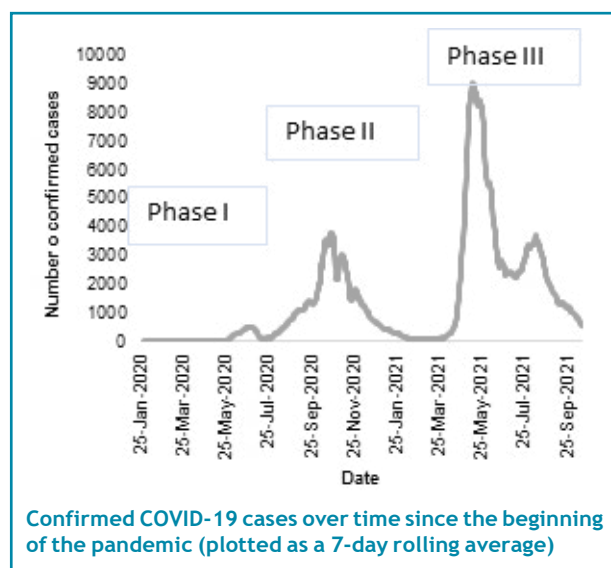


COVID-19 in Nepal: health sector preparedness, response and lessons learned

As of 15 October 2021, there had been nearly 900,000 confirmed cases and around 11,277 deaths from COVID-19 in Nepal during two major waves. Despite resource constraints, there have been remarkable achievements in laboratory testing, COVID-19 vaccination, and essential service delivery since the first case was reported on 23 January 2020. This policy brief summarizes key findings from a wide range of review on preparedness and response since early 2020, with a focus on identifying challenges and ways forward for the Ministry of Health and Population and the health system.

Epidemiological trends for COVID-19 in Nepal

The first confirmed COVID-19 case in Nepal occurred on 23 January 2020. The first instance of human-human transmission inside Nepal was not reported until May 2020. The epidemiology can be considered in three phases: the phase I before 18 July 2020 with dominantly imported cases, phase II from 19 July to 14 March 2021 with localized transmission, and phase III from 15 March 2021 onwards with widespread community transmission.



The burden of disease and mortality in Nepal is higher among elderly people, men, and those living in cities with high population density. Bagmati Province has seen the largest number of cases of all the provinces, with a majority of cases being concentrated in three districts of Kathmandu valley.

Key successes

- Laboratory testing capacity in Nepal was expanded rapidly in response to the COVID 19 pandemic. A new, provincial network of laboratories with PCR-testing capability was established with support from the National Public Health Laboratory (NPHL) and technical input from World Health Organization (WHO) and other partners. There is a real opportunity to capitalise on this achievement to bolster infectious disease testing and surveillance capacity in Nepal for the future. NPHL was the only laboratory providing RT-PCR test for COVID-19 in late January 2020, which has been expanded to 101 public and private laboratories across the country as of 15 October 2021.
- As of 15 October 2021, around 29.7% of the population aged 18 years and over had been fully vaccinated. The pace and reach of the COVID-19 vaccination program has been impressive. The vaccine program has benefited from strong, cross-party political support, and public acceptance for COVID-19 vaccines jab is high. Nepal also amended 'Durg Ordinance 2020' and strengthened the vaccine storage, transportation and delivery capacity creating enabling environment for vaccine acquisition and rollout process.

COVID-19 IN NEPAL: A TIMELINE

2019

- 16 Dec: first COVID-19 reported in Wuhan China

2020

- 23 Jan: first confirmed case in Nepal
- 30 Jan: PHEIC declared
- 26 Feb: Incident Command System established in Nepal
- 01 Mar: High-Level Coordination Committee established to oversee the response
- 11 Mar: mandatory self-quarantine introduced for travellers
- 13 Mar: national call centres introduced
- 22 Mar: prohibition on international flight arrivals
- 24 Mar: first national lockdown announced
- 9 Apr: Health Cluster activated
- 22 Apr: first iteration of the health sector response plan published
- Jun: CCMC assumes response oversight from HLCC
- 21 Jul: lockdown measures eased
- 21 Sept: COVAC established to oversee COVID-19 vaccine delivery in Nepal
- 01 Nov: MoHP incident command system established to oversee health response
- 12 Nov: first wave peak case numbers reached

- Data indicate quick recoveries in service utilisation, including routine immunization and maternal, child and adolescent health care from April 2020 after initial declines following the imposition of the first lockdown.
- Four rapid action plans were developed based on case estimation. The precise estimation of the case number enabled continuous supply of logistics and scaling up of hospital capacity. The Knowledge Café secretariat in Policy, Planning and Monitoring Division pulled global and local evidence to facilitate evidence informed decision making. Information Management Unit also facilitated informed decision making through continuous support of data and information which were not only useful for policy decisions but also for reimbursement to private hospital for providing service for COVID-19.

Lessons learnt from the response

- Incident Command System in the MoHP gave clear direction for day-to-day management of the response from the time it was established in November 2020. However, the changes to governance arrangements for the response overall posed challenges in oversight and coordination function, including with local government, partners in the Clusters, and the private sector.
- While there was limited engagement of private sector in first wave, their role increased gradually after consistent effort from government. However, regulating price of service delivered through private hospital became a crucial issue in second wave of the pandemic.
- With overwhelming acceptance of vaccine, some of the delivery sites were overcrowded with limited or no compliance to social distancing measures.
- Situational awareness has improved over the pandemic as reporting through routine systems such as DHIS2 (for health service usage) and e-LMIS (for logistics and supply chain needs) has been strengthened. However, it is not yet possible to assess the impact of vaccination on COVID-19 outcomes because case and mortality data are not linked to vaccination status.

Future directions

Nepal has recently emerged from a second wave. There is an opportunity now for health systems and processes to be strengthened so that services are better positioned to manage illness in any future COVID-19 waves, and to bolster preparedness for potential future epidemics and pandemics.

- Clear demarcation of responsibilities of the institutional structures could significantly improve governance of the response in the near- and long-term. The Incident Command System will need continued support to function effectively. There is scope to better define the role of the HEOC both for the COVID-19 response, and for preparedness for further epidemics.
- There is an opportunity for MoHP to work with research institutions and academia to build domestic forecasting capability to improve access to epidemiological modelling data so as to better inform future epidemic responses. Having Epidemiologist stationed in MoHP, who could continuously support the ministry with realistic forecasting of the disease could further facilitate evidence based informed decision-making process.

COVID-19 IN NEPAL: A TIMELINE

2021

- 20 Jan: national COVID-19 vaccine deployment plan published
 - 27 Jan: national COVID-19 vaccine campaign launched
 - 29 Apr: second national lockdown imposed
 - 16 May: second wave peak case numbers reached
 - 7 Aug: Nepal Mask Week campaign launched
 - 6 Sept: lockdown measures relaxed in Kathmandu Valley
 - 23 Sept: mandatory quarantine for travel arrivals removed
- Clinicians and service managers can take advantage of the reduction in acute pressure on health facilities over the past month to take stock of what has been learned in terms of health care for COVID-19 patients especially in the second wave. The MoHP could help coordinate lesson-learning to identify best practices in clinical care and service management and to disseminate them across the system in preparation for any future waves.
 - Unified and integrated disease surveillance system is crucial to precisely track the disease situation in the community. Recovery from the second wave offers an opportunity to review the effectiveness of surveillance systems in promptly identifying cases, and further strengthening the surveillance system to help better prepare for future epidemics in Nepal.

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