# Public health challenges during the COVID-19 outbreak in Nepal: a commentary

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## Abstract

**Purpose** – The purpose of this paper is to depict the current scenario of coronavirus diseases 2019 (COVID-19) in Nepal, how the government is tackling this pandemic as well as look at the public health challenges that Nepal is facing and might face in the future.

**Design/methodology/approach** – This paper is a viewpoint of COVID-19 activities conducted in Nepal.

**Findings** – Nepal is vulnerable to COVID-19, as it shares borders with China and India. Cases have started to be seen in different parts of Nepal. Government of Nepal has started various measures to control the spread of the virus such as deploying health workers, information sharing via different mediums. However, there are still many challenges that the government and public health officials need to be concerned about as well.

**Originality/value** – This paper provides information about the situation of COVID-19 in Nepal, how the government is handling, and public health challenges that may arise. This paper can be beneficial for further public health interventions.

**Keywords** COVID-19, Pandemic, Public health challenges, Nepal

**Paper type** Viewpoint

## Introduction

Several cases of pneumonia (unknown cause) were seen in the Hubei province of China on December 31, 2019 [1]. The infection was soon identified as a new kind of coronavirus. Human coronaviruses were first identified in the mid-1960s. Seven known types of coronaviruses of which four (229E, NL63, OC43 and KHU1) are common, with symptoms including mild to moderate respiratory infection like the flu while the severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome (MERS) viruses cause severe respiratory infection. The seventh type is the newly identified virus, first named the 2019 novel coronavirus, and later named coronavirus disease 2019 (COVID-19) on February 11, 2020 by the World Health Organization (WHO) [2, 3].

## Global scenario

At first, most cases of COVID-19 were reported only within Chinese borders and were commonly seen among people traveling to the infected areas or those who came in direct contact with those travelers. These cases rapidly spread to other countries as well and due to the contagious nature of the virus and the increasing number of COVID-19 cases worldwide,

WHO on January 30, 2020 declared the outbreak as a Public Health Emergency of International Concern on March 11, 2020 [4–6].

As of May 19, 2020, around $4.7m$ COVID-19 cases have been reported in 216 countries and territories across the globe resulting in around 316,169 deaths [7].

Observing the characteristics and proliferation of coronavirus cases worldwide, WHO has urged Southeast Asia to take immediate action and effective public health measures to slow down the transmission rate. Nevertheless, in the past weeks, the incidence of COVID-19 has been escalating in the South Asian region. According to a WHO report, among the South Asian countries, India has the highest number of COVID-19 cases (101,139) followed by Pakistan (43,966), Bangladesh (23,879), Afghanistan (7,655), Maldives (1,106), Sri Lanka (992), Nepal (402) and Bhutan (21) [7, 8].

### The scenario in Nepal

Nepal shares its borders to the North with China, where the disease was first identified and in the Southeast region with India where the cases of COVID-19 cases are growing most rapidly in the region. As of May 19, 2020, Nepal's Ministry of Health and Population (MoHP) confirmed 402 cases of coronavirus disease, and of this, the first case of COVID-19 was confirmed on January 24 in a 32-year-old student who returned from Wuhan, China and completely recovered by the end of January [8, 9]. To control the spread, an immediate lockdown commencing on March 24, 2020 and in effect to date was put in effect. On March 26, 2020, the MoHP also finalized guidelines for the management and handling of quarantine for COVID-19 [8]. In addition to this, several public health measures such as social distancing, hand washing, proper use of masks and hand sanitizers, mass awareness via audiovisual aid, radio jingle, distribution of Information Education and Communication (IEC) materials, etc. have also been introduced [10]. Social distancing became an effective way to control the transmission. Also, a mobile application (Hamro Swasthya) was launched, a separate web portal (covid19.mohp.gov.np) and hotline numbers for COVID-19 were introduced and various IEC materials information were disseminated [8, 10]. According to the May 19, 2020 MoHP report, the total beds available for quarantine was 63,773 with an additional 3,349 isolation beds prepared. So far, 21,623 suspected cases are under quarantine and 457 have been kept in isolation.

The cases are expected to rise in all the provinces as testing has been increased, but of 402 confirmed cases, 37 completely recovered, two deaths were confirmed with the remaining number under isolation [7, 8]. Of the two reported COVID-19 deaths, the first, on 16th of May, was of a 29-year-old lactating mother and the second, a 25-year-old man who was quarantined at Banke district (May 17, 2020) [8]. At present, Province 5 is the hardest hit with 188 cases, and Banke District alone, in the same province, has 93 active cases [8].

The Nepali government has introduced the 6T principle: travel restriction, testing, tracing, tracking, treatment and togetherness to fight against COVID-19 [8]. To date, 18 laboratories have been established in seven provinces of Nepal including the National Public Health Laboratory through polymerase chain reaction techniques while the rapid diagnostic test is being conducted throughout the country [8]. Moreover, the MoHP provides free treatment and testing of all suspected COVID-19 cases.

### Public health challenges in Nepal during the COVID-19 emergency

The pandemic has upended the lives of people as major health facilities are closed, borders are sealed, schools are closed and businesses are shut, resulting in a global public health challenge. Although research and trials are being performed by scientists to find a treatment or vaccine for COVID-19, developing countries like Nepal rely on ongoing public health measures. Nepal is handling a pandemic situation for the first time and it is evident that the country's present public health system is not equipped to deal with the issue.

The first and most challenging aspect is the availability of testing kits, medical supplies, Personal Protective Equipment and its timely distribution. Although there are qualified doctors, paramedics and nurses, they are not well equipped to prepare for and respond to the pandemic. Similarly, the hospitals in Nepal lack Intensive Care Unit facilities, isolation wards and medicines to treat COVID-19. Additionally, the implementation of infection prevention and control mechanisms are not strictly followed.

