RAPID ASSESSMENT OF COVID-19 RELATED POLICY AUDIT IN NEPAL

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Acronyms

BPKIHS: B.P. Koirala Institute of Health Sciences

CCMC: Corona Crisis Management Center

CICT: Case Investigation and Contact Tracing

CICTT: Case Investigation and Contact Tracing Team

CDO: Chief District Officer

CDPH: Central Department of Public Health

CM: Chief Minister

COVID-19: Coronavirus Disease 2019

CPR: Cardio Pulmonary Resuscitation

CPCTF: COVID-19 Prevention, Control and Treatment Fund

DAO: District Administration Office

DCMC: District Crisis Management Center

DPHO: District Public Health Office

EDCD: Epidemiology and Disease Control Division

EMT: Emergency Medical Technician

FCHV: Female Community Health Volunteer

GPS: Global Positioning System

GoN: Government of Nepal

HA: Health Assistant

HWs: Health Workers

HEOC: Health Emergency Operation Center

ICU: Intensive Care Unit

MoFA: Ministry of Foreign Affairs

MoF: Ministry of Finance

MoHP: Ministry of Health and Population

MoSD: Ministry of Social Development

NAS: Nepal Ambulance Service

NGOs: Non-Government Organizations

NPHL: National Public Health Laboratory

OPD: Out Patient Department

PHD: Provincial Health Directorate

PPE: Personal Protective Equipment

RT PCR: Reverse Transcription - Polymerase Chain Reaction

SMS: Social distance, Mask and Sanitization

TUTH: Tribhuvan University Teaching Hospital

VTM: Viral Transport Medium

WHO: World Health Organization

Acknowledgement

Nepal Health Research Council in collaboration with the Ministry of Health and Population conducted the study “Rapid Assessment of COVID-19 Related Policy Audit in Nepal”. In order to ensure the effective Testing, Tracing, and Treatment of COVID-19, MoHP has developed a number of policies, protocols and algorithms, also emergency medical deployment team guidelines. Moreover, Health Sector Emergency Response Plan, COVID-19 Nepal: Preparedness and Response Plan have been developed to combat COVID-19 transmission and its control. Hence, this research study was conducted to assess the implementation practices of COVID-19 related policies, guidelines, and directives issued by MoHP and its agencies and to audit the performance compliance in line with the existing policies, guidelines, and directives. This study has been completed with great support, cooperation and coordination from many individuals and organizations.

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Dr. Pradip Gyanwali

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Executive Summary

Background and aim of the study

Policy analysis can have multiple beneficial effects, which facilitates the adoption of more effective policies by identifying and systematically comparing potential solutions against clear goals, identifying the low-cost solutions, and successfully solves the targeted problem.

A number of regulations, procedures, algorithms, emergency medical deployment team and guidelines have been developed by the Ministry of Health and Population (MoHP) to ensure efficient management of Corona Virus Disease (COVID-19). With the increasing number of COVID-19 cases, these guidelines and arrangements may be appropriate to update and supplement the current ones. Moreover, to further improve current prevention, control and treatment-based initiatives, the task of a rapid policy audit of the existing COVID-19 related documents is very important.

The main aim of the study was rapid assessment of the implementation practices of COVID-19 related policies, guidelines, and directives issued by MoHP and its agencies. Inductive approach was adopted and selected key informants were interviewed to explore the COVID-19 policies and related best practices, issues, and constraints. Guidelines for the interview were developed to understand performance compliance (e.g. contract tracing, quarantine management, isolation center management, human resources management, communication and coordination among different stakeholders, financial management, travel restriction, preparedness for COVID-19 responses, coordination and collaboration between different levels of government, functionality of existing health facilities, dead body management).

This study was conducted in all the seven provinces of Nepal to identify the gaps while implementing the policy and guidelines in the country. This research was conducted for the rapid assessment/auidt of implemplement of COVID-19 related polcies and directives issued by the Ministry of Health and Population. The other researches were related to Epidemiological Data audit and RT-PCR Lab Audit. Thus, the study site was decided in close collaboration with the Epidemiological Data Audit Team and the RT-PCR Lab

Audit Team. Aat least two districts from each province were covered for policy and epidemiological data audit while as all laboratiroes established by 30 September 2020 were covered in Lab auidit study.

Data collection methods

This was a qualitative study. Policy makers at the Federal level were consulted and interviewed. At the provincial and local levels, Chief Minister, Minister of Social Development, Chief District Officer, Member of District Level Crisis Management Center (DCMC) Health Workers working for COVID-19 infected persons (Doctors/Nurses / Paramedics) Ambulance driver involved in transporting COVID-19 patients, Nepal Police providing services during lockdown/travel restriction, Mayor / Deputy Mayor/Ward Chair, Health focal person of Palika, School Teachers / Social workers involved in quarantine management, contact tracing, coordination and communication in management of COVID-19 recovered persons were covered for the assessment. Maximum variation sampling techniques was applied to select the key informants of in-depth interviews considering their position, roles and responsibility in COVID-19 management. The qualitative data from the recordings and note-taking were transcribed and translated. Based on the pre-identified codes, themes and sub themes were generated and thus, the thematic analysis was carried out.

Major findings

Government of Nepal developed number of policies, guidelines and adopted different strategies to control COVID-19. However, it has been revealed that the guidelines developed from the federal level were beyond the understanding of general people. Being limited to policy level, it was even difficult for the higher-level officials to understand.

Institution of the state is most important at times of crisis. This was a challenge for the government of Nepal which has low capability. For the management of COVID-19, Corona Crisis Management Center (CCMC) was formed at every district. The district CCMC was responsible for making major decision related to COVID-19 response and crisis management in the district.

It required emergency structures to manage the response. Existing physical infrastructure of the government (training halls/ buildings halls and schools) were developed into quarantine

and isolation centers, which were managed by local governments. Due to inadequate knowledge on quarantine management and constraints of resource and time, most of the quarantine centers were less friendly to prevent and control COVID-19 transmission. The social stigma was the main challenge reported in the case identification and management process. Additionally, inadequate testing facility led to reduced testing, tracing and isolation. Moreover, people had to wait for days to get their test result and they were even not informed about the Dos and Don'ts during the period between swab collection and the results. Effective contact tracing was going smoothly in rural areas as it was easy to diagnose the people/cases in those areas but it was more challenging in urban areas. Personal Protective Equipments (PPEs) were provided despite their shortages in initial days. .Also PPEs were manufactured in the local level but there was no proper mechanism for its quality check. Shortage of health workers, fear among medical professionals, lack of education and lack of proper training hampered the response for treatment and prevention of COVID-19 effectively. There was no proper coordination and collaboration mechanism among three tiers of government and the roles and responsibilities of each level of government was not clear which created barrier in management of cases. Lockdown imposed by government to control the disease was not adequately followed. Porous border between India and Nepal and some unofficial channels facilitated the influx of cases in the country. Responsibility for the management of dead bodies was given to Nepal Army who were provided training on handling and management of the bodies. However, cultural perspectives of the people have affected management of dead bodies.

Areas of improvements

People with medical, public health and behavioral science background would provide better ideas for the prevention and control of disease. The MoHP could form a multidisciplinary advisory team for context specific planning to control the transmission of COVID-19 in Nepal.

The local government should take the full responsibility of the contact tracing and quarantine management, and the provincial and federal governments should focus on the isolation centers, logistics management and upgrading of the hospitals. A strong coordination mechanism should be developed.

The guidelines should be revised with the wider consultations of the stakeholders, thematic experts, including federal and local governments. The government should take

the pandemic seriously and the contradicting framework should be avoided.

Minimum standard should be maintained in each quarantine. Socio-economic condition of the infected persons should be assessed and those whose current place of living does not meet the minimum standards for quarantine facilities should be managed in community quarantine.

Training should be provided for the existing human resources for the case identification and management, and more human resources should be provisioned as per the need of the health institutions. Information of the 'fighting against the disease, not the person' should be highlighted.

Result of the test should be provided within 24 hours, and the clear instructions should be given between the period of swab collection and results. Improving testing rates and adopting community engagement strategies are urgent priorities. The government should revisit the current policy of the testing and isolation.

People who are in home isolation should be periodically monitored by the health workers. The local and provincial government should develop a mechanism for regular monitoring of the health status of the persons staying in home isolation.

Physical distancing is one of the most widely accepted non-pharmaceutical measures to prevent COVID-19 transmission. It should be strictly implemented according to the guidelines. The local government should play important role in their respective municipalities..

Proper information about the importance of using face masks and its proper use should be provided, and it should be monitored. Those who are unable to buy face masks should be provided free of cost.

Infection prevention and control measures should be strictly adopted in all health facilities and quality of PPE should be ensured.

Communication among different stakeholders should be strengthened, and effective communication mechanism should be developed.

The quality issues of the logistics and supplies should be regularly monitored by the federal, provincial and local governments, as well as the various committee members as provisioned in the guidelines.

The Government should implement the guidelines developed for the mobilization of private hospitals.

The local clubs, civil society members and the FM radio would be helpful for proper community engagement in infection prevention and control, as well as to decrease the COVID-19 related stigma and discrimination.

Respective municipalities should consult the local people and decide the place to bury the dead body. As long as the precautions are followed, the family members should not be denied for funeral rituals.

Despite the continuous effort, the state has been facing a great challenge to prevent, control, and treat COVID-19 cases. Therefore, preparedness and readiness for anticipation of future pandemic and proper planning and management in every aspect in coming days is acclaimed.

Introduction

Coronavirus Disease 2019 (COVID-19) pandemic is an unprecedented health emergency around the globe (1). It is causing significant health, economic and social consequences and millions of morbidity and mortality (2). The average case fatality rate of this disease is 3.92% however the range is different in different countries (3). All people from younger to older age group are at risk of infection. As COVID-19 accelerates, all countries are taking unprecedented measures to combat the spread of the disease and various policies, guidelines and directives have been developed from national and international levels to combat COVID-19.

The goal of policies and preparedness program of COVID-19 is to reduce morbidity and mortality related to infection through early diagnosis and appropriate treatment, and to prevent disease transmission in patients and the general community. Policies and programs are also focused on preservation of healthcare resources, management of essential equipment such as personal protection equipment (PPE) and ventilators and preparation for patient surge (4).

To tackle the COVID-19 pandemic, countries across the world have implemented a range of stringent policies, including stay-at-home lockdowns; closure of school and workplace, cancellation of mass events and public gatherings and restrictions on public transport. These measures were implemented to slow down the spread of the virus by enforcing physical distance between people (5).

International guidelines in different sectors have been developed which includes: critical preparedness and readiness and response action to COVID 19, surveillance, rapid response teams and case investigation, country level coordination planning and monitoring, infection prevention and control, risk communication and community engagement, and operational guidance for maintaining essential health services during the outbreak (6).

Policy analysis is an increasingly important professional practice in government. Good quality policy analysis is a precondition for sound government decisions. Policy analysis can have multiple beneficial effects, which facilitates the adoption of more effective policies by identifying and systematically comparing potential solutions against clear goals and identifying the lowest-cost solutions. Outcomes of public policy analysis are highly varied. In

one sense, policy analysis provides government decision makers the opportunity to develop a greater understanding of policy problems and possible solutions. Through policy analysis, it is possible to gain a greater understanding of the possible benefits that will emerge from the adoption of a particular policy alternative. Due to growing complexity of policy issues, the practice of policy analysis is also becoming more pluralistic as governments seek external advice. Therefore, prepared policies and guidelines of COVID-19, in the situation of increasing number of COVID-19 cases, might be required to improve and complement the existing ones. (7)

Rationale of the Policy Assessment

In the context of COVID-19 pandemic, not only national, regional, and global collaboration is required to combat the existing public health emergency but also a collaborative approach is required for generating and using the evidence for the response. In order to ensure effective testing, tracing, and treatment, the Ministry of Health and (MoHP) has developed a number of policies, protocols, algorithms and emergency medical deployment team guidelines. Moreover, 'Health Sector Emergency Response Plan, COVID-19 Nepal: Preparedness and Response Plan' has been developed to prevent and control COVID-19 transmission. If the number of COVID-19 cases increases, these guidelines and arrangements need to be upgraded and complement the existing ones. Moreover, the role of rapid policy audit of the existing COVID-19 related documents is very essential in order to further strengthen current prevention, control and treatment-related interventions.

Objectives of Rapid Assessment of Policy Audit

The general objective of rapid assessment of COVID-19 related policy audit was to evaluate the implementation practices of COVID-19 related policies, guidelines, and directives issued by MoHP and its agencies.

The specific objectives were:

- To present the situation of COVID-19 in Nepal and list out COVID-19 related policies, guidelines, and directives endorsed by MoHP and its agencies,
- To audit the performance compliance (e.g. contact tracing, quarantine management, isolation center management, human resources, lab result communication, communication and coordination among the stakeholders, financial management,

travel restriction, functioning of health facilities, community engagement, dead bodies management) in line with the existing policies, guidelines, and directives,

- To explore the facilitators and barriers for implementing COVID-19 policies, guidelines and directives at the federal, provincial and local governments,
- To present the successful case study and interventions adopted, and
- To find out the learning issues and measures to be taken to cope with similar kinds of pandemic in future.

Analytical Framework

The framework of analysis of this assessment focuses two main domains - governance and service delivery. Under the governance domain, major focuses are on leadership, coordination at different level, policy and legal framework, coordination and collaboration, financing, and transparency and accountability. The service delivery has focused on quarantine management, case identification and management, testing and isolation, contact tracing, diagnosis and case management, transportation management, lock down and travel restriction, delivery of essential services, human resources, communication and coordination, supplies and logistics management, infrastructure, community engagement, and dead body management.

Assessment Method

This study was conducted in all the seven provinces of Nepal. Secondary data were collected from national, provincial and local levels to identify the status of the implementation of COVID-19 related policies, guidelines and directives. The qualitative interviews were carried out to collect primary data and identify the gaps in policies and guidelines and to provide necessary recommendations.

Policy makers at the Federal level were consulted and interviewed. At the provincial and local levels, Chief Minister, Minister of Social Development, Chief District Officer, Member of District Level Crisis Management Center (DCMC) Health Workers working for COVID-19 infected persons (Doctors/Nurses / Paramedics), Ambulance driver involved in transporting COVID-19 patients, Nepal Police providing services during lockdown/travel restriction, Mayor / Deputy Mayor/Ward Chair, Health focal person of Palika, School Teachers / Social workers involved in quarantine management, contact tracing, coordination

and communication in management of COVID-19 recovered persons were covered for the assessment.

Interview guidelines were developed to understand the performance compliance (e.g. contract tracing, quarantine management, isolation center management, human resources management, lab result communication, coordination and communication among different stakeholders, financial management, travel restriction, preparedness for COVID-19 responses, coordination and collaboration between different levels of government and functionality of existing health facilities). Face to face interviews were done with most of the study participants, followed via zoom, google meet, and skype and direct telephone interview. Data collection were done in October-November 2020.

The qualitative data were transcribed and translated from the recordings and note taking. Themes and sub themes were generated based on the pre-identified codes and thus, the thematic analysis was done.

Limitation of the Study

As this study was a rapid assessment, all the policies, guidelines and directives related to COVID-19 issued by MoHP could not be assessed except published in webpages. However, this study will help to explore the gaps in the policy formulation and implementation process in response to COVID-19.

Overview of COVID-19 in Nepal

Progress of the pandemic

As of 25thNovember 2020, Nepal government has reported 2, 24,077 cases of COVID-19. There are about five districts with more than 500 active cases- Kathmandu, Bhaktapur, Lalitpur, Kaski and Rupandehi. Presently, 11,341(63.3%) are in home isolation. Among critical patients 393 cases are in ICU and 57 cases are under treatment with ventilator support. Out of total infected cases 65.8% are male out of which 82.6% are of economically productive age group.Since last 14 days, Manang and Mugu districts do not have any confirmed cases (8). The secondary impact of the global pandemic meanwhile is enormous and is already taking a serious toll on the economy which relies heavily on remittances, remittance-fueled imports, informal labor, and tourism revenues (9).

Major Policies, Guidelines and Directives Adopted

Governments of Nepal have also developed numerous policies, guidelines and directives for the control of disease since the identification of first case of COVID-19 in Nepal. These guidelines mainly focuses on the implementation of appropriate strategies such as use of mask, social distancing, use of sanitizer for the prevention of diseases, standards of quarantine and its management, standard operating procedures for case investigation and contract tracing, guidelines for the use of PPEs, transportation of COVID-19 cases, and management of dead bodies (10). List of all the guidelines are presented in the appendix of the report.

Major Findings

Governance

Institution of the state is most important at times of crisis. At the beginning, Sukraraj Infectious and Tropical Disease Hospital in Teku, Kathmandu, was designated by the GoN as the primary hospital along with Patan Hospital and Armed Police Force Hospital in Kathmandu Valley for the treatment of COVID-19 cases. Recently, all the central hospitals, provincial hospitals, medical colleges, academic institutions and hub-hospitals have been designated for its treatment.

Competent Leadership and Multidisciplinary Team

A high-level coordination committee for COVID-19 prevention and control in Nepal was formed under the coordination of honorable deputy prime minister and defense minister on 1st March 2020. Committee includes Ministry of Health and Population (MoHP), Ministry of Home Affairs, Ministry of Foreign Affairs (MoFA), Ministry of Finance (MoF), Tourism and Civil Aviation, Ministry of Culture, Ministry of Urban Development, Nepal Army, Nepal Police and Armed Police Force. This committee has been chaired by deputy prime minister and restructured as the Corona Crisis Management Center (CCMC) later on. Furthermore, to make this more effective, district level crisis management centers were also established.

Leadership and governance in building health system for COVID-19 response was facilitated by formation of District CCMC in Dhankuta and Morang district of Province1 and Kailali and Kanchanpur distric of Sudoorpachim district. The teams in these districts were formed under the leadership of Chief District Officer (CDO) with multidisciplinary team from various government bodies such as municipalities, police, army, health focal person etc. as mentioned in the directives given by MOHP, Government of Nepal. The district CCMCs were responsible for making major decision related to COVID-19 response and crisis in the district. The CCMC, however, is not inclusive in terms of technical and public health knowledge of the pandemic. In a major crisis like the COVID-19 situation, party politics and other agendas need to come second to public health concern.

"Nepal government made a local CCMC for COVID-19 response in the district. All the major decisions related to COVID-19 was taken after through discussion in CCMC"

- District CCMC Member, Province-1

In Bagmati province, there are 13 districts and 119 local levels, and ministry is also working with full determination to manage these local bodies. It was felt that management of pandemic and regular health care services should run concurrently.

"Actually, we need to work in two dimensions simultaneously. First one is management of pandemic and the second one is providing regular health care services".

- Secretary, MoSD, Bagmati Province

Medical team, Nepal police and Nepal Army played a major role to respond the situation despite lack in prompt/timely supply of medicine, medical instruments and equipments.

For case investigation and contract tracing, most of the cases were from local levels, so all the responsibility was under the local government. Therefore, the major work is to be done by the local government and health ministry has to support the local government and strengthen them by providing the required training, technical supports, equipment's and funds.

"Nepal army and police put their life on risk because of their job. I feel that, private sectors did not support enough to government in medical sector. In past, Government worked more on promoting private sectors but now when it needed their support they are not supporting enough".

-Political Advisor of Chief Minister, Bagmati Province

"In past few days in Kathmandu, we sent 18 health workers in 18 different municipalities for the support. Now it's up to them, how they utilize the manpower provided to them but we have done everything that we can do. Also, we made a guideline for the CICT, on the basis of that guideline we urged all the local levels to form a CICT team allocating the certain amount of budget for the contact tracing only".

- Expert Advisor, MoHP, Kathmandu

Gandaki Province has built up an integrated leadership for addressing the COVID-19 issues. The Ministry of Social Development and Provincial Health Directorate has been leading the

COVID-19 management under the direct involvement of the Chief Minister and other line Ministers with coordinating to local governments.

"This type of pandemic may occur in the future, so the solution is to strengthen our health system. So the focus of both the Central Government and the Provincial government is to build such quarantine and isolation facilities at government health bodies, schools and tents are not the proper solutions to this. We need to improve the infrastructure and capacity of hospitals. If we can improve the ability and infrastructures of our hospitals, it will be easier to manage in the future." **-**

- Secretary, MoSD, Gandaki Province.

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"As pandemic started, we took it very seriously. We developed a task force by meeting with various level stakeholders. We planned for health worker management, lab protocol, and made many sub-divisions with stakeholders for its effective management. We have an information center focusing on pandemic; we take out the press release and newspaper bulletin, daily and weekly bulletin."

-Director, Provincial Health Directorate (PHD), Gandaki Province.

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In Karnali Province, the federal Government of Nepal regulates COVID-19 related preparedness, response, and management activities such as isolation, quarantine, testing, case management, contact tracing, logistics, administrative and others through its COVID-19 CCMC. The CCMC then coordinates with the Provincial COVID-19 Crisis Management Committee (PCCMC). The coordination is then delegated to District COVID-19 Crisis Management Center (DCCMC). The DCCMC further coordinates with its respective local levels- municipalities and rural municipalities. The municipalities and the rural municipalities extend the communication to their respective wards reaching the grass root level. After the instruction and guidance from the federal level, the local team has formed the Case Investigation and Contact Tracing (CICT) team for the further case management and follow up.

Policy and Legal Framework

While clear direction, policy choices, and central management of the crisis are paramount, delivery mainly occurs at provincial and local levels. Local institutions and structures provide facilities, network, relationships and important resources to the target population which can be critical in implementing key policies such as quarantine and ensuring that those in quarantine have access to basic facilities. It is essential that they are closely connected to, coordinated by, and supported by national and provincial technical teams.

Eventhough, MOHP developed plans and policies, there were lack of legal framework to implement plan and policies issued at the local level. The pertinent reason being lack of strong legal context specific framework. Additionally, all the plans and policies and the guidelines were difficult to follow in the local context as it is not always possible to meet all the requirements.

"The local government is mainly following the directives issued from CCMC and Ministry of Health and Population, but there is lack of legal framework to implement the plans and policies at local level."

-District CCMC member, Province 1

"Federal Government announced 15 bedded hospitals at every local level which is good from political aspect; when we consider the quality services, 15-17 bedded hospitals should be enough for our Province. Bulk resources should be allocated to specialized care hospital. Likewise, the Karnali Province will transform the health care system within 2 years if provided with the appropriate authority."

-Minister, MoSD, Karnali Province

Despite the compliance with federal government's policy and plan the provincial and some of the local governments also formulated their own policies and programs for effective management of the COVID-19 pandemic such as quarantine and isolation center management, treatment, and distribution of relief material.

"To implement any new policies the central government must consult with the provincial government. Human resource pooling is a must. Oxygen plants to be implemented in every health sector this year. Increase the ICU capacity in the province."

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- Secretary, MoSD, Gandaki Province.

Participatory approach and regular consultation for developing and implementation of guidelines, policies and directives were very essential among all the three levels of government. Clear and realistic policy guideline and framework with proper instruction can direct central, provincial and local level.

"The central level should take all the levels into consultation while developing guidelines. The planning process should be of participatory approach between all three levels. Once a decision is made it should be practiced uniformly. We did not mobilize public health graduates for an awareness campaign we should mobilize them. We should change the mindset of World Health Organization (WHO) and other health organizations they should not look after the hospital but should go to the community. All the consultants should be decentralized from the central level to the community level."

-Director, PHD, Gandaki Province

"Now, if we talk about Bagmati province, we received all guidelines and protocols. We visited all 13 districts and held a meeting with health responsible person, introduced them about guidelines and distributed those guidelines through email, and suggested them to provide/share it in palika level also. But, it is not sure if all responsible people have read and understood it. Some might have not even looked at it".

- Director, PHD,, Bagmati Province

Collaboration, Coordination and Partnership

The policy clearly says that "collaboration with public, non-governmental organizations, private sectors, development partners, academia and professional societies will be promoted" for capacity building, logistic supplies, expansion and up gradation of hospital infrastructure, supply chain management, community engagement and risk communication, human resource mobilization and capacity building, community based risk mapping, referral services including ambulance services, and management of quarantine where necessary.

MoHP has signed Memorandum of Understanding (MoU) for collaborations with hotels and restaurants, transportation and private hospitals to provide services based on approved cost reimbursement modality. However, the poor and marginalized who have lost their job in the current place of work and want to return from the gulf countries are still suffering to manage airfare and quarantine cost.

In Province 1, B.P. Koirala Institute of Health Sciences, Dharan was the first institute to start Polymerase Chain Reaction (PCR) testing services after it was started in Kathmandu valley at National Public Health Laboratory. Later on, Koshi Zonal Hospital in Biratnagar started its PCR services. The PCR services were a challenge in the majority of districts. Dhankuta district coordinated with the provincial government in Province 1 to conduct its PCR test. However, there was delay of 2-3 days to get the reports. Additionally, Local government in Morang and Sunsari district coordinated with the Non-Governmental Organization (NGOs), social organization for various relief activities.

"The local level is collaborating with provincial level mainly for PCR testing, sending data to federal level and partnering with NGOs for relief aid distribution."

-CCMC member, Dhankuta Municipality, Province 1

In Gandaki Province, local and provincial governments have good coordination with public and private sectors for the management of the COVID-19 pandemic. They also have inter-sectorial coordination such as health, education, security, transportation, and so on for managing the COVID-19.

"Instead of dividing the human resource according to Central, Provincial, and Local Government bodies, we need to integrate into one unit according to the situation. We talked with different public and private hospitals like Pokhara Academy of Health Sciences, Manipal, Charak, and Gandaki Medical College regarding the limitations, problems, and treatment process. We have two immediate challenges, one is facilitating a higher-level treatment process, and another is pulling higher-level human resources."

- Secretary, MoSD, Gandaki Province.

"Great experience while coordinating with the CDO office, police, and army. There are few problems in the command system because some time command comes from different sources

and that command comes out of guidelines. Therefore, the command system should be one way and should be guided by the guidelines."

- Director, PHD, Gandaki Province

Along with the coordination and collaboration with private sector, there is also need to involve academicians for research purpose, as the research reports developed by academicians are most authentic source of information and helpful in generating evidence for policy making purpose.

"We have been mainly focusing on study and research. We have managed budget to involve Health University for health research. Because universities are the place of academicians and the reports submitted by academicians are the most authentic report. Therefore, our province government considers academicians as a development partner."

-Acting Vice-president, Province Policy and Planning Commission, Bagmati Province

However, even in the urgent need of coordination and collaboration with the private sector, it was found that, there is not enough support from the private sector to the government sector. Also the development organizations have their own vested interest so they do not work as per the need of the government which created problem in coordination and collaboration as well as in COVID-19 management.

"Government, private sectors and other sectors should have worked together. "I feel that, private sector did not support government enough in medical sector. In past, Government worked more on promoting private sector but now when it needed their support, it seems like they are not supporting enough".

-Political Advisor of Chief Minister, Bagmati Province

"Development partner organizations don't work on the basis of need of government and community, they come for their own interest and area of work. Some of them have supported on request as per their available resources. Most of the local NGOs work on their own way without consulting government. Private companies like Uniliver have helped to provide PPE, mask, sanitizer and soaps in huge volume. Makwanpur Industry Association also had helped it. Political parties also have supported. Rotary club have provided hand wash stand, water and vehicle sanitizer. Chief District Officer is focal person of district crisis management

center (DCMC) and DCMC is under Corona Crisis Management Center (CCMC) working for COVID case management."

-Chief District Officer, Makwanpur District, Bagmati Province

Financing

Health financing includes resources generation, allocation, mobilization, risk pooling, transparency and accountability. It further considers the sufficient revenue to pay for the COVID-19 needs; allocation of resources efficiently, effectively, and equitably; pooling resources when possible to foster efficiency and spread risk and cost; purchase of the package of high quality and high impact services.

The GoN has partnered with international humanitarian assistance and local health sector and formulated a high-level coordination mechanism to combat COVID-19 in Nepal. The COVID-19 prevention, control and treatment fund (CPCTF) has been established by the provincial government to tackle COVID-19 pandemic.

The financing of COVID-19 response was done through budgetary support from provincial level and reallocating development budget at local level. The development budget was diverted to the corona crisis funds for effective COVID-19 response. The government stakeholders for managing the funds at Morang and Sunsari district felt that the funds for such pandemics should be allocated beforehand so that the developmental programs will not be hampered.

"We cannot use our municipality fund except approved in book and could not go an inch farther than the planned budget and we are facing challenge of funding at this time of crisis. Central government allocates certain amount of budget then from that we set our annual budget for various developmental projects. We do save few for natural calamities, but this was a pandemic and has to struggle initially. Such pandemics should have dedicated funds."

-Mayor, Dhankuta Municipality, Province-1

In province-2, the government has developed special guidelines to import medicine and necessary equipment, develop required infrastructure for the management of infected people and to mobilize different resources. Initially the local government has faced financial problems to manage quarantines and other facilities for the infected persons. The federal

government hasn't resolved the financial issues such as not allocating separate line for expenses to local government.

