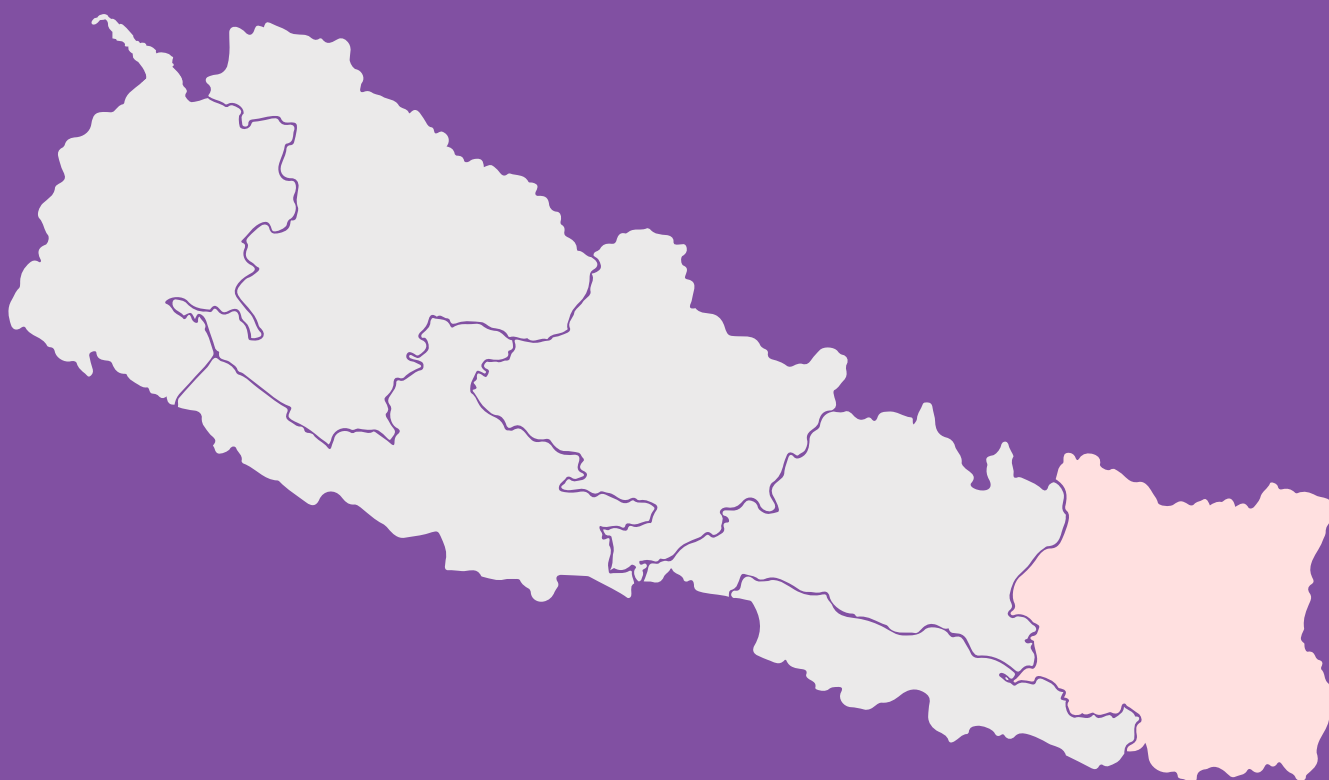PROVINCIAL PROFILES

2020

PROVINCE 1

Surveillance, Point of Entry and Rapid Response

Risk Communication and Community Engagement

Laboratory Capacity

Operations Support and Logistics

Infection Prevention and Control & Clinical Management

Partner Coordination

Government of Nepal
Ministry of Health and Population

World Health Organization
Nepal

Contents

1

SURVEILLANCE, POINT OF ENTRY AND RAPID RESPONSE

1 SURVEILLANCE, POINT OF ENTRY AND RAPID RESPONSE

COVID-19: How things stand in Nepal's provinces and the epidemiological significance of the coronavirus disease

1.1 BACKGROUND

The provincial epidemiological profile is meant to provide a snapshot of the COVID-19 situation in Nepal. The major parameters in this profile narrative are depicted in accompanying graphics, which consist of panels of posters that highlight the case burden, trend, geographic distribution and person-related risk factors.

> The major parameters in this profile narrative are depicted in accompanying graphics, which consist of panels of posters that highlight the case burden, trend, geographic distribution and person-related risk factors.

1.2 METHODOLOGY

The major data sets for the COVID-19 situation updates have been obtained from laboratories that conduct PCR tests. The information covers individuals who approached the laboratories for tests, those recommended through medical advice, and those referred by ward and municipality public health personnel as part of the Case Investigation and Contact Tracing (CICT) or active case search. Information was supplemented by active CICT teams and call centres engaged in following up on cases and contacts. These data are uploaded or endorsed by the Province-level Health Emergency Operations Centre (PHEOC).

1.3 FINDINGS

The cases and deaths attributed to COVID-19 in the different provinces have been captured by time, place and person characteristics. They are comprised of cases and their time trends; geographic location and spatial movement; affected age groups; and incidence/prevalence of the cases, both as aggregate reported numbers and population denominations. In addition, some insights over evolving patterns—such as changes in age at risk and proportion of females in total cases—were also captured, as were the trends of Test Positivity Rates and distribution of symptom production, as well as cases with comorbidity.

1.4 MAJOR OBSERVATIONS AND TRENDS

Nepal had very few cases of laboratory-confirmed COVID-19 till about the middle of April, which is when the Nepali New Year is celebrated. Over a period of four months—ending in the middle of July—cases increased, peaked and went down to make up the first wave of the pandemic. These cases consisted of expats returning home by air or through land crossings; during this time, PCR tests were undertaken at less than 20 laboratories across the country.

The middle of July witnessed the next wave. This time, cases were much higher than projected; the health care infrastructure was overwhelmed, with a huge burden being placed on the public health system. The total number of laboratories in the country had reached 70 by then, a large chunk of it in the private sector, mostly located in and around Kathmandu. There were more symptomatic cases in the second

wave. Hospital case load increased; distinctions between normal and designated COVID hospitals were removed, and there was major dependency on intensive care infrastructure and ventilator support.

1.5 SITUATION SUMMARY

The number of COVID-19 cases in Nepal by PCR positivity stood at 2,22,287 as of 23 November 2020. A total of 25421 cases, or 11.4 percent, came from Province 1; 19715 or 8.8 percent from Province 2; 121861 or 54.8 percent from Bagmati; 13306 or 5.9 percent from Gandaki; 24559 or

11 percent from Karnali, and 11427 or 5.1 percent from Sudurpaschim. The following pages have a detailed analysis of these cases.

1.6 WAY FORWARD

This epidemiological extract has been prepared to help understand the COVID-19 situation better and in a contextual manner for each of the provinces. It can be used by public health personnel and decision-makers as a ready reference to support public health and social measures at the municipality, district and provincial levels.
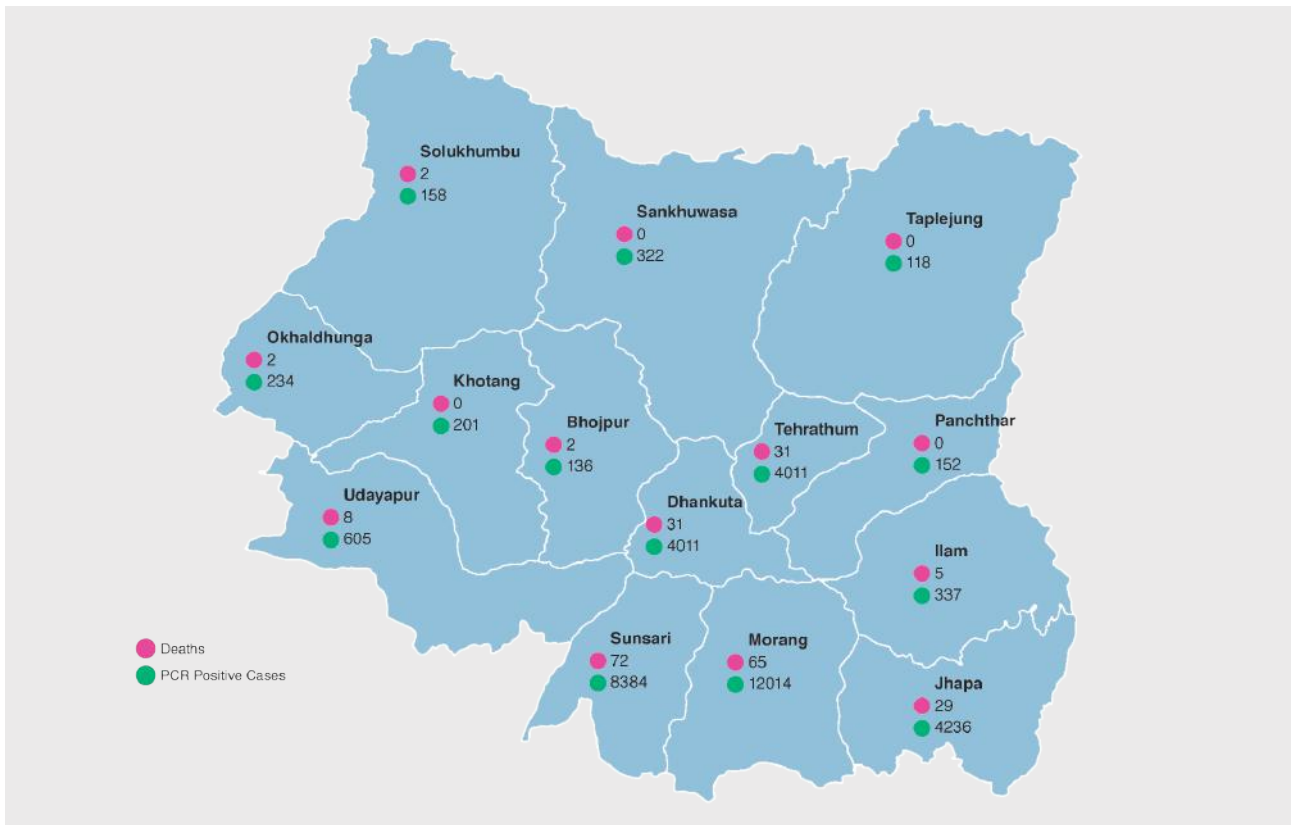
Map 1: PCR Positive Case and Deaths

Solukhumbu
2
158

Sankhuwasa
0
322

Taplejung
0
118

Okhaldhunga
2
234

Khotang
0
201

Bhojpur
2
136

Tehrathum
31
4011

Panchthar
0
152

Udayapur
8
605

Dhankuta
31
4011

Ilam
5
337

Deaths
PCR Positive Cases

Sunsari
72
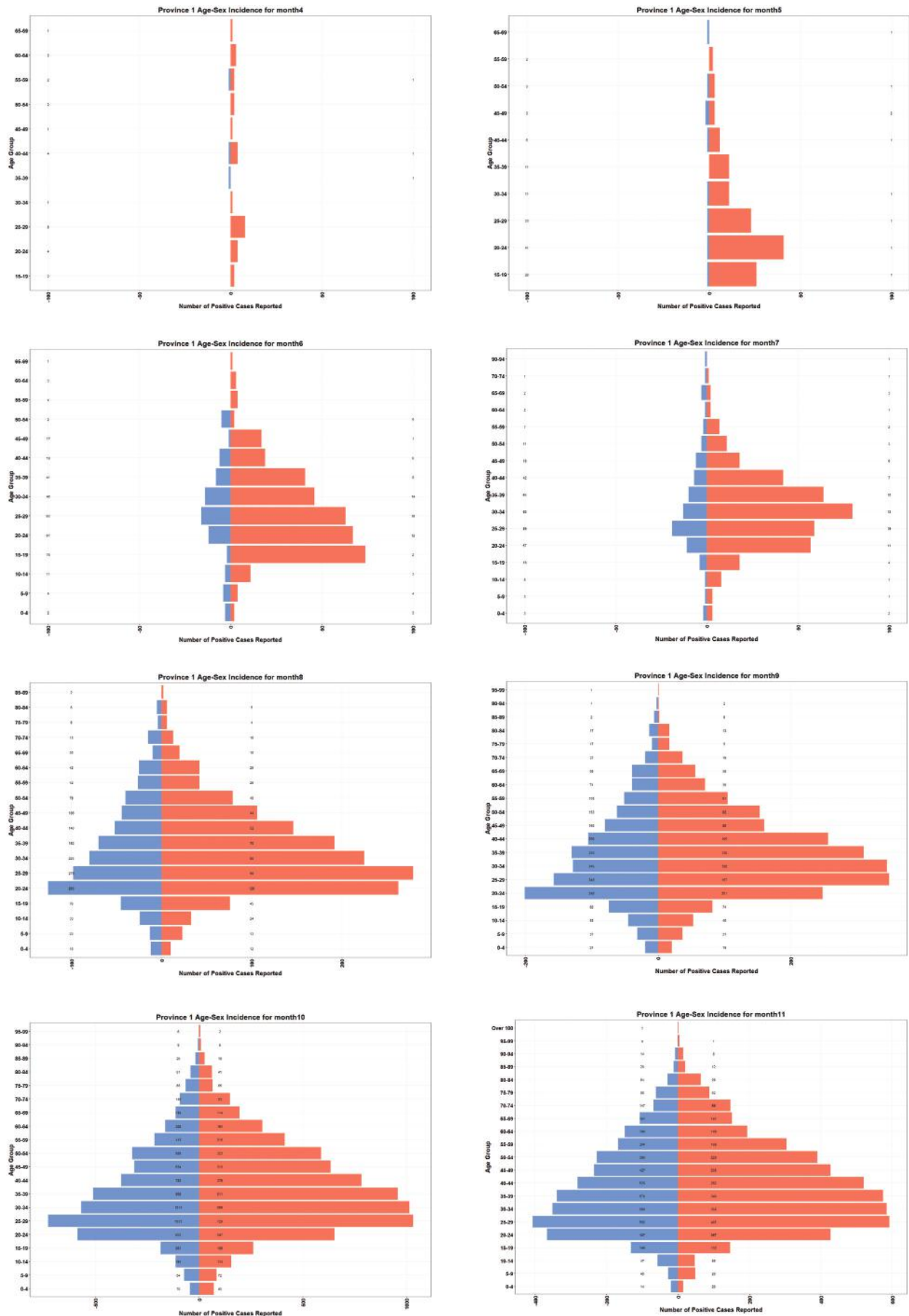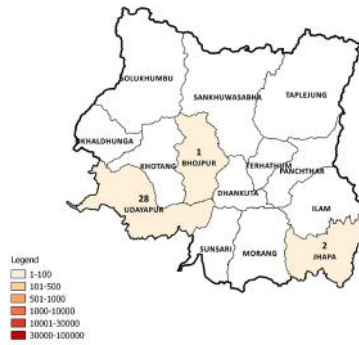8384

Morang
65
12014

Jhapa
29
4236

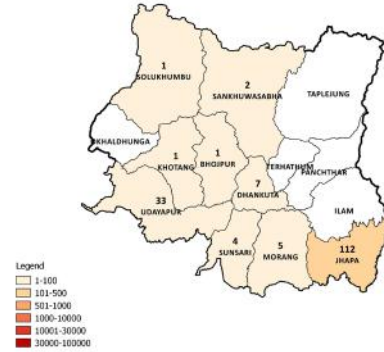**Figure 1: Changing Age-Sex pattern of cases – (April – November)**

