

# COVID-19: preparedness, challenges, public health concern and government efforts in nepal.

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## Abstract

**The COVID-19 is an infectious disease caused by the severe acute respiratory syndrome (SARS) viruses-2 first identified and became epidemic in the Wuhan city. World Health Organization (WHO) termed that disease as COVID-19 on February 11, 2020. Nepal confirmed 8 imported cases, no death record and 1 local transmission case reported till the April 4, 2020. Country is under the lockdown since March 24, 2020 for the prevention and control of the transmission of COVID-19. Massive contact tracing and rapid test should be done appropriately in proper time to fight against the COVID-19. There is the necessity to manage basic facilities in the quarantine and isolation for the people.**

**Keywords:** Corona virus, COVID-19, Country situation, Public health, Government efforts.

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## COVID-19

The COVID-19 is an infectious disease caused by the severe acute respiratory syndrome (SARS) viruses-2, first case was reported in December 31, 2019 in Wuhan city of Hubei province of China, and then observed epidemic in the Wuhan city and later termed COVID-19 by World Health Organization (WHO) on February 11, 2020 [1,2]. It is transmitted from person to person through droplet infection during coughing, sneezing or contact with contaminated surface or objects. In case of maintaining social distance from person to person, there are two school of thoughts i.e. WHO recommends to maintain 3 feet distance whereas the Center for Disease Control (CDC) recommends 6 feet distance. The case fatality rate of COVID-19 is comparatively very low with respect to severe acute respiratory infection corona virus (SARS) outbreak in 2003 from China and Middle East respiratory syndrome (MERS) outbreak in 2012 from Saudi Arabia [2]. In the earlier time the disease was observed epidemic in Hubei province of China but gradually it is spreading throughout the other parts of the world since February, 2020 irrespective of various efforts taken to control epidemic situation. However, impacts of various factors like globalization, inadequate and delayed precaution measures and cross border movement, disease is spreading dramatically and infected huge number of people all over the world induced the horrible situation by mid of the March, 2020 and World Health Organization declared the pandemic situation of the COVID-19 in March 11, 2020 [3]. The countries are made the preparedness plans including quarantine provisions in one hand in other hand some countries are declared the lockdown of the country and limited the internal as well as external movement.

## Situation of the COVID-19 in Nepal

Since its outbreak, China apply all sorts of public health measures, clinical measures and interrupt the transmission route. The number of new infection and deaths are increasing day after day throughout the world. Nepal confirmed 8 imported cases, no death record and 1 local transmission case reported

till the April 4, 2020 [2]. The first case of COVID-19 was reported in January 23, 2020 in Nepal [2]. Country is under the lockdown since March 24, 2020 and all the prevention and protection measures are applying throughout the country by establishing the quarantine spots at different places of local level, announcing the specific treatment hospitals in case of COVID-19 and mobilization of the armed police force for restriction on unnecessary people movements. The medical supplies and health staffs have been mobilized as part of preparedness plans including quarantine provisions. All border checkpoints, airport (domestic and international), vehicular and human movements are restricted except essential or government needs and banking facilities. The total reported positive cases of COVID-19 in Nepal is 9 till the 5th March, 2020. Although 3 positive cases are not updated in the following extracted tables from the Health Emergency Operation Center under the Ministry of Health and Population Table 1.

## Challenges of COVID-19 in Nepal

The disease can infect the all ages but people who have chronic diseases like lungs diseases, heart diseases, diabetes, immune suppressive diseases and old people (weak immune power) are more prone to the risk of serious illness of this virus. There are lots of prevailing myths observing in social media as well as in the community regarding the viruses like drinking alcohol protects against COVID-19, spraying alcohol and chlorine all over the body protects from infection, eating the garlic prevent the infection, it only affects the older peoples and so on. It is obvious that these sorts of myths exacerbate the possibility of the disease transmission in one side and cause the severe health consequences to death in another hand due to adverse action. Human Development Index (HDI) value of Nepal is 0.579 which put locates the country in the medium human development category [4]. The population above 65 years in Nepal constitute 4.4% and the literacy rate of Nepal is 65.9% [5]. People lost their job due to the lockdown within the country. Labor migrants from India and other countries also returned into the country due to same situation which increases the threats

**Table 1.** Province-wise distribution of data relating to people staying in quarantine, people staying in isolation, positive cases and stock of PPE Gown.