The federal government has been financing the provincial and local governments for quarantine management, logistic management and upgrading of health facility. Fund itself was not the problem but its procurement at provincial level was an issue.

"Funds are transferred through central level but unfortunately province couldn't do emergency procurement. Our center could not distribute supplies as we are supplying with the help of grant. The lower level had received huge amount of fund, they got confused and didn't have courage for procurement."

Chief Specialist, MoHP, Kathmandu

"Primarily fund management is done by the Local Government, but if they need funds for equipment or food supply for quarantine and isolation, we do provide them. Till now we are not in a shortage of funds. But we do need to act economically. We found challenges in managing funds for building infrastructure for COVID-19 management, but we got a chance to learn our position in the health sector and the things we need to improve."

- Secretary, MoSD, Gandaki Province

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However, according to provincial health directorate, Gandaki province didn't have any financial problem during the pandemic. They had enough budget while its distribution was the issue.

"We never have any problem with the budget during this pandemic we had allocated 33 Crore in the emergency fund. We can transfer money within few hours if necessary at the operation level. Only some problem is during the distribution of risk incentives and there is not uniformity, however, we are trying our best to make in uniform. We have authorized a huge amount of money for ICU management. It's quite high compared to other provinces."

- Director, PHD, Gandaki Province

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The federal government provided financial support to provincial and local level government. The respective government allocated and managed the expenses for the COVID-19 preparedness and response.

"We have dispersed the budget to the local levels considering the Corona crisis and they have spent accordingly. The Province government have dispersed huge budget, we have spent it. We submit our decisions of requirement based on the need to the related local municipals, federal government, and province government."

-Chief District Officer, Surkhet District, Sudurpaschim Province

In the fund established by Sudhurpaschim province total 40 crore budget was collected which was given by businessman, social worker, parliaments and Nepalese people living in foreign countries. The collected fund was given to local level governments by province for providing the instant relief to the people who were highly affected by the pandemic. Province government had provided budget to the local level for the construction of quarantine and isolation center, management of quarantine, for the treatment of COVID- 19 infected people and for adding the ward in isolation.

"Province government have itself purchased the necessary machine, tools, health stuffs like text kit, PPE and given it to the hospitals. Ventilators are also purchased by governments and connected in hospitals where it is necessary. Among the 20 ventilators purchased by province government 2 ventilators are given to each district and as there is more population density in Terai district more ventilator are connected to terai hospital".

-Chief Minister, Sudurpaschim Province

"Province government has kept some money in COVID fund, some money came from the center, some came from donation, and some invested in it, that's how COVID fund was made in the province. The COVID fund in our level is from the Ministry of Finance; COVID fund is in central also."

-Minister,MoSD, Lumbini Province

In Bagmati Province, there was challenge in transferring the funds as it was in the preliminary phase of the federalization. Therefore, local government should themselves prepare the budget plan so it can be distributed evenly.

"Obviously, there are some challenges in fund transfer. We are in initial phase of this federal system. Basically, there is confusion in the federalism. There is the provision of financial transfer to the local level. Actually, the main principle is local government should have to prepare the budget and the provincial and the federal government should distribute it. Due to this, regularity does not work and we should have to search different alternatives in crisis. Recently, we have distributed around 150 million rupees to the hospitals and local authorities. That is not the regular system, it is irregular system. We have done alternative ways for financial distribution of COVID-19 management."

-Secretary, MoSD,, Bagmati Province

Funds had been allocated for risk allowances. Still, it was difficult to segregate the human resources who were actually involved in providing services to COVID-19 patients and provide funds accordingly.

Transparency and Accountability

Public health depends upon participation, and this is even truer during the pandemic. Trusts in the government and health authority are necessary conditions so that the people abide restrictive rules. Low trust in authorities led to wide spread conspiracy theory. Political contradiction within ruling party and frequent changes of guidelines has been questioned by the opposition party leaders and civil society members.

Combating the pandemic requires strengthening accountability and the good social relations between the state and its vulnerable citizens. In this context, political parties need to work together.

For transparency and accountability, all the information's such as details of expenses, details of patient's type, is needed to be uploaded to the open access zone and shared with them.

"From the starting days, Thaha municipality has reported all the details of expenses for the COVID management to the Prime Minister Office, provincial chief minister's office, social development ministry, CDO office, District public health office. They collect all the information, details of all type of patients in different age group from all 9 health care

centers in district. Those who have fever, especially above 60 years of age are track down and are tested for COVID test. All the expenses are uploaded in the system and are shared publicly every day. It includes the information about the available stock of food supply, its cost and distribution, and the entire donation from various organizations. It also includes new cases admitted in hospitals, patient with fever, total number of PCR tested, PCR positive cases, people in quarantine and their PCR test result, information about the medicine purchased for chronic patients and all other expenses."

-Mayor, Thaha Municipality, Bagmati Province

The local governments in Dhankuta and Morang district had a dedicated financial system to regulate the funds received from the federal, provincial level along with funds generated at the local level. The funds at the local level were collected mainly through taxation. Fund was distributed for COVID-19 response and management after discussion and decision at district CCMC and channelized accordingly. All the funding distribution and expenses are being made as per the financial policy of local government in alignment with the financial policy of government of Nepal.

"The budget distribution and spending are being done as per the accounting provision and policy of the government of Nepal." The expenses and distribution are made after discussing with district CCMC."

-Mayor, Dhankuta Municipality, Province 1

In Karnali Province, the health expert team was formed and was accountable for overall COVID-19 management.

"Virtual meeting with Ministry of Health was conducted every 15 days for situation update and further planning.''

-Minister, MoSD,, Karnali Province

Service Delivery

Quarantine Management

All the quarantine centers were primarily managed by the local government with partial involvement of private organizations. Committee were formed for handling various issues, logistics arrangements, monitoring and supervision. At the initial phase, all quarantine centers were well managed as per the guidelines but later on, there was lack of hygiene/sanitation, human resources, and proper management of food supply. The pertinent reasons were lack of necessary facility and human resources, as cases increased rapidly and most of the health workers got infected.

"All the quarantine centers are managed by local government, NGOs, local people and the provincial government. Currently it is well managed but at initial stage it was very difficult to manage as there were lots of people's movements around the India-Nepal border area."

-School Teacher, Janta Ma Vi. Morang District, Province-1

District Public Health Officer (DPHO) was the main stakeholder for the establishment and management of quarantine in Bhaktapur municipality. Likewise, hospital provided support for the establishment and management of quarantine in most of the municipality of Bagmati province. In some of the municipalities, Nepal police also provided support and health workers were involved in managing the facilities.

"We took support from Nepal police; we had three health workers in ready position and coordinated with Bhaktapur hospital, district health office for the establishment of quarantine center. Quarantine center had the facilitation of canteen, fan for twin bed, soap, sanitizer, and mask. But, there was problem for toilet facility in quarantine center despite toilet being mandatory as per guideline."

- Deputy Mayor, Bhaktapur Municipality, Bagmati Province

"Shankharapur Municipality itself is main stakeholder, besides this, we have two private hospitals for isolation services. For quarantine, we have one organization i.e. 'Bal Chetra Nepal' we are using the building of that organization as quarantine center. Also, we have one hotel reservation as quarantine for those who can afford."

-Health Focal Person, Shankharapur Municipality, Bagmati Province

Quarantine was managed by the provincial and local government in Lumbini Province. There were problems earlier in managing the quarantine for things like electricity, water. Gradually the quarantine was managed accordingly with the support of the provincial and local government.

"The Ministry of Federal Affairs and General Administration in a network with palika and technical support by the provincial government manage quarantine facilities.

Minister, MoSD, Lumbini Province

Eventhough quarantine centers at the community level were managed by local governments, most of the local level and provincial stakeholders were found in less compliance with the quarantine management guidelines and basic criteria that were issued by the federal government. They focused on basic needs like food, beds, water, light, toilets bathroom, internets, etc. Due to a lack of knowledge on quarantine management and constraints of resource and time, most of the quarantine centers were less friendly to prevent and control the COVID-19 transmission. There was no management required for health human resources and medicines and ambulance services. People did not consider physical and social distance as well.

"In Quarantine management, the local government body plays the primary role, and the provincial government helps them by providing financial support on quarantine set up and food supplies for the people staying in quarantine."

- Secretary, MoSD, Gandaki Province

According to the DCCMC of Surkhet district, quarantine was managed by the province. There was a major challenge in quarantine management as no one was prepared to handle it. In the beginning, when the cases were low, they managed in the hotels very well but later when the numbers increased quarantine facilities had to be set up in other sites such as schools, open fields etc. The foreign returnees were recorded and tracked to quarantine them in their respective local addresses and admit them in the quarantine then. This needed huge coordination.

"*The local level has done the quarantine management; the Province government has set up a big quarantine. The team of Ministry of Health and Population and team from Federal has*

set up quarantine and gained learnings from it. Similary, the Province here has set up Nepal's second topmost and big quarantine here; you also can observe the quarantine. It has been built following standards. The Province government thas gathered tripals at several places and armies had kept it in distance. We have tripaals and this is the kind of the quarantine. We could not set up in all the places of Surkhet district. When there were people coming at once from Indai or from other third countries, for their management, every local level's school, public places were used and the observations of the chagllenges faced then were lacking physical distancing, there was situation that many people were kept in the same room as well.

-DCCMC Member, Surkhet District, Karnali Province

Quarantine facilities and management was little bit difficult in Susdurpaschim Province due to late reporting of PCR results.

"People don't want to stay at quarantine and another thing is PCR reports come late, which makes difficult to manage it."

-Health Worker, Tikapur Hospital, Sudurpaschim Province

The major challenges Morang district faced regarding the management of quarantine facilities were unavailability of adequate quarantine centers, sharing common rooms and toilets, convincing people to follow quarantine guidelines and safety precautions, decrease immunity of the people in quarantine due to lack of nutrition and daily increment of COVID-19 positive cases.

"Quarantine management was not smooth at the beginning due to lack of limited resources and experience".

-Chief District Officer, Morang District, Province 1

Food and sanitation was the major challenge faced while managing quarantine in Bagmati Province. With the increasing number of case, it was challenging to manage foods in some of the quarantine.

Location of the quarantine was also the challenging factor. Due to the establishment of quarantine center in human settlement area, people in some municipalities were making

complain, which was difficult to manage. Moreover, swab collection was also a challenge in the management of quarantine facilities.

"While managing quarantines facilities we had made a team with the corresponding ward head as a convenor of those facilities. While managing those facilities we face a lot of complaints about the quality of food and sanitation while giving 4 meals a day. There were 100 people in Ookhani and 70 in Sahayogi quarantine facilities while presence of our securities personnel and staffs of municipality were there and we faced challenges as stated above. As we were getting complaints but still all the quarantined people were satisfied with the facilities."

- Ward Chairperson, Kathmandu Metropolitan City, Bagmati Province

"At first there were challenges in the availability of location, 'Bal Chetra Nepal' is in quite separate place, so, we don't have to face such problem However, there was problem in food management and waste management. It was quite difficult in the beginning. The challenge was management of waste. We have kept autoclave machine for disposal of waste. Due to maximum work load, auto clave machine also did not work. So, we tried to send the waste to the big autoclave, which we have hired for hospital purpose. But there was unavailability of seepage line. Also there was difficulty in the collection of waste because, municipal staffs were in fear to enter into isolation center to collect the waste. However, mayor convinced the staffs to collect waste from isolation center."

-Health Focal Person, Shankharapur Municipality, Bagmati province

All quarantine centeres were not managed according to the government's guidelines for quarantine and its management.

"I cannot say all the Quarantines were as per Nepal government guidelines. The main reason is lack of building to make Quarantine and also lack of people with technical knowledge at the Local level. As it was an urgent need to establish Quarantine; there were no adequate resources, and it was not practically feasible at Local level to follow each and every guideline immediately."

-Health Worker, Dhankuta District Hospital, Province 1

"In the present context, I would not say it is threatening but health protocol has not been followed. Regarding people, in the initial phase of lockdown people were in fear about the

COVID-19 virus. In my opinion, the message of an increased number of recovered cases has misled the context."

-Mayor, Pokhara Metropolitan City, Gandaki Province

In Dhankuta district quarantine was managed by the local government, setting up and running quarantine at the beginning of lockdown was challenging due to lack of proper quarantine guidelines and adequate funds. Additionally, excessive fear among people and health workers created more havoc during the initial days. The quality of quarantine was improved but they still do not fully comply with the guidelines issued from federal government.

"The facility for quarantine was availability of vacant government buildings in the industrial area which could be turned into quarantine easily."

-Deputy Mayor, Dhankuta Municipality, Province-1

"Regarding future pandemics provision of appropriate holding centre at point of entry in the country is necessary."

-Health Focal Person, Dhankuta Municipality, Province-1

"To deal with pandemic in future, I think there should be at least one structure, a permanent infrastructure which can be used as quarantine. The structure could be multipurpose so that it can be utilized for other purposes when not used as quarantine."

-Health Worker, Dhankuta District Hospital, Province-1

For the future suggestion for the better management and to cope with pandemic, the existing hospitals should be expanded and moreover, community building is essential in each ward which can be used for multipurpose.

"Everyone from central level, provincial level and local level should think seriously on it, like COVID-19, many other epidemic might come in future so if there would be 100 bedded hospitals in local level rather than 20 bedded. Also community buildings should be allocated for this kind of pandemic."

-Ward Chairperson, , Kathmandu Metropolitan City, Bagmati Province

"At least one community hall should be built in each ward which can be used as quarantine during such pandemic as well as can be used for other purposes."

-Health Focal person, Mahalaxmi Municipalty, Bagmati Province

Case Identification and Management

Lack of PCR testing capacity during the early days of the epidemic was a big challenge that led to difficulty in testing. The confusions created by frequent change in guidelines, e.g. discharge criteria from quarantine and isolation facilities; testing criteria caused further problem. After the testing capacity was improved case identification became relatively easier. There was good provision of VTM and other swab-collection and testing materials. However, it was still not enough.

In the initial days, where PCR facility had not been well expanded, government decided to increase Rapid Diagnostic Testing (RDT) tests as much as possible as a screening tool for COVID-19. A large number of RDT kits were thus, bought in different districts. However, within a short span of time, a new guideline was put forth which considered RDT as an unnecessary and unreliable screening test. This created a state of confusion and incredibility among the general public towards the government policy.

"Initially, there was no PCR system for all, so RDT test was done to foreign returnees after 14 days. If RDT was positive, PCR was done and if PCR was positive, contact tracing was done. Now after five days of home quarantine we do PCR for everyone. Swab collection is done in PHCC and sent to the provincial laboratory. Now the PCR reports were come within 3 days but in the initial phase it took 10-15 days."

-Health Focal Person, Joshipur Rural Municipality, Sudurpashim Province

Active participation of the local governments and health facilities were found in case identification and management. Somewhere infected persons and their family members were found less cooperative due to the community discrimination to the COVID-19 infected people. In few areas, infected people faced some security issues because some of the community/people intentionally tortured the infected people and their families as well.

"In the initial phase, the Provincial government was involved in contact tracing, but now the Local Government is taking that responsibility. Due to lack of infrastructure, test kits, and experience, it wasn't easy in the early phase, but now we have labs available since the month of Ashadh in our province we do not have a problem in testing."

-Secretary, MoSD, Gandaki Province

To identify the cases and further management, tests were being done at 7-8 lab centers in Province 1. However due to lack of resources (human resources, testing kits, other essential equipments) test was not being done as per demand. There was an average delay of 3-4 days in reporting.

"Those who have an approach can get fast reports and those who don't have an approach cannot make it happen for even a week or so. The reason behind this is overburden of work with less resource."

-Director, PHD, Province 1

In Bagmati Province PCR testing, was done as per the guidelines set by the government, i.e. those who were the primary contact of the positive cases were identified and testing was done among them.

"For PCR testing, we follow the guidelines of Government of Nepal. When the case is identified, our team will trace the close contact of the positive cases. The people in the list who are identified as a close contact to the patients after 3-5 days and will be followed up by health workers and coordinated with public health offices or EDCD for PCR testing."

-Health Focal Person, Mahalaxmi Municipality, Bagmati Province

Local and district level health facilities collected swab of suspected people and sent to the Laboratories of Pokhara Academy of Health Sciences (PAHS) or Province Public Health Laboratory, Kaski Pokhara in Gandaki Province. They isolated all positive cases within 24 hours. They had the provision of continuous assessment of all positive cases either at home or in hospitals. However, due constraints of human resources, people at home isolation were not assessed effectively.

"We have two government labs, since the initial phase, we have been running tests at the Academy of Health and Science, and next is a provincial lab. We are in the process to add two more, one at Nawalpur and another at Baglung, probably all of the setup processes will complete soon. We are planning to set up the Baglung lab as a sub-regional testing center. Officially there isn't any private lab involved in this. Recently, I heard a private lab also get permission for COVID 19 from the Federal Government".

- Secretary, MoSD, Gandaki Province

Even though, PCR test was done as per the protocol set by the government, still there was problem in the reporting of the test results. There was delay in the reporting of the test result.

"Yes, there is delay; this is the problem of whole Lalitpur district. Previously, in Government sector, it was delayed for 2-3 days but now it is delayed up to 5-7 days. But private lab is giving the result on the same day or the next day. Due to delay in the report, there is chance in the spread of disease".

-Health Focal Person, Mahalaxmi Municipality, Bagmati Province

As the cases were increasing day by day, there were more problems in providing services to the people, such as problems in availability of beds, ICUS, oxygen, ventilators. Likewise patients also faced several problems in receiving care such as unavailability of treatment services, lack of hospital beds, oxygen, ventilators etc. Not having the separate COVID-19 dedicated hospitals had also increased the risk of receiving care among the patients as it increases risk of transmission among them.

"Obstacles depend upon the increase in magnitude / frequency of the cases and the available facilities with the hospital. While taking about today, there are so many obstacles such as obstacles in availability of beds, ICUS, oxygen, ventilators. Taking from the prospective of patients, the challenge is about, unavailability of treatment services, beds in hospitals, beds with oxygen, ventilators etc".

-Health Worker, Patan Hospital, Bagmati Province

"There is no separate COVID-19 dedicated hospital so all kinds of patients should be treated from the same hospital. Therefore, there is fear among the people to seek treatment because of risk of transmission of infection to them".

-Ward Chair Person, Gokerneshwor Municipality, Bagmati Province

Additionally, people were unable to get treatment in time due to inadequate human resources and adequately trained health workers. The reason being, most of the health worker got infection and they had to isolate themselves or stay in quarantine. All the resources supplied were not provided as per demand either from province or from federal level.

"The main obstacle for COVID-19 patients to receive care in hospital was low quality of care, especially in government hospitals. Many people complained about the quality of care and patient management at BPKIHS, Dharan and Koshi Covid Hospital, Biratnagar".

-Deputy Mayor, Dhankuta Municipality, Province 1

Central hospitals were providing sophisticated services for the management of severe cases. They were providing services through high dependency unit and intensive care unit where oxygen providing devices and ventilators are available.

"For the management of severe cases, there are two units in hospital one is HDU i.e. High Dependency Unit where oxygen providing devices are available. Another is ICU where ventilators are available."

-Health Worker, Patan Hospital, Bagmati Province

Regarding the referral chain mechanism, COVID-19 patient were referred to higher centers by judging their status.

"Once the doctor confirms the seriousness of the case, the inspector of municipality is informed for ambulation services and the patient is transported to COVID-19 hospital for treatment. But if the patient has co-morbidity and requires further management at higher tertiary centers a referral letter is made along with COVID status and transported to respective tertiary hospital like BPKIHS Dharan or in private hospitals."

-Health Worker, Morang, Province-1

Testing and Isolation

Testing

For the proper testing of the cases, swabs were collected from both the suspect and confirmed cases, so that it would help in the identification of the cases. Swab collection was made at their local level as far as possible, if swab collection was not possible at their local levels then those swab were sent to the hospitals and other centers where testing of the cases were possible. Along with the laboratories workers, medical officers were also involved in the swab collection. However, there was problem in swab collection due to unavailability of the equipments, testing kits and PPEs.

"We collect the swab of those who are in contact with suspected and confirmed positive cases for RT-PCR test and send it to laboratory for diagnosis."

-Health Focal Person, Shankharapur Municipality, Bagmati Province

The Provincial Health director emphasized that the time duration for testing varies as per the case load and the availability of trained manpower and highlighted the need of appropriate approach or link for testing.

"Depending upon the situation some reporting is within three hours, some takes 2-3 days. But for test there is need of approach it is not easily accessible to the common people. There is lack of sufficient resources, human resources, over burden of work; no work motivation."

-Director, PHD, Province 1

He emphasized that the cost of test was high in the initial stage of the pandemic which came down in subsequent days.

"At initial stage, test was being done in symptomatic person and if test become positive further contact tracing was done by sealing that area but nowadays its done going on same way due to rapid increase of cases and it's hard to cover all cases."

-Director, PHD, Province 1

People were doing their test by themselves as people were aware of symptoms. People were more concern by themselves in the context if someone got infected; their nearby people take necessary precautions. He further reiterated that there was a need of investigation at micro level as currently most of the member in community were supposed to be infected. There was need of sample collection from each house in community.

The Deputy Mayor of Dhankuta Municipality affirmed regarding the testing process in Dhankuta Municipality and isolation.

"We did PCR test for free. The collected swabs were sent to Biratnagar or Dharan for test and on an average, it used to take 3 days for the report. In the beginning we used to send positive cases to Biratnagar and Dharan for isolation".

-Deputy Mayor, Dhankuta Municipality, Province 1

Isolation

The increasing case of COVID-19 demanded the development of isolation centers in different locations. Isolation centers were characterized into home and hospital isolation. The guideline was provisioned with different effective measures for the management of COVID-19 isolation centers. Initial guidelines had the provision of mandatory isolation in health facilities. However, the updated guidelines stated that asymptomatic and mild cases could be managed with home isolation too. Only moderate and severe cases required compulsory hospitalization as per the new protocol. This had created confusion in general people, regarding the management, if infected.

Isolation centers were developed with the active involvement of local leaders, local, provincial and federal government, Nepal Red Cross Society, Nepal Army, Nepal Police etc.

"We have got great support from many organization, center government, province government, Red Cross, Nepal army and Nepal police."

- Deputy Mayor, Bhaktapur Municipality, Bagmati province

Every municipality had made the provisions of isolation centers. Treatment facilities were provided in isolation centers. Along with this, home isolation centers were also promoted.

"There are isolation centers in Shankarapur municipality. There is Susma Koirala Memorial Hospital under Sushma Koirala Trust, where they have 20 bedded hospitals. Also, Shankarapur municipalities have eleven beds in proposed municipal hospital for isolation of positive cases. They also have 7/8 beds in one of the private hospitals for isolation of cases. Still more people are in home isolation in our municipality. "We have separated 39 beds in the municipality for isolation and we use them when needed. Now a day we are promoting more for home isolation. From the isolation centers we provide them simple symptomatic treatment to the patients".

-Health focal person, Shankhapaur Municipality, Bagmati Province

"Now we have to manage for isolation center rather than quarantine. In Kharipati, we have established 100 bed isolation centers. In Suryabinayak municipality, those who tested corona positive and if there is no possibility for management of home isolation for them then, we refer them to Kharipati isolation center. Turning out of previous quarantine center into isolation center does not seem suitable so that those quarantine centers were in hold now."

-Deputy Mayor, Suryabinayak Municipality, Bagmati Province

Although home isolation centers were promoted, it was quite difficult to manage the positive case that lives in slum areas. So, for that group of people, coordination was done with the municipality to send them at isolation centers. However, this problem had not been managed fully.

"As there isn't any government or organizational quarantine, so home isolation is the only option and we have asked all positive cases to stay in home isolation through health workers and social worker. Recently positive cases were found in slum area. In such area it isn't possible to isolate at home. So for those cases, we coordinated to nearby municipality and sent them to isolation center where moderate cases were kept but it is very challenging. Only almost 25 percent of such cases can be managed."

-Health Focal Person, Mahalaxmi Municipality, Bagmati Province

Local governments as well as community people were found aware of testing and isolation of COVID-19 disease. Initially, two public health laboratories were working continuously and from the first week of the Ashwin 2077 BS, a private laboratory had started the COVID-19 testing facility. All labs provide results confidentially and isolated positive cases either at home or isolation centers or hospitals. For the asymptomatic cases, they managed home isolation by coordinating to the local government, particularly ward-chair or members. Similarly, some of the local governments also established and managed separate isolation centers for asymptomatic cases. For the symptomatic cases, they sent to hospitals for further management and care/treatment. Initially, Pokhara Academy of Health Hospital has developed as a COVID-19 dedicated hospital, and later Gandaki Medical College, Manipal Medical College, and Charak Hospital also are providing COVID-19 care in Gandaki Province.

"We have two government Labs, since the initial phase, we have been running tests at the Academy of Health and Science, and next is a provincial lab. We are in the process to add two more, one at Nawalpur and another at Baglung, probably all of the setup processes will complete soon. We are planning to set up the Baglung lab as a sub-regional testing center. Officially there isn't any private lab involved in this. Recently, I heard a private lab also got permission for COVID 19 from the Federal Government."

- Secretary, MoSD, Gandaki Province.

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"We have the manpower; the assigned health personnel will daily contact the people in the home isolation. The health personnel have even provided the contact information to the people in home isolation, to contact them if they have any problem."

- Mayor, Pokhara Metropolitan City, Gandaki Province

In order to cope with similar type of pandemic in future, separate emergency section is needed to be developed in every hospital for this kind of pandemic.

"We need to develop separate emergency section for this kind of pandemic. Isolation services should be available at the time of emergency. And also the provision of isolation center after the pandemic is must in every hospital of Nepal."

-Health worker, Patan Hospital, Bagmati province

Contact Tracing

Contract tracing is one of the indicators to identify the cases. There is the prescribed guideline of WHO for CICT and same guidelines are adopted in the context of Nepal too. Epidemiology and Disease Control Division (EDCD) is the main organization currently working in contact tracing. The contact tracing guideline has mentioned to form case investigation and contact tracing (CICT) teams in each local level in coordination with the CICT coordinator of the district. Likewise, the province has formed the required number of CICT team members in each local level. The teams were active through telephone calls. The teams were supposed to have the public health personnel.

For the CICT (Case Investigation and Contact Tracing), we had the prescribed guideline from WHO and we adopted that guideline.

-Expert Advisor, MoHP, Kathmandu

"In terms of contact tracing, at first, contact tracing team formation process was discussed as per the central government and guideline was also available at the time. Local government had tried and conducted contact tracing during that time. As I have said 95 % of

people were already kept separately in quarantine so we didn't exercise more in case of contract tracing."

- ***Health Focal person, Kalikot District, Karnali Province***

Contact Tracing was not a big problem in the beginning because most of the cases were detected in quarantine facilities. The health workers however had to face problem in contact tracing because some people who were infected did not give their contact numbers correctly. This might be due to the fear of stigma and discrimination at the community level.

Later as cases started to be seen in community, contact tracing although required had not been prioritized well mainly because of two reasons: lack of adequate human resources/testing kits and lack of commitment of government.

"We didn't have fix place for swab collection, buying VTM at local level is also challenge."

-Health Worker, Mahalaxmi Municipality, Bagmati Province

"One problem is, those who are doing contact tracing do not give complete information and another is lack of experienced manpower. There is social tendency to hide the disease, people used to avoid testing. Therefore, there are flaws in boths side, one is from central level policy that doesn't replicate exactly in field level and another part is, public are not supporting accordingly and also lack of technical manpower. Ward secretary has to do contact tracing, which is different from his role."

-Chief District Officer, Makwanpur District, Bagmati Province

Provincial Health Directorate voiced his opinion that the entire contact tracing was done by government in the initial stage through mobilization of their health workers as it was easy because of fewer number of cases. Currently there are more cases, and it is quite difficult to cover all the contacts, hence the tracing was stopped by the government.

"Currently there are so many positive cases and if all the contact tracing is to be done it will cover 25% of whole population of that area which is very difficult to be done that's why contact tracing is not on going. But at the same time people are taking precautions by themselves by staying at home isolation."

-Director, PHD, Province 1

The Ministry of Health and Population on 12th May 2020 directed local governments to form Case Investigation and Contact Tracing Team (CICTT) consisting Public health officers with at least Bachelor's Degree in Public Health and nurses and lab technicians to conduct contract tracing and investigation at every local level. Most of the local levels did not have public health officers with public health degree. The ones who were in government jobs prior to implementation of federal set-up are now designated at federal and provincial level. Even there was the debate in these decisions as Community Medicine Assistants (CMAs) who were working in the local level thought that someone is going to replace them.