Sex: ■ Female ■ Male

Map 2: Cumulative Case Incidence by Month – April 2020

Map 3: Cumulative Case Incidence by Month – May 2020
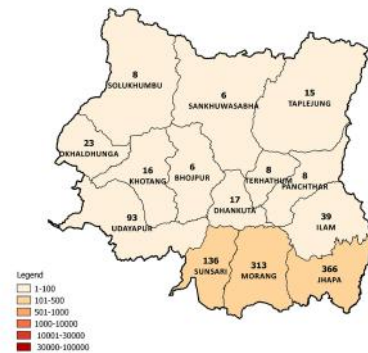

Map 4: Cumulative Case Incidence by Month – June 2020
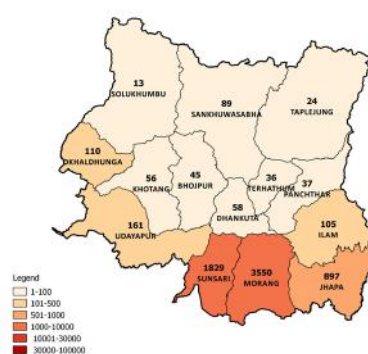

Map 5: Cumulative Case Incidence by Month – July 2020
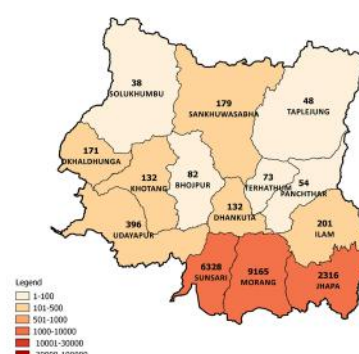

Map 6: Cumulative Case Incidence by Month – August 2020

Map 7: Cumulative Case Incidence by Month – September 2020

Map 8: Cumulative Case Incidence by Month – October 2020
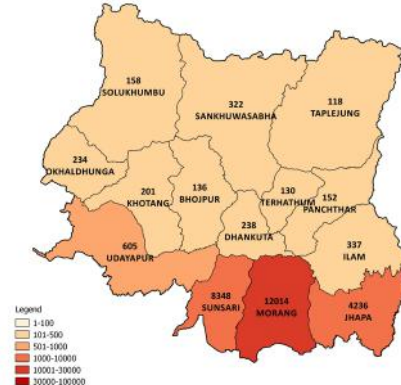

Map 9: Cumulative Case Incidence by Month – November 2020

Figure 2: **Weekly Test Positivity Rate – (12 weeks)**
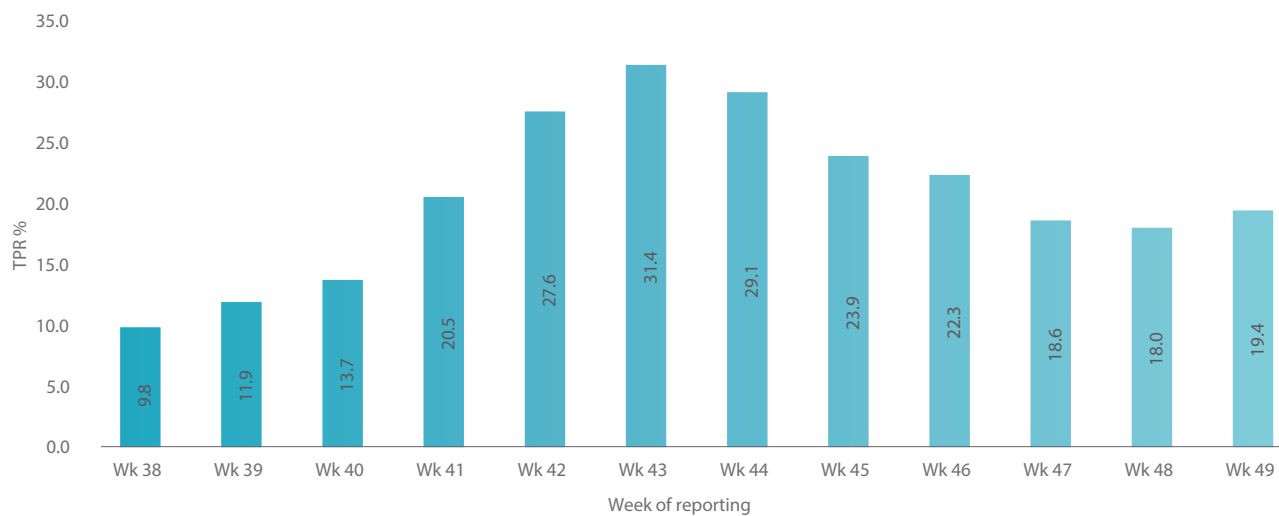
Figure 3: **District Deaths Weekly (12 weeks)**
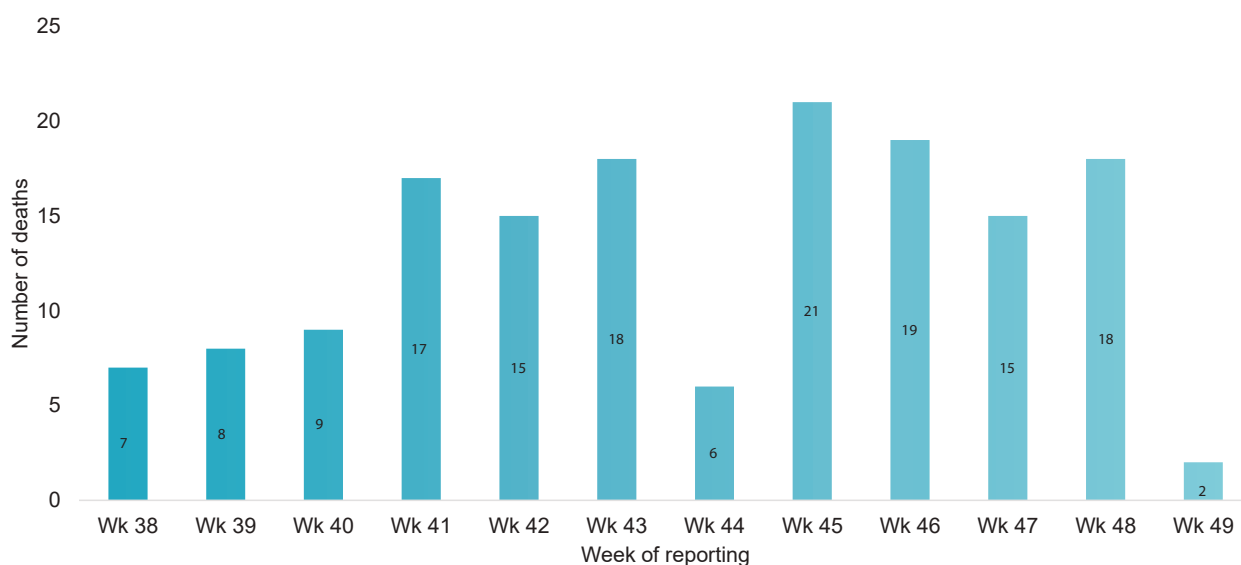
1.7 SUMMARY

In Province 1, Covid-19 cases started being detected early in the epidemic. The case load was 31 as of April affecting 3 districts. The number of cases jumped to 135 the next month affecting 8 districts. By June, 13 of the 14 districts were affected and the monthly total reached 428. This incremental slow spread continued till mid-July. It was only since August that each of the districts consistently reported cases. August also witnessed substantive increase in cases to 2341 from 460 in July. In October, it crossed the 10000 mark to a monthly high of 12305.

■ Province 1 now has an incidence of 558 per Lakh population and the range of district level incidence varied between the lows of 2 per lakh in Taplejung to the highs of 171 and 246 per lakh in Sunsari and Morang districts. Amongst the districts, the increase in incidence is not always consistent. The incidence of cases in Morang and Jhapa had been constantly rising whereas Udaypur witnessed monthly ups and downs.

- The age-sex pattern of the case incidence has changed much since the early days. Since May, almost all the age-groups started getting affected and by June, females were represented in some of those age groups. It is only from August that there is a homogeneous pattern affecting all age groups representing both sexes. Gradually the proportion of females increased in all age-groups though little slower than the males.

- Province 1 did not have any case reported till the month of April. Since May, when almost all the districts started reporting cases, the spread was through length and breadth of the province. Most of the cases are concentrated in its south eastern tip in the districts of Morang, Sunsari and Jhapa. Together these 3 districts accounted for 90% of all cases in Province 1. Morang topped the list with 44% of cases at 12014; followed by Sunsari with 31% of the total at 8348; and the district of Jhapa accounted for 16% with 4236 cases.

- The Terai districts are most affected. The mountain districts reported the least number of cases and kept the trend with the exception of Sankhuwasabha district which had a sizeable number of cases. Similarly, the districts of Udaypur, Ilam, Okhladunga, Khotang and Dhankuta were all affected in the hilly region.

- Province 1 has 8 laboratories located in the districts of Morang (6), Sunsari (1) and Jhapa (1), from where most of the cases are reported. The test positivity rates calculated as overall rate of test positives by PCR from amongst the total samples tested had an upswing in the province since the beginning of October. The test positivity rates jumped from 9.8% in week 38 to cross 20% in the week 41 (October 5-11). The rate increased to a high of 31.4% in week 43 (Oct 19-25) and gradually dropped to 18.6% by week 47. The test positivity rate and adjusted test positivity rates indicate that the efficiency of testing strategy was inconsistent in October probably due to the festival season.

- The total number of deaths in the province is 194 with an overall case fatality of 0.6%. There is substantive difference in the fatality rates across the districts. In Morang, where the maximum cases are, had 65 deaths out of 12014 cases with a fatality rate of 0.5%; Sunsari had 72 deaths and 8348 cases with a fatality rate of 0.9%, whereas with only 29 deaths out of 4236 cases, Jhapa had a fatality rate of 0.7%.

Table 1: WHO Transmission Classification

Category	Definition: Countries/territories/areas with
No (active) cases	No new cases detected for at least 28 days (two times the maximum incubation period), in the presence of a robust surveillance system (where COVID-19 surveillance is not robust, a lack of identified cases should not be interpreted as an absence of transmission). This implies a near-zero risk of infection for the general population.
Imported / Sporadic cases	Cases detected in the past 14 days are all imported, sporadic (e.g. laboratory acquired or zoonotic) or are all linked to imported/sporadic cases, and there are no clear signals of locally acquired transmission. This implies minimal risk of infection for the general population.
Clusters of cases	Cases detected in the past 14 days are predominantly limited to well- defined clusters that are not directly linked to imported cases, but which are all linked by time, geographic location and common exposures. It is assumed that there are a number of unidentified cases in the area. This implies a low risk of infection to others in the wider community if exposure to these clusters is avoided.
Community transmission – level 1 (CT1)	Low incidence of locally acquired, widely dispersed cases detected in the past 14 days, with many of the cases not linked to specific clusters; transmission may be focused in certain population sub-groups. Low risk of infection for the general population.
Community transmission – level 2 (CT2)	Moderate incidence of locally acquired, widely dispersed cases detected in the past 14 days; transmission less focused in certain population sub- groups. Moderate risk of infection for the general population.
Community transmission – level 3 (CT3)	High incidence of locally acquired, widely dispersed cases in the past 14 days; transmission widespread and not focused in population sub-groups. High risk of infection for the general population.
Community transmission – level 4 (CT4)	Very high incidence of locally acquired, widely dispersed cases in the past 14 days. Very high risk of infection for the general population.

LABORATORY CAPACITY

2 LABORATORY CAPACITY

2.1 INTRODUCTION

Here is a detailed description of the laboratory facilities established in the province in response to the COVID-19 pandemic. It is a compilation of the current testing capacity, facilities, equipment, consumables used, manpower, training, laboratory biosafety and bio-security, quality assurance and data management. It also provides salient observations and recommendations for the quality improvement and sustenance of the services.

The data was collected from the laboratories using standardized data collection tool followed by telephonic data collection and review of reports of onsite laboratory visit by experts. Laboratory services for COVID-19 were established in Province 1 on 29th March 2020. As of 4th Nov 2020, a total of 192,798 samples were tested across 7 laboratories in Province 1.

2.2 COVID-19 LABORATORIES

A total of nine laboratories were established by repurposing existing laboratories or building new facilities. Of this nine, five are government run and four are private sector as given below.
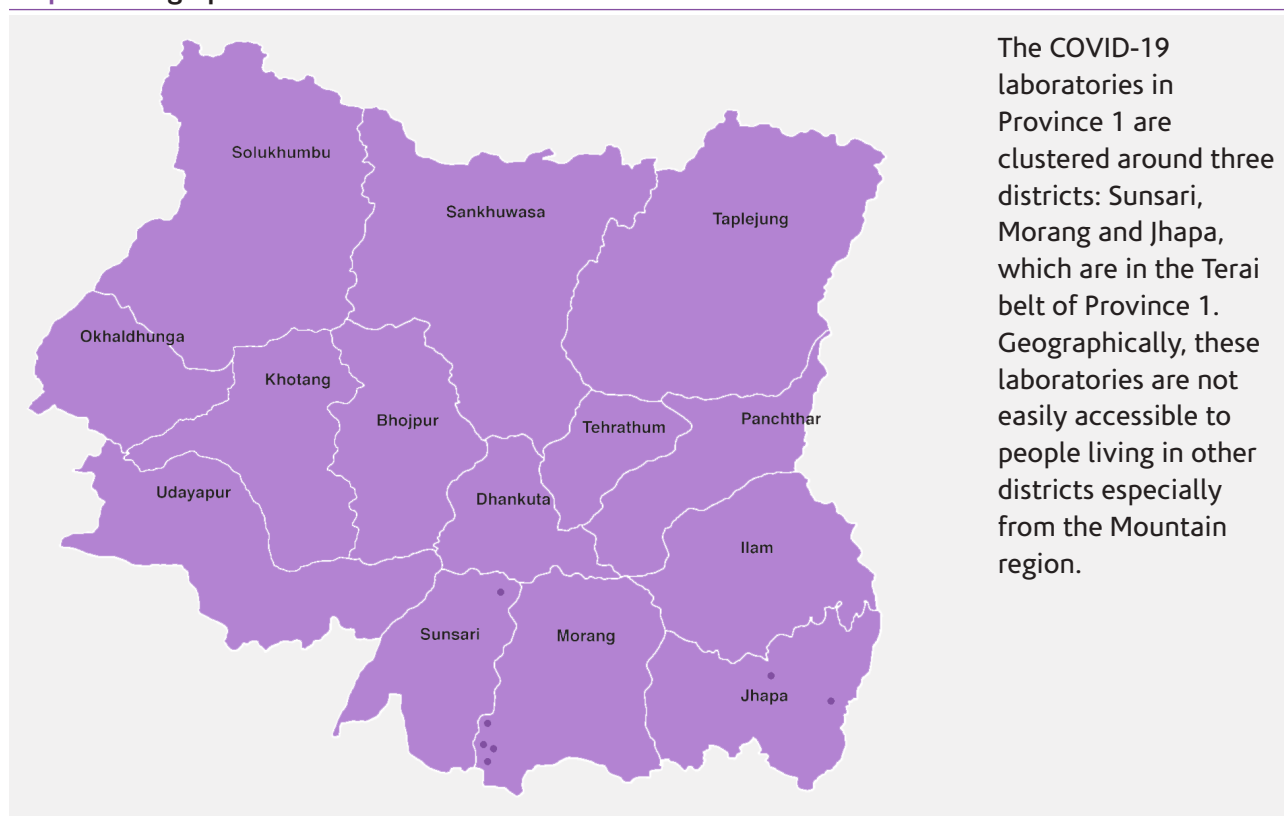
Table 2: Name, location, and contact details of the COVID-19 laboratories in Province 1