Province	Number of people staying in quarantine	Number of people staying in isolation	Positive cases	Stock of PPE Gown
Province 1	954	15	0	1359
Province 2	995	22	0	530
Bagmati Province	698	31	0	2796
Gandaki Province	247	8	2	753
Province 5	2378	18	0	1043
Karnali Province	753	0	0	1138
Sudurpaschim Province	2382	7	4	555

and challenges in the country because except one case, all the 8 confirmed cases were imported from various countries i.e. 2 cases from Belgium, 2 cases from India, 1/1 case from China, France, Qatar and UAE.

The government of Nepal is applying all sorts of efforts to tracing the vulnerable people who are exposed to confirmed cases and provision to stay the migrants who have travel history from infected areas in the quarantine. Although, placing in the quarantine becoming the challenge due to the unwillingness to stay at the quarantine, low level of sensitization, negligence, condition and facilities issues in the quarantine, loneliness and feeling of the healthy condition. Furthermore, in some local level quarantines, the health workers are bearing the threats and misbehave by the people. In addition to this, the response and behavior of the health workers, no declaration of special package of incentives to the health persons, insufficient or unavailability of the personal protective equipment and other medical procedures also becoming the challenge to the management of the quarantine and providing the health services to the confirmed cases as well as suspected cases. Open border remains another major challenge to the country because migrants and people near the no mans' line in the border are moving across the country secretly from unshielded area e.g. some persons who were kept in the India's quarantine along with other Nepalese labor migrants near the Kanchanpur district, entered into the Nepal by swimming the Mahakali river through the unshielded area.

### Public Health Concern

The COVID-19 is spreading in various parts of the world as well as person to person day after day. As a cases incline above 1 million and 56,985 deaths all over the world, there is the fear and mental stress amid public against the COVID-19 in Nepal [6]. The concerned authority and responsible persons should promote the "staying at home" which is the best way. The urgency to launch the special package of the information, education and communication (IEC) for disease prevention and control as well as stress coping. The frequent monitoring and supervision of the quarantines as well as health desks through the concerned authority should be assured. It's better to launch informative sessions in every quarantines so that helps to discourage turnover/escaping rate of the people. The informative sessions supports to reduce the stresses, maintaining the social distance and promoting the health and hygiene behavior because viruses flourish in poor sanitation. This practices also promotes the healthy behavior (Infection, Prevention and Control-IPC) of the community people because people who are in quarantine also deliver the message to their family members and community, and they easily trust them.

Our advocacy and lobbying should be focused towards the availability of appropriate and adequate provision/management of the water, sanitation and hygiene (WASH) facility, fooding and lodging facility, and recreational facility in quarantine as well as isolation area. As a humanitarian nature, we have to behave like the human not to stigmatize the suspected cases and confirmed cases. Learning from the China, Europe, America and the whole world, this is critical time and tackle the COVID-19 by work together. Massive contact tracing and rapid test should be done appropriately in proper time to fight against the COVID-19. Build the trust and apply the advice given by WHO as well as the concerned health authority of the local and nationals, and encourage the people to seek the health services who have the travel history from infected areas and experiencing flue like signs and symptoms. The advocacy should be done to erase the myths among the public in one side and in another side the concerned authority enforce the laws targeting to discourage and prohibition of communicating such myths through the various media or person to person.

### Government Efforts

As the infectious nature and no disease specific treatment yet of the COVID-19, we have to focus in the infection, prevention and control (IPC) measures. In context of Nepal, diseases are in its first stage and early second stage. The government is requesting to all the public, stay at home to prevent the outbreak from exacerbating. Abiding by the lockdown order issued by the government is a must to control measures of the outbreak. The Nepal Telecom and N-cell have been providing the awareness (message relating to COVID-19) through the specific provision of caller tune (ring back tone) in each and every dial call.

Under the leadership of the ministry of Health and Population, the screening facility is providing through the point of entry. The government has been proving the 24 hour operating health desk facility at Tribhuvan International Airport. Monitoring teams and health desks have been established at major border check-points and entrance points of district. The government of Nepal under the ministry of health and population (MoHP) have developed the COVID-19 Quarantine Operation and Management Guideline-2076, PPE use guideline for COVID-19, COVID-19 clinical management guideline. The government of Nepal managing the COVID-19 test facility from 7 different hospitals and treatment provision from 26 different hospitals in terms of the coverage [2]. After the detection of first local transmission confirmed case (34-year-old woman who is the sister-in-law of a COVID-19 infected person imported from UAE) in the country, the government of Nepal constricted in

lockdown even restriction from one local level to another local level.

### Conclusion

Great lesson and experience from the China, Europe, America and other parts of the world, this is critical time and tackle the COVID-19 by work together. Massive contact tracing and rapid test should be done appropriately in proper time to fight against the COVID-19. There is the necessity to manage basic facilities in the quarantine and isolation for the people.

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