"According to us, the leader of the CICT team must at least have bachelor degree in public health program and the debate began right from here only because the in-charge in the local level was CMA and they thought as if someone other is going to replace them. We can say the CICT didn't tie up with the federal structure. We said who has done HA/CMA and done bachelors in public health can lead the group but that was also not acceptable as they thought the HA/CMA will be replaced by another public structure by the government. COVID didn't only become the pure technical health issue; trading and politics came along with it. Due to which it didn't function according to our expectations."

- ***Expert Advisor, MoHP, Kathmadu***

Due to high population density in urban areas, it was difficult for CICT teams to function properly. Also there was the need to increase the number of CICT teams. There was dilemma in performing their work after the federalization of the health system as, early warning and response system is totally ruined after federalization.

"We planned to have 1000+ CICT teams including all the local levels. But unfortunately, CICT teams weren't formed and couldn't function properly as expected in the urban areas withe high population. Main reason for this was, when we went for the federal structure, early warning and response system was totally ruined. The structure we prepared for the disaster management in the past was also not available at the present time. Moreover due to the adjustment, it has been difficult to find public in the local levels due to which the institutions in the local level became functionless so even if we give input from the central government, no work is done due to the lack of people in the local level. Also due to this federal structure, staffs are in dilemma as they debate who will work under whom. Most of the staffs has filled their cases in the court for the adjustment and have stayed at home and it

has led to the decrease in the number of manpower. The public health structures in the urban areas were weak from the earlier days, federal system made it weaker."

Expert Advisor, MoHP, Kathmandu

As, lesson learnt from case investigation and contract tracing utilization of the public health professionals would be very useful for the smooth functioning of case investigation and contract tracing.

"From PH perspective, in this municipality, if there were public health officer and team would work under public health officers than the work would be quiet smooth. We do not have adequate manpower so we have expanded CICI team and CTCF team to help in contact tracing."

-Health Worker, Mahalaxmi Municipality, Bagmati Province

Diagnosis and Case Management

Initially MoHP, designated hospitals for COVID-19 treatment based on the existing capacity and further strengthened logistics to manage the cases. Each designated hospital repurposed their Out Patient Department (OPD) wards and bed to support treatnt of suspected and confirmed cases. Private sector would be engaged in COVID-19 response through agreed partnership model guided by MoU. However, strong commitment of private sector is yet to be witnessed.

For the diagnosis in Dhankuta Municipality swab collection was done for the suspected cases and their contacts and was sent to Provincial laboratory, Biratnagar and the cases were kept on quarantine. But nowadays, there is trend among people to get PCR test done on their own and stay on home quarantine themselves rather than staying at government quarantine.

"Sometimes we are not able to test those who are suspected of having COVID-19 due to lack of resources, whereas sometimes we need to do unnecessary tests for those who are powerful".

-Health Worker Dhankuta District Hospital, Province 1

In Teaching hospital, suspect cases were kept separately from non-positive and positive cases therefore, five Intensive Care Unit (ICU) and fifteen emergency beds were added. Suspected or positive cases were admitted to bed as per their severity of illness. Cases from emergency or ICU who tested positive were transported to the COVID-19 bed as soon as possible depending on condition of patient and availability of beds.

In the peripheral districts, management of the positive cases was improved by creating isolation facilities in local level. There was fairly good provision of oxygen and basic medical supplies. However, there was lack of ICU beds and critical care management facilities and specialized doctors. The referral of patients was difficult due to inadequate ambulance and poor road networks.

"Serious patients are referred to B.P. Koirala Institute of Health Sciences (BPKIHS) for further treatment as we don't have ventilator. Only asymptomatic and mild symptomatic patients are treated here."

-Health Focal Person, Dhankuta Municipality, Province 1

Being new disease, there are no proper guidelines. Hospital needs to manage according to the situation. This is a new virus and no one knows exact treatment so we need to follow World Health Organization (WHO) guidelines, depending upon studies and research findings. For better management, hospital should implement the infection prevention measure. It needs to try to flatten the infection transmission curve from the community.

"Government should play main role for this. It should assess whether the guidelines have been followed or not. There should be law and it should be implemented".

-Health worker, Shukraraaj Tropical and Infectious Disease Hospital,, Bagmati province

Even though, treatment protocol was followed as per national guideline and had brought uniformity in the country but sometime hospital need to add more as per clinical judgment because guideline didn't cover everything. In guideline, at first, they authorized to use Remdisivir but after sometime WHO published an article stating that it might not be useful. This created confusion for use of drugs like Remdicivir.

"There should be early mapping and availability of the required drugs and other necessary equipment as per the expected number of cases. Sometime, it also has been difficult to find the required medicine on time because of scarcity in hospital and also in drug stores".

- Health worker, TUTH, Bagmati Province

"Remdisivir had showed positive response for some patients in early stage. It is difficult to take decisions in such situation and may not follow guideline completely".

-Health Worker, TUTH, Bagmati province

"Guidelines act as midway to us but in some exceptional cases, we are not able to follow the exact guidelines".

-Health worker, Patan Hospital, Bagmati province

The cases were managed according to the protocol and guidelines. There were few centers where there were shortages of PPE's. The basic treatment as set by the guideline were provided free of cost but Remdisivir, plasma and albumin could not be afforded by the government or province thus these were paid by the patient.

"The government provided the treatment facilities to the COVID-19 infected free of cost. But patients pay for Remdesivir and human albumin which the government cannot afford. Isolation center has provided all medicines to the patient free of cost which the government has announced. There is timely availability of medicines to the COVID-19 positive patients. "

-Health Worker, Lumbini Sub metropolitan City, Lumbini Province

The Chief of District Health Office Dhankuta expressed that there was a gap in identification of asymptomatic cases of COVID-19. He added that most of the people are asymptomatic and people do not get to check if they do not have symptoms, hence it was difficult to locate and trace the cases and count the exact number.

"In our place one medical personnel got infected for the first time and we were unable to track the source of infection."

-DCCMC Member, Dhankuta Municipality, Province 1

He further reiterated that most complicated thing in diagnosis was due to unavailability of sufficient labs in the initial days.

"In the eastern region there were hardly 3 labs and to cover the entire eastern region 3 labs were not enough. They are not enough for PCR of all the suspected cases. Although PCR is

not the only modality to control COVID, but diagnosis gives an idea in regard to a person being suspected to transmit or not."

-DCCMC Member, Dhankuta Municipality, Province 1

For case management he highlighted that cases were referred to Koshi Zonal Hospital Biratnagar, BPKIHS and Purbanchal University College of Medical and Allied Sciences, Gothgaun, Morang isolation centers. However, when shortage of beds took place in these centers the local government separated few beds in the quarantine center and built isolation center. In the isolation center, asymptomatic and mild cases were taken care off. However severe and critical cases were referred to the tertiary health COVID-19 centers.

Lack of PCR test was the major problem for diagnosis. Additionally, ambulance driver denied carrying COVID-19 positive cases we was also one of the obstacles in effective case management.

The HCP Nurse working for COVID-19 patients in Morang district revealed that treatment and management of patients depend upon duty doctor's prescription. The facilitators for implementing the treatment guidelines were coordination between the management and healthcare providers, awareness among health personnel about the basic treatment regime, support and compliance from patients and regular meeting and teamwork between the groups. However, the major barriers were inadequate staff, health aids and scarce resources for effective management.

She further suggested that preplanning, awareness and education, teamwork, coordination between stakeholders, building infectious disease hospitals in each province, adequate staffing, training to all the staffs, coordination with community, security provision, job security and incentives provision, insurance to health staffs, raising awareness among communities to fight pandemic through different mass media can improve better treatment management in similar kind of pandemic. Additionally, increment of beds, provision of instruments, monitors, ventilators, maintenance of instruments, training to health aids, health care workers on use of PPE and ICU management along with salary is must for better management of patients.

As per the doctor working in the case management of COVID-19 patient the treatment protocol is being divided into three groups which include:

Group A: Patient requires observation, nutritious diet, and vitamins supplementation

Group B: Patient requires oxygen therapy, SP02 monitoring, antibiotics along with plan A

Group C: Patients require ventilator support

In group B and C: Patient were provided medicine on COVID -19 (Remdesivir and Plasma Therapy) as per the requirement and availability.

Transportation Management

According to the CDO of Makwanpur district, initially, there was problem regarding ambulance service. They didn't have sufficient number of ambulance. Among the available ambulance services, ambulance drivers refused to carry COVID-19 cases. After COVID-19 cases increased everywhere, ambulance driver started to provide services.

"Hetauda hospital is providing treatment with available resources and technology. There is problem regarding ambulance service sometime. District administration office is trying to manage/ address the problem as possible. At the beginning, ambulance drivers used to avoid COVID cases as possible. With the increase in COVID-19 cases, ambulance driver realized that they should provide services. There is communication gap in some context. As district doesn't have adequate number of ambulances, there is problem sometime but DAO is trying to manage it as possible."

-Chief District Officer, Makwanpur District, Bagmati Province

In addition, Deputy Mayor from Bhaktapur municipality revealed that initially, they had not prepared for ambulance service for transporting the patients but now coordination had been done with hospital so that they can transfer the serious patients immediately.

"We didn't know situation would turn out like this. So we didn't prepare for ambulance services. But now, we have done agreement with Balkot Red Cross for ambulance service for six month and also have coordinated with hospital and in case patients need oxygen we have managed to send them to hospitals immediately."

- Deputy Mayor, Bhaktapur Municipality, Bagmati province

Health worker from Hetauda said that there was lack of coordination. It was not made clear, who was responsible for transporting the patients. But currently, hospital had taken the responsibility.

One of the ambulance drivers of Bagmati province stated that they were now in risk transporting the patients, as they have to assist the health worker in shifting the patients to the stretcher and giving bag and mask which was actually not their job role. Previously, they had to transport patient with mild symptoms but now all the cases are severe so it has been difficult in transporting the COVID-19 patients.

"Initially we faced a lot of difficulty in transportation of patients as it wasn't clear who was responsible in transporting the patients. But we had suggestion that at least the district health office should handle the transportation. But later it was made clear that hospital should take responsibility. If a suspected patient is from outside Bhimphedi, then hospitals have responsibility to take the case. That was our difficulty and now has been resolved. Now hospital is responsible for transporting infected case."

-Health Worker, Hetauda Hospital, Bagmati Province

"There was no problem transporting COVID cases before but now situation is getting worst. It was easier to transport people with mild or no symptoms as they had no difficulty in walking and talking. Now, many patients are in critical condition, most of the people are old and in severe condition, patients have difficulty in breathing, need to give full oxygen, sometime have to carry from top floor and might also need to give bag and mask while transporting. It is difficult situation now. "We also need to help health assistant (Emergency medical technician, EMT) to shift patient in stretcher, put in ambulance and maintain oxygen; despite my job which is just to drive the vehicle and drop them in the destined hospital."

-Ambulance Driver, Nepal Ambulance Service, Bagmati Province

The transportation of COVID-19 patients was done by the ambulance driver who were given proper PPE and put on duty roster by district CCMC. Private vehicles and other public transport vehicles were not allowed to carry COVID patients.

"There was no problem in transportation of COVID-19 patients, we haven't received any complaint regarding delay in transport or unavailability of transportation facilities to patients".

-Deputy Mayor Dhankuta Municipality, Province-1

In Pokhara metropolitan and Kusma municipality, there were not any transportation issue for isolation and treatment of COVID-19 positive cases. Both local governments managed transportation by coordinating with each other and other concerned authorities for rescue, treatment, and dead body management as well. But there were issues of public health measures during transportation.

"For the cases of transportation and mobilization, we formed the sub-committee for mobilization of Ambulance. All the ambulance has the rotation system to carry the cases from quarantine to isolation and isolation to the hospital. This was managed by the Health Office and Nepal Red Cross team. At the initial stage, some ambulance denied carrying out the cases so we arrested and took legal actions. Now there's no issue with transportation and mobilization of the ambulance."

-Chief District Officer, Kaski District, Gandaki Province.

CCMC and Municipalities managed the ambulances. There was Global Positioning System (GPS) tracking installed in most of the ambulances which made it easier to track the ambulance through certain web applications, thus ambulances were available whenever required.

"We have installed a GPS and tracing system for more than 60 ambulances so even we can track them wherever they are. So for any cases requiring transport we look at the GPS and find out the nearby ambulance, we contact them and send them to the required place."

-Minister, MoSD,, Lumbini Province

Majority of the land structure in Karnali Province is hilly and the roads are still bumpy and not properly paved. The province had few ambulances; the major issue was the road condition. The cases used to be transported using the ambulances. Most of the places had ambulances available for 24 hours. Along with the government institutions, the municipalities, other institutions and organizations were active locally to make the ambulance service available. However, not all the standard criterias were met.

"*For the referral, we just had one ambulance then. The same ambulance was used to provide service in the COVID and the isolation facility for 24 hours."*

-Health Worker, Dullu Hopital, Karnali Province

"*In our municipality, we do have our own ambulance. And as we have the province hospital, ambulances are easily available. Besides, the municipality has 2 ambulances stand by. Many of the people use the hospital' ambulance, after they do the phone call. Still, sometimes, for the critical cases and conditions, the ambulance from Municipality is ready to go up to the hospital to leave the cases."*

-Mayor, Birendranagar Municipality, Karnali Province

According to provincial director of Sudurpaschim province, if the people get infected or tested COVID-19 positive during quarantine period they were taken to hospital by the management committee of that quarantine or local government. Ambulance drivers didn't carry COVID-19 patients in the early phase of the pandemic. Some provided service 24 hours while some didn't work at all. Moreover, the numbers of ambulance were also not sufficient.

"At the start no one was ready to carry the corona patients in their ambulance. Some of the ambulance drivers used to work for only 24 hours while some of them used to leave with key and only kept ambulance in hospital area. Many problems are seen in the transportation of COVID-19 patients. There were lack of vehicles and ambulance drivers to carry patients from one place to another. Ambulance drivers used to deny carrying the corona patients. There were no vehicles to carry the dead body of corona infected people. So first of all, we manage two vehicles for dead body managements. There are also some people who got infected from COVID-19 have lost their life while managing the transportation for the people up to their home."

Director, PHD, Sudurpaschim Province

Though, the government had a clear travel guideline. The guidelines for transportation management had not been followed. Also, the ambulance drivers were not aware of guidelines. Moreover, CDO of Makwanpur district stated that people of his level didn't understand all aspects of guidelines.

"The guideline differs according to the economy of people. It has been implemented for middle class family but not with the upper class. We have observed that high class people have been misusing the services while middle income and lower income people in need are not able to use the services. We could not manage the ambulance quite well. However, Service is good inside valley but still we have some problems with timing."

-Chief Specialist, MoHP, Kathmandu

"Being a focal person of COVID management committee, even I don't remember all points of the guidelines and also have not understood completely. We need to act according to thecircumstances…if our understanding level is like this then what might be condition of other people. Guideline is limited to policy level as it is difficult to understand even to the higher-level officials.

-Chief District Officer, Makwanpur District, Bagmati Province

"As per the Mayor of Dhankuta Municipality all the transportation guidelines given by the MOHP, Government of Nepal was strictly followed."

- Deputy Mayor, Dhankuta Municipality, Province-1

"We don't know anything about the guidelines for transportation management. We just pick up patients from COVID hospitals and drop them to the provincial hospital. We don't carry the other patients."

- Ambulance Driver, Butwal, Lumbini Province

Lockdown and Travel Restriction

The GoN has provisioned to adapt lockdown and travel restriction measures based on emerging evidence. Whole lockdown in the country, partial lockdown (some essential production activities like agriculture, medicine, medical supplies, and daily essential items were allowed but the movement was restricted within production areas), and specific pocket area lockdown were provisioned

Lockdown and travel restriction declared by Nepal Government became one of the effective interventions to control the transmission of COVID-19. The lockdown lasted for certain period and when it was ending, proper and adequate precautions were not taken. Due to the haphazard end of the lockdown, most of the public vehicles were operated without taking

proper measures to prevent the COVID-19. The unplanned ending of the lockdown and the travel restrictions washed away all the measures taken during the lockdown and resulted in the tremendous increase in the positive cases.

As per the Lieutenant Colonel at Nepal Army in Sunsari district, lockdown in Dharan was done earlier than required. He further reiterated that at present when the lockdown was needed, the lockdown had been eased. This was due to pressure from different sectors and economic losses.

"*I was involved in COVID-19 prevention and control since the beginning of lockdown. People have their own perception regarding this. What I think is the lockdown was done a bit earlier in a hurry. I am sharing this as per my experience rather than criticizing anyone.*

"The situation was like people didn't have jobs and people were dying due to hunger rather than due to COVID-19. That kind of situation was arising due to the lockdown and that situation led to easing up of the lockdown."

Lieutenant Colonel Nepal Army, Province-1

As per the Mayor of Dhankuta Municipality, lockdown wasn't followed strictly, only vehicles were probhibited to run. The border was in Bhedetar and people used to come by walking. He also emphasized that sick and old people got the required health care because ambulance was operational.

"Lockdown is useless, it's pointless. Lockdown should not be done. Not even in case future pandemic arise. Well, the border with India should be properly monitored that is for sure.

- Mayor, Dhankuta Municipality, Province-1

The expert advisor of MoHP stated that lockdown was done for preventing the mobility and control the transmission of disease but it also affected the socio-economic life of people at the same time. Lockdown not only restricts mobility but also restricts socioeconomic life of an individual, that's why we cannot restrict for a long period of time.

"*The purpose of doing lockdown was not met as expected and socioeconomic life of people was at stake, so we were bound to end lockdown. When we ended the lockdown cases were increasing all over the state, but the reason behind reopening was socioeconomic condition of the people being damaged, local transmission were increasing more in province 2, it is*

probably community transmission. Due to lockdown we could somewhat decrease the infection transmission, could make few structures but couldn't do as expected. But Europe can do, because they have structure, they just have to refill and minimize infection by restricting mobilization, due to such structure lockdown is effective but in country like ours having no structure, there wasn't a good output in a limited way."

- Expert Advisor, MoHP, Kathmandu

The lockdown was effective due to the efforts of the elected representatives and the administration in the initial days. People would comply with the lockdown regulations either because they were aware and scared the disease might spread in the community or were scared of the security maintained by the police.

"The lockdown was followed due to efforts of elected representatives and administration but people didn't understand the reason behind it and we can't control the spread once it is localized, we should inform why lockdown is implemented, and it would be effective."

-Chairperson, Khajura Rural Municipality, Lumbini Province

Regarding the challenges faced during lockdown Lieutenant Colonel, Province-1 added that government could not address the issues of people of low socio-economic background. Additionally, people from India came in Nepal from other illegal channels rather than from border and could not be screened. This was a great challenge due to which the cases have increased. Those who came from the border were kept in quarantine, but the quarantine facility was mismanaged.

"People who lived in rent could not pay rent, had no food to eat. They were even asked to leave the homes by their landlords. They did not have any means of transportation to go back home and had to walk for even 7 days to reach their homes. Government did not do anything for the settlement and help of these people."

Lieutenant Colonel Nepal Army, Province-1

Powerful people misusing the pass were common.The important point about lockdown was that, it was unable to halt the movement of people. There was considerable movement of people on foot even during the lockdown especially those returning home and at night.

"To effectively implement lockdown economic conditions of the people should be improved so that they are able to fulfill their basic needs during lockdown. Many people returned home on foot despite the lockdown."

-Deputy Mayor, Dhankuta Municipality, Province-1

Strict provision of lockdown was not made. Movement of people continued despite the lockdown. Lack of support and coordination was the cause for lockdown not being successful.

"Lock down was done but it wasn't implemented completely. Lock down was followed strictly during the day time at night it was loosened and people used this time. Moreover, people walked from one place to other.

We could not get the expected support from home minister for lockdown. It is not only the responsibility of Ministry of Health and Population ministry, but all other ministry should take the responsibility. "

Chief Specialist, MoHP, Kathmandu

"We have eight local levels in the Banke district in which Nepalgunj is last, four of the districts were not announced literate yet, so people were not alert and aware. During lockdown, people were afraid if someone in their family catches the coronavirus. People used to obey rules when police was present otherwise not, when banks were open a huge crowd would be there, then can we call it lockdown. Awareness may have increased due to an increase in positive cases in eight local levels. If such thing happens again the institution has to provide the province and local level funds timely."

-DCCMC MemberBanke District, Lumbini Province

According to Nepal police from provine-1, lock down and travel restriction was followed as per the protocol at the beginning but with the increasing number of cases, local people got infected as well which decreased the fear of COVID-19 in people and hence they didn't follow the rules of lockdown properly therefore it was challenging to follow the guidelines.

Moreover, CDO of Makwanpur district stated due to lengthy and frequently changing guidelines of lockdown the security official could not follow all the guidelines.

"The lockdown set by government has been implemented maximally as per the protocol. In the beginning the lockdown was followed strictly by people so it was easier for us to implement. But in the later phase when people started to get COVID 19 locally and recover, the fear subsided, and lax attitude was seen among people towards lock down order which increased our challenges."

-Nepal Police, Dhankuta Municipality, Province-1

"For following lockdown modality as per the guideline, what we have felt is, higher level of Government prepared the guideline for lockdown modality and is implemented in local level by security division, in addition we also found that there is lack of knowledge, which mean the guideline for lockdown modality is too lengthy and is changing very frequently. Therefore, security official have to work on it every day. They are not updated along with the guidelines and get confused with the updated one. It is also difficult for them to understand each point and follow frequently changing guidelines. Therefore, it seems guideline didn't work properly."

-Chief District Officer, Makwanpur District, Bagmati Province

Delivery of Essential Services

The policy clearly says that all critical public health programs will be continued or adopted as per the service provision guidelines in context of COVID-19 pandemic. Major focus was given to the continuation of Safe motherhood services (critical ANC, safe delivery services, critical PNC, management of complicated pregnancies, comprehensive abortion care); management of life and limb threatening emergencies, management of acute and chronic conditions; immunization (continues session with safety measures); longer period dispensing of family planning commodities; Anti Retro Viral (ARV), Non Communicable Disease (NCD) medicines, mental health medicines, and TB and Leprosy drugs.

The measures were taken to minimize hospital visits by people for minor health problems to avoid crowd and reduce increased pressure to the health facilities. In such case alternative options like telemedicine and call center based approached were promoted.

In pivoting to provide COVID-19 related services, health systems was severely disrupted, with essential services including antenatal care, immunization, and institutional delivery

being severely restricted or suspended against WHO recommendations. This is likely to cause very high secondary effects on morbidity and mortality.

However, mayor of Thaha Municipality stated having no difficulties in providing services to non-COVID-19 patients in Makwanpur district.

"There is no problem in providing services to non COVID-19 cases in Makwanpur district. District have divided work among team members for contact tracing, COVID-19 case treatment and other case treatment therefore, there is no effect on service providing. There were people who had responsibility to make available of medicine for chronic patients. Patient didn't have to go to Kathmandu to buy medicines. It helped patients to save money and time."

-Mayor, Thaha Municipality, Bagmati Province

The delivery of essential services was satisfactory and continued even during the lockdown in Dhankuta Municipality. All the essential commodities entered into the city even during the lockdown period with appropriate precautions.

"There is no problem for patients to get treatment in Dhankuta district hospital as we don't require negative PCR test."

-Health Worker, Dhankuta District Hospital, Province-1

Due to the fear of mobility, utilization of essential health services decreased in Gandaki Province. The other possible causes of the decline of regular health were lack of transportation, shortage of health-related human resources, low access to health facilities, and lockdown, and travel restriction. During the lockdown, there was an increased home delivery rate and reduced antenatal and postnatal care and overall utilization of essential health services in Gandaki Provinces. However, long-time lockdown and other awareness programs helped to reduce other infectious diseases.

"Enforcing lockdown was great in reducing the transmission of disease. Lockdown should be continued in the most vulnerable parts. Lockdown reduced transmission and brought awareness too. Lockdown helped to reduce not only corona it also helped to reduce other diseases in our areas. But, daily waged workers were hampered by this lockdown therefore alternative solutions should be launched instead of forcing lockdown."

-School Teacher, Parbat, Gandaki Province

Human Resources

In Dhankuta Municipality, trained health personnel were not adequate although the sanctioned positions were filled. Additionally, auxiliary health workers could not be utilized fully as there was fear and uncertainty especially at the beginning of the lockdown. Even doctors and nurses did not work in full potential due to lack of PPEs and fear of disease.

"The central government was not able to provide personal protective equipment in early phase, so we faced issues to mobilize health workers in the beginning".

-Deputy Mayor, Dhankuta Municipality, Province-1

"Female Community Health volunteers could not be mobilized adequately due to lack of clarity and coordination between Federal, Provincial and local government."

-Health Focal Person, Dhankuta Municipality, Province-1

Untrained and inadequate human resources (nurses, health aids) ineffective management teams were mobilized in the initial days in the COVID-19 hospitals in Morang district. This caused difficulties in carrying out routine treatment for patients with COVID-19.

"Common people who were never exposed to health facilities before were recruited as health aids. They were untrained and unfamiliar with ward routines, not aware of using oxygen cylinders and other equipment, unaware of infection prevention often they used to be in ward with full ornaments and bangles. It was really difficult for us to work with untrained health aids."

-Health Worker, Morang District, Province-1

There was scarcity of human resources in Gandaki Province. The Health Director of the Province said that more than one-third of the sanctioned posts were vacant in the province. Even it was the same in Pokhara Metropolitan and Kaski districts; there was an extreme shortage of specialized, super-specialized, and highly qualified human resources in Gandaki Province.

"*We do have a challenge in human resources in terms of number (45% vacant), level (expert) and we do not have a provincial hospital."*

- Director, PHD, Gandaki Province.

"Initially, we had a high shortage of staff. After discussion with social ministry now it's managed by new hiring and pulling from another district. But still, we lack trained human resources for the delivery of services."

-Chief District Officer, Kaski District, Gandaki Province.

It was revealed that the health workers were sufficient for an isolation center but lacked some consultant doctor for chronic diseases with COVID-19 positive cases. The expenses were managed by corona kosh. There is inadequacy of human resources across the province.

"All together 4 isolation centers in Lumbini Province. 583 health workers were mobilized in each isolation center. The health workers were sufficient for the isolation center but lacked some consultant doctors for chronic diseases with COVID-19 positive cases."

-Minister, MoSD, Lumbini Province

The human resources are adequate in Makwanpur districts as stated by CDO of the district but there is unavailability of hospital beds. For the critical case they are compelled to refer the patients to higher centers, so rather than the manpower other issues has created problem in providing services.

"Human resources have been increased from different level of government as needed than initial stage. Health ministry, provincial level authorities and hospitals have recruited temporarily contract. In terms of human resource, it is adequate in number but there is unavailability of hospital beds including ICU beds. Hetauda hospital increased 10 ICU bed but are unable to make functional due to various reason. If there is critical case then hospital has to refer to either Bharatpur or Kathmandu or any other higher center. More than manpower issue, there is an overall management issue."

- Chief District Officer, Makwanpur District, Bagmati Provoince

Moreover, the health worker of Patan hospital as well as secretary of ministry of social development reveled with the support from government, the human resources were adequate at the present situation however, there might be scarcity of human resources in the future as the cases of COVID-19 is increasing and has spread tremendously.

On the other side, according to health focal person of Mahalaxmi Municipality, human resources was limited so all the health workers involved in COVID-19 management had to work under high pressure.

"Even though, government has increased the number of human resources at Teku hospital, it is still difficult to manage because ICU beds have been added, hospitals have to include thousands of PCR testing from general lab testing facility and numbers of COVID cases are increasing; therefore, had no adequate number of human resources before. It is trying to manage somehow with the support of government. "There is one level of settle down".

-Health Worker, Shukraraaj Tropical and Infectious Disease Hospital,, Bagmati Province

If the situation gets worst, there might be scarcity of human resources because even the human resources also get infected in severe worst situation. The risk group is human resources itself. Therefore, we need to think that every people have some kinds of COVID or non COVID diseases and we need to develop immunity to cope against this disease by ourselves. We have not thought of the disastrous situation yet. For now, we have given the responsibility of hiring and firing of the health workers to the respective hospitals which are under the control of province. We have timely delivered the required policies, directives and guidelines. Therefore, till now we do not have scarcity of human resources. We also have managed for the availability of adequate human resources for the laboratories under province.

- Secretary, MoSD,, Bagmati Province

Human resource has always been an issue in Karnali Province. Despite having the adequate number of doctors it has been challenging to mobilize them. Moreover, the number of nurses are limited and even the cleaners were not adequate.

"Our major problem is human resource. It's not in good condition. When talking about Anesthesis, in the whole province hospital we just have 2. We have not been to use and mobilize them well during COVID. We have 3 physicians, and they are busy with their regular work in the hospital. We can keep them as on call duty only. Medical officers are there for 24 hours on duty. And we also do not have required number of nurses. Besides, for the cleaners as well, we have major issue."

-Health Worker, Province Hospital Surkhet, Sudurpaschim Province

There was a lack of health workers from health posts to district hospitals. In this pandemic, there was huge necessity of health workers, lab technicians and skilled manpower working in I.C.U., ventilators etc, but only limited number of health workers were there for providing the health services. There was no manpower in health sectors for the replacement if in case any of they gets infected while serving the patients.