Name of Laboratory	Address (District)	Type (Govt/Private)
Birat Medical College	Biratnagar, Morang	Private
B. P. Koirala Institute of Health Sciences (BPKIHS)	Dharan, Sunsari	Govt
B-Sure Path Lab and Diagnostic Centre	Biratnagar, Morang	Private
Kankai Municipality Hospital	Jhapa	Govt
Koshi Hospital	Biratnagar, Morang	Govt
Mechi Hospital	Bhadrapur, Jhapa	Govt
Neurocardio and Multispeciality Hospital	Biratnagar, Morang	Private
Nobel Medical College and Teaching Hospital	Biratnagar, Morang	Private
Provincial Public Health Laboratory-1(PPHL-1) / Avian Disease Investigation Laboratory	Biratnagar, Morang	Govt

2.3 TESTING CAPACITY OF THE LABORATORIES

Table 3: Testing capacity of COVID-19 Laboratories in Province 1

Name of Laboratory	Date of establishment (DD/MM/YYYY)	Estimated Testing Capacity/ day	Maximum PCR tests/run
Birat Medical College	27/10/2020 (11/06/2077)	300	96
BPKIHS	29/03/2020 (16/12/2076)	1000	72
B-Sure Path Lab and Diagnostic Centre	21/10/2020 (05/07/2077)	500	96
Kankai Municipality Hospital	04/09/2020 (19/05/2077)	300	96
Koshi Hospital	10/04/ 2020 (28/12/2076)	800	72
Mechi Hospital	01/05/2020 (19/01/2077)	500	96
Neurocardio and Multispeciality Hospital	27/09/2020 (11/06/2077)	100	96
Nobel Medical College and Teaching Hospital	27/09/2020 (11/06/2077)	500	96
Provincial Public Health Laboratory-1	10/08/2020 (26/04/2077)	350	90

Map 10: Geographic Distribution of the COVID-19 Laboratories in Province 1

The COVID-19 laboratories in Province 1 are clustered around three districts: Sunsari, Morang and Jhapa, which are in the Terai belt of Province 1. Geographically, these laboratories are not easily accessible to people living in other districts especially from the Mountain region.

2.4 EQUIPMENT AVAILABILITY

Table 4: Distribution of Equipment used in COVID-19 laboratories in Province 1

Name of Laboratory	PCR Machine		RNA automated extraction machine		Biosafety Cabinet		Freezer (Qty)		
	Brand (Capacity)	Qty	Brand (Capacity)	Qty	Brand	Qty	-80ºC	-40ºC	-20ºC
Birat Medical College	Azure	1	Zybio	1	-	-	-	1	2
BPKIHS	Rotor-GeneQ (72)	2	-	-	-	-	-	-	1
B-Sure Path Lab and Diagnostic Centre	Molarray (M-6000)	1	Biocomma	1	Haier	2	1	-	1
Kankai Municipality Hospital	Quantstudio	1	-	-	Imset	2	1	-	1
Koshi Hospital	Rotor-GeneQ (72)	2	QIA Symphony	1	ESCO Micro Tech	1 1	1	-	-
Mechi Hospital	Roche(96)	1	-	-	Accumax	1	-	-	1
Neurocardio and Multispeciality Hospital	Azure	1	Zybio	1	SurgicalHub	1	1	-	1
Nobel Medical College and Teaching Hospital	Rotor-GeneQ Quantstudio	2	ZK-96-	1	Micro-filt	2	-	2	1
Provincial Public Health Laboratory-1	Ustar biotechnology Roche Light Cycle 480 (90)	3 1	-	-	ESCO Thermo Scientific	1 1	-	-	2

Figure 4: Types of PCR Machines used in COVID-19 laboratories in Province 1

Brand	Count
Ustar biotechnology	3
Roche	2
Quantstudio	2
Molarray	1
Rotor-GeneQ	5
Azure	2
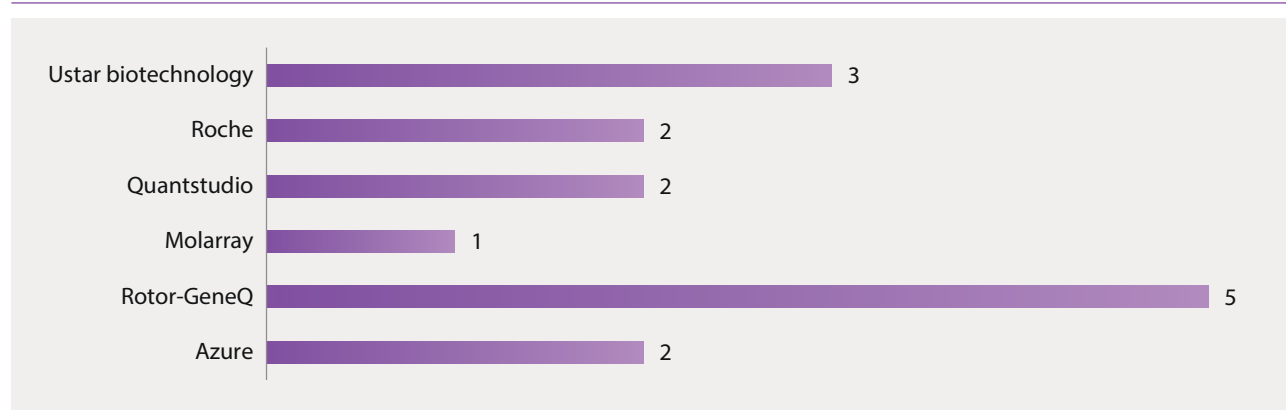
Figure 5: Types of Automated RNA Extraction Machines used in COVID-19 laboratories in Province 1

Brand	Count
ZK	1
QIASymphony	1
Biocomma	1
Zybio	2
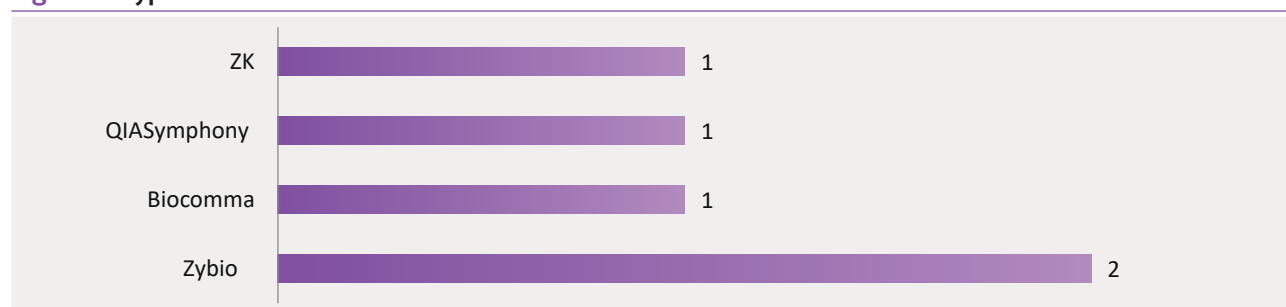
Figure 6: Types of Biosafety Cabinets used in COVID-19 laboratories of Province 1

Brand	Count
Thermo Scientific	1
Micro-filt	2
Surgical Hub	1
Accumax	1
Micro Tech	1
ESCO	2
Imset	2
Haier	2
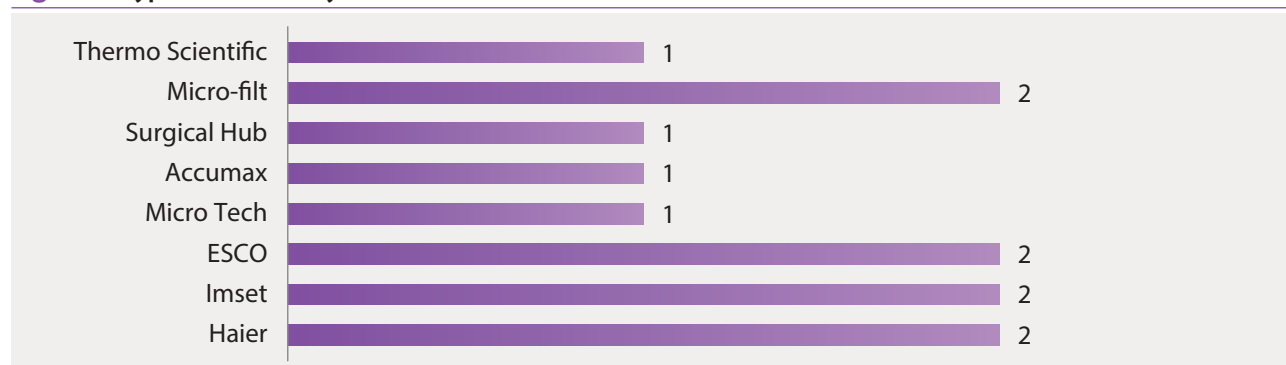
Table 5: Types and Capacity of Autoclave Machines in COVID-19 laboratories in Province 1

Name of Laboratory	Number of Autoclave machine	Capacity (litres)	Company (Brand)
Birat Medical College	2	1 = 98 l 2 = 22 l	Both Sri Sai Scientific
BPKIHS	3	1 = 50 l 2 = 150 l 3 = 150 l	Brand Not Specified
B-Sure Path Lab and Diagnostic Centre	2	1 = Below 100 l 2 = Above 100 l	Both H.L Scientific
Kankai Muncipality Hospital	2	Both 25 l	Brand Not Specified (Local Brand)
Koshi Hospital	2	1 = 315 l 2 = 315 l	1: Tomy, Made in Japan 2: Biobhe
Mechi Hospital	2	1 = 50 l 2 = 25 l	Both Safemed
Neurocardio and Multispeciality Hospital	1	100 l	Surgical Hub System (Vertical)
Nobel Medical College and Teaching Hospital	2	1 = 40 l 2 = 85 l	1: Tinon Engineering 2: APS lab instrument
Provincial Public Health Laboratory-1	2	Both above 100 l	1: Cryst, Purister 2: ALP

Figure 7: **Types of Autoclave machine with capacity < 100 litres in COVID-19 laboratories in Province 1**
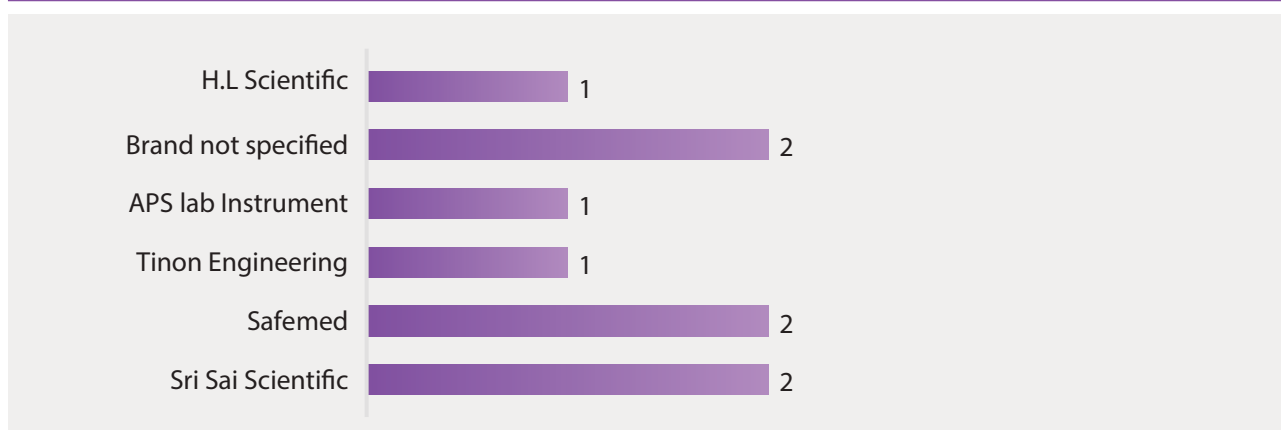
Figure 8: **Types of Autoclave machines with capacity ≥ 100 litres in COVID-19 laboratories in Province 1**
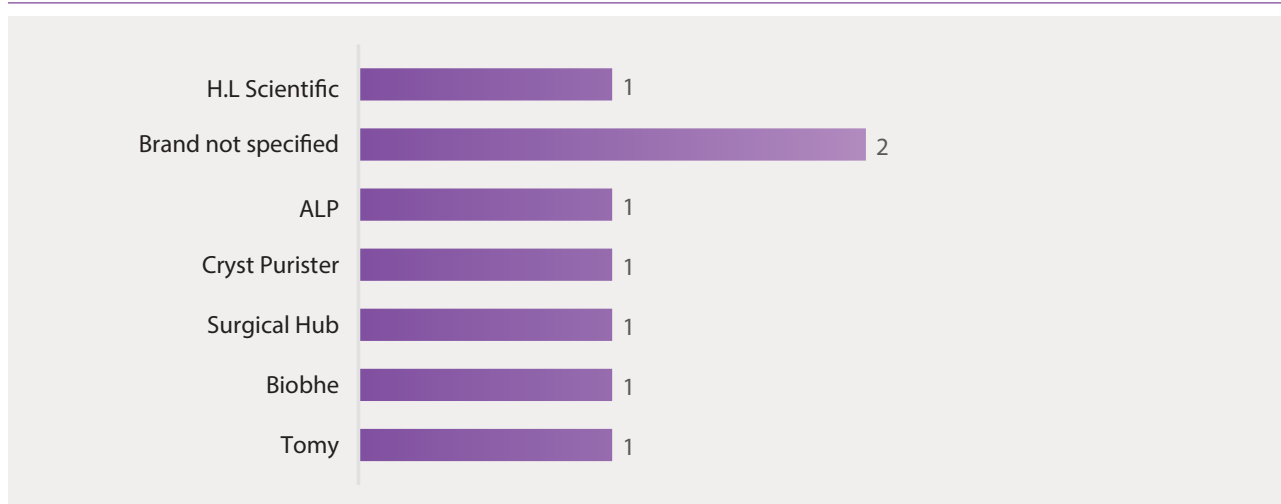
2.5 CONSUMABLES/ LABORATORY REAGENTS

Table 6: **Brands of Virus Transport Medium (VTM), PCR Test kits and RNA extraction kits available in COVID-19 laboratories in Province 1**

Name of Laboratory	VTM in use	PCR test kits	RNA Extraction kits
Birat Medical College	Vanguard Diagnostics	Maccura	Zybio
BPKIHS	Ustar	SD Biosensor	Roche (High Pure Viral RNA)
B-Sure Path Lab and Diagnostic Centre	Unimedica	Unimedica	Unimedica
Kankai Municipality Hospital		GB	Genefine
Koshi Hospital	Babio NEP hongus Sanli	SD Biosensor	HiMedia
Mechi Hospital		Roche Light cycle	Geneaid Roche (High pure viral RNA)
Neurocardio and Multispeciality Hospital	Vanguard Diagnostics	Zybio	Zybio
Nobel Medical College and Teaching Hospital	Guangdong Ardent Biomed	Unimedica	ZhongkeBio Automated Extraction Reagent
Provincial Public Health Laboratory-1	Cangzhou Yongkang Sanli Ustar	Ustar easynat Roche Light cycle	Ustar easynat Roche (High pure viral RNA)