Nepal recently moved from the unitary system of governance to the federal system resulting in limited coordination between the three tiers of government i.e. federal, provincial and local levels. Hence, due to the lack of coordination, the problem of poor recording and reporting is possible. The 6T system has been accepted as an effective approach but the health system is struggling to implement this appropriately and there is a strong need to recruit public health manpower for effective contact tracing and case investigation roles.

On the other hand, while everyone seems to be more focused on how to treat or control COVID-19 cases, other important public health priority programs are at risk of being ignored. International public health experts have expressed their concern that the focus on COVID-19 cases would only delay the treatment of other medical issues or the provision of vaccinations for diseases such as measles [7]. This is evidenced by the suspension in Nepal and other countries of routine and mass immunization campaigns for measles and rubella vaccination, Vitamin A drops and deworming tablets. The consequences can affect millions of children and cause long-term damage to countries like Nepal who have eradicated and eliminated few vaccine-preventable diseases for children. Inevitably, the cases of measles outbreak in some districts of Nepal and diseases associated with rising temperatures like dengue has become a public health concern [11]. Community-based nutrition programs for early detection and treatment of malnourished children have also been halted which might have severe and long-term public health consequences.

Furthermore, the psychological aspect of the pandemic has not been thoroughly dealt with by the government as evidenced by an online survey conducted during the COVID-19 outbreak in Nepal which showed that nearly three-quarters of the respondents perceived their stress levels to be moderate to high [12]. As the lockdown continues, a sense of fear and confusion may rise among the general population regarding COVID-19. Moreover, as there is a close relation between outbreak and discrimination, there is a likelihood of stigmatization in the future. If this proves to be the case, people will start to hide their disease/illness for fear of being discriminated against, thereby making the situation worst.

## Conclusion

The speed with which the virus is spreading, even among countries that are ranked high for their outstanding health systems, has left nations and economies stunned. Despite the government of Nepal's preventive measures to control the rise of COVID-19 in all provinces, there was much more that could have been done at the outset immediately after the identification of the first case in January. The government could have used the time to properly manage and plan the pandemic but was instead unable to fully utilize the time and collect all possible supplies required to deal with the emergency.

This pandemic has taught developing nations such as Nepal a lesson regarding the importance of adequate planning and preparation to effectively deal with a future emergency. Furthermore, such situations are best managed through effective coordination among the federal, provincial and local governments along with hub and satellite hospitals. There is a need to follow the 6T principle, practice social distancing and promote public health measures with the help of the community and local government coordination.

At present, social distancing has proven to be effective, but prolonging the lockdown can also increase poverty, mental illness and social inequality. Furthermore, public health

systems are under severe pressure as the COVID-19 pandemic continues and the government is unable to deal with other diseases, resulting in future long-term health concerns.

## References

1. World Health Organization [WHO]. Coronavirus disease 2019 (COVID-19): Situation report - 1. [updated 2020 January 21; cited 2020 May 1]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10_4.

2. Marahatta SB, Paudel S, Aryal N. COVID-19 Pandemic: what can Nepal do to curb the potential public health disaster?. Journal of Karnali Academy of Health Sciences. 2020; 3(1): 1-14.

3. World Health Organization [WHO]. Naming the coronavirus disease (COVID-19) and the virus that causes it. [cited 2020 May 1]. Available from: https://www.who.int/ emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(COVID-2019)-and-the-virus-that-causes-it.

4. World Health Organization [WHO]. Coronavirus disease 2019 (COVID-19): situation report - 51. [updated 2020 March 11; cited 2020 May 1]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200311-sitrep-51-covid-19.pdf?sfvrsn=1ba62e57_10.

5. World Health Organization [WHO]. Statement on the second meeting of the international health regulations. Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). 2005) [updated 2020 January 30; cited 2020 May 1]. Available from: https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak- of-novel-coronavirus-(2019-ncov).

6. World Health Organization [WHO]. WHO announces COVID-19 outbreak a pandemic. [updated 2020 March 12; cited 2020 May 1]. Available from: http://www.euro.who.int/en/ health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/who-announces- covid-19-outbreak-a-pandemic.

7. World Health Organization [WHO]. Coronavirus disease 2019 (COVID-19): situation report - 120. [updated 2020 May 19; cited 2020 May 19]. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200519-covid-19-sitrep-120.pdf?sfvrsn=515cabfb_2.

8. Government of Nepal, Ministry of Health and Population, Health. Emergency and Disaster Management Unit [HEDMU], Health Emergency Operation Center [HEOC]. Coronavirus disease (COVID-19) outbreak updates & resource materials: situation report COVID-19 #100. [cited 2020 May 19]. Available from: https://heoc.mohp.gov.np/update-on-novel-corona-virus-covid-19/.

9. Bastola A, Sah R, Rodriguez-Morales AJ, Lal BK, Jha R, Ojha HC, et al. The first 2019 novel coronavirus case in Nepal. Lancet Infect Dis. 2020; 20(3): 279-80. doi: 10.1016/S1473-3099(20)30067-0.

10. Government of Nepal, Ministry of Health and Population, National Health Education Information and Communication Centre. [cited 2020 April 26]. Available from: https://nheicc.gov.np/.

11. Paudel A. Measles outbreak in Morang, Dang and Kapilvastu raises concern. The Kathmandu Post. [updated 2019 April 30; cited 2020 April 26]. Available from: https://kathmandupost.com/national/2019/04/30/measles-outbreak-in-morang-dang-and-kapilvastu-raises-concern.

12. Samadarshi SC, Sharma S, Bhatta J. An online survey of factors associated with self-perceived stress during the initial stage of the COVID-19 outbreak in Nepal. Ethiop J Health Dev. 2020; 34(2): 1-6.

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