"*Health workers in Municipality themselves are managing the quarantine, isolation and are also providing regular treatment service to the patients coming there*

-Health focal person, Shuklaphanta Muncipality, Sudurpaschim Province

"The health workers are not available at all quarantine but they are available at all isolation centers"

-Health Worker, Tikapur Hospital, Sudurpaschim Province

This was due to lack of coordination and clear communication between federal and local government. The federal government declared to give incentive to health workers, but they did not provide money directly to health workers for incentive instead they sent money to local government in lump sum. The local government had already allocated that money for different purposes and local governments expect federal government to give additional money for incentives. Therefore, it was of utmost important to build motivation to health worker by providing appropriate incentives and train human resources.

"In case of motivation to be provided, people are being greedy. Government have announced to provide 75% increment for frontline health worker so most of the health workers are complaining that they are also working as front line health workers. Government has provided the money but at the local level, they could not distribute it evenly."

-Chief Specialist, MoHP, Kathmandu

As per the focal health person at Dhankuta Municipality health workers at local level were not getting all the facilities as per the guidelines. Health worker of Teaching hospital also revealed not getting any incentives who were actively engaged in providing services for COVID-19.

Moreover, Regional Health Director of Bagmati province said that not providng the allowances to the health worker at the local level was the most unsatisfying thing. Not getting the risk allowances was the demotivation factor to the health workers.

"We don't have enough resources to provide incentives on our own."

-Health Focal Person, Dhankuta Municipality, Province 1

"Government had announced to provide incentives to those who are working with COVID-19 patients therefore staffs had expectation for it. It would have been better if government would have calculated all the cost beforehand and planned accordingly then all staffs would have received incentives on time and they would have more motivation to their work."

-Health worker, TUTH,, Kathmandu

In Contrary, CDO of Makwanwanpur District revealed that health staffs received some amount of incentives as they received some budget from Government. Also the secretary of MoSD said that they have implemented the decisions of allowances made by federal government and have provided the allowances to Health Workers (HWs) and they are committed to provide more allowances in the future for the motivation to HWs to work in the pandemic situation.

"At local level, staffs have received some amount of incentives as received budget from government. There might be some technical problem otherwise government hospital and municipality have provided incentive to most of public and private health workers working for COVID-19 cases."

- Chief District Officer, Makwanpur District, Bagmati Provoince

"We have implemented the decisions of allowances made by federal government. We have provided the allowance for the motivation to HWs for the previous fiscal year already. Still, we have budget to provide allowance and we also discussed with chief for the further decisions to provide the allowances to the HWs after Kartik. The resources provided to us were until the month of kartik. Therefore, we will make decisions on resources for allowances needed to be provided to HWs. Provincial government is committed to provide allowances to the HWs and to make them happy and motivated to work."

- Secretary, MoSD, Bagmati Province

Regarding the COVID-19 pandemic, Gandaki Province had organized three days of training about COVID-19 focusing on quarantine management, case identification, and investigation, contract tracing, isolation, and treatment. However, there was not any additional initiative from the province. A large number of health workers (more than a hundred) also faced COVID-19 infection to date in Gandaki Province.

"Talking about incentive, the central government is providing incentives and the provincial government is looking after their daily needs like food shelter, etc. according to the decision of the Central Government."

-Director, PHD, , Gandaki Province

The main challenges reported by health worker looking after COVID-19 patient was shortage of trained manpower both in public and private hospitals providing COVID-19 treatment.

"We are running our services even with limited staffs. We are continuously providing treatment without biasness and without resting. The shortage of nursing manpower and other health care provider is increased even more when they are tested positive while treating the patients."

-Health Worker, Birat Medical College and Teaching Hospital, Province-1

Mobilization of health workers was challenging. Due to this reason, despite having the adequate human resources, its management was difficult. Moreover, infection itself was one of the challenges. According to health worker of Patan hospital, infection and its transmission to the family members increases the risk so limited numbers of health workers are dedicated in providing services.

"For health worker mobilization, we have seen most of the physicians, internal medicine, critical care doctor or nurses are working for COVID-19 and other specialized doctors who should help or work for COVID-19 are not working. i.e. skin specialist says I am skin doctor why should I work for COVID-19. Same thing goes with radiologists, surgeons etc. That's why regardless of the adequate human resources, we are not able to mobilize them. Till now we have adequate human resources including doctors, paramedics and nurses. However, it is challenging to manage it. Also, I feel lack in cooperation from concerned authorities however it has been changing now but initially there was less cooperation."

Chief Specialist, MoHP, Kathmandu

"The challenges were about infection with the health worker themselves and risk of transmission to their family. In addition, health worker get exhausted after working for long hours with PPEs as limited numbers of health workers have to handle large number of cases".

-Health worker, Patan Hospital, Bagmati province

Communication and Coordination

Federal government had published the guidelines to pass the information and help to utilize the information. Municipality coordinated with central government for the referral and management of the severe cases. They coordinated with provincial government for the procurement and management of the logistics and they coordinated with district health office for the reporting of the cases.

"Federal governments have published the guidelines and we work according to the guidelines. Also, we coordinate with central government for the referral and management of the severe cases. We coordinate with provincial government for the procurement and management of the logistics. And we coordinate with district health office for the reporting of the cases."

-Health Focal person, Shankarapur Municipality, Bagmati Province

The communication and coordination among the authorities, stakeholders and people was relatively easy and smooth due to social media, mass media and mobile phone.

"Our Mayor regularly discusses the issues, solutions and provision of assistance from Ministry of social development with Minister himself and other staffs in the Ministry. At local level we coordinated with various local organisations, chief district officer, local police etc."

-Deputy Mayor, Dhankuta Municipality, Province 1

"The policy and guideline are reaching local level promptly and on time due to availability of internet email and social media. The local level is aware of policies and guidelines of Federal government on time."

-Health Focal Person, Dhankuta Municipality, Province 1

In Karnali province, there was an effective and regular coordination and communication between province COVID-19 management committee, district COVID-19 management committee, CDCMC and CICT to handle COVID-19.

"We did not have that difficulty in the communication. We had regular communication with the CCMC, Province and the local level. In these situations, communication that includes mobile charge and everything should be provided."

-Focal person, Kalikot District, Karnali Province

The ward chair of Dhankuta Municipality expressed that, there was not problem in communication and they timely received all the guidelines from federal and provincial government. Additionally, public were effectively communicated through social sites and vehicular movement and announcement. He further added that there was need of modern communication modality like digital hoarding board, camera, and other smart technologies for effective communication.

The major challenges faced during communication were unavailability of internet in every corner. However, they used to do telephone conversation for those who have been tested for PCR. He also mentioned that they had been using different strategies and ideas to communicate to the public for social distancing, use of mask and use of soap water. They also created a group to communicate with all the sectors.

"There was no coordination between local government and Federal government. Local government had some amount of coordination with the provincial government, but this coordination was not adequate due to lack of clarity in communication and clear demarcation of responsibilities between the two governments."

-Health Focal Person, Dhankuta Municipality, Province 1

Most of the managerial level key informants in Gandaki Province said that the federal government had poor communication with the provincial and local government and enforced only to implementation which may not be relevant to the province. But the provincial government had good coordination among local governments, communities, and other community-based organizations to prevent and control the COVID-19. Socio-culture and geographical conditions were challenging to communicate and coordinate in the Gandaki Province.

"Regarding the medium to communicate with other government bodies, we have made a Viber group with the name "Samajik Bikash CDO Sanchar Samuh" to communicate with all the CDOs," Gandaki Health" for Health offices, and "Gandaki Doctors" for all Hospital Superintendents and "Gandaki Ayurved" for Ayurved Hospitals at Viber. These four groups communicate regularly. We stay in touch and periodically update with local government through zoom meeting. All of these groups and bodies communicate regularly to address this situation."-

-Secretary, MoSD, Gandaki Province

"Great experience while coordinating with the CDO office, police, and army. There are few problems in the command system because some time command comes from different sources and that command comes out of guidelines. Therefore the command system should be one way and should be guided by the guidelines."

--Director, PHD, Gandaki Province

Medias are the major source of communication. The information delivered through media is accepted and followed by all the people. Hence, media plays vital role in communication of information; therefore, they must work rising above their sustainability and ideology. Media must be mobilized properly for the dissemination of the information.

"On these later days conspiracy theorist, not only in Nepal, globally they promote it as an unnecessary global politics agendas or Businessman manipulating for their commercial benefits. Also the people from super traditional medicine field created a misunderstanding. To clear these sorts of misunderstanding we had to go for the proper mobilization of the media which we couldn't do. Media are themselves confused in their role in the overall communication."

"Generally for the contemptment of this COVID -19, we must work together and media must work rising above their sustainability and ideology. Hence we can say we lack in the communication and coordination and the big lesson learnt from this pandemic is the risk communication."

-Expert Advisor, MoHP,Kathmandu

For effective communication and coordination, all three tiers of governments: local, provincial and federal government should make a team consisting all types of members like from public health sector, administration and should take their views into considerations and make policies, rules and can take decision in near future. Proper coordination and consultations with experts, regular feeback on the activites and implementation of appropriate strategies could be helpful to defeat this type of pandemic.

"This should be done by central/federal government level, by asking us our feedback and what should be done by federal government. Federal government should make the coordination mechanism to all the 753 local government. Then we can share our problems and should guide us what we should do and what central government level does. By this in near future, if any epidemics to be happen then there will be easy to control as well."

-Ward Chairperson, Gokarneshwor Municipality, Bagmati Province

Supplies and Logistic Management

The existing guidelines explain about helping all health care staffs to apply appropriate measures of infection preventions while providing care in health care setting. Although PPEs were scarce in the beginning, currently there is no problem with it.

"In the beginning PPE and mask were difficult to manage, only health care workers had a way to get them but everyone required it during the pandemic now that the production of mask and PPE has sky rocketed to meet the demand of people, it is not much of a difficulty now."

-Ward Chairperson, Dhankuta Municipality, Province-1

There was regular supply of PPEs in Shankharapur Municipality as well as Gokarneshwor Municipality as private organization was supporting them in providing PPEs. Moreover, municipality itself started procuring it as well.

"PPEs are available to us. One of the organizations is also supporting us, for providing PPEs. Also municipality has procured some PPEs for us, so we have not faced problems regarding insufficiency of PPEs."

- Health Focal Person, Shankharapur Municipality, Province-1

"Previously, some donors have donated but now municipality itself procures and distributes it. It is expensive. It would be of much help if the federal government could have provided us the PPEs."

-Ward Chairperson, Gokarneshwor Municipality, Bagmati Province

Ambulance drive of Bagmati province mentioned having adequate set of PPEs and they also received training of donning and doffing of PPEs.

"There is adequate complete set of PPEs for 5 ambulance drivers. Before, Corona cases were seen in Nepal, Chauni Hospital had provided training of donning and doffing of PPE to all five-ambulance drivers from Nepal Ambulance Service (NAS). Medical doctors from Hospital had conducted 4 days training to teach donning and doffing, and disposal of PPE as well."

-Ambulance driver, Nepal Ambulance Service, Bagmati province

Key informants reported that there was not any shortage of the required supplies and logistics in Gandaki province. However, they raised a question about the quality of supplies including the personal protective measure because many health workers were getting infected by COVID-19. It can reflect the poor quality of the supplies or poor behavior of the health workers.

"Initially, it was not easy, because of lacking protocol for purchasing and use and so on. But now in terms of kits, PPE, reagents and other equipment currentlyare in a good position. Initially, we had problems due to the shortage and misuse of PPE, but now people have understood, and we do have enough of them. There is no shortage of PPE and other essentials for the required person."

-Secretary, MoSD, Gandaki

In Karnali Province, in the early stages of COVID-19, frontliners had to treat the cases with scarce PPEs and other required materials so it was difficult to manage the cases. Later, after the support of several government and non-government organizations, this was not the major concern anymore. Other huge supplies were supported from the federal government as well along with proper guidelines and protocols.

"The federal government prepares guidelines and also supplies big and huge logistics".

-DCCMC member, Surkhet District, Karnali Province

"PPE is now better. The supporting organizations are providing their aids. So far the condition is fine and for about a month, the PPEs should be enough"

Health Focal person, Kalikot District, Karnali Province

The major challenge of PPE management was its quality. As different varieties of PPEs were made available but there was no lab for testing its quality. Quality monitoring of PPEs had become a challenge. Moreover, Health focal person of Mahalaxmi Municipality revealed despite using full set of PPEs, frontline health workers were getting infected disclosing the quality of PPEs which were made available and used.

"Different types of PPEs were made available, and we could not maintain the quality and price of PPEs. We are unable to send PPE in all the local levels. Provincial level has PPEs but they have problem in distribution."

-Chief Specialist, MoHP, Kathmandu

"We don't know about the quality of mask we are wearing, PPEnowadays are made in Nepal but we don't have any place to test if the PPE is appropriate, no place to test the mask.Whether it is up to the quality or not."

- Expert Advisor, MoHP, Kathmandu

"We all are aware about PPE and its usage but due to COVID-19, practically we could know that PPE can help in not being infected from this type of infectious disease. But the front line health workers residing in Mahalaxmi Municipality even using the PPE and providing services are being infected. We feel that PPE only cannot help."

-Health Focal Person, Mahalaxmi Municipality, Bagmati Province

Infrastructure

In case of Dhankuta and Morang district existing building was used to build quarantine and isolation centers. However, in Morang district, renovated existing building was developed as an isolation center.

In 25 ropani property, Suryabinak Municipality suggested a municipal hospital that could most likely be completed in a month, so the municipality will not have any problem finding

health services. In addition, MoHP's expert advisor reported that some ICU beds were expanded, oxygen plants were planted and PPEs for crisis management were managed.

"People request for managing beds in hospitals and when we ask the hospital for management, they respond it isn't available. We held meeting with honorable mayor, ward chairperson, member of disaster committee and business man and concluded to have one municipal hospital. We have proposed municipality's hospital with 10 ventilators in 25 Ropani land. Now, as I think, it will be completed within 1 month of time. Therefore, there will not be any problem if the people of Suryabinayak municipality have to seek health services."

-Deputy Mayor, Suryabinayak Municipality, Bagmati Province

"We extended some ICU beds, made some ICU's, planted oxygen plant; we managed PPE for crisis, provided training for Health worker."

-Expert Advisor, MoHP, Bagmati Province

Key informant stated that the hospital did not provide information about bed availability, but there were empty general and vacant beds as they calculated the number of beds available.

"Initially hospitals used to hide the information regarding number of bed available, didn't want to admit such patients but we have calculated available bed inside Valley, we have 30% general bed 10-15% ICU bed, which are vacant. People staying at home isolation, if had difficulty wanted to get admitted in ICU beds. Wrong people got admitted in ICU who could get treated even if they were in normal bed."

-Chief Specialist, MoHP, Kathmandu

Gandaki Province's key informant stated that there was an extreme shortage of existing infrastructure to cope with the growing trend of COVID-19. The development of infrastructure was emphasized by three-level governments, i.e. the federal, provincial and local governments. The budget for buying medication and supplies and improving health facilities increased. Some of the participants said it was an opportunity for the nation's health system to be improved.

"We do have the main challenge of treating COVID-19 patients. We do not have a provincial-level hospital and high skilled human resource. Instead of dividing the human

resource according to Central, Provincial, and Local Government bodies, we need to integrate into one unit according to the situation. We talked with different public and private hospitals like Pokhara Academy of Health Sciences, Manipal, Charak, and Gandaki Medical College regarding the limitations, problems, and treatment process. We have two immediate challenges, one is facilitating a higher level treatment process, and another is pulling higher-level human resources."

-Secretory, MoSD, Gandaki

"We never had any problem with the budget during this pandemic we had allocated 33 Crore in the emergency fund. We can transfer money within few hours if necessary at the operation level. Only problem is during the distribution of risk incentives there is not uniformity we are trying our best to make it uniform. We have authorized a huge amount of money for ICU management. It's quite high compared to other provinces."

-Director, PHD, Gandaki Province

Four makeshift COVID hospitals were established in Lumbini province which included Dhago Kharkhana: Butwal, Beljundhi: Dang, Cancer Hospital: Nepalgunj, Bhim Hospital: Butwal. The hospital has 230 beds which were separated for COVID-19 specialized hospital which has 34 ICUs and 12 ventilators. The private hospital runs 67 ICUs and 11 ventilators.

In Karnali province, COVID-19 dedicated hospital has been set up for proper management. Also, the province has some well-equipped isolation centers in different districts.

"With the exception of two municipalities, an isolation center in Surkhet district has been established and run by all other local municipalities. The provincial government operates an isolation center with 200 beds, including the ICU and ventilator services"

-DCCMC Member, Surkhet District, Karnali Province

"We went through the concept of setting up a dedicated hospital for COVID-19 and eventually got financial support from the province government. Now we are operating 55 bedded COVID-19hospital (5 bedded ICUs and 50 general beds) in coordination with municipalities and districts."

-Health Focal person, Kalikot District, Karnali Province

Community Engagement

Community engagement is important to reduce social stigma and discrimination related to COVID-19. Communities are composed of people with various social categories - male and female, educated and uneducated, adults and elderly, person with disability, and with different cultural and ethnic background. During the pandemic each individual understands information in relation to himself/herself. Preference for channels and trusted sources vary between individuals and groups as well as levels of access to radios, mobile phones, smart phones, televisions and internets.

Community engagement in building trust in the government and health system response was found to be still low for the prevention and control of COVID-19. Several community stakeholders were actively involved in COVID-19 management.

"Since mass gathering for conducting programs could not be done, we used radio, banners, pamphlets, stickers for risk communication. Local municipalities themselves distributed pamphlets in different places and we also supplied various posters, pamphlets to local government for publicity. From district perspective, we coordinate with the stakeholders such as CCMC, district emergency management committee including chairman of local municipalities for activities such as before and after lockdown, monitoring, management. We discuss with them and receive their support and resources."

-DCCMC, Jumla District, Karnali Province

"We have done work on community involvement. Organizations also supported, established hand washing station. Through our health institution, we have done following things; like, providing information on preventive measures of COVID-19 infections among the clients who visited in PHC, ORC, and OPD. For other patients also, we have been providing information regarding preventive measure of COVID-19."

-Director, PHD, Bagmati Province

In Gandaki Province, Local government and community people are engaging continuously to manage the quarantine, case identification, manage isolation centers, conducting contract tracing, and manage transportation and treatment.

"There were great community mobilization and involvement because of the ownership at the local level."

-Director, PHD, Gandaki Province

The communities were engaged mainly through ward chairman/ward members and local community groups to find cases, implement lockdown, and contact tracing in Morang and Dhankuta district.

"Local elected officials, youth organisations, student organisations, women's organisations, women's cooperatives, mothers' group, children help committees are being involved in community engagement and risk communication".

-Deputy Mayor, Dhankuta Municipality, Province 1

Main responsible body for community engagement was municipal office.

As per the school Principal working in high school in Dhankuta district for risk communication and community engagement the district health office has been working closely with Urban and Rural Municipalities, Dhankuta District Hospital, Nepal Red Cross Society, Udyog Badijye Sang, Ban Upabhokta Mahasang, Reporter association, Chief district Officer (CDO) office, Police etc.

"The various organizations that are present in our society like schools, Tol associations, various children clubs, and government directed organizations, all of this should be utilized. All this organization should be involved in it."

-School Teacher, Dhankuta Municipality, Province 1

"Corona itself is a sin of the past life, corona affected people is some of the superstitious negativity transmitting. Similarly, Covid is nothing and does not kill this kind of mentality is also there and it causes hindrance."

"School could have been an effective transmission channel for information flow. But we school were a burden. We have got guidelines to communicate with students and keeping Covid 19 in mind we could have flown a lot of information about the global pandemic."

School Principal, Dhankuta Municipality, Province 1

The principal further reiterated that he went in the community with few teachers to educate the people following all the basic techniques of COVID-19 prevention. However, there were negative comments from the public; hence they stopped community engagement activities.

"I created a place in Hile to go to the community along with the teachers to teach people. In one day in those centers we gather in a big number with social distance to teach this and did for 2-3 days but the challenge was public blamed that we were bringing corona with us not the knowledge."

- School Principal, Dhankuta Municipality, Province 1

The ward Chair of the Dhankuta municipality said that it was not possible to reach every household; however, social networking sites like Facebook and You-Tube helped them to communicate with public regarding the cases day by day. He further added that public could not be gathered at this moment although it is the most effective way to disseminate information.

In the federalization context, the roles and responsibilities of all the levels of the government is not known completely, due to which other ministries seem to be more powerful rather than health system, also we were not being able to utilize the available resources.

"Local levels are the stake holders for community engagement but unfortunately, our health structure which is decentralized and reached up to the bottom level, here other stakeholders like griha mantralaya, other local people are being more important this eventually results in the influence of non-health workers rather than health workers. This federalization system made distribution in all sector. However, it would be good, if there was not any federalization system in health system like before as we had health workers up to the bottom level. We can utilize them before, but now, we could not utilize those health workers.

It is like that people know what to do but they don't follow it. Some behavioural problems are also seen among us. It is like I know but I don't follow it as I feel like I do not get infection."

- ***Chief Specialist, MoHP,Kathmandu***

Dead Bodies Management

Dead body management is similar to handling a COVID-19 patient who is alive. One needs to be careful and fully prepared with PPEs and other preventive measures. This is necessary because the virus can still survive on clothes of a deceased for a few hours, and this means families do not get opportunity to perform their last farewell in the traditional way. The best

way to handle the dead body with COVID-19 is to cremate it in order to avoid any kind of transmission. The government has decided that all those who succumb to COVID-19 near Kathmandu will be cremated at the country's only electric crematorium in Pashupati. Community obstacles are reported in Gandaki and Sudurpachhim Provinces stating that local people were not consulted while selecting places for dead body management. It was also reported that the people wanted to pay the last respect to the deceased as per their religion. As long as the precautions were followed, family members should not be denied for funeral rituals. The recent guideline instructed the people to manage dead bodies of those who died in home isolation in coordination with local authorities. This created a challenge to manage the dead body effectively and efficiently.

"Guidelines for dead body management have also changed recently. Now dead body will be given to family. In Makwanpur, first case was in end of Jestha or beginning of Asar. There was no protocol to Army for dead body management therefore; District Administration Office (DAO) had prepared the draft guideline of dead body management to give responsibility to Arm police. Before it was anticipated if there will be problem in dead body management at local place but local government and people helped to provide place. Around 19 people have dead already and there was no problem in management. Among 19 deaths, only 5 people had died in Makwanpur therefore, there no problem or any issues raise to manage it."

- Mayor, Thaha municipality, Bagmati Province

Dead Body Management responsibility was given to Nepal Army by the decision taken by Nepal government Minister's cabinet. They were also trained on handling the dead bodies. As per the lieutenant colonel at Nepal Army in Sunsari, Dharan. Guidelines have everything about how to do it, what should be done and what should not. The role of a local representative was very important. Till now in every district dead body management was done only by Nepal Army. The role was to take the dead body safely to the cremation place and cremate it safely.

"The role of the local body is to decide how to take the body for cremation and also decide the place of cremation. Deciding the place of cremation is a big challenge."

-Lieutenant colonel, Nepal Army, Province-1

"Some report has come only after dead body management. Nepal police and Nepal army has been there for dead body management as they are trained for it."

-Deputy Mayor, Bhaktapur Municipality, Bagmati Province

"Army have special training to handling of dead body so, army are mobilized in dead body management process. Full PPE as in ICU was provided for them in earlier days in organized manner. In case of foreign country there are dead bodies handling companies, they take care of body from death until taking to the church/burial but we do not have that kind of system in Nepal so, some organization had to do and army did it."

-Brig. Gen. CCMC, Chhauni, Bagmati Province

In the initial stage, dead body management was a serious issue in Pokhara Metropolitan. There was a conflict between the administration and local people regarding the place of dead body management. Later, it was solved with the coordination of local government. Currently, local government coordinates with the local community and manages safe places for dead body management and Nepal army carries out dead bodies from hospital/isolation centers/ home and manages at recommended places coordinating with local governments.

"We had a problem in the very first case because of some disturbance from local people about the places of burial. But now we have a team for the management of cases and it's going smoothly."

-Director, PHD, Gandaki Province

"There was one incident, the case was from outside the Pokhara Valley, but it is normal now. We have prepared the place for the dead bodies' management. The second time also when we were about to manage the dead body there was a problem. Slowly we convinced the people, and then the situation became normal. Municipality manages the spot and dug and the army carried out dead bodies with PPE using a stretcher worth Rs 3500. We substituted the metal stretcher with bamboo which was thrown along with the dead body. Now, the Municipality is taking the responsibility of digging the pit for the dead bodies. The Army carried and buried the dead bodies."

-Mayor, Pokhara Metropolitan City, Gandaki Province

In Karnali Province, a committee was formed for management of the dead bodies. The cultural values were taken into consideration while managing dead bodies. In the province unlike others, army personnel facilitated to manage the dead bodies.

"We have decided a fixed spot for dead body management related to COVID. We have managed to bury the dead body in the jungle of Birendranagar Municipality 2. As per Ministry of Health and Population, we have let the people to cremate the dead body of positive patients following their tradition with proper health precaution. Presently, as per the wish of people, we have allowed them to burn the dead body according to their custom and tradition."

-Chief District Officer, Surkhet District, Karnali Province

Limited materials and resources for handling the dead bodies became the biggest challenge as mentioned by lieutenant colonel of province 1. Moreover, vehicle for transporting the dead bodies also become a challenge.

Although guidelines recommended Nepal army to handle the dead bodies but it was challenge to wrap the dead bodies of the ones who dies at home isolation.

Moreover, it has also been complaint that relatives of the dead ones could not follow their rituals due to the guidelines made for the management of dead bodies.

"The biggest challenge I have seen in dead body management is limited materials and resources." Another challenge is vehicle management. "Limited number of vehicles has led to delay in dead body management".

- Lieutenant colonel, Nepal Army, Province-1

"For dead management we called the army but they responded that they come only to pick the dead bodies. Packing wrapping should be done by municipal level. But we aren't trained for wrapping the dead bodies neither we are asked to do so, we had necessary equipment to wrap the dead bodies but we didn't have human resource to do so. We didn't have clear guidance on who is responsible for it."

-Health Focal Person, Mahalaxmi Municipality, Bagmati Province

"Management of the dead body is challenging due to the cultural perspective of the community. In the initial stage, the first 2-3 cases, conflict was raised with the local community and the administration compeled to do air fire to control the community's protesting. Currently, local Authority and Nepal Police are supporting and providing

security and managed spot and Nepal Army carried out the dead bodies and buried at the recommended place."

-SSP, District Police, Kaski, Gandaki Province

Examples of voluntary organizations for dead body management

RNA group, a voluntary type of group in Bhaktapur has been working for the transportation of infected patients and also for dead bodies' management. These kinds of voluntary groups should be emphasized in management of the issues.

"Have you heard about RNA group of Bhaktapur? A voluntary type group. Arun saiju, such a nice guy, he has also been infected I think. His group is working on transportation of infected patients as well as management of dead bodies. I think in Nepal, we should give contract to these kinds of group to manage these issues.

In case of dead body burial, government has advised to find suitable place, but I don't think this is taken carefully.

Providing contract to certain group for the process of dead body management can be financially helpful to them. Only involving Army may not work for long run."