Figure 9: Types of VTM used in COVID-19 laboratories in Province 1

Type	Count
Vanguard	2
Ustar	2
Unimedica	1
Babio	1
NEP hongus	1
Sanli	2
Guangdong Ardent Biomed	1
Cangzhou Yongkang	1
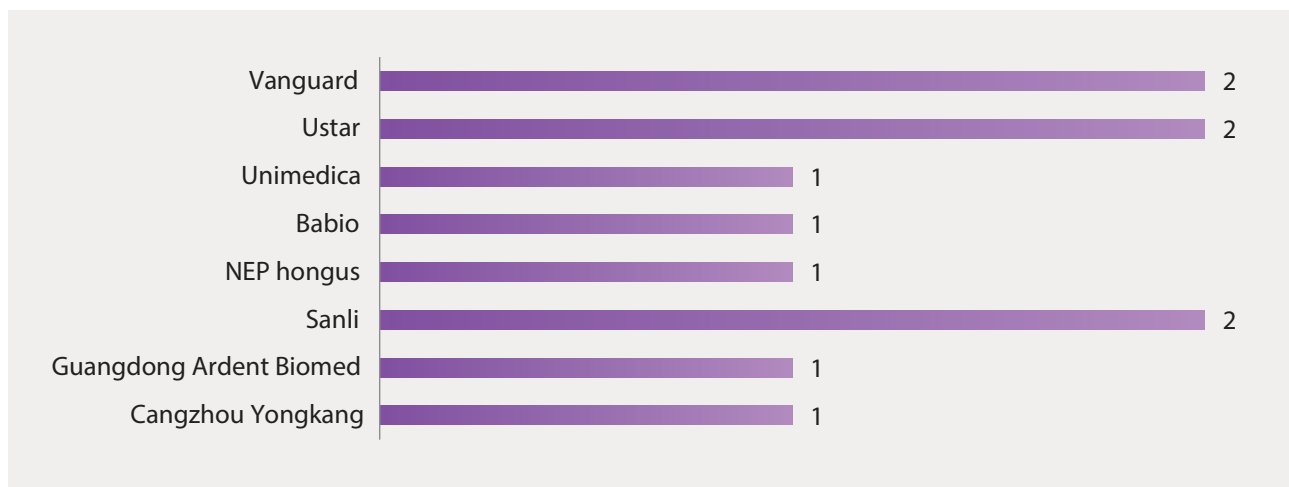
Figure 10: Types of PCR test kits used in COVID-19 laboratories in Province 1

Type	Count
Ustar easynat	1
Zybio	1
Roche	2
GB	1
Unimedica	2
SD Biosensor	2
Maccura	1
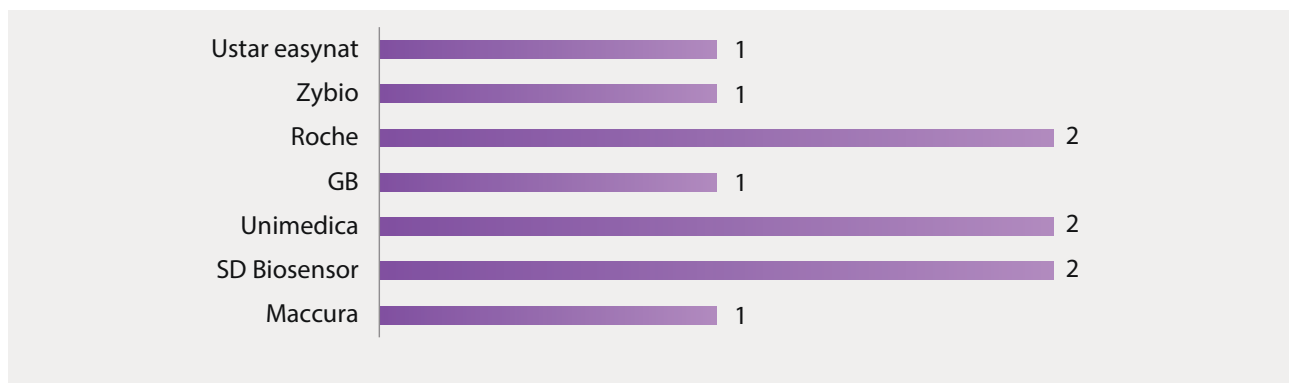
Figure 11: Types of RNA Extraction kits used in COVID-19 laboratories in Province 1

Type	Count
Ustar easynat	1
Zhongke Biomed	1
Geneaid	1
HiMedia	1
Genefine	1
Unimedica	1
Roche	3
Zybio	2
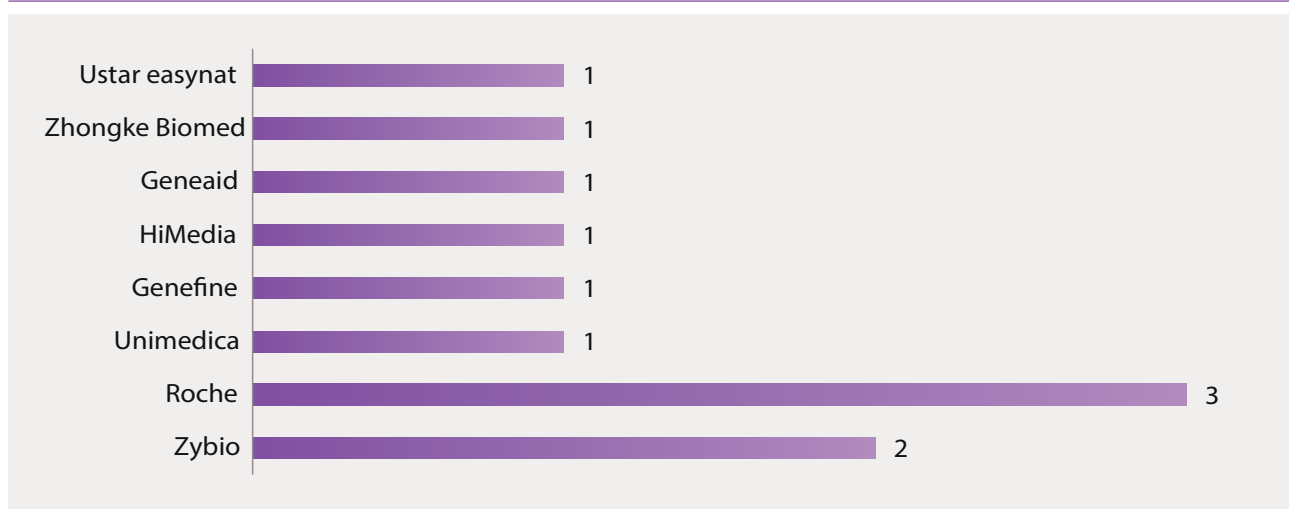
2.6 HUMAN RESOURCES

Table 7: Distribution of Human Resources in COVID-19 laboratories in Province 1

Name of Laboratory	Number of scientific staff with higher degrees (MSc/MD/PhD)	Number of technical staff (Bachelor+ Technician)	Number of support staff	Number of bio-safety officer	Number of data entry staff
Birat Medical College	2	8	2	1	5
BPKIHS	6	6	4	3	1
B-Sure Path Lab and Diagnostic Centre	3	5	5	1	1
Kankai Municipality Hospital	1	3	1	1	-
Koshi Hospital	2	4	3	1	-
Mechi Hospital	3	3	2	-	-
Neurocardio and Multispeciality Hospital	2	1	5	1	1
Nobel Medical College and Teaching Hospital	2	8	2	1	5
Provincial Public Health Laboratory-1	4	7	5	-	1

Figure 12: Distribution of Human Resources in COVID-19 laboratories in Province 1

2.7 LABORATORY QUALITY INDICATORS
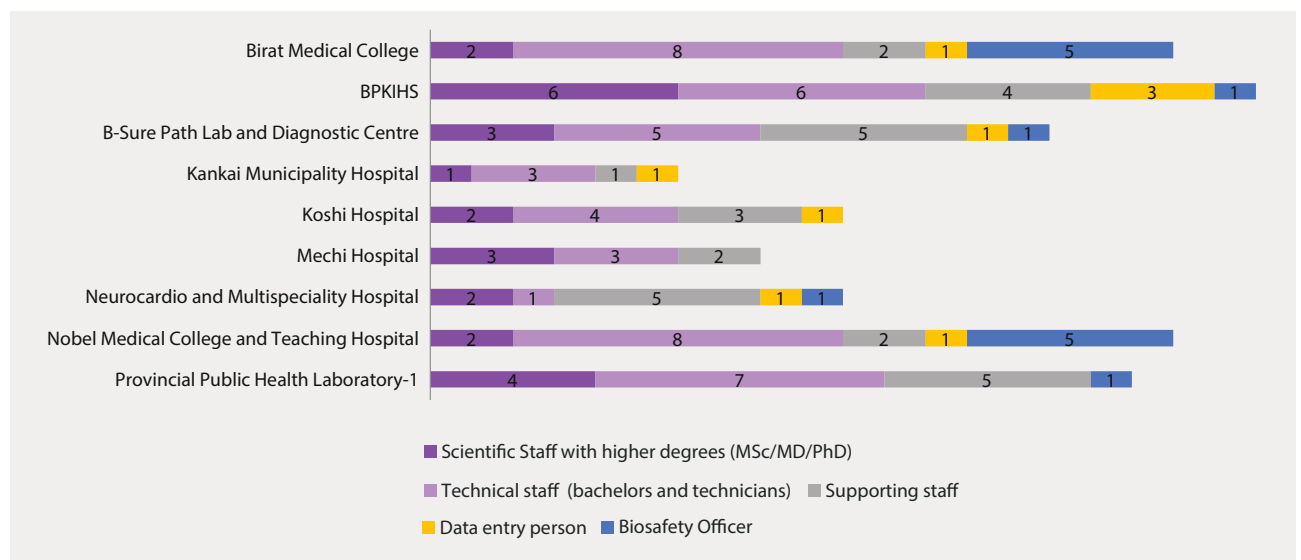
Table 8: Distribution of Quality indicators in COVID-19 labs in Province 1

Name of Laboratories	Result of EQAS (Retesting done at NPHL and Proficiency Testing in %)				PT Panel
	Asadh (June-July)	Shrawan (July-Aug)	Bhadra (Aug-Sept)	Asoj (Sept-Oct)	
Birat Medical College	NE	NE	NE	NE	NE
BPKIHS	100	100	100	100	100
B-Sure Path Lab	NE	NE	NE	NE	NE
Kankai Muncipality Hospital	NE	NE	VC	NP	<90
Koshi Hospital	100	NP	NP	NP	100
Mechi Hospital	NE	NE	VC	NP	<90
Neurocardio and Multispeciality Hospital	NE	NE	NE	NE	NE
Nobel Medical College and Teaching Hospital	NE	NE	NE	NE	NE
PPHL-1	100	100	NP	NP	100

Note: NE: Not Establised, NP: Not Participated, VC: Validation Completed

Figure 13: Performance of SARS-CoV-2 real time RT-PCR Proficiency test panel in functional laboratories in Province 1

- 100% Concordance
- <90% Concordance
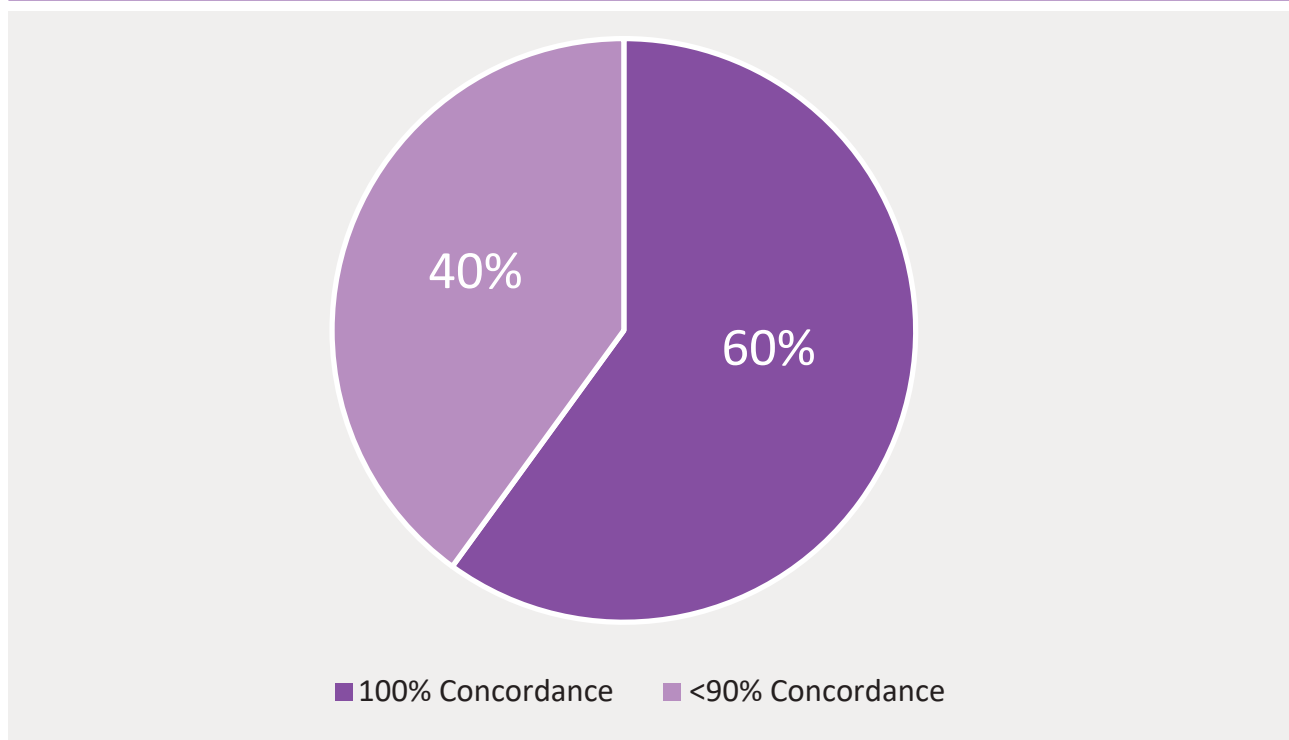
2.8 LABORATORY BIOSAFETY AND BIOSECURITY PRACTICES

Biosafety

All laboratories are following basic laboratory biosafety practices including using PPE and processing all clinical samples in a biosafety cabinet. However, there is no biosafety manual available. Though many laboratories have designated biosafety officers, adequate training and supervision is absent in almost all laboratories. Mostly biosafety training is limited to donning and doffing of PPE. The laboratory staff are not trained in the appropriate and safe use of biosafety cabinets. None of the biosafety cabinets are certified or have any plan in place for their annual maintenance. As most of the samples are collected in virus inactivating virus transport medium (VTM) the risk is reduced and low while handling these samples. However, a variety of VTMs are in use. There is a need to ensure the laboratories and field personal only use VTM which inactivates the virus.

Biosecurity

Though few laboratories have access control and surveillance camera in place, there is no regular supervision. There is no biosecurity manual or policy available in these laboratories. Most of the laboratories are storing positive samples as far as their storage space allows. The freezers are not secured with lock and key. As most of the samples are collected in virus inactivating virus transport medium (VTM) the risk of handling live virus is reduced.

