo
Dolpo Buddha
Palata
Raskot
Sinja
Shanni Tribeni
Hima
Chandannath
Pachaljharana
Narahariinath
Teela
Jagadulla
Guthichaur
Khandachakra
Teelagupha
Tatopani
Shubha Kalika
Mudkechula
Tripurasundari
Aathbish
Mahawai
Barekot
Chharka Tangsong
Thatikandh
Bhairabi
Mahabu
Naumule
Thulibheri
Chamunda Bindrasaini
JuniChande
Kuse
Tibeni Nalgaadh
Aathbishkot
chaukune
Narayan
Kaike
Dullu
panchpuri
Bhagawatimai
Dungeshwor
Chhedagaadh
Guraash
Shivalaya
Bheri
Banfikot
Shani Bheri
barahtaal
Chaurjahari
chingad
Musikot
birendranagar
Kumakhmalika
Darma
Tribeni
lekbesni
simta
Bangaad Kupinde
Bagachaur
bheriganga
Siddha Kumakha
gurbhakot
Sharada
Chhatreshwori
Kalimati
Tribeni Kapurkot
Legend
Secondary Hospital B
Teaching Hospital
Secondary Hospital A
Primary Hospital
Hospital
Primary Health Care Centre
Health Post