-Brig. Gen. CCMC, Chhauni, Bagmati Province

Facilitators and Barriers of Implementing COVID-19 Policies, Guidelines and Directives

Facilitators of Implementing COVID-19 Policies, Guidelines and Directives

Issues	Facilitators
Quarantine Management	Involvement of interdisciplinary groups like healthcare providers, local governance, ward chairman in policy and guideline making, implementation of guidelines, laws, training and orientation to the service providers on following precaution, infection prevention and management of quarantined patients, follow up and supervision were the major facilitators for quarantine facilities and management. *"Talking on facilitators, there comesfinance at first. This municipality is actively engaged and the team lead by the health worker. We have doctors of*

	same area and they provide suggestions and counselling as well." ***- Ward Chairperson, Gokerneshwor Municipality, Bagmati Province*** Team of health workers were actively engaged in the management of quarantine which was the facilitators according to the ward chairperson and focal person of Bagmati province. Moreover, Health Focal person of the same province of Shankharapur municipality says coordination and support from the entire stakeholder to be the facilitators. *"There is CICI team and CTCF team focusing and working for COVID-19. From two teams, there are six members. With the increasing number of cases more team members have been added. These members of health workers regularly follow up their patients' health status on daily basis. They also counsel the patients over telephone. All the queries of the patients are answered by that team of health workers.* *Even when quarantine facilities were available, two health workers used to work full time."* ***-Health Focal Person, Mahalaxmi Municipality, Bagmati Province*** *"The coordination and help from all the stakeholders is one of the facilitators for quarantine facilities and management. Also the guidelines of the federal government have helped us."* ***-Health Focal Person, Shankharapur Municipality, Bagmati Province*** *"The management of the quarantine is done by the local level government. From the provincial government also the quarantine facility was managed. The best thing is that the local level government has made the facilities to keep the citizens and people coming from the foreign countries in the quarantine for 14 days. They are sent to the homes only after testing negative."* ***-DCCMC Member, Surkhet District, Karnali Province***
Case identification and management	Health workers provided services according to the need of the patients. Those who have got mild and moderate symptoms, counseling services were provided

	to them regarding their health status while severe cases were referred to the hospital for the proper treatment management. *"For patients having mild, moderate symptoms, and are staying in home isolation, our team of health worker counsel them, take information regarding their health status. For severe cases, people having health issues and those who are in need of oxygen, we send them to the hospital. Mahalaxmi municipality has its own ambulance so we transfer serious cases to hospital."* ***-Health Focal Person, Mahalaxmi Municipality, Bagmati Province*** Health services are being expanded for the case identification and management with the support of with the support of provincial government. *"We do not have much issue. Luckily, in the karnali province, the provincial ministry and the department are quite active and they are yielding better support for covid. Also the logistics are supplied as required and on time."* ***-Health Worker, Province Hospital, Surkhet Karnali Province***
Testing and Isolation	Centrally controlled system for the isolation centers, proper coordination among the stakeholders, Availability of equipment's in the centers and proper management of the isolation centers act as the facilitators of the isolation centers. *"Isolation centers are centrally controlled. There is hospital incident command system inside the hospital, under this command system, there is operational committee, and there are team members under this committee who provide services to the patients. Unlike other isolation centers, these isolation centers provide curative services to the patients also. These isolation centers include oxygen requirements, ICU requirements, therefore medical team itself handle the isolation centers."* ***-Health worker, Patan Hospital, Bagmati province*** *"We have coordinated with Bhaktapur hospital and in isolation center we have managed to keep one doctor and one nurse per room. So, symptomatic case in isolation center can at least get treatment."* ***- Deputy Mayor, Bhaktapur, Bagmati province***

	"There is 20 bedded hospital, "Susma Koirala Memorial Hospital" under Sushma Koirala Trust. Also, we have eleven beds in proposed municipal hospital for isolation of positive cases. Also, we have7/8 beds in one of the private hospital for isolation of cases. Still more people are in home isolation in our municipality." ***-Health Focal Person, Shankharapur Municipality, Bagmati province*** *"The management of hospital was perfect for me. The food and medicine was provided on time for us. Also, the facilities were kept clean."* ***-COVID-19 recovered patient, Patan Hospital, Bagmati province***
Contract Tracing	Cooperative team of health workers and active involvement of the local leaders like mayor, and respective ward chair have made easier in case investigation and contract tracing process. *"Health personnel of this municipality are working for the management of COVD-19. They have given their full time. Even at night they manage giving services.* *There is good coordination of Mahalaxmi municipality with the higher level of governance."* ***-Health Worker, Mahalaxmi Municipality, Bagmati Province*** Doctors at Dhankuta district Hospital shared his view that due to close proximity of District Health Office, District Hospital and Municipality Office it was easy to coordinate for contact tracing and the human resources easily. Manpower is being formed and training was provided to them to build the capacity of health workers. *"We have formed the CICT team. The four people were made ready and sent for the health emergencies and surveillance from DCMC. We are trying to strengthen further and provide training to them."* ***-DCCMC Member, Jumla District, Karnali Province***
Communication and Coordination	Communication not only means to pass the information but also help to utilize that information. We were unable to use that information by involving all those stakeholders.

	Most of the key informants of the province and local levels emphasized timely frequent coordination among the Federal Government with Province and Local Governments. Hence, it is difficult to implementation COVID-19 Policies, Guidelines, and Directives. *"The central level should take all the levels into consultation while developing guidelines. The planning process should be in a participatory approach between all 3 levels. Once a decision is made it should be practiced uniformly."* ***-Director, PHD, Gandaki Province.*** *"There is active involvement of mayor of the municipality in the political level therefore, it is quite easy for us to coordinate also as me myself being focal person, I involve actively for the communication and coordination."* ***-Health Focal person, Shankarapur Municipality, Bagmati Province***
Human Resources	Provincial and local governments are providing health care services on contract basis in order to provide health care services for emergency purposes. *"The provincial government and the local government kept the health providers in contract. The simple health care providers were kept in the primary health care services and they tried to fulfill the manpower and also conduct the admission*." ***-Chief District Officer, Surkhet, Karnali Province***
Dead Body Management	In Thaha Municipality, DAO maintained the stock of PPE, so while handling the dead bodies; it was not difficult to get access to PPE. *DAO have made stock of 25-25 sets of PPE for dead body management. Now it is easily manageable in local level and is also easily available in market.* ***- Mayor, Thaha municipality,Bagmati Province***

Barriers of Implementing COVID-19 Policies, Guidelines and Directives

Issues	Barriers
Quarantine Management	The major barriers for quarantine facilities and management were lack of coordination between policy makers and implementers, unplanned management, lack of awareness on importance of self-quarantine, inadequate

	space and recreation facilities, negative feedback from public staying at quarantine, porous border and run over of people from quarantine centers due to lack of security, psychological stress and fear of death, unsafe allocation of quarantine centers, common and inadequate toilet facilities, risk of transmission of other communicable diseases from cross contamination, increased rate of contacts with positive cases and scarce resources**.** *"It is impossible to follow the guideline for quarantine management as we are using school for quarantine center which is not well facilitated. There are no adequate toilet facilities, drinking water facilities; even there is no sufficient room for the quarantine management. We used to provide just one bench per person. It was very hard to manage since there were around 7000 people per day entering from outside."* *"There is need for improvement of each and every aspect like infrastructure, adequate human resources etc. Earlier during crisis like flood and earthquake we used school for crisis management, but the current situation is different, there is a chance of infection from the Quarantine center itself. So, we need separate infrastructure for such type of crisis management."* ***-Chief District Officer, Morang district, Province-1*** According to the ward chairperson of Bagmati Province, location was one of the major obstacles faced. As quarantine was made in the residential area so people would not allow any halls to be built as quarantine centres within the area. There was social stigma in the community. *The main barrier is location of place, and lack of space. This place has high density and if we try to build quarantine centre general people will not allow. No matter how much we counsel them they don't agree with us. This has become very difficult for us to manage though we are trying.* ***- Ward Chairperson, Kathmandu Metropolitan City, Bagmati Province*** Due to the sudden increase in the number of foreign returnees, it created

	problem in the management of quarantine. *The proper management didn't take place as the population was more. We could not predict how much patient would be increased in a day. The whole karnali province was the entry point for Birendranagar so people from all the palikas, other palikas used to stay in the same quarantine. In the initial phase 800 people were managed in the quarantine. At the same time we encountered difficulties in the management.* ***-Mayor, BirendranagarMunicipality,Karnali Province***
Case identification and management	Because of the social stigma of COVID-19, people still hide the diseases from the society which created trouble in the identification of cases and it increases the risk of transmission of disease to the people living in the society. *"On the barriers side is that some people do their testing in private centres and then they get messaged regarding the positive test and they hide that from us as well. Because to that there is more possibility of transmission to others in society as well. I think it is main barrier."* ***-Ward Chairperson, Gokerneshwor Municipality, Bagmati Province*** *"Also the reports from the private lab are not reported. Almost 20 percent of the cases are hidden. Those who have doubt of being infected goes to give swab in private lab and many other people go for test on their own in private lab and we are unknown about it. The positive cases are not updated in our system due to these reasons so it is difficult to trace these kinds of cases*." ***-Health Focal Person, Mahalaxmi Municipality, Bagmati Province*** *"Social stigma towards COVID-19 was the barrier at the beginning but now, it is very common among people. People still have some level of anxiety, which is in decreasing process."* ***-Health Focal Person, Shankharapur Municipality, Bagmati province*** It would be quite easier to provide services if the case load was less however due to increased number of case load day by day, there were so many obstacles faced by patients such as unavailability of beds, ICUS, ventilators etc. It is also difficult to clearly demarcate the number of cases for contract tracing and

	to segregate the need of the test among the people. *"Barriers depend on the number of cases, which differ according to the situation. When the numbers of positive cases were low, there was need of searching more number of positive cases to minimize the risk of infection in the community. In that case, the main barrier was to identify and meet the respective positive cases. Now, the main barrier is to clearly demarcate the number of cases for contract tracing. Along with the increase in number of cases, anxiety among the people has increased due to which they were compelled for testing. In this situation, the main barrier is to segregate the need of test, i.e. exactly identifying which case need to be tested and which do not. Therefore, the main barrier is effective implementation of testing protocol."* ***-Health Worker, Patan Hospital, Bagmati Province*** Due to the less number of the human resources, it is even difficult to manage the severe cases and co-morbid cases. *"It is quite difficult to manage the severe cases and co- morbid cases. We do not have sufficient human resources to manage such cases in our isolation center and also there is problem in referral of the cases."* ***-Health Focal Person, Shankharapur Municipality, Bagmati Province*** There has been barrier for case identification due to lack of supplies, finance, human resource, overload of PCR testing, lack of information and sometime of faulty report *"Due to scarcity of reagent and unavailability of VTM machine, it had created problem twice for a week. After that municipality brought VTM machine made available but later, there was lack of reagent kit that created problem for one week. At that time, samples were sent to Kathmandu and Dhulikhel hospital to make testing as soon as possible. Now there is no scarcity, provincial government social development ministry, health directorate, federal government and local government have provided, it is running smoothly."* ***-Chief District Officer, Makwanpur District, Bagmati Province*** *"Sometime, there is scarcity of reagent/testing kit for PCR testing. Due to change in type of reagent or its availability, sometime it takes time to replace it*

	and verify for quality check. This had affected to delay in reporting and initiating treatment." ***-Health Worker, TUTH, Bagmati Province*** Lack of adequate resources made the management of cases very difficult. *"Our provincial hospital lacks some of the care such as Remdesivir and plasma therapy. As per the guidelines we are told to use Remdesivir and also the Remdesivir and plasma therapy are used in other provinces but not in ours."* ***-DCCMC Member, Surkhet District, Karnali Province***
Testing and Isolation	To work for the long hours by wearing PPEs and to take care of large number of patients made health workers exhausted which act as the barrier in providing services. *"It takes a lot of time for health workers to prepare for entering inside the isolation center like using PPE and all other safety measures. We have more than hundred patients inside the isolation centers. So, all of them get exhausted after taking round (investigation) of the patients. Investigation of more than hundred patients at a time, by wearing PPEs, made health workers too much exhausted, also there is limitation in communication among them, which is difficult in managing isolation centers."* ***-Health worker, Patan Hospital, Bagmati Province***
Contract Tracing	Most of the Local government committed to conducting contact tracing at their territory for identifying the suspected cases. They mobilized their elected people's representatives, community volunteers, health workers, and party cadres for case identification and contact tracing at the local level. People reported effective contact tracing was going in rural areas but It was more challenging in urban areas compared to rural areas. Most of the local governments have a shortage of human resources. Some of the local authorities have established the new Intensive Care Unit (ICU) and ventilator care facilities which were not operated due to the shortage of specialized and trained human resources.

	"It is challenging to track people staying at home isolation; there are not many cases outside of the valley. Before this, we had made a policy to reduce home isolation, but now the number of cases is increasing so we are focusing on home isolation, and people find more comfortable home isolation. Before sending people to home isolation, we collect their contact numbers and do the paper works." ***-Secretory, MoSD, Gandaki Province*** *"Till the report is not collected, according to the health protocol we ask them to stay in their place. After the report is collected, we inform them, then we ask them whether they can follow the national guidelines for the home quarantine or not. Those who are ready to follow the protocol can stay in home quarantine and those who cannot are called in our isolation and we look after them*." ***-Mayor,, Pokhara Metropolitan City, Gandaki Province*** *"A long time after the lockdown people started the movement for the food and shelter issue and increased the number of cases. While a large number of people were coming from India, it made it difficult to manage at the border and they worked as the transmitting agent."* ***- - SSP, District Police, Kaski, Gandaki Province***
Communication and Coordination	Attitude of the people and not having efficient communication mechanism among three tiers of government has been the barrier in coordination and to provide services to the people as per the need. *"There is a problem in coordination between ward, municipality and center health division. The reason is due to lack of any facility. There is not facility to treat 100 people in a day. In case of any problem we have to make a call from mobile. There is no proper coordination; institution claims it has done, province claims it has done along with the local level which also claims that it has done the work."* ***-Ward Chairperson, Kathmandu Metropolitan City, Bagmati Province***
Human Resources	Lack of specialized manpower is one of the main barriers in providing services. *"Our major problem is human resource. It's not in good condition. When talking about Anesthesist, in the whole province hospital we just have 2. We*

	have not been to use and mobilize them well during COVID. We have 3 physicians, and they are busy with their regular work in the hospital. We can keep them as on call duty only. Medical officers are there for 24 hours on duty. And we also do not have required number of nurses. Besides, for the cleaners as well, we have major issue." ***-Health Worker,, Province Hospital, Surkhet, Karnali Province*** Although government has made provision of providing incentives to the health workers, they are not getting incentives as per declarations so act as barrier for health workers for providing services. *"Execution was not better so WHO told to meet them later personally. Yet called all the people in the hospital and the meeting was held. We were stuck in the incentives. They didn't provid the incentives; they only forced to do the works. Written application was given to the municipality but still the incentive is not provided. Mayor also accepted the incentive is not provided in any cost. After that also no incentive is given."* ***-Health Worker,, Dullu Hospital, Karnali Province***
Dead Body Management	The major challenges faced were: there was a problem of locals disagreeing with the place of cremation, and there was a fear of getting infected. Additionally, managing vehicles and transportation was another challenge. As per the district CCMC member in Dhankuta district the local CCMC had made arrangements of vehicles for dead body management. However, driver has not been appointed. Since there are no deaths, he said that it was not a problem yet. However, they are mentally prepared to manage if there is any death. The Mayor and Ward Chair of Dhankuta Municipality emphasized that they have planned for a cremation site if there is any death in a nearby river which was decided by the committee formed from Dhankuta Municipality. *"The resources and the materials that we need are not enough.For now we have materials for managing only 10 dead bodies. If there are 20 deaths, then there is a problem of management. We have trained manpower but there is a*

	lack of resources with us". ***-Lieutenant Colonel, Nepal Army, Province 1*** Key informant of Bagmati Province revealed the only obstacle is to handle dead bodies. With the increasing death rate due to COVID-19, the demand for PPE is high, but its procurement is difficult. *"Dead body handling as far as I know there are no problems, the only problem is getting the protective equipment. Protective equipment are said to be provided from local government but it's very difficult to get. Logistic procurement is quite difficult; I don't know why it is so difficult even we have to fight for it sometimes.* *If we are not getting protective measures then dead body will be unmanaged. Earlier dead bodies were very few, that was not a huge task to manage but the scenario is different now. I think there are around 35 dead bodies still in Kathmandu. For the transportation of dead body we restructured heirs van (sab bahaan) and trucks of army were used."* ***Brig. Gen. CCMC, Chhauni, Bagmati Province*** The cultural values are not taken into consideration while managing dead bodies. There should be a separate department and infrastructure with involvement of health workers for management of dead bodies. *"Health workers should be assigned and separate department for managing dead bodies in the isolation centers should be made immediately.It would be better if there is a separate infrastructure for managing dead bodies."* ***-Nepal Police, Banke District, Lumbini Province***

Strength and weakness of COVID-19 Policies, Guidelines and Directives

	Strength	Weakness
	• Leadership and governance in building a health system for COVID-19	• Coordination between Federal, Provincial, and Local levels of

Province-1	response was facilitated by formation of District CCMC in Dhankuta, Morang district of Eastern Nepal. The teams were formed under the leadership of CDO with multidisciplinary team from various government bodies such as Municipalities, Police, Army, Health Focal Person etc as mentioned in the directives given by MOHP, Government of Nepal. • The local ambulances were changed by installing partition between driver and patient to carry COVID patients using local technique. • The state-level development budget was immediately reallocated to COVID management without waiting for central government funds to hasten the local government's response. • The local government also established an isolation center by separating beds from quarantine centers when the isolation capacity began to become full in the tertiary center. • In Dhankuta Municipality case identification and management were done through community involvement in the beginning of lockdown. The community members would inform the authorities about	government was difficult at the start of the crisis when every system was in chaos and did not know the right way to proceed which created confusion and mismatch. • There was lack of legal framework to implement plan and policies issued at the Local level. All the plans and policies and the guidelines were difficult to follow in the local context as it is not always possible to meet all the requirements. • The PCR servicewas a challenge in majority of districts. Dhankuta district coordinated with the provincial government in Province 1 to conduct its PCR test. However, there was delay of 2-3 days to get the reports. • Service provided in Covid hospitals lacked proper standards and guidelines. In some of the COVID hospitals, it was reported shortage of health personnel's, poor nursing and poor medical care in wards and ICU, delay in services, no provision of follow up and counseling, no provision of relaxation techniques, recreations and exercises, poor

	the newcomers in their neighborhood.	hospital environment, uncleansed rooms and wards, unclean surroundings, unclean and shortage of toilets facilities and no maintenance of instruments, air condition and the windows.
Province- 2	• Help desks were formed at airports and the borders. In the district level, District Covid-19 Crisis Management Committee was developed as per the guideline of the Government Nepal. • Major focus was given to the continuation of Safe motherhood services, management of acute on chronic conditions; immunization, longer period dispensing of family planning commodities; ARV, NCD medicines, mental health medicines, and TB and Leprosy drugs.The measures were taken to minimize hospital visits by people for minor health problems to avoid crowd and reduce over pressure to the health facilities.	• A district has more than 100 ambulances, but only few were allocated for carrying COVID Case. Ambulance drivers were not provided food and water during service hours. The private ambulances charged Rs.14, 000 to Rs.24, 000 to transport patient to Kathmandu. Transport was a challenging issue during the Covid-Pandemic. • PPEs were scarce in the beginning, currently PPE is available but it is still not adequate. Lack of ICUs, Ventilators and others equipment are challenging for COVID-19 case management due to over density of population.
Bagmati Province	• One focal person from each health center is responsible to update the information and email the number of fever cases admitted to center. This information helps to do risk analysis and management. • In Lalitpur, they didn't have any	• Due to overload of swab collection and more positive cases, it has been difficult to provide report on time. • The federal structure has responsibility to lead the pandemic response. Directions

	facilities of quarantine from the beginning. All COVID-19 patients stay at home isolation. All new cases are recoded on daily basis and are followed up every day for their place of stay and their health status. If one person in the family is positive, all the family members are asked not to go out of the house. Social workers also provide door to door service. • Budhanilkantha municipality has done a tremendous job; they are monitoring home isolation, medicine, providing foods to infected people, so that they don't come out of the house. The municipality is also taking support from Nepal Army. • Medical team from Thaha municipality have visited each and every house, and counseled them for proper technique of home quarantine in their toll. Medical doctor also did phone follow-up to them every day for 3-4 days and after 5-7 days they were suggested to do follow-up with doctor if they develop any symptoms. • Initially, hospital did not admit COVID-19 patient. Now, COVID-19 patient started being treated like other patients. • Initially, ambulance drivers used to avoid COVID-19 cases as possible. After COVID-19 cases increased	were given by the Ministry of Health and Population at central level. However, there is complainabout the poor communication, coordination and understanding between federal, provincial and local levels. There is still a confusion regarding role, responsibility and rights of 3 tiers of governments. • There is delay and insufficient supplies from center level. There is even lack of coordination between ward, municipality and center health division, and within stakeholders at local level. Therefore, it is difficult to implement the guideline in effective way as desired. • Some provincial and local governments have claimed that there is lack of coordination, unclear and unrealistic instructions from central level. Even though, guideline has reached to all level, it is unsure if everyone had read or understood it completely. • Sometime guideline is not practical, for example in testing guideline, it said "all

	everywhere, ambulance driver realized and they are providing services without hesitation. • From the starting days, to follow the lockdown, Suryabinayak municipality arranged vehicle and visited all toles and did miking about the situation and distributed brochure and pamphlets. People were made aware about the guideline about social and physical distance, hand washing with soap and used mask.	health care workers" but it didn't say either test should be done daily, weekly or monthly or after symptoms appears, it is not specific. It also didn't categorize health care workers. • There is unsatisfactory engagement of local NGOs in this pandemic as they are not supporting as expected, rather they are more involved in their own agenda. • The federal government has been financing the provincial and local governments for quarantine management, logistic management and upgrading of health facility. Center government send fund in Chief Minister (CM) office, it transfers to social development ministry office and from there it is transferred to hospitals and is lengthy process therefore sometime it needs to be done by verbal approval and assurance. The main principle is local government should prepare the budget and the provincial and the federal government should distribute it but the trend is vice versa and government

		have to find alternative solutions. There are challenges in fund transfer.
Gandaki Province	• In Quarantine management, the local government body played the primary role, and the provincial government helped them by providing financial support on quarantine set up and food supplies for the people staying in quarantine. • Social media and mass media are supporting communication and co-ordination means to connect with the concerned people and authorities. In Gandaki district, viber group named 'Samajik Bikas' was made to communicate with government bodies, Sanchar Samuha to communicate with all the CDOs, Gandaki Health for health officailas, Gandaki doctor for all hospital superintendents and Gandaki Ayurved for Ayurved Hospitals. There was regular communication in this group for addressing the situation. They also regularly held zoom Meeting. • For the cases of transportation and mobilization, sub-committee for mobilization of Ambulance was formed. All the ambulance had the rotation system to carry the cases from quarantine to isolation and	• Due to lack of infrastructure, test kits, and experience, it wasn't easy in the early phase, but now labs are available for case identification and management. • During the distribution of risk incentives, there is not uniformity however, provincial health directorate says they were trying their best to make it uniform. • According to the district police, at the initial stage, people were unaware of the pandemic and general procedure so it was very difficult to aware people. Similarly, at the initial stage, Nepal Police were also unaware of it and they had fear of COVID-19. After the regular briefing, the police team become active to aware people and did continue duty to implement the lowdown and travel restriction order of the Government. • As per the DAO, Initially, the shortage of staff was high.

	isolation to the hospital. This was managed by the Health Office and Nepal Red Cross team. At the initial stage, some ambulance denied carrying out the cases so they arrested and took legal action for them. Now there isn't issue with transportation and mobilization of the ambulance. • In Pokhara Metropolitan City, the assigned health personnel daily contact the people in the home isolation in daily basis. The health personnel have even provided the contact information to the people in home isolation, to contact them if they face any problem. • There wasn't any problem with the budget during the pandemic as they had allocated 33 Crore in the emergency fund and can transfer money within few hours if necessary at the operation level.	After discussion with social ministry now, new staffs has been hired and shifted from another district. But still, there is lack of trained human resources for the delivery of services
Lumbini Province	• In case of funds, after a month of COVID-19, Banke municipality had decided to provide food for the needy ones especially for the daily wages worker. Municipality transferred the fund from the different development programs allocated for the municipality. Also, they got some funds from the province level. As per the demand of place and situation, fund was	• The guidelines were not clear for contact tracing and had some gap which were revised in the province and made in Nepali which was then oriented to the CICT team with the help of EDP in every municipality. However, due to frequent change in guidelines and because of the priority to high risk groups the disease might

	transferred on time. • 4 temporary COVID hospitals were established in Lumbini province which included Dhago Kharkhana: Butwal, Beljundhi: Dang, Cancer Hospital: Nepalgunj, Bhim Hospital: Butwal. The hospital has 230 beds which were separated for COVID specialized hospital which has 34 ICUs and 12 ventilators. The private hospital runs 67 ICUs and 11 ventilators. • GPS and tracing system was installed in more than 60 ambulances so it would be easier to track them wherever they are. According to MoSD, In any case where transportation is required, they look at the GPS and find out the nearby ambulance. • In Banke, there are adequate numbers of health workers mobilized in all sectors. There are health workers 24 hour in all 4 isolation centers. There are health workers in health desks on the border and in quarantine centers. But the incentives that should have been given to them, is not given.	not get controlled. • Treatment guidelines are difficult to implement. Only masks are in adequate number, a set of gloves, PPE aren't available according to the requirement. Also there is crisis in the number of beds for the emergencies.
Karnali Province	• Orientation sessions were started at the beginning of the pandemic. Border at Dahi Khola was taken proper care. . Main entrance is from Dahikhola and Dailekh. So, health	• Due to frequent change in policy and guidelines, there was problem in managing COVID-19 cases. • There was shortage of test kit,

	desk was kept there and they recorded the detail information of the returnee along with their municipality name. Then, it was informed to the police for quarantine management of the returnees to their respective municipalities. • For t mask use, one day campaign was done, and those who did not agreed, were fined Rs.100. Also, transportation services and many other people who violated the preventive measures of COVID-19 and were carelessly operating their services have been fined. Since the lockdown till now, the province have accumulated more than 10 lakh rupees as the fine amount. • In the Karnali province, for the case admission and proper management it has COVID-19 dedicated hospital. The province has some well-equipped isolation centers in different districts as well.	and its arrangement should be done by local bodies, samples were overloaded in the lab and to manage this, the supply of the kits from upper level was less. • With the escalating cases, the team members were not enough for contact tracing as they had other workloads too. They did not have enough allowances for this contact tracing as other programs. In the same way, the changing guideline was another major issue in the province for the contact tracing
Sudurpaschim Province	• Though there is no channel among central, province and local level government but also Sudurpaschim province have made the multi-disciplinary team and mobilized it. All the activities are done by forming coordination and network among all	• There were lack of P.P.E, sanitizer, masks and gloves in all private sectors and in hospitals. Later some businessperson bought these necessary stuffs but they were sold in very high price. P.P.E

	88 local level governments. As a result there is somehow control on COVID- 19 pandemic in Sudhurpaschim Province. • In every municipality there is a disaster fund. In this fund the money given from different body like central government, province government, social worker, businessman, institution, organization and municipality itself is collected and mobilized at right time when it's needed. • To overcome the shortage of logistic, different level of government and non-government organizations (NGOs/INGOs) helped by providing necessary health materials to hospital staffs, health personal, ambulance driver and security personal. • Although, every issues related to cross border are handled by Nepal federal government in this pandemic.For the management holding center was built and they also managed food for the people at border. Some of the local villagers near border also helped by providing food to the people at border.	were sold up to 15/20 thousand rupees ,mask which usually cost 5/10 rupees were sold around 250 rupees and N95 mask were sold at 500rupees. • No problems are seen while managing the dead body as per guide line in Terai but its difficulty to manage the dead body according to the guidelines given hill regions. It is due to the lack of coordination and communication among center and province government. It is not mentioned in guide lines whether people are allowed to carry dead body as there is no transportation facility in village area. So the problems are seen while managing the dead body in village areas. The policies made on dead body management have not address village area.

Successful Case Studies and Innovative Measures

Success Story of the Quarantine Management (Case of Kusma Municipality, Parbat, Gandaki Province)

The Government of Nepal imposed the national-wide lockdown from Chaita 11, 2076 for preventing the COVID-19 transmission. Parbat district also decided to establish quarantine centers at the district headquarter Kusma. The DCMC Parbat decided to pool financial and health human resources from all seven Palikas to manage the quarantine centers. The DCMC started various quarantine centers in schools, colleges, and hotels and run effectively by applying a collaborative approach. At the time of lockdown, foreign returnees had been kept in the holding center in Pokhara and they were picked up by vehicle at quarantine centers and were sent to their Palika only after completing 14 days quarantine period. Food, lodging, and other basic services were provided at the quarantine centers and regularly observed and assessed by health workers as well. After 5 days of quarantine, swab samples were collected from all people and sent to the lab test. All people were kept in quarantine till the report was received from the laboratory and completing the 14 days. If the people got a positive report, they were sent to the isolation centers while others were sent to respective Palika by vehicle. Thery also coordinated with all Palikas for continuous monitoring and assessing the people who were returned from the COVID-19 affected countries and places. Those people who completed 14 days of quarantine without any symptoms were released from quarantine and requested to stay home quarantine for seven days. After completion of 7 days home quarantine, they could stay with their family members. Managing such quarantine centers was complicated, but the Parbat district did it effectively to prevent the COVID-19 transmission and address the pandemic. For this process, elected representatives worked effectively. However, after removing lockdown, movement of the people increased unexpectedly and as result, COVID-19 spread throughout the district gradually.