2.9 LABORATORY INFORMATION MANAGEMENT

Table 9: Laboratory Information Management used in COVID-19 laboratories in Province 1

Name of Laboratory	Availability of computer for data entry (Number)	Type of database
Birat Medical College	3	Phoenix
BPKIHS	Yes	MS-Access
B-Sure Path Lab and Diagnostic Centre	1	MediPro
Kankai Muncipality Hospital	1	MS-Excel
Koshi Hospital	Yes	Dolphin
Mechi Hospital	2	MS-Excel
Neurocardio and Multispeciality Hospital	3	Midas
Nobel Medical College and Teaching Hospital	2	Help
PPHL-1	2	MS-Excel

Figure 14: Types of Database Software used in COVID-19 laboratories in Province 1
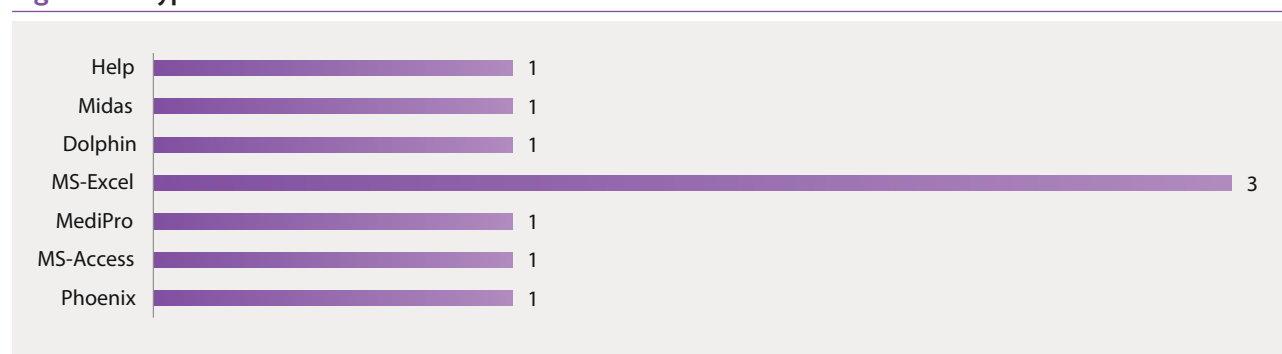
MS-Excel and MS-Access are used where software system is not available

COVID-19 data is shared daily from all laboratories with HEOC, EDCD, NPHL, respective municipalities and MoSD.

2.10 OBSERVATIONS

- Almost all laboratories are set up outside the institutional infrastructure and housed in rented or temporary buildings.
- Laboratories are disproportionately distributed and mostly clustered in one area or district resulting in inequity of access to testing across districts.
- Facilities are well designed for the molecular diagnostics of COVID-19.
- Local leadership and ownership are there but it is limited to COVID-19 response only.
- No clear plan for sustaining the laboratory or extending the services for other infectious diseases.
- Equipment and consumables are procured by local government or supplied by central government.
- A variety of equipment and reagents are used

in the province. Equipment calibration and maintenance plan is missing in almost all laboratories.
- While all laboratories have at least one trained or partially trained staff member, most staff do not possess any experience in molecular diagnostics including the supervisors.
- There is commendable commitment of laboratory staff. They are doing extra hours of work to reduce turnaround time.
- There is very poor documentation across all laboratories. Though they follow manufacturers instruction for RNA extraction and real time SARS-CoV-2 PCR, no standard operating procedures are available for any laboratory process despite access to national laboratory guidelines from NPHL with templates. Lack of manpower is the reason cited for poor documentation.

- Laboratory information management system is not adequate. Many laboratories enter data to generate a test report and enter data into the NPHL management information system. However, there are often delays in data entry and report generation and this adversely affect the turnaround time. In addition, they also provide cumulative data and data on positive cases to MoHP (EDCD and HEOC respectively).

- Many laboratories find it difficult to interpret borderline results. As the current national guidelines allow to report a result as positive or negative only. So borderline results are interpreted subjectively and often reported as positive. This has resulted in false positive reports.

- Most of the laboratories have inadequate biomedical management systems. There is no sufficiently sized autoclave to match the work load for decontaminating the biomedical waste. It appears biomedical waste is burned with or without adequately autoclaving. Most of the laboratories lack documentation on biomedical waste management.

- Frequent change of PCR reagents and compatibility of reagents with PCR machine is a concern for laboratory quality.

- It appears most of the laboratories set up for COVID-19 testing will discontinue if COVID-19 testing reduces or the pandemic is over.

2.11 RECOMMENDATIONS

- NPHL should revise the national laboratory guidelines to allow reporting of borderline results as indeterminate or inconclusive rather than leaving it the subjective interpretation of individual laboratories.

- There is a need for hands on training. WHO is supporting NPHL with weekly online training for COVID-19 laboratories, however, the attendance is poor. The staff of hub laboratories could be trained at NPHL to provide hands on training to other laboratories.

- There is a need to encourage laboratory networking by creating a hub and spoke structure. NPHL supporting a Provincial Public Health laboratory or Medical college or another well-functioning laboratory in the province in turn supporting smaller laboratories. Pairing of Provincial public health laboratory with a medical college will be useful.

- It is advised to convert at least one laboratory per province and selected medical colleges laboratories into combined Influenza and SARS-CoV-2 sentinel surveillance laboratories. The new WHO multiplex Influenza- SARS-CoV-2 kits may be useful. Inclusion of medical colleges may improve SARI surveillance.

- There is a need to issue clear guidelines for biomedical waste management in the laboratories. The laboratories may require support in terms of load appropriate autoclaves. Other partner agencies may be approached for this support.

- Selected laboratories need to be supported for equipment maintenance and calibration to ensure quality. In country training may be organised to create a cadre of biomedical engineers and laboratory technologists for calibration of equipment. Alternatively, one or more agencies may be contracted to provide support.

- As a long-term strategy these selected laboratories may be supported for providing laboratory surveillance and diagnostic services for common epidemic prone, endemic diseases such as Dengue, Leptospirosis and Scrub Typhus. The laboratories could also be utilised for antimicrobial resistance surveillance.

INFECTION PREVENTION AND CONTROL AND CLINICAL MANAGEMENT

3

3 INFECTION PREVENTION AND CONTROL AND CLINICAL MANAGEMENT

3.1 BACKGROUND

Province 1 covers the eastern most area of Nepal and came into existence following the promulgation of the Nepali Constitution in 2015. With Biratnagar as its provincial headquarter, the province is home to cities like Dharan, Itahari, Inarua, Birtamod and Damak. The province plays an important role in the country's economy contributing 15.7 percent to the GDP, only second to Province 3 (Bagmati) Province 1 has an area of 25,905 square kilometer and has three-fold geographical division: Himalayan in the north, Hilly in the middle and Terai in the southern part of Nepal, varying between an altitude of 70 m and 8,848 m. The province is bordered by the Tibet Autonomous Region of China to the North, the Indian states of Sikkim and West Bengal to the East, and Bihar to the South, and Bagmati Pradesh and Province 2 to the West. The province shares a border with India at four major points - Kakarbhitta, Pashupatinagar, Bhadrapur and Biratnagar.

Province 1 is divided into 14 districts. The 14 districts are in turn divided into a total 46 municipalities and 88 rural municipalities. The province is home to one metropolitan city – Biratnagar and two sub-metropolitan cities – Itahari and Dharan.

3.2 HEALTH BACKGROUND

According to the National Demographic Health Survey (NDHS) 2016, Province 1's Neonatal Mortality Rate (deaths per 1000 live births) is 22 and Infant Mortality Rate (deaths per 1000 live births) is 31. Neonatal mortality rate is slightly higher than the national average, whereas, Infant mortality rate is lower than the national average.

Map 11: Health facilities by type
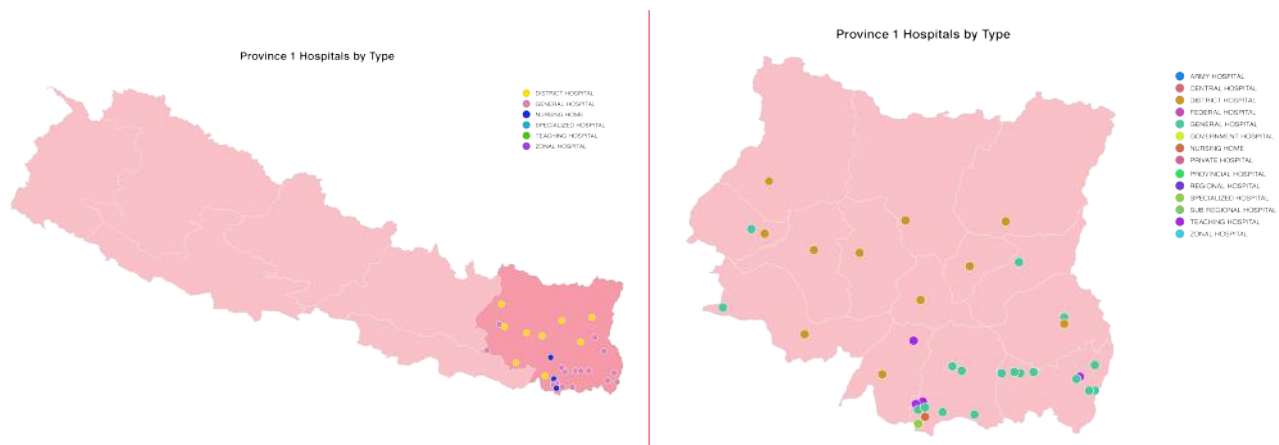
3.3 HEALTH FACILITIES BY TYPE

According to the Annual report of Department of Health Services (DoHS) 2018/19, Province 1 has 19 public hospitals, 40 Primary Health Care Centres (PHCCs), 647 Health Posts and 150 non-public facilities.

3.4 FINDINGS OF A RAPID ASSESSMENT (RA) FOR COVID-19 READINESS 2020

In April 2020 the Curative Services Division (CSD) of the Ministry of Health and Population (MoHP) led a multi sectoral team to design and develop a rapid assessment tool to assess what was then designated 12 COVID-19 Level II Hospitals. In Province 1, Koshi hospital was the designated hospital and took part in rapid assessment.

Map 12: Level 2 Hospital in Nepal
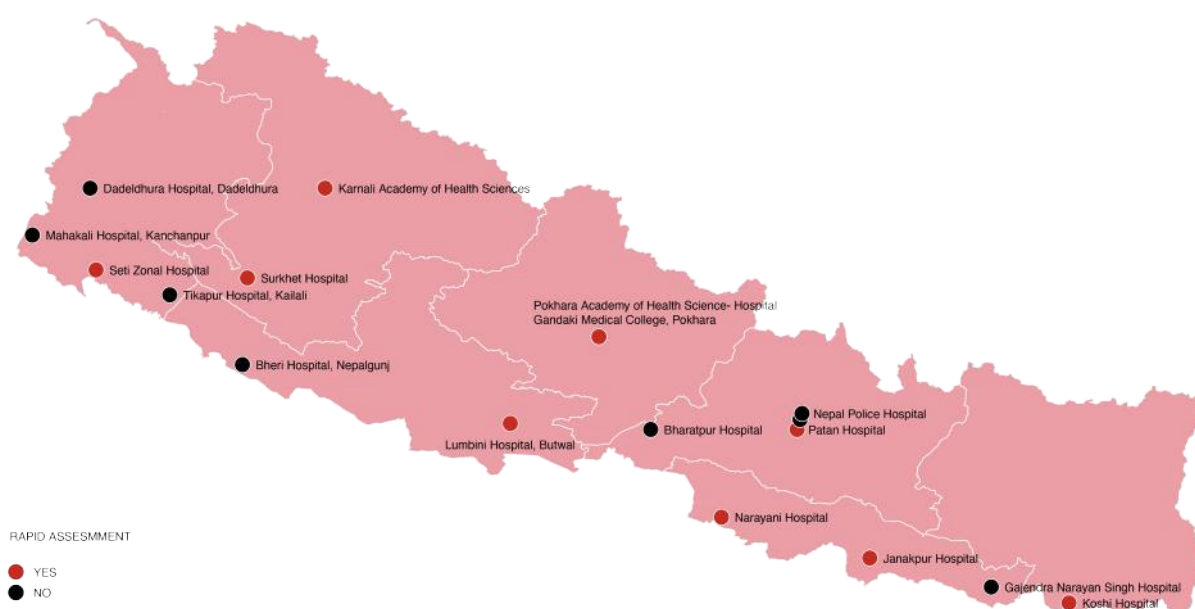
The key findings of the rapid assessment as recorded during self-assessment of Koshi hospital includes the following:

Table 10: Key Findings from RA-Koshi Hospital

ICU beds Adult	ICU beds children	Functioning ventilators	Oxygen Supply	COVID-19 designated Nurses	COVID-19 designated MD	IPC Focal Person	IPC program / activities	IPC dedicated budget
6	4	0	Central system	33	34	yes	yes	No

Key Guidance documents in place	Training on COVID-19	Autoclave of alternative treatment technology present	Specific plan in place for patients or family members to mitigate COVID-19 infection
12/16 proposed were reportedly present	All cadres of staff were reportedly trained in IPC, WASH, HCWM and CM	Yes	Yes

3.5 CURRENT STATUS OF COVID-19 AND NON-COVID-19 HEALTH SERVICE PROVISION

The table below shows the government health facilities and medical colleges in Province 1 providing various health services in context of COVID-19.

Table 11: Health services provided by various government hospitals and medical colleges

Name of Facility	District	Non COVID-19 services		
		Outpatient	MNCH	Surgery
Koshi Hospital	Morang	X	X	X
Mechi Hospital	Jhapa	✔	✔	✔
BPKIHS	Dharan	✔	✔	✔
Nobel Medical College	Morang	X	✔	✔
Neuro Cardio Multispecialty Hospital	Morang	X	✔	✔
Birat Medical College	Morang	X	✔	✔

Table 12: COVID -19 Designated Hospitals – HUB Hospital Details

S No.	Hub Hospitals	COVID-19 Designated Hospitals (Yes/No)	Formation of EMDT
1	Mechi zonal Hospital	No	No
2	Koshi Zonal Hospital	Yes	Yes
3	BPKIHS	Yes	No

3.6 CURRENT STATUS OF BED CAPACITY AND ESSENTIAL HUMAN RESOURCES FOR HEALTH (HRH)

Table 13: Bed capacity and Human Resources in Koshi Hospital

S.N.	Categories	COVID-19 Designated	Non-COVID-19 Designated	Total
Bed capacity				
1.	Bed capacity IPD	80	270	350
2.	Bed capacity HDU		12	12
3.	Bed capacity ICU	8	6	14
Human Resources				
4.	Total number of MD (Consultant)	5		5
5.	Number of anesthesiologists/intensivist	8		8
6.	Total nurses	200		200
7.	Total nurses trained in critical care	12		12

Table 14: Establishment of Emergency Medical Deployment Team (EMDT) for COVID-19 Response

EMDT Establishment		
Name of the hospital	Number of Team members	Team Composition
Mechi zonal Hospital	-	
Koshi Zonal Hospital	5	1 Senior consultant Physician 1 MDGP 1 MO 1 Pathologist 1 PHI
BPKIHS	-	

Table 15: Training of healthcare workers and support staff

Essential Critical care Training for Nurses and Doctors - Province 1				
Institute	**Date**	**Module I (IPC) 1 day**	**Module II (CCT) 2 days**	**Total trained**
Birat Medical College Teaching Hospital (Biratnagar)	14th -16th September 2020	29	17	29

Note:

[Total 29 staff participated in IPC training, of them 17 continued in CCT training. The participants were from Koshi Hospital, Birat Medical College, Nobel Medical College, Neuro Hospital Biratnagar.]