Successful Case Studies (Karnali Province)

In the remote district of the province, there are many examples of proper management of the cases. In the early stages, the tremendous number of returnees from India and other countries were well quarantined and tested. With the support of the local government and non-government bodies, they had well prepared the quarantine, tested them, and isolated them if required. Each and every one were recorded in the border district, dispersed them safely to their respective local authority. The proactiveness was the reason to maintain no COVID mortality in the district so far. With the proactive communication and co-ordination, now the district has its own dedicated COVID care center with ICU beds and ventilators, serving the critical patients there. The referral from the district was quiet

challenging, thus this availability had been a boon to the people living in such a remote district of Nepal. One of the INGO had posted general practitioner (MDGP) and he had been overall clinical coordinator for the district, and this was a specialized care for the people in such remote area. This had minimized the referral cases and saved several lives timely. The district was following the guidelines and protocols endorsed by the government of Nepal and adding their own resources as well to beat the impact of the COVID-19.

Major Gaps in Policy Audit

- The CCMC is not inclusive in terms of technical and public health knowledge of the pandemic. In a major crisis like COVID-19, party politics and other agendas need to come second to public health concern. CICT teams should be developed according to the population density of the people.

- Going through the first phases of COVID in our country, most of the COVID cases were from the India and other countries. Almost 90% cases had come from border countries. All those COVID cases had compulsion to stay in the quarantine. Difficulty in the management of people in the quarantine increases the mobility of people towards their community where they transfer the diseases to the local people.

- As the cases are increasing day by day, there are more problems in providing services to the people, such as problems in availability of beds, ICUS, oxygen, ventilators. Likewise patients also face several problems in receiving care such as unavailability of treatment services, lack of hospital beds, oxygen, ventilators etc. Not having the separate COVID-19 dedicated hospitals has also increased the risk of receiving care among the patients as it increases risk of transmission among them.

- There is the major gap in the identification of asymptomatic and people do not go to check if they do not have symptoms, hence it was difficult to locate and trace the cases and count the exact number. Lack of PCR test was the major problem for diagnosis. Additionally, denial by ambulance driver to carry COVID-19 positive cases was also one of the obstacles in effective case management.

- Guidelines developed from the federal level are beyond understanding of the local general people. Guideline is limited to policy level as it is difficult to understand even to the higher-level officials.

- Unclear roles and responsibilities of the federal, provincial and local government is one of the major gaps for COVID -19 management. Guidelines

developed at the federal level are not efficiently delivered to the local level. There is no proper mechanism of coordination and cooperation among three tiers of government.

- People have to wait for days to get their test results, and they are not informed about the Dos and Don'ts during the period between swab collection and the results.

- The current policy of self-payment for testing and isolation has discouraged the persons from testing and staying in the isolation centers

- There has been a very passive contract tracing and has not been done as per the guidelines.

- Some people still do not use face masks while walking in road, going in public places and using public transport. Among those who use, some do not use properly.

- In pivoting to provide COVID-19 related services, health system has been severely disrupted, with essential services including antenatal care, immunization, and institutional delivery being severely restricted or suspended against WHO recommendations.

- Shortage of health human resources was found in many study districts. Also even the available health workers are suffering from COVID-19 infection.

- Communication between federal and provincial government was inadequate. Socio-cultural and geographical location has challenged the effective communication.

- Although the issue of supplies and logistic were not reported seriously, quality issues were concerned as many health workers were getting an infection of COVID-19.

- Although the infrastructure has been upgraded but it is still inadequate in the present context of rising infection rates, especially in Kathmandu valley.

- The community engagement is relatively low in infection prevention and control related issues. High level of community engagement can decrease the social stigma and discrimination to infected persons and family.

- Community obstacles were reported in some districts that local people were not consulted while selecting place for dead body management. It was also reported that people wanted to pay the last respect to the deceased as per their religion.

Conclusion

A high-level coordination committee, i.e. Corona Crisis Management Committee (CCMC) was formed for COVID-19 prevention and control in Nepal. Leadership and governance in building a health system for COVID-19 response was facilitated by formation of District CCMC which was responsible for making major decision related to COVID-19 response and crisis in the district. MOHP, Government of Nepal produced numerous plans, policies, and guidelines for effective response for COVID-19. However, there was lack of legal framework to implement plans and policies issued at the local level. Participatory approach and regular consultation for developing and implementation of guidelines, policies and directives are very essential among all the three levels of government. Clear and realistic policy guideline and framework with proper instruction can direct central, provincial and local level. In the urgent need of coordination and collaboration with the private sector, it was found that there is not enough support from the private sector to the government sector. Also the development organizations have their own vested interest so they do not work as per the need of the government which created problem in coordination and collaboration and theirby in COVID-19 management.

The federal government has been financing the provincial and local governments for quarantine management, logistic management and upgrading of health facility. Initially local government had faced financial problems to manage quarantines and other emergency services for the infected persons. Fund itself was not the problem but its procurement at provincial level was an issue. In the fund established by Sudhurpaschim province, total 40 crores budget was collected which is given by businessman, social worker, parliaments and Nepalese living in foreign countries. The collected fund was given to local level governments by province for providing instant relief to the people who are highly affected by the pandemic. Fund has been allocated for risk allowance. But, it has been difficult to segregate the human resources who are actually involved in the providing services to COVID-19 patients and provide funds accordingly. In this pandemic, some health workers received risk allowance as a motivating factor to work. However, some health workers have disclosed that, despite their monthly salaries, they do not obtain any benefits.

Combating the pandemic requires strengthening accountability and the social contract between the state and its vulnerable citizens. Hence, political parties need to work together.

For transparency and accountability, all the informations such as details of expanses, details of patient's type, is needed to be uploaded to the open access area openly and shared to all the stakeholders.

All the quarantine centers were primarily managed by the local government. In some of the municipality, Nepal police also provided support and Health workers were involved in managing the facilities. But there was lack of hygiene/sanitation, human resources, and proper management of food supply in most of the quarantine centers. The major challenges faced for management of quarantine facilities were unavailability of adequate quarantine centers, sharing common rooms and toilets, convincing people to follow quarantine guidelines and safety precautions, decrease immunity of the people in quarantine due to lack of nutrition and daily increment of COVID-19 positive cases. Location of the quarantine was also one of the challenging factors as its establishment was in human settlement areait was bit challenging to manage the local people.

For the proper testing of the cases, swab was collected from both the suspected and confirmed cases, so that it would help in the identification of the cases. Swab collection was made to their local level as far as possible. However, there was problem in swab collection due to unavailability of the equipment, testing kits and PPEs along with delay in reporting of cases. Due to lack of resources (human resources, testing kits, and other essential equipments) test was not being done as per demand and also, there was average delay of 3-4 days in providing the report.

Every municipality has made the provisions of isolation centers. Simple symptomatic treatment facilities were also available to the patients. Along with this, home isolation centers were also promoted. Contact tracing is one of the indicators of identifying the cases. With the rapid increase of cases, it was difficult for CICT teams to function properly. Utilization of the public health professionals would be very useful for the smooth functioning of CICT.

Though, the government has a clear travel guideline. The guidelines for transportation management have not been followed. Initially, it was difficult to manage ambulance services. The number of ambulances was also not sufficient. Among the available ambulance services, ambulance drivers used to refuse to carry COVID-19 cases. With the increasing of cases these issues has been fixed. Also, the ambulance drivers were not aware of guidelines. In Lumbini Province, there is a system of GPS tracking installed in most of the ambulances

which makes it easier to track the ambulance through certain web applications, thus ambulances can be made available whenever required.

Lockdown and travel restriction declared by Nepal Government became one of the effective interventions to control the transmission of COVID-19. But the unplanned ending of the lockdown and the travel restrictions washed away all the measures taken during the lockdown and resulted in tremendous increase in the positive cases. Regarding the challenges faced during lockdown government could not address the issues of people of low socio-economic background. Additionally, people from India came in Nepal from other illegal channels rather than from border and could not be screened. This was a great challenge due to which the cases have increased.

The delivery of essential services was satisfactory and continued even during the lockdown. There was not any difficulties in providing services to non-COVID patients But in some of the provinces due to fear of mobility, the utilization of essential health services has been decreased. The other causes of the decline of regular health were lack of transportation, shortage of health-related human resources, low access to health facilities, and lockdown, and travel restriction.

There was not proper mechanism for the coordination and cooperation among three tiers of government. Also the roles and responsibilities of each level of government were not clear, which was the main challenge in management of the cases. Even being adequate health workers in the country, they are not being utilized properly. It was difficult to get supply and manage logistics especially Personal Protective Equipment's (PPEs) in the initial phase. The major challenge of PPE management was its quality. As different varieties of PPE was made available but there was no any lab for testing its quality. Community engagement in building trust in the government and health system response is found to be still low for the prevention and control of COVID-19.Dead Body Management responsibility was given to Nepal Army. Cultural perspective of people have affected management of dead bodies.

Lesson Learnt

- Improvement in coordination and communication based on the situation is crucial. There should be very good coordination in all three tiers of government. Strong coordination and communication mechanism for all the COVID-19 related activities with federal, provincial, and local Level with adequate planning and mobilization of resources, manpower and expertise is essential.

- In the crisis, the emergency unit should be formed in all 3 tiers of government with a specific roles and duties.

- Generally for the containment of COVID-19, we must work together and media must work rising above their sustainability and ideology. Hence, we can say we lack communication and coordination and the big lesson learnt from this pandemic is the risk communication.

- As a preparedness plan, there could be pre identification of safe place and management of the minimal infrastructure and resources for the quarantine facility in district or/ and municipality level in mass scale so that it would be easy to act immediately.

- There should be one leader with the capacity to lead the team for the proper care and management during such pandemic. Moreover, there should be pre-planning to tackle the pandemic which is difficult to face without preparation.

- It would have been better if there was availability of intermediate and separate room where unreported cases could be treated until they get confirm report. Other lab tests are not available due to lack of resources and might not affect case management but could affect patient's prognosis. It would have been better if there was separate lab facility for these patients.

- From public health perspective, if there were public health officers and team would work under public health officers then the work would have been quite smooth.
- Partner organizations could have provided more support. Relevant stakeholders, employees, policy makers and local leaders should also coordinate for situation to get better.

- Initially general people were unaware of Quarantine, its quality and function. After the guideline it was much easier however, the guideline could not be implemented due to unavailability of resources including human resources. Thus, adequate human and other resources are required to implement the guidelines. Moreover, proper planning, adequate staffing, incentives, insurances, and security to allocated staffs, pre-preparation to staffs for dealing with pandemics are needed to increase the effectiveness for the management of such pandemic.
- Building a temporary hall away from residential areas or community building in each ward which could have multipurpose use would be better than transferring schools and party palace to quarantine centers as major lesson learn for the management of quarantine.
- All the three tiers of Government should think seriously about such pandemic, many other epidemics might come in future so there should be plan of 100 bedded hospitals in local level rather than 20 bedded. Also, emphasis should be given on building community buildings.
- Active involvement of the local leader, social workers, and health workers along with engagement of community people can be helpful for making the contract tracing activities more effective.
- Electronic database system could be effective for such pandemic for contact tracing and management of data as and contact tracing and monitoring has been very weak and because of that I feel the data is not strong enough and well managed.
- The colonel from province 1 emphasized that lockdown and restriction of movement was a good step taken by the government. The government has tried its best to control COVID. The most important thing is society has to understand. Representative of people must make people understand about the situation. The individual themselves must be aware and responsible. Even after restriction of vehicles movement, there could not be effective implementation and the illegal movement of people in the vehicles used for emergency services and vehicles carrying vegetables and food grains continued.
- Sectorial Mitigation is the option to control the transmission of infection as lockdown could not function well in context of Nepal.

Opinion and Recommendation

Leadership and management: Experts of public health, medical, and behavioral science background would provide better ideas for the prevention and control of disease. The MoHP could form a multidisciplinary advisory team for context specific planning to control the transmission of COVID-19 and its management in Nepal.

Coordination: Although there is acoordination among three levels of governments, the present level of coordination is not adequate. In the federalization context, there should be clear roles and responsibilities of the federal, provincial and local government. Therefore, proper coordination among the federal, provincial and local government is very essential to combat with COVID-19 and such similar type of pandemic.

Transparent incentive policy: There should be transparency in the distribution of incentives provided to the health workers. Motivation package should be continued for the health workers who are actively working in COVID-19 management.

Importance of real time data: In order to manage the cases and to minimize the pandemic to some extent, exact and real time data are needed to be collected. Continuous monitoring of the data is very essential and digitalization of the information should be done. Therefore, more effort and budget should be spent on the data management. Database management system should be built in every local level for robust identification of people and residence in upcoming days.

Communication: The communication among different stakeholders should be strengthened, and the effective communication mechanism among three tiers of government should be developed to avoid duplication of work activities.

Contact tracing and case management: Contact tracing is one of the indicators to identify the cases. Government's decision on issuing fees for laboratory diagnosis for case identification and treatment of COVID-19 infected population increases the

tendency of not revealing about the infection thereby increases risk among the population. Therefore, lab diagnosis and treatment should be made free. Also, there should be at least 3 CICT teams in rural areas whereas, in urban areas, where the population density is high, there should be at least one CICT team in each ward of the municipality.

Training and resource management: Federal government should support the local government and strengthen them by providing necessary training, resources and funds on time for the overall management of such pandemic and more human resources should be provisioned as per the need of the health institutions.

Proper mobilization of resources, training the youth volunteers at local level for the COVID-19 prevention is must until the vaccine is available.

Infrastructure: Although the infrastructure has been upgraded but it is still inadequate. There should be at least one community building in each local level which can be used as quarantine; the building should be multipurpose so that it can be utilized for other purposes.

Logistic management and quality: There should be uninterrupted supply of reagent and testing kit for PCR testing and also there should be the mechanism for the quality monitoring of reagents/ testing kit for better test result as sometime there is scarcity of reagent/testing kit for PCR testing which has affected in delaying in reporting and initiating treatment.

Although different types of PPEs are made available, still there is problem in supply of PPE from federal and provincial level to local level, therefore all types of PPEs should be manufactured in local level and its quality and price should be ensured. There should be an appropriate mechanism for the quality check of PPEs. There should be stock of medical supplies for such type of pandemics with all level of government in upcoming days.

The quality issues of the logistics and supplies should be regularly monitored by the federal, provincial and local governments, as well as the various committee members as provisioned in the guidelines.

Case management: People who are in home isolation should be periodically monitored by the health workers. The local and provincial government should develop a mechanism for regular monitoring of the health status of the people staying in home isolation.

Due to delay in the report, there is chance of spread of disease. So, the test results should be provided as earliest, and the proper counseling should be given to suspected cases about the precaution to be followed between the period of swab collection and the test results.

Lockdown and travel restriction: Lockdown is one of the effective strategies to minimize the risk of transmission of disease therefore there should be strict implementation of guidelines and laws related with lockdown. Internal movement regulation is the key during lockdown period. Only essential services should be allowed, and non-essential services should be blocked. Favorism, political support, pass system should be discouraged. Sectorial mitigation strategy should be implemented. Applying sectorial lockdown for about 14 days in the high risk areas could help to identify the symptomatic cases of those areas, which can be treated and thus, reduces the rate of transmission of disease in the community.

Human resource management: Regardless of adequate human resources, still government is not able to utilize properly. It is not only the role of physicians, internal medical officers, critical care doctors or nurses to work for the management of COVID -19. Therefore, other health workers specialized in different areas such as skin specialist, radiologist, surgeons and many others should also be mobilized.

There should be at least one staff with public health / community medicine background in each local government level to coordinate such health emergencies in the future.

Community engagement: Security force, Mayor/local leaders, NGOs/INGOs, volunteer groups, local clubs, civil society members and the FM radio can play a vital role for proper community engagement and management for the prevention and control of infection, as well as to decrease the COVID-19 related stigma and discrimination. So they should work in integrated way to combat COVID-19 successfully. The FM radio would be helpful for proper community engagement in

infection prevention and control, as well as to decrease the COVID-19 related stigma and discrimination.

Dead body management: Community obstacles were reported in some districts that local people were not consulted while selecting place for dead body management. It was also reported that the people wanted to pay the last respect to the deceased as per their religion. The respective municipality should consult the local people and decide the place to bury the dead body. As long as the precautions are followed, the family members should not be denied for funeral rituals.

Public heath strategies: Innovative strategies for promoting the basic measures of COVID-19 prevention - use of face masks and physical distancing, and hand hygiene - should be promoted at the local context.

Preparation for emergency: Preparedness and readiness for anticipation of future pandemics and proper planning and management in every aspect in coming days. Adequate preparation at local government level to deal with health emergencies should be made in future days. The capacity of local government for disaster management and rescue/relief should be enhanced. Also, the amount of emergency fund allocated for disaster management/emergency should be increased at local level.

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Appendix

List of Policy, Guidelines and Directives

1. Infectious Disease Act, 1964
2. Case Investigation and Contact Tracing Team (CICTT) mobilization guidelines
3. COVID-19 Cases Isolation Management Guidelines
4. COVID-19 Patient Transport Team (PTT) Guidelines
5. Guidelines for use of PPEs in relation to COVID-19
6. COVID and Non COVID Health Services Guidelines during COVID-19
7. COVID-19 Clinical Management Guidelines
8. Guidelines for conduction and management of COVID-19
9. Interim guidelines for COVID and non COVID health services during COVID-19
10. Ayurveda and Alternative Medicine Guidelines of Preventive Measures and Management Protocol for COVID 19 in Nepal
11. Interim guidelines for the establishment & operationalization of molecular laboratory for COVID-19 testing in Nepal.
12. Updated Testing Guidelines for COVID-19
13. National testing guidelines for COVID-19
14. Guidelines on RT- PCR testing on COVID-19 services at private laboratory
15. Interim guidelines for environmental cleaning and disinfection.
16. Staff Mobilization Guidelines
17. Guidelines for feast and festivals during COVID-19 in Nepal
18. Nutrition rehabilitation center guidelines during COVID-19
19. Conduction of COVID-19 Unified hospital
20. Health provision for people in quarantine**.**
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23. Interim Guidance for RMNCH services in COVID-19 pandemic
24. Standard Operating Procedure for Case Investigation and Contact Tracing of COVID-19
25. Wondfo SARS-CoV-2 Antibody Test Procedure

26. Clinic Conduction procedure on COVID-19
27. Health sector emergency response plan - COVID-19
28. Management of Dead body due to COVID-19 Cases**.**
29. Preparation of disinfectant for hospital and community**.**
30. Health Criteria for COVID Patient in isolation
31. Criteria for health services for elderly people related to COVID-19 Disaster
32. Criteria of public health in COVID-19 pandemic and effective lockdown
33. COVID-19 Ko Sankramanko Upachar Bapat Hospitalai Aanuman Upalabdha Garaune Sambandi Aadesh, 2077
34. Nobel corona virus COVID-19 Handbook for health workers, 2076/2077
35. Interim pocket book of clinical management of COVID-19 in health care setting.
36. Pocket book for infection prevention and control measures for COVID-19 in the Healthcare Setting.

Conflict Resolution: Dead bodies management in Pokhara, Kaski

There is an old saying ‘there is good in every evil’ that can be used as a tiny consolation in this difficult and unexpected time of the pandemic. It was learned from the dead bodies' management of COVID-19 patient of Pokhara municipality that, we need unified responses to pandemics rather than diverse disconnected strategies. When there was a first death case by COVID-19 in the Pokhara Municipality army took the responsibility of its management and carried out the dead body to bury at the edge of the Seti River. However, local people were afraid and angered by the decision that the dead body was buried in their areas, thinking that this may transmit the disease. The army couldn't bury the case because of the disagreement of the local community. Recognizing its initial response errors local government took the initiative of dialogue and coordination with locals, health workers, police, army, and reached the agreement for the proper management of the dead body and local people were happy and helpful for the process. It showed that coordination communication and collaboration with all the stakeholders are key during a pandemic. Further, the existing health insurance institution, public health measures, and policies are inadequate and these require significant changes and improvements. We must continue to

build upon the lessons learned so far from the management of COVID-19 and adjust our approaches to this pandemic, and other future health and environmental crisis accordingly.

Experience of the recovered case

I am one of the recovered cases from COVID-19 infection. I came from abroad and I was requested for the PCR test. After I arrived from abroad, to control the chances of transmission to other people, I self-isolated myself for the first 3 days. On the 3rd day, I gave my sample for the PCR test. The sample was collected and tested in Gandaki Hospital. I traveled to the hospital in a taxi. My report was collected after a few days. And I was diagnosed as a COVID-19 patient.

After my test result came positive, the taxi driver who dropped me in the Gandaki hospital was called for the contact tracing. Even though I was asymptomatic, I was admitted to the Gandaki hospital for isolation. I was in isolation for about 5 days. During my hospital stay for isolation, I was provided with counseling services, they used to frequently ask about my health condition. They used to provide us with medicines if needed. The services provided in the hospital was good. On the 4th and 5th day of my stay, they took my sample for a PCR test and my test result came negative. I was discharged from the hospital. I was worried about being a COVID-19 patient. Since I was asymptomatic I didn't face any health difficulties.

I did not face any obstacles during my hospital stay. However, we were kept in one isolation room with 20-22 other COVID-19 infected cases. The room was congested and we are worried about our health condition. After I got discharged from the hospital, I was not provided with transportation facilities. That disappointed me. At least they could have arranged vehicles or ambulance for us to drop home safely. I was made aware of the COVID-19 infection and its safety measures, so I self-isolated myself in the home for about 14 days even if my test report was negative.

What sadden me are the people not being aware of the pandemic and its consequences. The people here in Nepal are not taking this coronavirus seriously. They are traveling in the crowded public buses, walking everywhere without safety measures. The public vehicles have also failed to adopt safety measures in their services. People need to act very seriously. The government must act very strictly to control the transmission. The government must warn people to follow the guidelines correctly and strictly.

Qualitative Guideline

Qualitative guidelines for policy analysis [(WHO Representative, Corona Crisis Management Centre (CCMC) Members, Director Epidemiology and Disease Control Division, Minister of Social Development, Chief District Officer, Member of District Level Crisis Management Center (DCMC), Mayor]

Socio-Demographic information

Full name……

Address

Province…….. District ……..

Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

Subject and context setting	**Guidelines**
Quarantine facilities and management	• Who are the stakeholders involved for providing quarantine facilities and its management? • Are the qualities of quarantine facilities maintained according to the guidelines prepared by the Government of Nepal, Ministry of Health and Population? If not, what are the challenges faced? [Probe: Initial phase of lockdown and afterwards]

	• What gaps need to be fulfilled for its improvement? • Are the available quarantine centers adequate enough to manage the cases? [Probe: Initial phase of lockdown and current situation] If not, what need to be done for its improvement? • Are the available quarantine centers properly managed? (Availability of basic facilities - mask, water and soap, drinking water, distancing, , Health workers, cleaning and disinfection, standards of quarantine, provision of ambulance in case of need) • Can you provide in detail about the lesson learnt for the management of quarantine facilities? [Probe: want went well and what did not]. • What can be done for the improvement of quarantine? Can you please suggest the areas that need to be addressed for its improvement? • What are the facilitators for quarantine facilities and its management? • What are the barriers for quarantine facilities and its management? • What kinds of plan can be made to cope with similar kinds of pandemic in future?
Case identification and management	• What are the provisions for PCR –Testing at the local level for the identification of cases? (adequate laboratory facilities at local levels) Is there a delay in PCR report? What is the average day of delay? • What are the provisions of isolation, treatment and management of the cases after being tested positive for COVID-19? • Are there any obstacles to COVID-19 patients for receiving care in hospitals? If yes, what are the obstacles faced?

	• What is the referral mechanism for the treatment of severe cases of COVID 19? • What are the facilitators for case identification and management? • What are the barriers for case identification and management? • What are the lessons learnt from case identification and management? • What are the obstacles to the hospitals for providing services to COVID-19 patients? (Probe: PCR Testing kits, RNA Extractor, kit including VTM, availability of human resources)
Case Investigation and Contact Tracing	• Can you please elaborate us about case investigation and contact tracing process in municipal level, provincial level and federal level? Are electronic data base maintained? • Is contract tracing done following the guidelines (sample collection, counseling, monitoring and supervision of cases)? If not, what are the reasons behind it? • What are the facilitators in case investigation and contact tracing? • What are the challenges faced during case investigation and contract tracing process? • Can you provide in detail about lesson learnt for investigating the case of COVID-19 and contract tracing? • What improvements are needed to make case investigation and contract tracing more effective in future to cope with similar kind of pandemic?
Human resources	• Are the health workers mobilized for providing services to COVID-19 patients adequate in all sectors? (Hospital setting, quarantine centers, isolation centers

	laboratories)? If not, why? • What are the challenges to health workers for providing services (probe: Health hazards, availability of equipments-PPE, laboratory test kits) • Are adequate human resources (doctors, nurses including paramedics, FCHVs) mobilized for the management and prevention of COVID-19? If not, what types of human resources are needed to manage and control the disease? • Do the health workers getting facilities according to the guidelines? If not, why? • What facilities need to be provided for the motivation of human resources to work in this pandemic?
Communication and coordination	• Can you tell us about communication and coordination process on COVID-19 issues? (proper and timely internal communication and coordination in between MoHP and its line agencies) • What is the existing mechanism of communication among various stakeholder related to COVID-19? • Is there proper communication and coordination among three tiers of government (federal/provincial and local levels) if not, what are the reasons behind poor communication and coordination? • How is the cross border coordination and cooperation being done? • Policies and guidelines on different areas of COVID-19 have been developed. Are these policies/ guidelines being properly informed and implemented to the local levels? If not, what are the gaps in communication? • What are the facilitators for communication and coordination mechanism? • What are the barriers for communication and coordination mechanism?

	• What are the lessons learnt from communication and coordination mechanism from this pandemic? • How are the lab results being communicated and coordinated among the stakeholders? • What strategy should be implemented for the better communication and coordination between different stakeholders?
Lockdown/Travel Restriction	• Has lockdown/travel restriction set by government implemented according to the protocol? [Initial phase of lockdown, and afterwards]If not, what are the reasons behind poor implementation? • What are the facilitators for lockdown/Travel restriction implementation? • What are the challenges faced during implementation of lockdown/travel restriction? • What are the reasons behind increasing number of the cases of COVID-19 in-spite of lockdown/travel restriction? • Can you share you experience of lockdown/travel restriction done for the control of COVID-19 cases? What improvements are needed to effectively implement lockdown/travel restriction to cope with similar kind of pandemic in future?
Fund transfer	• How the fund is being transferred to the provincial and local level for the management of COVID-19 (Was the fund transferred in time? If not, what were the problems and what can be done for the betterment? • Is the current mechanism of fund transfer working properly? If not, what are the other best options? • What are the facilitators for fund transfer? • What are the barriers for fund transfer?
Community Engagement and Risk	• Who are the stakeholders involved in community engagement and risk communication? How is each of

Communication	the stakeholders functioning? • What are the facilitators for implementing the guidelines of community engagement and risk communication? • What are the barriers for implementing the guidelines of community engagement and risk communication? • What are the experiences obtained during implementation of guidelines? What needs to be improved in the guidelines to implement it effectively?
Treatment/ transportation management	• Are the guidelines followed on delivering treatment of COVID-19 and other health services? If not, why the treatment is not provided according to the guidelines? • What are the facilitators in implementing the treatment guidelines? • Can you please suggest us, what can be done immediately for the better treatment management and the practical suggestions for the similar kind of pandemic? • Are the guidelines followed to transport COVID-19 patients to hospital? If not, why the transport guidelines are not being followed? • Can you elaborate about the challenges faced to follow the guidelines? • What can be done immediately for the better transport management and please provide us the practical suggestions for the similar kind of pandemic?
Use of PPE and its management	• Are the guidelines set for the use of Personal Protective Equipment (PPE) in the context of COVID-19 being properly implemented? If not, what are the reasons for the poor implementation? • What are the facilitators for implementing the guidelines on the use of Personal Protective Equipment (PPE) in the context of COVID-19?

	• What are the barriers for implementing the guidelines on the use of Personal Protective Equipment (PPE) in the context of COVID-19? • What are the lesson learnt for use of PPE and its management? • Can you tell us, what can be done immediately for the better management of PPE?
Dead bodies management	• Please tell us about the compliance of guideline for the management of the bodies of people who died due to COVID-19. • What are the facilitators for implementing the guidelines for the management of the bodies of people who died due to COVID-19? • What are the barriers for implementing the guidelines for the management of the bodies of people who died due to COVID-19? • What can be done immediately for the better management of dead bodies of people? • What are the challenges faced while handling the dead bodies? • Please provide us the practical suggestions for the similar kind of pandemic

Special questions to be asked for MOHP:

- Have there been any changes in Guidelines? If yes, which Guidelines were changed?
- What were the reasons for change?
- In your opinion, what kinds of plan can be made to cope with similar kinds of pandemic in future?

Qualitative guidelines for policy analysis (Health focal person of *Palika)*

Socio-Demographic information

Full name……

Address

Province…….. District ……..

Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

Quarantine facilities and management	• Who are the stakeholders involved for providing quarantine facilities and its management? • Has there been coordination between the province and local government? • Are the qualities of quarantine facilities maintained according to the guidelines? If not, what are the challenges faced? What gaps need to be fulfilled for its improvement? • Are the available quarantine centers adequate enough to manage the cases? If not, what need to be done for its improvement? • Are the available quarantine centers properly managed? (Availability of basic facilities, Logistics , Health workers, cleaning and disinfection, standards of quarantine) [Initial phase and afterwards] • Can you provide in detail about the lesson learnt for the management of quarantine facilities? What kinds of

	plan can be made to cope with similar kinds of pandemic in future? • What can be done for its improvement? • What are the facilitators for quarantine facilities and management? • What are the barriers for quarantine facilities and management? • What are the lessons learnt for managing quarantine facilities? • Can you please suggest the areas that need to be address for its improvement?
Case identification and management	• What are the provisions for PCR –Testing at the local level for the identification of cases? (adequate laboratory facilities at local levels) Is there a delay in PCR report? What is the average day of delay? • What are the provisions of isolation, treatment and management of the cases after being tested positive for COVID-19? • Are there any obstacles to COVID-19 patients for receiving care in hospitals? If yes, what are the obstacles faced? • What is the referral mechanism for the treatment of severe cases of COVID 19? • What are the facilitators for case identification and management? • What are the barriers for case identification and management? • What are the lessons learnt from case identification and management? • What are the obstacles to the hospitals for providing services to COVID-19 patients? (Probe: PCR Testing kits, RNA Extractor, kit including VTM, availability of human resources)

Case Investigation and Contact Tracing	• Can you please elaborate us about case investigation and contact tracing process in municipal level, provincial level and federal level? Are electronic data base maintained? • Is contract tracing done following the guidelines (sample collection, counseling, monitoring and supervision of cases)? If not, what are the reasons behind it? • What are the facilitators in case investigation and contact tracing? • What are the challenges faced during case investigation and contract tracing process? • Can you provide in detail about lesson learnt for investigating the case of COVID-19 and contract tracing? • What improvements are needed to make case investigation and contract tracing more effective in future to cope with similar kind of pandemic?
Human resources	• Are the health workers mobilized for providing services to COVID-19 patients adequate in all sectors? (Hospital setting, quarantine centers, isolation centers laboratories)? If not, why? • What are the challenges to health workers for providing services (probe: Health hazards, availability of equipments-PPE, laboratory test kits) • Are adequate human resources (doctors, nurses including paramedics, FCHVs) mobilized for the management and prevention of COVID-19? If not, what types of human resources are needed to manage and control the disease? • Do the health workers getting facilities according to the guidelines? If not, why? • What facilities need to be provided for the motivation

	of human resources to work in this pandemic?
Communication and coordination	• Can you tell us about communication and coordination process on COVID-19 issues? (proper and timely internal communication and coordination in between MoHP and its line agencies) • Is there proper communication and coordination among three tiers of government (federal/provincial and local levels) if not, what are the reasons behind poor communication and coordination? • How is the cross border coordination and cooperation being done? • Policies and guidelines on different areas of COVID-19 have been developed. Are these policies/ guidelines being properly informed and implemented to the local levels? If not, what are the gaps in communication? • What are the facilitators for communication and coordination mechanism? • What are the barriers for communication and coordination mechanism? • What are the lessons learnt from communication and coordination mechanism? • How are the lab results being communicated and coordinated among the stakeholders? • What strategy should be implemented for the better communication and coordination different stakeholders?
Treatment management	• Are the guidelines followed on delivering treatment of COVID-19 and other health services? If not, why the treatment • What are the facilitators in implementing the treatment guidelines? • What are the barriers in implementing the treatment guidelines?

	• Can you please suggest us, what can be done immediately for the better treatment management and the practical suggestions for the similar kind of pandemic?
Use of PPE and its management	• Are the guidelines set for the use of Personal Protective Equipment (PPE) in the context of COVID-19 being properly implemented? If not, what are the reasons for the poor implementation? • What are the facilitators and barriers for implementing the guidelines on the use of Personal Protective Equipment (PPE) in the context of COVID-19? • Can you tell us, what can be done immediately for the better management of PPE?

Qualitative guidelines for policy analysis (Health Workers working for COVID-19 infected persons (Doctors/Nurses / Paramedics)

Socio-Demographic information

Full name……

Address

Province…….. District ……..

Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

Quarantine facilities and management	• Are the qualities of quarantine facilities maintained according to the guidelines? If not, what are the challenges faced? What gaps need to be fulfilled for its improvement? • Are the available quarantine centers adequate enough to manage the cases? If not, what need to be done for its improvement? • Are the available quarantine centers properly managed? (Availability of basic facilities, Logistics , Health workers, cleaning and disinfection, standards of quarantine) • What are the facilitators for quarantine facilities and management? • What are the barriers for quarantine facilities and management? • Can you please suggest the areas that need to be address for its improvement?
Case Identification and Management	• What are the provisions for PCR –Testing at the local level for the identification of cases?(adequate laboratory facilities at local levels) Is there a delay in PCR report? What is the average day of delay? • What are the provisions of isolation, treatment and management of the cases after being tested positive for COVID-19? • Are there any obstacles to COVID-19 patients for receiving care in hospitals? If yes, what are the obstacles faced? • What is the referral mechanism for the treatment of

	severe cases of COVID 19? • What are the facilitators for case identification and management? • What are the barriers for case identification and management? • What are the lessons learnt from case identification and management? • What are the obstacles to the hospitals for providing services to COVID-19 patients? (Probe: PCR Testing kits, RNA Extractor, kit including VTM, availability of human resources)
Case Investigation and Contact Tracing	• Can you please elaborate us about case investigation and contact tracing process in municipal level, provincial level and federal level? Are electronic data base maintained? • Is contract tracing done following the guidelines (sample collection, counseling, monitoring and supervision of cases)? If not, what are the reasons behind it? • What are the facilitators in case investigation and contact tracing? • What are the challenges faced during case investigation and contract tracing process? • Can you provide in detail about lesson learnt for investigating the case of COVID-19 and contract tracing? • What improvements are needed to make case investigation and contract tracing more effective in future to cope with similar kind of pandemic
Human resources	• Are the health workers mobilized for providing services to COVID-19 patients adequate in all sectors? (Hospital setting, quarantine centers, isolation centers laboratories)

	• What are the challenges to health workers for providing services (probe: Health hazards, availability of equipments-PPE, laboratory test kits)
Treatment management	• Are the guidelines followed on delivering treatment of COVID-19 and other health services? If not, why the treatment • What are the facilitators and barriers in implementing the treatment guidelines? • Can you please suggest us, what can be done immediately for the better treatment management and the practical suggestions for the similar kind of pandemic?
Use of PPE and its management	• Are the guidelines set for the use of Personal Protective Equipment (PPE) in the context of COVID-19 being properly implemented? If not, what are the reasons for the poor implementation? • What are the facilitators for implementing the guidelines on the use of Personal Protective Equipment (PPE) in the context of COVID-19? • What are the barriers for implementing the guidelines on the use of Personal Protective Equipment (PPE) in the context of COVID-19? • What are the lesson learnt for the use of PPE and its management? • Can you tell us, what can be done immediately for the better management of PPE?

Qualitative guidelines for policy analysis (Nepal Police/Army)

Socio-Demographic information

Full name……

Address

Province…….. District ……..

Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

Lockdown/Travel Restriction	• Has lockdown/travel restriction set by government implemented according to the protocol? If not, what are the reasons behind poor implementation? • What are the facilitators for lockdown/Travel restriction implementation? • What are the challenges faced during implementation of lockdown/travel restriction? • What are the reasons behind increasing number of the cases of COVID-19 in-spite of lockdown/travel restriction? • Can you share you experience of lockdown/travel restriction done for the control of COVID-19 cases? What improvements are needed to effectively implement lockdown/travel restriction to cope with similar kind of pandemic in future?
Dead bodies management	• Please tell us about the compliance of guideline for the management of the bodies of people who died due to COVID-19. • What are the facilitators for implementing the guidelines for the management of the bodies of people

	who died due to COVID-19? • What are the barriers for implementing the guidelines for the management of the bodies of people who died due to COVID-19? • What are the challenges faced while handling the dead bodies? • What can be done immediately for the better management of dead bodies of people and please provide us the practical suggestions for the similar kind of pandemic?

Qualitative guidelines for policy analysis (School teacher/Social worker)

Socio-Demographic information

Full name……

Address

Province…….. District ……..

Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

Quarantine facilities and management	• Who are the stakeholders involved for providing quarantine facilities and its management? • Are the qualities of quarantine facilities maintained according to the guidelines? If not, what are the

	challenges faced? What gaps need to be fulfilled for its improvement? • Are the available quarantine centers adequate enough to manage the cases? If not, what need to be done for its improvement? • Are the available quarantine centers properly managed? (Availability of basic facilities, Logistics , Health workers, cleaning and disinfection, standards of quarantine) • Can you provide in detail about the lesson learnt for the management of quarantine facilities? What kinds of plan can be made to cope with similar kinds of pandemic in future? • What can be done for its improvement? • What are the facilitators for quarantine facilities and management? • What are the barriers for quarantine facilities and management? • Can you please suggest the areas that need to be address for its improvement?
Case Investigation and Contact Tracing	• Can you please elaborate us about case investigation and contact tracing process in your respective area? Are electronic database maintained? • Is contract tracing done following the guidelines (sample collection, counseling, monitoring and supervision of cases)? If not, what are the reasons behind it? • What are the facilitators in case investigation and contact tracing? • Can you tell us about the challenges faced during case investigation and contract tracing process? • What improvements are needed to make case

	investigation and contract tracing more effective in future to cope with similar kind of pandemic?
Lockdown/Travel Restriction	• Has lockdown/travel restriction set by government implemented according to the protocol? If not, what are the reasons behind poor implementation? • What are the facilitators for lockdown/Travel restriction implementation? • What are the challenges faced during implementation of lockdown/travel restriction? • What are the reasons behind increasing number of the cases of COVID-19 in-spite of lockdown/travel restriction? • Can you share you experience of lockdown/travel restriction done for the control of COVID-19 cases? What improvements are needed to effectively implement lockdown/travel restriction to cope with similar kind of pandemic in future?
Community Engagement and Risk Communication	• Who are the stakeholders involved in community engagement and risk communication? How is each of the stakeholders functioning? • What are the facilitators for implementing the guidelines of community engagement and risk communication? • What are the barriers for implementing the guidelines of community engagement and risk communication? • What are the experiences obtained during implementation of guidelines? What needs to be improved in the guidelines to implement it effectively?

Qualitative guidelines for policy analysis (Ambulance driver)

Socio-Demographic information

Full name……

Address

Province…….. District ……..

Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

Transportation management	• Can you tell us about the challenges you face while transporting COVID-19 patients? • Do you have knowledge regarding donning and doffing of PPEs while handling COVID-19 patients and also tell us about the adequacy of the PPEs? • Do you have any idea on the guidelines that has been set by MoHP for the transportation management of COVID-19? If yes, are the guidelines followed to transport COVID-19 patients to hospital? • If guidelines have not been followed, what are the reasons for not following the transport management guidelines? • Can you elaborate about the challenges faced to follow the guidelines? • What can be done immediately for the better transport management and please provide us the practical suggestions for the similar kind of pandemic?

Qualitative guidelines for policy analysis (COVID-19 recovered patients)

Socio-Demographic information

Full name……

Address

Province…….. District ……..

Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

Case identification and treatment	• How did you know about your infection? What did you do to control the transmission in the family and community? • Where did you receive the treatment and how was the treatment process including counseling process? • How was the management of the facilities (quarantine, isolation/hospital) you stayed during the period of COVID-19? • Did you face any obstacles while seeking treatment for COVID-19? If yes, Can you tell us about the obstacles faced • How the services at the hospital were [ask this question those who were admitted in Hospital after diagnosis of COVID-19]? • Based on your experience, can you provide suggestions on improving the treatment facilities (e.g. at the hospital) • In your opinion, what could be done to manage the

	COVID-19 infection(probe: responsibility of Government and people themselves)

Guidelines to present the successful case study and measures adopted

Socio-Demographic information

Full name……

Address

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Municipality / Rural municipality …… Ward number…….

Tole…….

Educational status……

Occupation ……

Name of the organization…….

Address of the organization…….

Position in the organization……

1. Where did you identify the first case of COVID-19? And how was it identified?
2. Can you tell us about the approach for case investigation and contact tracing?
3. How was the community participation for the management of COVID-19? (Probe: Community people support, role of social worker…….)
4. How was Quarantine and isolation centers managed?
5. What was the procedure of treatment for COVID-19 patients?
6. Can you tell us about the other measures that were adopted to tackle the cases of COVID-19?
7. With the decreasing number of cases, what other intervention were implemented to control the spread of COVID-19 cases?
8. In your view, what do you think is your strong point and set as an example of success stories in controlling the cases of COVID-19 in compared to the other parts of Nepal?

9. Would you like to provide suggestions for the prevention and control of such pandemic in future?

Nepali Qualitative Guideline

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dfga ;|f]t	• COVID-19 la/fdLsf nflu ;]jf pknAw u/fpg ;a} lf]qdf :jf:YosdL{x? kl/rfng ePsf 5g\<- k|f]aM c:ktfn, Sjf/]G6fOg s]G›, cfO;f]n]zg s]G› k|of]uzfnf_ olb 5}g eg] lsg< • :jf:YosdL{x?n] ;]jf k|bfg ug{sf nflu s]—s:tf r'gf}tLx?sf] ;fdgf ug{' k/]sf] 5<-k|f]aM :jf:Yosf] hf]lvd (health hazards) :jf:Yo pks/0fsf] pknAwtf JolQmut ;'/lffsf pks/0f k|of]uzfnf hf+r ls6\; (availability of equipments, PPE, laboratory test kits) • COVID-19Joj:yfkgsf nflu kof{Kt hgzlQm (doctors,nurse, paramedics) kl/rfng ePsf 5g\< olb 5}gg\ eg], /f]u

	lgoGq0f ug{ yk s:tf hgzlQm kl/rfng ug{ cfjZos 5 < • s] :jf:YosdL{x?n] lgb{]lzsf cg';f/sf] ;'lawf kfPsf 5g\<obL 5}g eg], ;'ljwf gkfpg'sf] sf/0fx? s] s] x'g\ < • COVID-19 sf] Joj:yfkgdf h'6]sf :jf:yosdL{ tyf hg:jf:YosdL{ x?nfO{ sfd ug{ k|f]T;flxt u/fpgsf] lglDt yk s] s:tf ;'ljwfx? lbg' cfjZos 5 <
;+rf/ tyf ;dGjo	• COVID-19 sf] ;+rf/ tyf ;dGjo k|s[ofsf] ljifodf xfdLnfO{ atfO{lbg'xf];\ -k|f]aM :jf:Yo tyf hg;+Vof dGqfno / To;sf dftxtsf lgsfox? lardf plrt / ;dod} x'g] cfGtl/s ;dGjo_ • COVID-19 sf] ;Gbe{df ljleGg ;/f]sf/jfnf lgsfox? aLr xfn ;~rf/ tyf ;dGjog s;/L x'g] u/]sf] 5 < • ltg} txsf] ;/sf/ -;+l3o, k|fb]lzs / :yflgo_ sf lardf plrt / k|efjsf/L ;dGjo ePsf] 5 <olb 5}g eg] plrt / k|efjsf/L ;dGjo gx'g'sf] sf/0f s] xf]nf< • COVID-19 ljifodf laleGg gLlt tyf lgb]{lzsfx? ag]sf 5g\ . :yfgLo :t/df oL gLlt tyf lgb]{lzsfx?af/] plrt ¿kdf hfgsf/L eO/x]sf] 5< olb 5}gg\ eg], hfgsf/L gx'g'sf] sf/0fx? s] s] x'g ;S5g\ < • ;+rf/ tyf ;dGjosf ;xh sf/stTjx? s] s] x'g\\< • ;+rf/ tyf ;dGjosf afws sf/stTjx? s] s] x'g\\< • tkfOn] k|of]uzfnf af6 k|fKt ePsf gtLhfx¿ s;/L ;/f]sf/jfnf lgsfo aLr ;~rf/ / ;dGjo ul//xg' ePsf] 5< • :yfgLo :t/df oL gLlt tyf lgb]{lzsfx? plrt ¿kdf sfof{Gjog eO/x]sf] 5 < olb 5}gg\ eg], sfof{Gjog gx'g'sf] sf/0fx? s] s] x'g ;S5g\ < • xfnsf] dxfdf/Lsf] kl/l:yltdf, ;+rf/ tyf ;dGjosf] lf]q af6 s:tf] l;sfO{ /Xof]< • ljleGg ;/f]sf/jfnf lgsfox? aLr k|efasf/L ;+rf/ / ;dGjo ug{sf nflu cfjZos /0flgltx? s] x'g ;Snfg\<
Lockdown/ofqfdf k|ltjGw	• s] ;/sf/åf/f ul/Psf] Lockdown/ofqfdf k|ltjGw lgod cg';f/ nfu' ul/Psf] 5< -Lockdown/ofqfdf k|ltjGwsf] ;'?jftdf / kl5_ olb 5}g eg], sfof{Gjog gul/g'sf] sf/0fx? s] s] x'g ;S5g< • Lockdown/ofqfdf k|ltjGw sfof{Gjog ug{sf nflu ;xh sf/stTjx? s] s] x'g\< • Lockdown/ofqfdf k|ltjGw ul/Psf]] ;dodf s] s:tf r'gf}ltx?sf] ;fdgf ug{' k/]sf] lyof]< • Lockdown jf ofqfdf k|ltjGw ul//xbf klg ;+qmldtsf] ;+Vof al9 /xg'sf] sf/0f s] s] x'g ;S5g\<

	• COVID-19 lgoGq0f sf] nflu ul/Psf] ns8fpg / ofqfdf k|ltaGwsf] cg'ej s:tf] /Xof] < elj:odf o:t} dxfdf/Lsf] sf/0f ns8fpg / ofqfdf k|ltaGw ug{' k/]df o;nfO{ k|efjsf/L ¿kdf sfof{Gjog ug{sf nflu s:tf] ;'wf/ ug{ cfjZos 5 <
sf]if / /sd :yfgfGt/0f	• COVID-19 sf] Jojf:yfkgsf] nflu k|fb]lzs / :yfgLo txdf sf]if / /sd :yfgfGt/0fs;/L x'g] u/]sf] 5 < • s] sf]if/ /sd :yfgfGt/0f;dodfg} x'g] u/]sf] 5 <obL 5}g eg], gx'g'sf] sf/0fx? s] s] x'g\ / o;sf] ;'wf/ sf] nflu s] ug{ ;lsG5< • s] sf]if / /sd :yfgfGt/0fsf] jt{dfg ;+oGqn] 7Ls;Fu sfd ul//x]sf] 5< obL 5}g eg], /sd :yfgfGt/0fsf] j}slNks pkfox? s] s] x'g ;S5g\<
;d'bfosf] ;+nUgtf tyf hf]lvd ;+rf/	• ;d'bfosf] ;+nUgtf tyf hf]lvd ;~rf/df ;+nUg ;/f]sf/jfnf lgsfox? s'g s'g x'g\\< k|To]s ;/f]sf/jfnf lgsfox?n] s;/L sfd ul//x]sf] 5< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ug{sf nflu ;xhsf/stTj s] s] x'g\\< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ug{sf nflu afws sf/stTj s] s] x'g\\< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ubf{ /x]sf] cg'ejsf] af/]df xfdLnfO{ lj:t[t ?kdf atfO{ lbg'xf];. o; lgb]{lzsfnfO{ k|efjsf/L ¿kdf sfof{Gjog ug{sf nflu s] s:tf ;'wf/ ug{ cfjZos 5< • ;d'bfosf] ;+nUgtf tyf hf]lvd ;~rf/df ;+nUg ;/f]sf/jfnf lgsfox? s'g s'g x'g\\< k|To]s ;/f]sf/jfnf lgsfox?n] s;/L sfd ul//x]sf] 5< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ug{sf nflu ;xh sf/stTj s] s] x'g\\< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ug{sf nflu afws sf/stTj s] s] x'g\\< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ubf{ /x]sf] cg'ejsf] af/]df xfdLnfO{ lj:t[t ?kdf atfO{ lbg'xf];\ . o; lgb]{lzsfnfO{ k|efjsf/L ¿kdf sfof{Gjog ug{sf nflu s] s:tf ;'wf/ ug{ cfjZos 5<
pkrf/ / oftfoft Joj:yfkg	• s] COVID-19 sf] pkrf/ / cGo :jf:Yo ;]jfx¿ k|bfg ug{ lgb]{lzsfx? kfngf ePsf 5g\< olb 5}gg\ eg], o:tf lgb]{lzsfx? kfngf x'g g;Sg'sf] d'Vo sf/0f s] /x]sf 5g\< • pkrf/ lgb]{lzsfx? nfu" ug{sf nflu ;xh sf/stTjx? s] s] x'g\<

	• pkrf/ lgb]{lzsfx? nfu" ug{sf nflu afws sf/stTjx? s] s] x'g\ < • COVID-19 n] lbPsf] cg'ejsf] cfwf/df, /fd|f] pkrf/ k|aGwsf] nflu tTsfn s] ug{ ;lsG5 / eljiodf o:t} lsl;dsf] dxfdf/L ePdf pkrf/ cem Jojl:tt s;/L ug{ ;lsG5 elg Jofjxfl/s ;Nnfx lbg'xf];\ < • s] COVID-19 sf la/fdLx¿nfO{ c:ktfn k'of{pg sf] nflu lgb]{lzsf kfngf ePsf 5g\< obL 5}gg\ eg], ;f] lgb]{lzsf kfngf gx'g' sf] sf/0f s] x'g\< • lgb]{lzsfx¿ kfngf ug{ u/fpg s:tf r'gf}ltx¿ cfP<lj:t[t ?kdf atfO{ lbg'xf];\ < • COVID-19 n] lbPsf] cg'ejsf] cfwf/df, Jojl:tt oftfoft k|aGwsf] nflu t'¿Gt s] ug{ ;lsG5 / eljiodf o:t} lsl;dsf] dxfdf/L ePdf cem Jojl:tt oftfoftsf] k|aGw s;/L ug{ ;lsG5 elg Jofjxfl/s ;Nnfx lbg'xf];\<
kL kL O{ (PPE)sf] k|of]u / o;sf] Joj:yfkg	• COVID-19sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? ;xL ¿kdf sfof{Gjog eO/x]sf] 5 < olb 5}g eg], ;xL ¿kdf sfof{Gjog gx'g'sf sf/0fx¿ s] x'g\\< • COVID-19sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? sfof{Gjog ug{ sf] lglDt ;xh sf/s tTjx? s] s] x'g\ < • COVID-19sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? sfof{Gjog ug{ sf] lglDt afws sf/s tTjx? s] s] x'g\< • COVID-19sf]dxfdf/L l:yltdf kL= kL= O{ sf] k|of]u / o:sf] Joj:yfkgsf] af/] s:tf] l;sfO{ /Xof]< • kLkLO{sf] /fd|f] Joj:yfkgsf] nflu tTsfn s] ug{ ;lsG5, lj:t[t ?kdf atfO{ lbg' xf];\ <
zj Joj:yfkg(COVID-19af6 d[To' ePsf_	• COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj Joj:yfkgsf nflu agfO{Psf lgb]{lzsf kfngfsf af/]df lj:t[t ¿kdf atfO{lbg'xf];\. • COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj Joj:yfkgsf nflu agfO{Psf lgb]{lzsf kfngf ug{sf] nfuL ;xh sf/stTj x? s] s] x'g\< • COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj Joj:yfkgsf nflu agfO{Psf lgb]{lzsf kfngf ug{sf] nfuL afws sf/stTj x? s] s] x'g\< • zj Joj:yfkg ubf{ ef]Ug' ePsf] r'gf}ltx? af/] atfO{lbg'xf];\<

	• COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj Joj:yfkgsf tTsfn s] ug{ ;lsG5 < • elj:odf o:t} lsl;dsf] dxfdf/L ePdf zj Joj:yfkg cem Jojl:tt agfpg s] ug{ ;lsG5 egL Jojfl/s ;Nnfx lbg'xf];\.

Ministry of Health and Population (MoHP)sf] nflu ;f]lwg] laz]if k|:gx?

- COVID-19;DaGwL lgb]{lzsfx?df s]lx kl/jt{g ul/Psf] 5< olb kl/jt{g ul/Psf] 5 eg] s'g s'g lgb]{lzsfx? kl/jt{g ul/of]<
- lgb]{lzsf kl/jt{g ul/g'sf sf/0fx? s] s] x'g\<
- tkfO{sf] larf/df eljZodf COVID-19 h:t} dxfdf/L km}lnPdf To:sf] ;fdgf / ;dfwfg ug{ s:tf] of]hgf agfpg ;lsG5 <

kflnsfsf](Health Focal Person) nfO{ ;f]lwg] lgb]{lzsfx?

;fdflhs/ hg;f+lVosLo ljj/0f

k"/f gfd==========
7]ufgf
k|b]z…….lhNnf.....
ufpFkflnsf÷gu/kflnsf.....j8f g+.....
6f]n.....
z}lIfs
:t/==========
=====
k]zf==========
==========
sfd ug]{ ;+:yfsf] gfd
==========
sfd ug]{ ;+:yfsf] 7]ufgf
==========
sfo{/t kb /
tx==========

laifo / ;Gbe{	lgb]{lzsfx?