Table 16: Clinical Management COVID-19

Current number of COVID-19 cases in Province 1							
Province 1: COVID -19 Cases (Source: MoHP 30 November 2020)							
Date	**Active**	**ICU**	**Recovered**	**Death**	**Total cases**	**Recovered & Death**	**CFR**
30 Nov 2020	1919	32	25119	191	27229	25310	0.70

The following information is for the then level II hospital, Koshi Hospital:

Table 17: Treatment Modalities available

Remdesivir	**Hydrocortisone**	**Convalescent Plasma**	**Clinical trials**	**Secondary infections**	**Others**
Yes	Yes	Yes	Yes	Yes	-

3.7 DISABILITY INCLUSION, REHAB & POST COVID-19 CARE

Table 18: Availability of services for disability inclusion

Accessible facilities (low level beds, transfer board, wheelchair accessible toilet with commode, drinking water within reach, etc.)	No
Assistive devices available and functional (wheelchair, crutches, etc.)	Yes
Nurses and paramedics trained in basic disabilities inclusion and rehabilitation	No
Facility linked to tele/virtual help-desk for disabled people and virtual expert pool – Rehab nurse, physiotherapist, psychologist, speech therapist	No

3.8 CAPACITY TO PROVIDE OXYGEN IN PROVINCE 1

Information gathered from 6 hospitals

- Mechi Hospital
- Koshi Hospital
- BPKIHS
- Nobel Medical College
- Birat Medical College
- Neuro Cardio Multispecialty Hospital

Table 19: **Capacity to provide oxygen by bed**

Type of beds across 6 Hospitals	Number of beds
Total COVID-19 designated beds	716
COVID-19 beds capable of delivering low flow O2 (5L/min)	Unknown
COVID-19 beds capable of delivering high flow O2 not on ICU or HDU (10L/min)	Unknown
No. of HDU beds (10L/min)	53
No. of ICU beds for Covid-19 (10L/min)	169
No. of ventilators for COVID-19 patients	66

Table 20: **Oxygen Availability**

Oxygen supply	Number
Oxygen plant	2
Oxygen plant output expressed as number of cylinders per day	unknown
Number of oxygen cylinders available	408
Number of oxygen concentrators	30
Minimum number of large cylinders available	49
(plant output added to cylinders available)	>408
Number of hospitals with piped oxygen at least for some beds	4

OXYGEN SUPPLY AND DEMAND

- Demand based on ICU/HDU capacity plus total COVID-19 designated beds delivering 1.5 cylinders per day on average (some of this demand is met by the use of oxygen concentrator- this has been taken into account at hospital level)
- Each ICU/HDU bed delivers oxygen at 10L/min which is equivalent to 2.2 cylinders per day

Oxygen supply and demand	Number of cylinders
Total oxygen requirements for all beds	1104
Number of cylinders available	>696 cylinders
Gap (-)/Excess (+)	-408 cylinders

RISK COMMUNICATION AND COMMUNITY ENGAGEMENT

4 RISK COMMUNICATION AND COMMUNITY ENGAGEMENT

4.1 DEMOGRAPHIC INFORMATION OF PROVINCE 1[1]

4.1.1. Ratio
The ratio of women in Province 1 is more than that of men. Approximately 52% of the population is female and 48% is male.

4.1.2. Religion
Religion in Province 1 encompasses a wide diversity of groups and beliefs. The major religion is Hinduism which accounts for 67% followed by Kirat (17%). Both Buddhism and Islam accounts for 4% each followed by Christianity (2%) and Prakriti (1%).

4.1.3. Caste
Chhetri is the largest caste in Province 1 having 15% of the total population followed by Brahman – Hill (12%), Rai (11%), Limbu (8%), Tamang (5%) and others (34%). Tharu (4%), Newar (4%), Magar (4%) and Muslim (4%) are the lowest in numbers.

4.1.4. Language Spoken
43% of the population speak the Nepali language making it the main spoken language in Province 1. The second most spoken language is Maithili (11%) followed by Limbu (7%), Tamang (4%), Tharu (4%), Magar (3%), Bantawa (3%), Urdu (3%), Rajbanshi (3%) and other languages (19%).

4.1.5. Literacy Rate
The literacy rate in Province 1 is 71% which suggests that 29% of the population in Province 1 are unable to read or write.

4.1.6. Education Level
There are various education levels in Province 1. They are Primary Level[2] (38%), Lower Secondary Level (21%), Secondary Level (13%), School Leaving Certificate (12%), Intermediate Level (5%), Beginner (3%), Non-formal (5%), Graduate (2%), Post-graduate and above (1%).

4.2 INFILTRATION OF MASS MEDIA COMMUNICATION

4.2.1. Community Radio
There are a total of 30 radio stations in Province 1 Some of the radio stations are Nagarik FM, Radio Dhankuta and Udaypur FM. Full detailed information of these radio stations are mentioned in Annex 1.

4.2.2. Source of communication (Access to Radio, TV, Internet and telephone)[3]
In province one, 51.2% have access to radio, followed by 38.9% have access to television and only 1.6% have access to internet. Similarly, 6.3% have access to landline telephones while 65.3% have access on mobile phone.

4.2.3. Popular Newspaper Channels
There are a total of 117 newspaper channels in Province1 with Provincial and local outreach. As per the classification, some of the top ranking newspapers are Loktantra Post Dainik, Blast Times Dainik and Jana-bishwas Saptahik.

> Major religion is Hinduism which accounts for 67% followed by Kirat (17%). Both Buddhism and Islam accounts for 4% each followed by Christianity (2%) and Prakriti (1%).

[1.] "NepalMap Profile: Province No. 1." NepalMap, nepalmap.org/profiles/province-1-province-no-1/.
[2.] Primary (class 1 to 5), Lower secondary (class 6 to 8), Secondary (class 9 to 10)- source?
[3.] https://cbs.gov.np/social-statistics-2075/

Full details of the newspapers available in province 1 are mentioned in Annex 2.

4.2.4. Cell Phone Providers

There are two major cell phone providers in Province 1: Nepal Doorsanchar Company Limited (NTC) and Ncell Axiata Limited (NCELL) and Province 1 is no exception.

4.3 PROVINCIAL LEVEL SPOKESPERSON

- Name: Mr. Mukunda Dahal
- Profession: Statistician
- Contact number: 9852033300
- Email id: dahalm@gmail.com
- Language Spoken: Nepali

4.4 SPOKESPERSON FOR COVID-19 DESIGNATED HOSPITALS

There is one hospital in Province 1 that is designated for COVID-19. The detail information of that hospital is:

Koshi COVID hospital

- Hospital Spokesperson: Mr. Gyan Bahadur Basnet
- Designation of Spokesperson: Senior Public Health Officer
- Contact number: 9852029180
- Email ID: gyanbasnet416@gmail.com.

4.5 COMMUNITY ENGAGEMENT

4.5.1. Provincial or District Call Centre

Currently, there are no call centres operating in Province 1.

4.5.2. Social Service Operation Organization

The major strong social service operation organizations involved for risk communication and community engagement in Province 1 are:

- Rotary, Rotaract club and Lions club
- Knight Chess Club of Jhapa
- Women Rehabilitations Center (WOREC) Nepal
- Informal Service Center (INSEC) Nepal
- Lions Club of Nepal Chapter at various cities in Province 1 are also supporting the government in disseminating messages related to COVID-19.

4.5.3. Major Business Groups (Industrial)

The major business group of Province 1 who have been supporting the government by disseminating COVID-19 related messages are:

- Arati Strips
- Association of Community Radio Broadcasters (ACORAB)
- Broadcasting Association of Nepal (BAN)

4.5.4. Rumour & Misinformation Monitoring Mechanism

- Rumor tracking on COVID-19 is being done by MOSD and Ministry of Home Affairs and Law in coordination with PHEOC.
- Rumour tracking is being done by frequently monitoring the newspapers and information outlets and is being addressed through press releases, video posts and IEC/BCC materials to school teachers for risk communication and community engagement.
- 200 school teachers were taken as volunteers in Jhapa, Sunsari and Morang districts for COVID risk communication from Ministry of Social Development.
- Ministry of Home Affairs and Law supports security personnel for the control of rumors.
- The information on myths and truths are provided on the website of Ministry of Social Development. (Website: http://mosd.p1.gov.np/about-us).
- Other websites for such

information are:
- www.ocmcm.p1.gov.np (Chief Minister's Office)
- http://moial.p1.gov.np (Ministry of Home Affairs and Law)

The link to press briefing of Province 1 can be found at Province 1 MoHP website

4.5.5. Media Monitoring

No details of formal or structured media monitoring is available.

4.6 PRESS BRIEFINGS

There are regular press briefings held at Province 1 from MoSD. These press briefings began from Mid-May 2020. The briefing is conducted on a weekly basis. Press briefings are undertaken at times of emergency. These press briefings include information that addresses current rumours, misinformation and other concerns.

4.7 REPORTING

Apart from regular press briefings, situation reports are also shared at provincial and district level at Province 1. Such reports are shared on a daily basis. COVID Reporting Unit from MoSD shares this information with support from World Health Organization (WHO). These are available on the website of Ministry of Social Development of Province 1.

4.8 OTHER ACTIVITIES

There are other activities as well that are conducted at the Provincial level/ district level for Risk Communication & Community Engagement (RCCE). These activities are conducted to create awareness in the community about COVID-19. Some of the awareness activities are as follows:

- Awareness messages disseminating through miking (projection of messages) and leaflets in towns and streets by Biratnagar Metropolitan Office.
- Airing of awareness messages through local FM and media briefing by Ministry of Social Development (MoSD).
- Hiring approximately 200 teachers to deliver awareness messages in underprivileged communities of COVID-19 affected areas and social gathering places.
- Distributing awareness raising leaflets in rural municipality/districts via MoSD.
- Delivering guidelines on management of waste disposal, environmental clearing, disinfection and infected isolated persons via MoSD and Provincial Health Emergency Operation Centres (PHEOC).
- Providing pocket book on clinical management of COVID-19 to healthcare settings via MoSD and Provincial Health Emergency Operation Centres (PHEOC).
- Holding centre and quarantine facilities established at Points of Entry (PoE) in coordination with the municipality and security personnel.

4.9 CHALLENGES

There are many challenges in Province 1 regarding information related to any Risk Communication & Community Engagement. For example:

- There is no provision of call center at Province 1 to encounter rumours, misinformation and address concerns.
- There is no provision of media monitoring mechanism.

OPERATIONS SUPPORT AND LOGISTICS

5 OPERATIONS SUPPORT AND LOGISTICS

The provincial profile for the Operations Support and Logistics Pillar has been subdivided into the following categories:

- Health Emergency Operations Center
- Provincial Health Emergency Operations Center
- Electronic-Logistic Information Management System
- Points of Entry
- Repurposing of Health Facilities for Isolation beds.

Health Emergency and Operations Center

The Health Emergency Operations Center (HEOC) acts as the secretariat of the Ministry of Health and Population during health emergencies, including the COVID-19 pandemic. It is the central communication body for the provincial and local levels, and it also coordinates with affiliated international bodies, NGOs, and other organizations.

The HEOC's operations are currently supported by four WHO staff, and six personnel from the government (medical superintendent, section officer, staff nurse, officer, helper).

Provincial Health Emergency Operations Centers

Provincial Health Emergency Operations Centers (PHEOCs) play an integral part in different areas of health sector preparedness and response readiness, such as hub and satellite hospital network coordination, prepositioning and replenishing emergency medical logistics, risk assessment, and human resources management, among others.

WHO has deployed a team in all seven province to support the provincial governments in health emergency/disaster preparedness, recovery and response. Each team consists of Field Medical Officers (FMOs), a COVID Surveillance Associate (CSA), an Information Management Assistant (IMA) and a driver.

The major roles of an FMO includes assisting federal and provincial health authorities in the core capacity enhancement of national health security, as well as supporting health emergency/disaster preparedness, recovery and response. An FMO's responsibilities consist of:

- Implementing, monitoring, and assessing existing and planned epidemiologic and laboratory surveillance (event- and indicator-based) mechanisms.
- Establishing and ensuring the efficient functioning of the Public Health Emergency Management Sub-Committees (PHEM-SC) and HEOCs, and their effective coordination, communication and information management functions throughout the disaster/emergency management cycle.
- Maintaining a regular mechanism for the HEOC to coordinate with hub and

satellite hospitals, health sector partners, and other stakeholders so as to collaborate on health sector emergency preparedness and response readiness interventions

- Establishing, capacitating, maintaining readiness, and efficiently positioning emergency medical deployment teams from hub and satellite hospital networks.

The COVID Surveillance Associate (CSA) is responsible for:

- Maintaining daily communication with key hospitals, ground crossings, and tourist hotels identified by the federal and provincial health authorities to collect information on certain diseases, including COVID-19.
- Following up, maintaining records, and reporting the status of admission, investigation, sample collection and shipment, lab confirmation, clinical status and outcome, and referral or discharge details of identified cases.
- Monitoring, reporting, verifying, and investigating events/incidents associated with COVID-19 and other public health issues in coordination with WHE Field Medical Officers.
- Assisting provincial health authorities in identifying population groups and vulnerable areas that are at high risk of COVID-19 transmission.

The Information Management Assistant (IMA) is responsible for:

- Communicating and coordinating with districts/local bodies/health facilities and other stakeholder partners to collect information and follow-up on potential

public health emergencies for the preparation of situation reports.

- Generating first information reports on public health events/emergencies and reporting them to the WHE FMO and the supervising health authority.
- Updating databases on human as well as logistic and financial resources in close coordination with hub and satellite hospital networks and national/provincial/district/local health authorities. This is done for utilization during the different phases of the health security emergency risk management cycle.

The driver is responsible for:

- Transporting authorized personnel, visitors, and delegates to identified locations within the duty station.
- Translating basic conversations from/to the local language.
- Performing messenger functions, such as delivering various items/commodities, including diplomatic pouches following authorized routing.

Depending on the province, some of the PHEOCs also have government staff working closely with WHO personnel. This has been described in the individual province profile.

Logistic Management Section and Electronic-Logistics Management Information System (eLMIS)

The Logistics Management Section is one of the four units of the Management Division. It is responsible for collecting and analyzing quarterly logistics management information system (LMIS) reports from all the

health facilities across the country. The Logistics Management Section prepares reports and disseminates information in order to:

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

The LMIS combines forms and procedures required for collecting and organizing logistic information. It gathers data on the quantities of products dispensed to users, stock levels, stock losses, batch, and expiry, among others. Additionally, it circulates this information, which is required for supply chain management, through the system. The LMIS is an effective tool for inventory control and waste reduction; it also helps in rational as well as decentralized decision-making at federal, provincial, and local levels.

In addition, the LMIS helps to determine order quantities at the facility level; supervise and monitor stocks at the district/provincial level; and forecast, procure, monitor as well as distribute supplies at the federal level.

As for the e-Logistics Management Information System, it was found that all 55 COVID-designated health facilities had received eLMIS training. However, it came to light that only 33 percent of the hospitals/labs had been providing weekly COVID supply updates. Procurement of commodities is done at different levels: provincial, rural/municipality as well as that of the health facility. Therefore, it is essential for the health facilities, which receive the supplies, to track the data on the availability of commodities. A lack of timely updates on the eLMIS makes forecasting and quantification of supplies difficult. Moreover, the supply of required commodities cannot be ensured in the absence of eLMIS data.