Quarantine sf] ;'ljwf / Joj:yfkg	• Quarantine sf] ;'ljwf / o;nfO{ Jojl:yt ug{sf] lgldQ ;/f]sf/jfnf lgsfox? s'g s'g x'g\\<k|fb]lzs / :yfgLo ;/sf/ aLr ;dGjo ePsf] 5< • Quarantine df /x]sf ;'ljwfx? g]kfn ;/sf/, :jf:Yo tyf hg;+Vof dGqfnon] tof/ kf/]sf] lgb]{lzsf cg';f/ Jojl:yt ul/Psf] 5< olb Quarantine Jojl:yt 5}g eg], Jojl:yt gePsf]n] ubf{ s] s:tf r'gf}tLx? sf] ;fdfgf ug{' k/]sf] 5< -k|f]a M ns8fpgsf] z'?jftL r/0f / To;kl5sf cj:yfx?df_ • Quarantine Joj:yfkgsf] nfuL s] s:tf ;'wf/x? cfjZos 5g\ < s] pknAw Sjf/]G6fOg s]G›x¿ COVID-19;+qmldtx?sf] Jojf:yfkgsf nflu kof{Kt 5g\\<-k|f]a M ns8fpgsf] z'?jftL r/0f / To;kl5sf cj:yfx?df_olb kof{Kt 5}g eg], o;sf] ;'wf/sf nflu s] ug{' cfjZos 5< • s] pknAw Sjf/]G6fOg s]G›x¿ /fd|f];Fu Jojl:yt ul/Psf] 5 < -k|f]aM cfwf/e"t ;'ljwfx¿sf] pknAwtf - df:s, ;fa'g / kfgL, vfg]kfgL, ;fdflhs b"/L, :jf:YosdL{, ;kmfO{ / sL6f0f'd'Qm (Cleaning and disinfection), Sjf/]G6fOgsf] dfkb08, cfjZostf ePdf PDa'n]G;sf] k|fjwfg_ • Quarantine;'ljwfx¿sf] /fd|f] Joj:yfkgsf] nfuL s] s:tf /fd|f cg'ej /x] / s] s:tf sfo{x? ;f]r]sf] h:tf] /x]gg\ lj:t[t ¿kdf atfO{lbg ;Sg' x'G5 < • Quarantine;'ljwf / Joj:yfkgsf] nflu ;xh sf/stTjx? s] s] x'g\\< • Quarantine;'ljwf / Joj:yfkgsf] nflu afws sf/stTjx? s] s] x'g\\< • Quarantine Joj:yfkgsf] nflu s'g s'g lf]qdf ;'wf/ ug{' cfjZos 5 / o;sf] ;'wf/sf] nflu s] ug{ ;lsG5< • elj:odf o:t} k|sf/sf] dxfdf/Lsf] ;fdgf ug{sf nflu QuarantineJoa:yfkgdfs:tf of]hgfx? agfpg ;lsG5<
COVID-19 s]; klxrfg / Joj:yfkg	• :yfgLo txdf s]; klxrfgsf nflu ul/g] kL;Lcf/ k/Llf0fsf s:tf k|fjwfgx¿ /x]sf 5g< -:yfgLo :t/df kof{Kt k|of]uzfnf ;'ljwf, kof{Kt dfgj ;|f]tx?_ • COVID-19sf] PCR-Test positive cfP kl5 ;+qmldt x?nfO{ cnu} /fVg] (isolation), pgLx? sf] pkrf/ / Joj:yfkgsf (Treatment and management) nflu s] s:tf k|fjwfgx¿ /x]sf 5g\< • COVID-19;+qmldt la/fdLx?n] s:tf afwfx? ef]Ug' k/]sf] 5< • COVID-19 s]; klxrfg /Joj:yfkgsf] afws sf/stTjx? s] s] x'g\\<

	COVID-19 s]; klxrfg /Joj:yfkgaf6 ubf{ s:tf] ;sf/fTds / gsf/fTds l;sfO{ /Xof] j[l:tt ?kdf atfO{lbg'xf];\ <
s]; cg';Gwfg tyf sG6\ofS6 vf]h	• :yfgLo tx, k|fb]lzs tx, / ;+3Lo txdf u/]sf] s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[ofsf] af/]df lj:t[t ?kdf atfO{ lbg'xf];\ < • s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[of, o;sf nflu ag]sf] lgb]{lzsf -gd'gf ;+sng, k/fdz{, s];x¿sf] ;'kl/j]lf0f / cg'udg_ cg';f/g} eO{ /x]sf] 5< obL 5}g eg], gx'g' sf sf/0fx? s] s] x'g\< • s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[ofdf s] s:tf r'gf}ltx? cfP< o:sf] af/]df j[l:tt ?kdf atfO{ lbg'xf];\ • s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[of af6 s]—s:tf] ;sf/fTds / gsf/fTds cg'ej /Xof]< • tkfO{sf] ljrf/df eljZodf lsl;dsf] dxfdf/L ePdf, s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[ofnfO{ cem k|efjsf/L agfpg s:tf] ;'wf/x? ug{ cfj:os 5<
dfga ;|f]t	• COVID-19la/fdLsf nflu ;]jf pknAw u/fpg ;a} lf]qdf :jf:YosdL{x? kl/rfng ePsf 5g\<- k|f]aM c:ktfn, Sjf/]G6fOg s]G›, cfO;f]n]zg s]G› k|of]uzfnf_ olb 5}g eg] lsg< • :jf:YosdL{x?n] ;]jf k|bfg ug{sf nflu s]—s:tf r'gf}tLx?sf] ;fdgf ug{' k/]sf] 5<-k|f]aM :jf:Yosf] hf]lvd(health hazards) :jf:Yo pks/0fsf] pknAwtf JolQmut ;'/lffsf pks/0f k|of]uzfnf hf+r ls6\;(availability of equipments, PPE, laboratory test kits) • COVID-19Joj:yfkgsf nflu kof{Kt hgzlQm (doctors,nurse, paramedics) kl/rfng ePsf 5g\< olb 5}gg\ eg] /f]u lgoGq0f ug{ yk s:tf hgzlQm kl/rfng ug{ cfjZos 5 < • s] :jf:YosdL{x?n] lgb{]lzsf cg';f/sf] ;'lawf kfPsf 5g\<obL 5}g eg], ;'ljwf gkfpg'sf] sf/0fx? s] s] x'g\ < • COVID-19 sf] Jojf:yfkgdf h'6]sf :jf:yosdL{ tyf hg:jf:YosdL{x?nfO{ sfd ug{ k|f]T;flxt u/fpgsf] lglDt yk s]s:tf ;'ljwfx? lbg' cfjZos 5 <
;+rf/ tyf ;dGjo	• COVID-19 sf] ;+rf/ tyf ;dGjo k|s[ofsf] ljifodf xfdLnfO{ atfO{lbg'xf];\ -k|f]aM:jf:Yo tyf hg;+Vof dGqfno / To;sf dftxtsf lgsfox? lardf plrt / ;dod} x'g] cfGtl/s ;dGjo_ • ltg} txsf] ;/sf/ -;+l3o k|fb]lzs / :yflgo_ sf lardf plrt / k|efjsf/L ;dGjo ePsf] 5<olb 5}g eg], plrt / k|efjsf/L ;dGjo gx'g'sf] sf/0f s] xf]nf< • ;+rf/ tyf ;dGjosf ;xh sf/stTjx? s] s] x'g\\<

	• ;+rf/ tyf ;dGjosf afws sf/stTjx? s] s] x'g\\< • tkfOn] k|of]uzfnf af6 k|fKt ePsf gtLhfx¿ s;/L ;/f]sf/jfnf lgsfo aLr ;~rf/ / ;dGjo ul//xg' ePsf] 5< • COVID-19 ljifodf laleGg gLlt tyf lgb]{lzsfx? ag]sf 5g\ . :yfgLo :t/df oL gLlt tyf lgb]{lzsfx?af/] plrt ¿kdf hfgsf/L eO/x]sf] 5< olb 5}gg\ eg], hfgsf/L gx'g'sf] sf/0fx? s] s] x'g ;S5g\ < • :yfgLo :t/df oL gLlt tyf lgb]{lzsfx? plrt ¿kdf sfof{Gjog eO/x]sf] 5< olb 5}gg\ eg], sfof{Gjog gx'g'sf] sf/0fx? s] s] x'g ;S5g\ < • xfnsf] dxfdf/L kl/l:yltdf, ;+rf/ tyf ;dGjosf] lf]q af6 s:tf] l;sfO{ /Xof]< • ljleGg ;/f]sf/jfnf lgsfox? aLr k|efasf/L ;+rf/ / ;dGjo ug{sf nflu cfjZos /0flgltx? s] x'g ;Snfg<
pkrf/ Joj:yfkg	• s] COVID-19 sf] pkrf/ / cGo :jf:Yo ;]jfx¿ k|bfg ug{ lgb]{lzsfx? kfngf ePsf 5g\<olb 5}gg\ eg] o:tf lgb]{lzsfx? kfngf x'g g;Sg'sf] d'Vo sf/0f s] /x]sf 5g\< • pkrf/ lgb]{lzsfx? nfu" ug{sf nflu ;xh sf/stTjx? s] s] x'g\< • pkrf/ lgb]{lzsfx? nfu" ug{sf nflu afws sf/stTjx? s] s] x'g\ < • COVID-19 n] lbPsf] cg'ejsf] cfwf/df, /fd|f] pkrf/ k|aGwsf] nflu tTsfn s] ug{ ;lsG5 / eljiodf o:t} lsl;dsf] dxfdf/L ePdf pkrf/ cem Jojl:tt s;/L ug{ ;lsG5 elg Jofjxfl/s ;Nnfx lbg'xf];\ <
kL kL O{ (PPE) sf] k|of]u / o;sf] Joj:yfkg	• COVID-19 sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? ;xL ¿kdf sfof{Gjog eO/x]sf] 5< olb 5}g eg], ;xL ¿kdf sfof{Gjog gx'g'sf sf/0fx¿ s] x'g\\< • COVID-19 sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? sfof{Gjog ug{ sf] lglDt ;xh sf/s tTjx? s] s] x'g\ < • COVID-19sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? sfof{Gjog ug{ sf] lglDt afws sf/s tTjx? s] s] x'g\< • COVID-19sf]dxfdf/L l:yltdf kL= kL= O{ sf] k|of]u / o:sf] Joj:tfkgsf] af/] s:tf] l;sfO{ /Xof]< • kLkLO{sf] /fd|f] Joj:yfkgsf] nflu tTsfn s] ug{ ;lsG5, j[l:tt ?kdf atfO{ lbg' xf];\ <

COVID-19af6;+qmldtsf nfuL ;]jf lbg] :jf:Yo sdL{x? (Doctors/Nurses/Paramedics) nfO{ ;f]lwg] lgb]{lzsfx?

;fdflhs/ hg;f+lVosLo ljj/0f

k"/f gfd==========

7]ufgf

k|b]z……lhNnf.....

ufpFkflnsf÷gu/kflnsf.....j8f g+.....

6f]n.....

z}lIfs

:t/==========

k]zf==========

sfd ug]{ ;+:yfsf] gfd

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sfd ug]{ ;+:yfsf] 7]ufgf

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sfo{/t kb /

tx==========

laifo / ;Gbe{	lgb]{lzsfx?
Quarantine sf] ;'ljwf / Joj:yfkg	• Quarantine df /x]sf ;'ljwfx? g]kfn ;/sf/, :jf:Yo tyf hg;+Vof dGqfnon] tof/ kf/]sf] lgb]{lzsf cg';f/ Jojl:yt ul/Psf] 5 < olb Quarantine Jojl:yt 5}g eg], Jojl:yt gePsf]n] ubf{ s] s:tf r'gf}tLx? sf] ;fdfgf ug{' k/]sf] 5< -k|f]aM ns8fpgsf] z'?jftL r/0f / To;kl5sf cj:yfx?df_ • QuarantineJoj:yfkgsf] nfuL s] s:tf ;'wf/x? cfjZos 5g\ <

	s] pknAw Sjf/]G6fOg s]G›x¿ COVID-19;+qmldtx?sf] Jojf:yfkgsf nflu kof{Kt 5g\\<-k|f]a M ns8fpgsf] z'?jftL r/0f / To;kl5sf cj:yfx?df_olb kof{Kt 5}g eg], o;sf] ;'wf/sf nflu s] ug{' cfjZos 5< • s] pknAw Sjf/]G6fOg s]G›x¿ /fd|f];Fu Jojl:yt ul/Psf] 5 <-k|f]aM cfwf/e"t ;'ljwfx¿sf] pknAwtf -df:s, ;fa'g / kfgL, vfg]kfgL, ;fdflhs b"/L,, :jf:YosdL{, ;kmfO{ / sL6f0f'd'Qm (Cleaning and disinfection), Sjf/]G6fOgsf] dfkb08, cfjZostf ePdf PDa'n]G;sf] k|fjwfg_ • Quarantine;'ljwf / Joj:yfkgsf] nflu ;xh sf/stTjx? s] s] x'g\\< • Quarantine;'ljwf / Joj:yfkgsf] nflu afws sf/stTjx? s] s] x'g\\< • Quarantine;'ljwfx¿sf] /fd|f] Joj:yfkgsf] nfuL s] s:tf /fd|f cg'ej /x] / s] s:tf sfo{x? ;f]r]sf] h:tf] /x]gg\ lj:t[t¿kdf atfO{lbg' ;Sg' x'G5 < • elj:odf o:t} k|sf/sf] dxfdf/Lsf] ;fdgf ug{sf nflu Quarantine Joj:yfkgdfs:tf of]hgfx? agfpg ;lsG5<
s]; cg';Gwfg tyf sG6\ofS6 vf]h	• :yfgLo txdf s]; klxrfgsf nflu ul/g] kL;Lcf/ k/LIf0fsf s:tf k|fjwfgx¿ /x]sf 5g< -:yfgLo :t/df kof{Kt k|of]uzfnf ;'ljwf, kof{Kt dfgj ;|f]tx?_ • COVID-19sf] PCR-Test positive cfP kl5 ;+qmldt x?nfO{ cnu} /fVg] (isolation), pgLx?sf] pkrf/ / Joj:yfkgsf (Treatment and management) nflu s] s:tf k|fjwfgx¿ /x]sf 5g\< • s]; cg';Gwfg tyf sG6\ofS6 vf]hsf;xh sf/stTjx? s] s] x'g\\< • COVID-19;+qmldt la/fdLx?nfO{ c:ktfndf pkrf/ ;]jf lngsf] nflu s'g} afwfx? 5g\ ls 5}gg\< obL 5g\ eg], s:tf afwfx? COVID-19;+qmldt la/fdLx? n] ef]Ug' k/]sf] 5 < • COVID-19;+qmldt la/fdLx?nfO{ ;]jf k|bfg ug{ c:ktfn / :jf:Yo sdL{x?nfO{ s] s:tf afwf /x]sf 5g\ <-k|f]a:PCR Testing kits, RNA Extractor, VTM;lxtsf]ls6, dfgj ;|f]tsf] pknAwtf+_
dfga ;|f]t	• COVID-19la/fdLsf nflu ;]jf pknAw u/fpg ;a} lf]qdf :jf:YosdL{x? (doctors,nurse,and paramedics) kl/rfng ePsf 5g\<-k|f]aM c:ktfn, Sjf/]G6fOg s]G›, cfO;f]n]zg s]G› k|of]uzfnf_ olb 5}g eg] lsg< • :jf:YosdL{x?n] ;]jf k|bfg ug{sf nflu s]—s:tf r'gf}tLx?sf]

	;fdgf ug{' k/]sf] 5<-k|f]aM :jf:Yosf] hf]lvd(health hazards) :jf:Yo pks/0fsf] pknAwtf JolQmut ;'/lffsf pks/0f k|of]uzfnf hf+r ls6\;(Availability of equipments, PPE, laboratory test kits)
pkrf/ Joj:yfkg	• s] COVID-19sf] pkrf/ / cGo :jf:Yo ;]jfx¿ k|bfg ug{ lgb]{lzsfx? kfngf ePsf 5g\<olb 5}gg\ eg] o:tf lgb]{lzsfx? kfngf x'g g;Sg'sf] d'Vo sf/0f s] /x]sf 5g\< • pkrf/ lgb]{lzsfx? nfu" ug{sf nflu ;xh sf/stTjx? s] s] x'g\< • pkrf/ lgb]{lzsfx? nfu" ug{sf nflu afws sf/stTjx? s] s] x'g\ < • COVID-19 n] lbPsf] cg'ejsf] cfwf/df, /fd|f] pkrf/ k|aGwsf] nflu tTsfn s] ug{ ;lsG5 / eljiodf o:t} lsl;dsf] dxfdf/L ePdf pkrf/ cem Jojl:tt s;/L ug{ ;lsG5 elg Jofjxfl/s ;Nnfx lbg'xf];\ <
kL kL O{ (PPE)sf] k|of]u / o;sf] Joj:yfkg	• COVID-19sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? ;xL ¿kdf sfof{Gjog eO/x]sf] 5< olb 5}g eg], ;xL ¿kdf sfof{Gjog gx'g'sf sf/0fx¿ s] x'g\\< • COVID-19sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? sfof{Gjog ug{ sf] lglDt ;xh sf/stTjx? s] s] x'g\ < • COVID-19sf] ;Gbe{df JolQmut ;'/lff pks/0f -PPE_ sf] pkof]usf] nflu lgb]{lzsfx? sfof{Gjog ug{ sf] lglDt afws sf/stTjx? s] s] x'g\< • COVID-19sf]dxfdf/L l:yltdf kL= kL= O{ sf] k|of]u / o:sf] Joj:yfkgsf] af/] s:tf] l;sfO{ /Xof]< • kLkLO{sf] /fd|f] Joj:yfkgsf] nflu tTsfn s] ug{ ;lsG5, lj:t[t?kdf atfO{lbg' xf];\ <

<u>COVID-19;+qmldt cf];f/ k;f/ ug]{ PDa'n]G; 8«fOe/ nfO{ ;f]lwg] lgb]{lzsfx?</u>

;fdflhs/ hg;f+lVosLo ljj/0f

k"/f gfd==========

7]ufgf

k\|b]z……lhNnf.....

ufpFkflnsf÷gu/kflnsf.....j8f g+.....

6f]n.....

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oftfoft Joj:yfkg	• tkfO{n] COVID-19;+sld|tnfO{ cf];f/-k;f/ ubf{ s:tf r'gf}tLx?sf] ;fdgf ug{' k/]sf] 5 < • s] tkfO{nfO{ COVID-19;+sld|t nfO{ cf];f/-k;f/ ubf{ k|of]u ug{'kg]{ JolQmut ;'/lff pks/0f -PPE_ sf] k|of]u -nufpg] / vf]Ng]_ af/]df 1fg 5<JolQmut ;'/lff pks/0f -PPE_ sf] kof{Ktfaf/]df xfdLnfO{ atfO{ lbg'xf]; • s] tkfO{nfO{ COVID-19;+sld|tsf] oftfoft Joj:yfkgdf :jf:Yo tyf hg ;+Vof dGqfnon] agPsf] lgb]{lzsfsf] af/]df yfxf kfpg' ePsf] 5 < • olb 5 eg], s] COVID-19sf la/fdLx¿nfO{ c:ktfn k'of{pg sf] nflu lgb]{lzsf kfngf ePsf 5g\< obL 5}gg\ eg], ;f] lgb]{lzsf kfngf gx'g' sf] sf/0f s] x'g\< • lgb]{lzsfx¿ kfngf ug{ u/fpg s:tf r'gf}ltx¿ cfP<lj:t[t?kdf atfO{ lbg'xf];\ < • COVID-19n] lbPsf] cg'ejsf] cfwf/df, Jojl:tt oftfoft k|aGwsf] nflu t'¿Gt s] ug{ ;lsG5 / eljiodf o:t} lsl;dsf] dxfdf/L ePdf cem Jojl:tt oftfoftsf] k|aGw s;/L ug{ ;lsG5 elg Jofjxfl/s ;Nnfx lbg'xf];\<

COVID 19 ;+qmldtsf] Jojf:yfkgdf vl6g] g]kfn k'ln;/ cfdL{nfO{ (Nepal police and Army) ;f]lwg] lgb]{lzsfx?

;fdflhs/ hg;f+lVosLo ljj/0f

Code number……

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7]ufgf

k|b]z…….lhNnf.....

ufpFkflnsf÷gu/kflnsf.....j8f g+.....

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Lockdown/ofqfdf k|ltjGw	• s] ;/sf/åf/f ul/Psf] Lockdown/ofqfdf k|ltjGw lgod cg';f/ nfu' ul/Psf] 5< -Lockdown/ofqfdf k|ltjGwsf] ;'?jftdf / kl5_ olb 5}g eg], sfof{Gjog gul/g'sf] sf/0fx? s] s] x'g ;S5g< • Lockdown/ofqfdf k|ltjGwsfof{Gjog ug{sf nflu ;xh sf/stTjx? s] s] x'g\< • Lockdown/ofqfdf k|ltjGw ul/Psf]] ;dodf s] s:tf r'gf}ltx?sf] ;fdgf ug{' k/]sf] lyof]< • Lockdown jf ofqfdf k|ltjGw ul//xbf klg ;+qmldtsf] ;+Vof al9 /xg'sf] sf/0f s] s] x'g ;S5g< • COVID-19 lgoGq0f sf] nflu ul/Psf] ns8fpg / ofqfdf k|ltaGwsf] cg'ej s:tf] /Xof] < elj:odf o:t} dxfdf/Lsf] sf/0f ns8fpg / ofqfdf k|ltaGw ug{' k/]df o;nfO{ k|efjsf/L ¿kdf sfof{Gjog ug{sf nflu s:tf] ;'wf/ ug{ cfjZos 5 <
zj	• COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj

Joj:yfkg(COVID-19af6 d[To' ePsf_	Joj:yfkgsf nflu agfO{Psf lgb]{lzsf kfngfsf af/]df j[l:tt ¿kdf atfO{lbg'xf];\. • COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj Joj:yfkgsf nflu agfO{Psf lgb]{lzsf kfngf ug{sf] nfuL ;xh sf/stTj x? s] s] x'g\< • COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj Joj:yfkgsf nflu agfO{Psf lgb]{lzsf kfngf ug{sf] nfuL afws sf/stTj x? s] s] x'g\< • zj Joj:yfkg ubf{ ef]Ug' ePsf] r'gf}ltx?sf] af/] atfO{lbg'xf];\ < • COVID-19sf] ;+qmd0faf6 d[To' ePsf JolQmx?sf] zj Joj:yfkgsf tTsfn s] ug{ ;lsG5 <elj:odf o:t} lsl;dsf] dxfdf/L ePdf zj Joj:yfkg cem Jojl:tt agfpg s] ug{ ;lsG5 egL Jojfl/s ;Nnfx lbg'xf];\.

<u>lzIfs/ ;dfh ;]jL nfO{ ;f]lwg] lgb]{lzsfx? (Guidelines for teachers/social workers)</u>

;fdflhs/ hg;f+lVosLo ljj/0f

k"/f gfd==========

7]ufgf

k|b]z…….lhNnf.....

ufpFkflnsf÷gu/kflnsf.....j8f g+.....

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laifo / ;Gbe{	lgb]{lzsfx?
Quarantine sf] ;'ljwf / Joj:yfkg	• Quarantine sf] ;'ljwf / o;nfO{ Jojl:yt ug{sf] lgldQ ;/f]sf/jfnf lgsfox? s'g s'g x'g\\< • Quarantine df /x]sf ;'ljwfx? g]kfn ;/sf/, :jf:Yo tyf hg;+Vof dGqfnon] tof/ kf/]sf] lgb]{lzsf cg';f/ Jojl:yt ul/Psf] 5 < olb Quarantine Jojl:yt 5}g eg], Jojl:yt gePsf]n] ubf{ s] s:tf r'gf}tLx? sf] ;fdfgf ug{' k/]sf] 5< -k|f]a M ns8fpgsf] z'?jftL r/0f / To;kl5sf cj:yfx?df_ • Quarantine Joa:yfkg sf] nfuL s] s:tf ;'wf/x? cfjZos 5g\ < s] pknAw Sjf/]G6fOg s]G›x¿ COVID-19 ;+qmldtx?sf] Jojf:yfkgsf nflu kof{Kt 5g\\<-k|f]a M ns8fpgsf] z'?jftL r/0f / To;kl5sf cj:yfx?df_olb kof{Kt 5}g eg], o;sf] ;'wf/sf nflu s] ug{' cfjZos 5< • s] pknAw Sjf/]G6fOg s]G›x¿ /fd|f];Fu Jojl:yt ul/Psf] 5 < -k|f]aM cfwf/e"t ;'ljwfx¿sf] pknAwtf - df:s, ;fa'g / kfgL, vfg]kfgL, ;fdflhs b"/L,, :jf:YosdL{, ;kmfO{ / sL6f0f'd'Qm (Cleaning and disinfection), Sjf/]G6fOgsf] dfkb08, cfjZostf ePdf PDa'n]G;sf] k|fjwfg_ • Quarantine ;'ljwfx¿sf] /fd|f] Joj:yfkgsf] nfuL s] s:tf /fd|f cg'ej /x] / s] s:tf sfo{x? ;f]r]sf] h:tf] /x]gg\ lj:t[t ¿kdf atfO{lbg' ;Sg' x'G5 < • Quarantine Joj:yfkgsf] nflu s'g s'g lf]qdf ;'wf/ ug{' cfjZos 5 / o;sf] ;'wf/sf] nflu s] ug{ ;lsG5< • elj:odf o:t} k|sf/sf] dxfdf/Lsf] ;fdgf ug{sf nflu QuarantineJoa:yfkgdfs:tf of]hgfx? agfpg ;lsG5<
s]; cg';Gwfg tyf sG6\ofS6 vf]h	• tkfO{sf] lf]qdf x'g] u/]sf] s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[ofsf] af/]df lj:t[t ?kdf atfO{ lbg'xf];\ < • s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[of, o;sf nflu ag]sf] lgb]{lzsf -gd'gf ;+sng, k/fdz{, s];x¿sf] ;'kl/j]lf0f / cg'udg_ cg';f/g} eO{ /x]sf] 5< obL 5}g eg], gx'g' sf sf/0fx? s] s] x'g\< • s]; cg';Gwfg tyf sG6\ofS6 vf]hsf;xh sf/stTjx? s] s] x'g\\< • s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[ofdf s] s:tf r'gf}ltx? cfP< o:sf] af/]df lj:t[t ?kdf atfO{ lbg'xf];\

	• tkfO{sf] ljrf/df eljZodf lsl;dsf] dxfdf/L ePdf, s]; cg';Gwfg tyf sG6\ofS6 vf]h k|s[ofnfO{ cem k|efjsf/L agfpg s:tf] ;'wf/x? ug{ cfj:os 5<
Lockdown/ofqfdf k|ltjGw	• s] ;/sf/åf/f ul/Psf] Lockdown/ofqfdf k|ltjGw lgod cg';f/ nfu' ul/Psf] 5< -Lockdown/ofqfdf k|ltjGwsf] ;'?jftdf / kl5_ olb 5}g eg] sfof{Gjog gul/g'sf] sf/0fx? s] s] x'g ;S5g< • Lockdown/ofqfdf k|ltjGw ul/Psf]] ;dodf s] s:tf r'gf}ltx?sf] ;fdgf ug{' k/]sf] lyof]< • Lockdown jf ofqfdf k|ltjGw ul//xbf klg ;+qmldtsf] ;+Vof al9 /xg'sf] sf/0f s] s] x'g ;S5g\< • COVID-19 lgoGq0fsf] nflu ul/Psf] ns8fpg / ofqfdf k|ltaGwsf] cg'ej s:tf] /Xof]< elj:odf o:t} dxfdf/Lsf] sf/0f ns8fpg / ofqfdf k|ltaGw ug{' k/]df o;nfO{ k|efjsf/L ¿kdf sfof{Gjog ug{sf nflu s:tf] ;'wf/ ug{ cfjZos 5<
;d'bfosf] ;+nUgtf tyf hf]lvd ;+rf/	• ;d'bfosf] ;+nUgtf tyf hf]lvd ;~rf/df ;+nUg ;/f]sf/jfnf lgsfox? s'g s'g x'g\\< k|To]s ;/f]sf/jfnf lgsfox?n] s;/L sfd ul//x]sf] 5< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ug{sf nflu ;xh sf/stTjx? s] s] x'g\\< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ug{sf nflu afws sf/stTjx? s] s] x'g\\< • ;d'bfo ;+nUgtf tyf hf]lvd ;~rf/sf] lgb]{lzsf nfu" ubf{ /x]sf] cg'ejsf] af/]df xfdLnfO{ lj:t[t ?kdf atfO{ lbg'xf];. o; lgb]{lzsfnfO{ k|efjsf/L ¿kdf sfof{Gjog ug{sf nflu s] s:tf ;'wf/ ug{ cfjZos 5<

<u>COVID 19 sf] ;+qmd0faf6 lgsf] ePsf JolQmx?nfO{ ;f]lwg] lgb]{lzsfx?</u>

;fdflhs/ hg;f+lVosLo ljj/0f

k"/f gfd==========

7]ufgf

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ufpFkflnsf÷gu/kflnsf……j8f g+……

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Guidelines to present the successful case study and measures adopted

;fdflhs/ hg;f+lVosLo ljj/0f

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7]ufgf
k|b]z…….lhNnf.....
ufpFkflnsf÷gu/kflnsf.....j8f g+.....
6f]n.....
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sfd ug]{ ;+:yfsf] gfd
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sfd ug]{ ;+:yfsf] 7]ufgf
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@ tkfO{n] COVID-19s]; klxrfg / sG6\ofS6 6«]l;+u sf] nfuL s] s:tf ljlwx? ckgfpg' eof]<

#.COVID-19 sf] Joj:yfkgsf] nflu ;d'bfosf] ;xeflutf s:tf] /xof] < -k|f]aM ;d'bfoaf6 ;dy{g, ;fdflhssfo{stf{sf] e"ldsf_

$.COVID-19 sf] Quarantine and Isolations]G›x¿ s;/L Jojf:yfkgul/of]<

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^.COVID-19s];x?nfO{ Jojl:ytug{ cGo s] s:tf] pkfox¿ ckgfOPsf] lyof]<

&.COVID-19 s]; sf] ;+Vof 36];Fu}, sf]/f]gf efO{/; lgoGq0f ug{ cGo s:tf] pkfox? nfu' ul/of] <

*.tkfO{sf] ljrf/df, g]kfnsf] cGo lf]qsf] t'ngfdftkfO{sf] lf]qdf sf]/f]gf efO{/; lgoGq0f u/L ;kmntfsf] pbfx/0f aGg s] s:tf ;an klf x? /x]<

(.s] tkfO{ eljiodfCOVID-19 h:tf] dxfdf/Lsf] /f]syfd / lgoGq0fsf] nflu s]lx ;'emfjlbg rfxfg'x'G5<

Consent form

Nepal Health Research Council

Ramshahpath, Kathmandu

Rapid Assessment of COVID-19 Related Policy Audit in Nepal

Information Sheet for the participants

Background and Objectives	Nepal Health Research Council in coordination with Ministry of Health and Population is carrying the research study on "Rapid Assessment of COVID-19 Related Policy Audit in Nepal". The main objective of this study is to assess the implementation of COVID-19 related policies, guidelines, and directives issued by MoHP and its agencies to fight against COVID 19 and implementation practices This study is carried out by trained public health workers. You are selected for the study and we highly appreciate your participation.
Confidentiality	The information provided by you will be kept confidential and will be used for study purpose only. Your name, address and other personal information will be deleted and only code number will be used. If additional information related to the study is required, any of the research representative will contact you even after the completion of the collection of data.
Participation	Your participation in this study will be entirely voluntary. You may leave this study at any time if you do not wish. If you have any queries regarding the study you can ask the research team at any time or you may contact Nepal Health Research Council at 01-4254220.

Participants ID. | | | | | | |

Written Consent

Everything about this study has been made known to me. I understand everything and am satisfied with the information provided. My participation is voluntary and I am free to leave this at any time study. My information and data will help to identify the gaps in COVID-19

policies, guidelines and directives and also provide recommendation for policy formulation and implementation. I assure that the signature within this consent form is mine.

The information I provide is kept confidential and is used for research purposes only. I have participated in this study because of my desire and discretion.

Participants full name:…….	Interviwer Name:……
Participants Signature:……..	Interviewers signature:…….
Date:……	Date:……..