Establishment of health desks at Points of Entry

Nepal is surrounded by India on three sides, and the two countries share a 1,751 km long open border. However, due to the COVID-19 crisis, the borders have been sealed, and thousands of out-of-work Nepali migrants are still stuck in India. The Government of Nepal recently announced that 20 border entry points would be opened for them to return home. The mass movement that the government decision might lead to will require an effective COVID-19 response preparation and management for returnees, including registration and screening at health desks at points of entry, and proper organization of transportation and quarantine.

The key tasks of the health desks are:
a. Screening
b. Registering
c. Triaging, and
d. Transferring to appropriate settings

The health desk-screening flowchart is given below:

Health Desk Screening

Fever >100.4F
Fever>100.4F & Cough
Fever >100.4F & Shortness of Breath (SoB)

No Fever
No Symptoms

"S"Stamp (Suspect) & Health Information

Vulnerable with COVID-19 Symptoms

Vulnerable without COVID-19 Symptoms

"Q" Stamp (Quarantine) & Health Information

Transfer to hospital

"S"&"V" Stamp (Suspect & Vulnerable) & Health Information

"V"&"Q" Stamp (Vulnerable & Quarantine) & Health Information

Refer to Holding area (max 24 hrs) & bound for respective quarantine centers

Tested & Managed as per Protocol

Holding area (max 24 hrs)

Transport as priority to Quarantine site and give separate place & care

The first step in the process will be temperature screening. Next, the returnees will be observed and asked if they have been showing COVID-19 symptoms. Suspected cases will be given an 'S' (Suspect) stamp; their basic information will be captured through a screening form, after which they will be ushered to a waiting area for transfer to a hospital for testing and management, as per protocol. Similarly, suspect cases with co-morbidities or vulnerable conditions will be given 'S' and 'V' (Vulnerable) stamps. Their basic information will be captured through a screening form, and they will be ushered to the waiting area for transfer to a hospital, where they will be tested as priority and managed as per protocol. Those with normal temperatures and no symptoms will be given a 'Q' (Quarantine) stamp for transportation to a holding center for normal quarantine. Travelers with normal temperature and no symptoms but with co-morbidities or vulnerable conditions will be given 'Q' and 'V' stamps. They will be sent to a holding center for vulnerable quarantine where they will be provided with enhanced care and support. Each person will be given a colored card/sticker identification card, which they will have to present at their respective facilities.

PROVINCE 1

Province 1 comprises of 14 districts viz. Jhapa, Morang, Sunsari, Ilam, Dhankuta, Bhojpur, Khotang, Udaypur, Okhaldhunga, Solukhumbu, Panchthar, Terhathum, Taplejung, Sankhuwasabha, 1 Metropolitan city, 2 Sub-metropolitan city, 46 Urban Municipality and 88 Rural Municipality. It has 791 public health facilities with 3 Hub hospital, 18 hospitals, 1 regional medical store, 41 Primary Health Centers, 648 Health Post, 34 Urban Health Center, 41 Community Health Unit and 9 other health facility.

5.1. HR AND OTHER RESOURCES AVAILABLE AT PHEOC

The workforce at Province 1 consists of one Field Medical Officer (FMO), two COVID Surveillance Assistant (CSA), one Information Management Assistant (IMA) and one Driver. Regarding logistics, Province 1 has single workstation, one meeting room, one archival room, one generator and eight solar panels for power backup. It is also equipped with internet facility.

Currently no government staff is working at the PHEOC, with one Immunization officer to join very soon. Previously there were two female support staff from the Ministry of Social Development, to support various activities of the government such as filling up of the case measles form.

5.2 REPURPOSING OF INSTITUTIONS FOR COVID-19 TREATMENT

Amidst the COVID-19 pandemic, 54 institutions of Province 1 that includes 12 training centers and 42 health facilities is considered on being converted to COVID-19 wards, for isolation and treatment of cases.

Number of training centers developed	12
Number of potential health facilities	42
Number of Institutions that can be converted to COVID-19 wards	54

The name of health facilities, their level, year of construction and bed capacity that are presumed on being repurposed for COVID-19 pandemic in this province are given in the table below:

Table 21: Health facilities, their level, year of construction and bed capacity repurposed for COVID-19

Health Facility Name	FY of Construction	No. of Beds	After repurposing	Categorised level
Bhojpur District				
Ghoretar PHC	2067/068	12	29	Primary Hospital B 3
Pyauli PHC	2064/065	12	29	Primary Hospital B 3
Dhankuta District				
Dandabazar PHC	2065/066	12	29	Primary Hospital B 3
Jitpur PHC	2064/065	12	29	Primary Hospital B 3
Ilam District				
Mangalbare PHC	2066/067	12	29	Primary Hospital B 3
Pasupatinagar PHC	2068/069	12	29	Primary Hospital B 3
Phikal PHC	2061/062			Primary Hospital B 3
Pyang PHC	2067/068	12	29	Primary Hospital B 3
Jhapa District				
Khajurgachhi PHC	2066/067	12	29	Primary Hospital B 3
Dhulabari PHC	2067/068	12	29	Primary Hospital A 3
Sanischare PHC	2064/065	12	29	Primary Hospital A 2

Health Facility Name	FY of Construction	No. of Beds	After repurposing	Categorised level
Khotang District				
Ainselukharka PHC	2064/065	12	29	Primary Hospital B 3
Morang District				
Jhurkiya PHC	2070/071, PHC 2059			Primary Hospital B 3
Rani PHC	2044			Primary Hospital B 3
Okhaldhunga District				
Panchthar District				
Gopetar PHC	2061/062			Primary Hospital B 3
Sankhuwasabha District				
Chainpur PHC	2068/069	12	29	Primary Hospital B 3
Tamku PHC	2065/066	12	29	Primary Hospital B 3
Solukhumbu District				
Salyan PHC	2063/064			Primary Hospital B 3
Sotang PHC	2064/065	12	29	Primary Hospital B 3
Sunsari District				
Chatara PHC	2063/064			Primary Hospital B 3
Itahari PHC	2061/062			Primary Hospital B 3
Santerjhora PHC	2064/065	12	29	Primary Hospital B 3
Taplejung District				
Dhungesaghu PHC	2064/065	12	29	Primary Hospital B 3
Tellok PHC	2065/066	12	29	Primary Hospital B 3
Tehrathum District				
Basantpur PHC	2065/066	12	29	Primary Hospital A 1
Shakranti PHC	2063/064			Primary Hospital B 3
Udaypur District				
Beltar PHC	2061/062			Primary Hospital B 3
Total		**216**	**348**	

5.3 eLMIS REPORTING STATUS

Regarding eLMIS reporting status of Province 1, none of the designated COVID-19 labs/hospitals with access to eLMIS has updated it weekly. eLMIS reporting status of COVID-19 designated hospitals/labs in this province is summarized in the table below:

Province 1 eLMIS update data	
No. of COVID-19 designated labs/hospitals updating eLMIS weekly	1
No. of COVID-19 designated labs/hospitals not updating eLMIS weekly	4
No. of COVID-19 designated labs/hospitals without eLMIS access	N/A

The last login details of COVID-19 designated labs/hospitals in this province are as follows:

S. No.	Hospitals/Labs	Last log in details	Last Transaction details
1	Koshi Hospital	29-Nov-2020	21 Aug-2020
2	Mechi Hospital	17-Sep-2020	15-Jul-2020
3	BPKIHS	1-May-2020	26-Apr-2020
4	Provincial Public Health Laboratory	25-Nov-2020	25-Nov-2020
5	Birat Medical College	10-Aug-2020	No transaction made

The BPKIHS and Koshi Hospital have their own software for information management to record transaction of commodities and hence the eLMIS has not been used. The BPKIHS uses Q store software to record the transaction while in Koshi Hospital excel sheet is maintained for record purpose. In Mechi Hospital, although the hospital uses the eLMIS, it has not been regularly used.

5.4 ESTABLISHMENT OF HEALTH DESK AT POINT OF ENTRY (POE)

EDCD has allocated budget to establish permanent health desk in the following sites.

S No.	Health Desk	District
1	Kakadbhitta Health Desk	Jhapa
2	Pashupatinagar Health Desk	Ilam
3	Rani Health Desk	Biratnagar

WHO Country Office for Nepal, in coordination with EDCD, has established a temporary health desk at Rani in Biratnagar. There are two tents built for the health desk along with construction of a hand pump and refurbishing of the existing toilet facility at the health desk.

PARTNER COORDINATION

6

6 PARTNER COORDINATION

RISK COMMUNICATION & COMMUNITY ENGAGEMENT

Distribution of IEC/BCC materials at the health facility level and public institutions, including posters, leaflets, brochures and reprinting of materials developed by NHEICC.

Audio-Visual Communication including public service announcements on FM stations, establishment of a hotline to provide service to municipalities on COVID-19 relief/response services.

Web portal and mobile application with Ministry of Health for epidemic surveillance and response.

> **Partners:** AIN, BNMT, FAIRMED, FHI 360, HI, IOM, KOSHISH, GF/SF, Water Aid, IFRC/NRCS, Plan International, World Vision International, UNICEF, UNFPA, WHO, Ncell/NTC, ILO, DFAT, WB

NATIONAL LABORATORIES

Capacity building including Training of trainers on PPE use/IPC and sample collection, packaging and transport for COVID-19 to lab staff from diagnostic sites.

Procurement and handover of over 100,000+ RT-PCR test kits to MoHP.

> **Partners:** FAIRMED, FHI 360, SDC, The Global Fund/ Save The Children, UNICEF, USAID, World Bank, WHO, DFID, KOICA, Gates Foundation

POINTS OF ENTRY, INTERNATIONAL TRAVEL AND TRANSPORT

Capacity Strengthening and Establishing health desks located at multiple POEs for screening of returning migrants. The measures taken will contain, improve and propose a model for better management of the WASH facilities and making PPE items and noncontact thermometers available for screening at the POEs.

Participatory mobility mapping along the border area includes volunteers and public health professionals mobilized to understand the flow of people and identify vulnerability. Partners plan to produce a map which can be used for targeted response.

> **Partners:** IOM, Nepal Redcross Society, Plan International, UNICEF, USAID, World Vision International, WHO

INFECTION PREVENTION AND CONTROL

Distribution of PPE and commodities including alcohol based hand rub, IR thermometer, liquid hand washing soap, soap dispensers, disposable gowns, head protectors, sterile and non-sterile gloves and surgical gloves, disinfectants, testing kits (including RT PCR), KN95 Masks, surgical masks, and eye goggles.

Support to caregivers and healthcare workers including training of trainers (TOT) on PPE use/IPC and sample collection, packaging, and transport for COVID-19 to lab staff from diagnostic sites.

Risk assessment and preventative education in support of caregivers and communities on COVID-19.

> **Partners:** AIN, Caritas, CRS, DFAT, FAIRMED, FHI 360, HI, JHPIEGO, NAP+N, IFRC/Nepal Redcross Society, Plan International, SDC, UNICEF, USAID, World Vision International, WHO, GIZ, CMDN, UNFPA, DFID, SDC, Oxfam, Water Aid, UNFPA, WB, GAVI

Map 13: Provincial UN Focal Point – International Organization for Migration (IOM)

Solukhumbu
1

Sankhuwasa
1, 7, 14

Taplejung
1

Okhaldhunga
1, 7, 13
23, 24, 26

Khotang
1

Bhojpur
1

Tehrathum
1, 14

Panchthar
1, 5

Udayapur
1, 7, 13, 18
22, 24, 25, 26

Dhankuta
1

Ilam
1, 7, 14, 16

Sunsari
1, 7, 10, 13
14, 19, 27

Morang
1, 3, 5, 7, 9, 10
12, 13, 16, 22
25, 28

Jhapa
1, 4, 5, 7, 10
16, 25

(1) NRCS (2) CARE (3) BNMT (4) CARITAS (5) AIN (6) WATER AID (7) NAP +N (8) TDH FOUNDATION (9) VSO (10) FHI360
(11) GIZ (12) HI (13) UNFPA (14) IPAS (15) FAIRMED (16) IOM (17) ACF (18) KOSHIS (19) Plan Int (20) NSI
(21) KOICA (22) WVIN (23) CRS (24) CMC (25) DFAT (26) JHPIEGD (27) PACT inc (28) SDC

CASE MANAGEMENT

Orientation for caregivers/health workers of COVID patients with disabilities with on how to provide personal assistance during the treatment period.

> **Partners:** AIN,HI, SDC, WHO, USAID, SDC, GIZ, UNICEF, IOM, DFID, WB

EPIDEMIOLOGY CASE INVESTIGATION AND CONTACT TRACING (CICT)

Assessment of Quarantine sites via real time data collection using KOBO. Partner support in Province 1 also includes Case Investigation and Contact Tracing (CICT) training package developed with the support of master trainers from NHTC and EDCD.

Capacity Strengthening Support including a mobile based training for health workers and female Community Health Volunteers (FCHVs).

Participatory Mobility Mapping in Province 1 along selected POEs and border areas. Volunteers and public health professionals are mobilized to understand the flow of people and identify vulnerability This PMM intervention is a part of Health Border Mobility Mapping which will identify mobility patterns, vulnerable hotspots and at-risk communities. IOM plans to produce a map which then can be used for targeted response.

> **Partners:** BNMT, FAIRMED, IOM, PACT Inc. Nepal, UNICEF, USAID, GIZ, IFRC/NRCS, World Bank, Gates Foundation, UNFPA

OPERATIONAL SUPPORT AND LOGISTICS

Establishment of Structures including temporary health desks and physically accessible Quarantine Centres and Isolation wards.

Quarantine Facility support, establishment washing stations and other key structures at health facilities.

> **Partners:** AIN, BNMT, DFAT, FAIRMED, FHI 360, HI, IPAS, Nepal Redcross Society, Plan International, SDC, UNFPA, UNICEF, USAID, World Vision International, ADB, IOM

MENTAL HEALTH AND PSYCHOSOCIAL SUPPORT

Communications and Telehealth including dissemination of psychosocial information through media, individual tele-counseling and mental health services from mental health experts, including assigned experts and experienced psychosocial counsellors, via a toll-free number

Psychological First Aid (at quarantine and isolation centres) through telehealth and through socially distanced support

Capacity building and stress management to the frontline workers, health workers, security forces and I/NGO staff which includes providing a Training of Trainers (ToT) on stress management. This includes supervision and coaching to medical officers in project implemented districts

Radio programs broadcast on psychosocial and mental health related topics, which includes 2 episodes per week of *Jiwan Rakchya* airing on CIN, and 3 episodes (2 on children's and 1 in GBV issues) produced and broadcasted.

Supply of psychotropic medicines in support of psychiatric service and in coordination with concerned municipalities and health facilities

> **Partners:** CMC, KOSHISH, Nepal Redcross Society

CONTINUITY OF ESSENTIAL MEDICAL SERVICES

Human resource support for HIV programming for COVID-19 and

Financial support providing essential medical items for spinal cord injury

> **Partners:** HI, KOSHISH, UNICEF, USAID, ADB, UNFPA, FAIRMED, DFAT, WVIN, IPAS, GIZ

WATER AND SANITATION HYGIENE (WASH)

Technical assistance to MoHP management division in support of Water, Sanitation and Hygiene standards for healthcare facilities.

Construction of handwashing stations placed in strategic positions throughout Province 1's health facilities.

> **Partners:** UNICEF, KIRDARC, ENPHO, RVWRMP, NEEDS, RDC, SAC, BEE, BWSN, Campaign, JJYC, CDS, Everest Club, FOHRen, HRDC, IDS, JIDS, Kopila valley, KVS, Lumanti, MCDC, NBS, PACE, PRAG, PTYSM, RDC, Relief Nepal, RRPK, RYC, Sabal, SAC, SAHAS, SUYUK, WEL, GWT, UN-Habitat, UNDP, WFP, IOM, WHO, Nepal Red Cross Society, British Red Cross, ACF, AAN, Blinknow, Care, CRS, CAWST, DCA, DFAT, Felm, GiZ, GNI, Helvatas, LWF, Mercy Corps, NCV, Oxfam, Phase, Plan Int., Practical Action, Save the Children, USAID, Water Aid, WHH, WVI, WTW, ME, SNV

COORDINATION PLANNING AND MONITORING

Coordination and planning between federal, provincial and local government support for the provision of female-friendly COVID-19 quarantine facilities

Policy and planning strengthening through technical support to the Nepal Law Society, resulting in the hosting of discussions with the Legislation Management Committee of the National Assembly on the amendment of the Contagious Diseases Act. Partners seek to support amendment of the law, which will provide federal, provincial and municipal governments with greater clarity on their roles and functions in response to managing epidemics

Partners: DFAT, HI, The Global Fund/ Save The Children, UNICEF, USAID, GIZ, DFID, UNFPA, WHO, FAIRMED, IFRC/ NRCS, CG, EU

PROVINCEWIDE SUPPORT

Partners: *IOM, WHO, SDC, GIZ, GF/SCI

NATIONWIDE WIDE

Partners: ADB, ADRA Nepal, Chaudhary Group, CMDN, DFAT, DFID, EU, FHI 360, Gates Foundation, GAVI, GIZ, ILO, IOM, Ncell, Nick Simons Foundation Institute, The Global Fund/ Save the Children, UNICEF, WHO, World Bank, German Dev. Cooperation/KfW, KOICA, SDC, USAID, UNFPA, UNDP, WFP

ANNEXES

Annex 1: Radio Station available in Province 1

S.N	Station Name	Frequency	Watt	District	Contact Person	Number
1	Nagarik FM	107.5 MHz	100	Jhapa	GobindaChhetri	9842637084
2	Radio Sargam	88.8 MHz	100	Jhapa	GyanendraNiraula	9852674828
3	Radio Sandesh	103.9 MHz	100	Jhapa	RajendraMainali	9842633411
4	Ilam FM	93 MHz	500	Ilam	BigeshAdhikari	9849178491
5	Radio Nepal Bani	94.9 MHz	1000	Ilam	Sushil Ghimire	9851119980
6	Radio Sumhatlung	104.2 MHz	100	Panchthar	Bijay Bod Lawati	9742601581
7	Radio Tamor	102 MHz	500	Taplejung	SajanPaudel	9852680875
8	Taplejung FM	94.0 MHz	500	Taplejung	Dev Raj Gurung	9842747015
9	Radio Purbanchal	104.4 MHz	100	Morang	Kamala Kadel	9842023843
10	Radio Jagriti	87.9 MHz	50	Morang	Rup Narayan Timsina	9841209031
11	Radio Betana	97.1 MHz	100	Morang	Amabika Bhandari	9842037416
12	Radio Pariwartan	89.4 MHz	100	Sunsari	Mahesh Rijal	9841318787
13	Radio Ganatantra	95.1	500	Sunsari	Ganesh PrashadTimalsina	9842112366
14	Radio Janasandesh	103.6 MHz		Sunsari	RajendraKirati	9852056395
15	Radio Dhankuta	106.2 MHz	100	Dhankuta	Mani Kumar Shrestha	9842086784
16	Radio Makalu	92.2 MHz	500	Dhankuta	Arjun Kumar Rai	9841498973
17	Radio Laligurash	105.2 MHz	100	Dhankuta	Purna Kumar Chaudhary	9842158265
18	Radio Bhojpur	93.8 MHz	500	Bhojpur	SarwotiTamang	9842211771
19	Chomolungma FM	98.6 MHz	100	Bhojpur	Manika Rai	9842051348
20	Radio Khandabari	105.8 MHz	100	Sankhuwasabh	Krishna Raj Shakya	9852051552
21	Solu FM	102.2 MHz	500	Solukhumbu	NgimaTamangPakhrin	9851050948
22	Radio Chomolonma	95.2 MHz	500	Solukhumbu	Bhojrajkarki	9842930448
23	Radio Rupakot	105.0 MHz	100	Khotang	BhuparajKhadka	9851085522
24	Udaypur FM	102.4 MHz	100	Udaypur	Bandana Danuwar	9842871029
25	Radio Triyuga	104 MHz	100	Udaypur	Baldev Chaudhary	9852820190
26	Aafno FM	104.8 MHZ	100	Okhaldhunga	VijayaManandhar	9851101677
27	RamailoSamudayek	100.6 MHz	100	Okhaldhunga	Raj Kumar Karki	9842939839
28	Sahayatri Radio	94.2 MHz	100	Okhaldhunga	SudarshanPokrel	9851068053
29	Menchhayayem	102.6 MHZ	500	Tehrathum	Shiva kumar Limbu	9851092889
30	Radio Terhathum	92.4 MHz	250	Tehrathum	Mahendra P. Kafle	9842426388

Annex 2: Newspaper available in Province 1

S.N	Name of the newspaper	District	Province	Type	Outreach	Grade
1	Illam Express Dainik	Illam	1	Daily	Local	Gha
2	Illam Post Dainik	Illam	1	Daily	Local	Kha
3	Illam Aawaj Saptahik	Illam	1	Weekly	Local	Ga
4	Sthaniye Sandesh Saptahik	Illam	1	Weekly	Local	Similar
5	Baruwa Times Dainik	Udayapur	1	Daily	Local	Kha
6	Tiryuga Express Dainik	Udayapur	1	Daily	Local	Ga
7	Tiryuga Times Saptahik	Udayapur	1	Weekly	Local	Ga
8	Nagarik Aahwan Saptahik	Udayapur	1	Weekly	Local	Kha
9	Durdarshi Saptahik	Udayapur	1	Weekly	Local	Similar
10	Hamro Belka Saptahik	Udayapur	1	Weekly	Local	Ga
11	Chaudandigadhi Saptahik	Udayapur	1	Weekly	Local	Ga
12	PurnaPusti Saptahik	Udayapur	1	Weekly	Local	Kha
13	Purva Nepal Saptahik	Udayapur	1	Weekly	Local	Gha
14	Purvatara Udayapur Saptahik	Udayapur	1	Weekly	Local	Withheld
15	Hamro Khabar Saptahik	Udayapur	1	Weekly	Local	Ga
16	Sagarmatha Khabar Saptahik	Udayapur	1	Weekly	Local	Ga
17	Purva Kshitiz Saptahik	Udayapur	1	Weekly	Local	Ga
18	Majhkharka Saptahik	Udayapur	1	Weekly	Local	Withheld
19	Durgam Express Saptahik	Udayapur	1	Weekly	Local	Ga
20	Suweekar Post Mashik	Udayapur	1	Monthly	Local	Ga
21	Vision Nepal Saptahik	Okhaldhunga	1	Weekly	Local	Ga
22	Haleshi Khabar Patrika Saptahik	Khotang	1	Weekly	Local	Ga
23	Rupakot Khabar Patrika Saptahik	Khotang	1	Weekly	Local	Kha
24	Khotang Khabar Saptahik	Khotang	1	Weekly	Local	Ka
25	Temke Tuwangchung Traimashik	Khotang	1	Weekly	Local	Withheld
26	Ujyalo Post Dainik	Taplejung	1	Daily	Local	Withheld
27	Loktantra Post Dainik	Jhapa	1	Daily	Provincial	Ka
28	Jansansad Dainik	Jhapa	1	Daily	Provincial	Kha
29	PurvaSandesh Dainik	Jhapa	1	Daily	Provincial	Kha
30	Pratidin Dainik	Jhapa	1	Daily	Provincial	Ka
31	Purvaunchal Dainik	Jhapa	1	Daily	Provincial	Ka
32	New Mechi Times Dainik	Jhapa	1	Daily	Local	Kha
33	Mechi Aawaj Saptahik	Jhapa	1	Weekly	Local	Withheld
34	Janjyoti Saptahik	Jhapa	1	Weekly	Provincial	Ga
35	BirtaJyoti Saptahik	Jhapa	1	Weekly	Local	Kha
36	Barun Saptahik	Jhapa	1	Weekly	Local	Ga
37	Kasaar Spatahik	Jhapa	1	Weekly	Local	Ga
38	Yamlamber Times Saptahik	Jhapa	1	Weekly	Local	Kha
39	Jan-andolan Saptahik	Jhapa	1	Weekly	Local	Kha
40	Supurva Malik Saptahik	Jhapa	1	Weekly	Local	Ga
41	Khabar-manch Saptahik	Jhapa	1	Weekly	Local	Kha
42	Kankai Saptahik	Jhapa	1	Weekly	Local	Kha
43	Swadhin Sambad Saptahik	Jhapa	1	Weekly	Local	Kha

S.N	Name of the newspaper	District	Province	Type	Outreach	Grade
44	Saptahik Samachar	Jhapa	1	Weekly	Local	Kha
45	Naulo Aawaj Saptahik	Jhapa	1	Weekly	Local	Withheld
46	Satashi Saptahik	Jhapa	1	Weekly	Local	Kha
47	Purveli Saptahik	Jhapa	1	Weekly	Local	Kha
48	Mechi Khabar Saptahik	Jhapa	1	Weekly	Local	Kha
49	Nirman Lahar Saptahik	Jhapa	1	Weekly	Local	Ga
50	Jana-bishwas Saptahik	Dhankuta	1	Weekly	Provincial	Ka
51	Dhankuta Saptahik	Dhankuta	1	Weekly	Local	Kha
52	Hamro Naya Nepal Bichar Sa.	Dhankuta	1	Weekly	Provincial	Kha
53	Agradeep Saptahik	Dhankuta	1	Weekly	Local	Kha
54	Miklanj aawaj Saptahik	Pachthar	1	Weekly	Local	Ga
55	Public Times Saptahik	Pachthar	1	Weekly	Local	Ga
56	Shilichung Saptahik	Pachthar	1	Weekly	Local	Withheld
57	New Shristi Dainik	Bhojpur	1	Daily	Local	Kha
58	Udhghosh Dainik	Morang	1	Daily	Provincial	Withheld
59	Darshan Dainik	Morang	1	Daily	Provincial	Withheld
60	Nigrani Dotcom Dainik	Morang	1	Daily	Local	Withheld
61	Jana-Bidhroha Dainik	Morang	1	Daily	Local	Kha
62	Rastriya Samacharpatra Dainik	Morang	1	Daily	Local	Ga
63	Betana Dainik	Morang	1	Daily	Local	Ga
64	Rastriyabadi Samacharpatra	Morang	1	Weekly	Provincial	Gha
65	Crime Operation Saptahik	Morang	1	Weekly	Local	Gha
66	Jana-Badi aawaj Saptahik	Morang	1	Weekly	Local	Kha
67	Saptahik Digdarshan	Morang	1	Weekly	Local	Ga
68	Alkapuri Saptahik	Morang	1	Weekly	Local	Withheld
69	Kurkure Dotcom Saptahik	Morang	1	Weekly	Local	Ga
70	Anmolmani Saptahik	Morang	1	Weekly	Local	Kha
71	National Post Saptahik	Morang	1	Weekly	Local	Ga
72	Rastriya Janahit Saptahik	Morang	1	Weekly	Local	Kha
73	Kantipath Saptahik	Morang	1	Weekly	Local	Ga
74	Swatantra Birat Saptahik	Morang	1	Weekly	Local	Ga
75	Phewa Saptahik	Morang	1	Weekly	Local	Ka
76	Saptahik Namaskar	Morang	1	Weekly	Local	Ga
77	Hastant Saptahik	Morang	1	Weekly	Local	Kha
78	PurvaJyoti Saptahik	Morang	1	Weekly	Local	Ka
79	Jana-Aawaj Saptahik	Morang	1	Weekly	Local	Withheld
80	Shree-Janamat Saptahik	Morang	1	Weekly	Local	Ga
81	New Pathivara Saptahik	Morang	1	Weekly	Local	Ga
82	Shanti Nepal Saptahik	Morang	1	Weekly	Local	Kha
83	Puspa-anjali Saptahik	Morang	1	Weekly	Local	Ga
84	Crazy Dotcom Saptahik	Morang	1	Weekly	Local	Kha
85	Biratnagar Saptahik	Morang	1	Weekly	Local	Ga
86	Suchana ra Sanchar Saptahik	Morang	1	Weekly	Local	Withheld
87	Purvauanchal Darpan Mashik	Morang	1	Monthly	Provincial	Ga
88	Sangam Aviyaan Mashik	Morang	1	Weekly	National	Ka

S.N	Name of the newspaper	District	Province	Type	Outreach	Grade
89	Chetana Sandesh Traimashik	Morang	1	Weekly	National	Kha
90	Wanita Traimashik	Morang	1	Weekly	National	Kha
91	Pakhibas saptahik	Sankhuwasabha	1	Weekly	Local	Withheld
92	Laligurans Saptahik	Sankhuwasabha	1	Weekly	Local	Gha
93	Morninig Times Dainik	Sunsari	1	Daily	Provincial	Withheld
94	Barnamala Dainik	Sunsari	1	Daily	Local	Kha
95	Pratishran Dainik	Sunsari	1	Daily	Local	Kha
96	Aujar Dainik	Sunsari	1	Daily	Provincial	Withheld
97	Pruvihotline Dainik	Sunsari	1	Daily	Local	Ga
98	Blast Times Dainik	Sunsari	1	Daily	Provincial	Ka
99	Barah Saptahik	Sunsari	1	Weekly	Provincial	Kha
100	Bishwastasutra Saptahik	Sunsari	1	Weekly	Provincial	Kha
101	Dharan Saptahik	Sunsari	1	Weekly	Provincial	Withheld
102	Popular News Saptahik	Sunsari	1	Weekly	Local	Ga
103	Sunsari Times SamacharPatra	Sunsari	1	Weekly	Local	Ga
104	Maha pratibad Saptahik	Sunsari	1	Weekly	Local	Ga
105	Hamro Naya Sansar Saptahik	Sunsari	1	Weekly	Local	Kha
106	Dibya roshini Saptahik	Sunsari	1	Weekly	Local	Ka
107	Bijayapur Saptahik	Sunsari	1	Weekly	Local	Kha
108	Hamro Koshi Aawaj Saptahik	Sunsari	1	Weekly	Local	Ga
109	EK hapte Actiontimes Saptahik	Sunsari	1	Weekly	Local	Ga
110	Balaha Saptahik	Sunsari	1	Weekly	Local	Ga
111	Sampda Saptahik	Sunsari	1	Weekly	Local	Kha
112	Purvatimes Saptahik	Sunsari	1	Weekly	Local	Kha
113	Khabar pravah Saptahik	Sunsari	1	Weekly	Local	Gha
114	Dahabi times Saptahik	Sunsari	1	Weekly	Local	Ga
115	Satya Sansar Saptahik	Sunsari	1	Weekly	Local	Gha
116	Vukampa Saptahik	Sunsari	1	Weekly	Local	Withheld
117	Panchakoshi Times Saptahik (Naya)	Sunsari	1	Weekly	Local	Gha