

Epidemiological update on COVID-19 situation in Nepal -- 5 June 2020 07:00 hours

Top line summary

This detailed epidemiological update is based on 2624 cases of COVID-19 confirmed through RT-PCR. Core epidemiological variables for 10 confirmed cases are under process at this time. So far, more than 80,000 samples have been tested for COVID-19 through polymerase chain reaction (PCR).

Transmission pattern

Repeated bolus influxes of migrant workers returning across the open southern border is driving current COVID-19 transmission in Nepal. Most of these workers are males in the economically productive age group and were working in Western India which has emerged as a high transmission zone for COVID-19. The total count of cases is increasing rapidly driven mainly by these large influxes of returnees and is expected to rise even further as more migrant Nepalese workers will be returning across the southern border in coming days to weeks.

However, there are some cases without a clear travel history or contact with persons with a travel history and some evidence of community transmission is emerging although it is still in a few clusters.

New districts in the mountain regions are being affected indicating that some amount of community transmission might have started, which is being investigated.

So far, aggressive testing albeit with significant scope for strategic improvement, has helped identify and confine the transmission among returnees but testing capacity as well as isolation and quarantine facilities and contact tracing mechanisms are being stretched to the limit.

Deaths

Nine persons (two female) who tested positive for COVID-19 have died. Of these, five persons had one or more co-morbid conditions and two were above 60 years of age while one was a child of two years. Four persons (all under 40 years of age including the child) had history of travel from India.

COVID-19 update

- The COVID-19 pandemic with more than 6.6 million cases and more than nearly 400,000 deaths globally (<https://www.worldometers.info/coronavirus/#countries> accessed on 5 June 2020) has become an unprecedented public health challenge for all countries.
- As of date, Nepal has confirmed 2634 cases through PCR and nine deaths. This report is based on 2624 cases for which core data is available.
- All seven provinces and 65 out of 77 districts are now affected. All provinces reported at least one confirmed case this week. All districts of province 2 and Sudurpaschim have reported at least one confirmed case of COVID-19, although until date the case counts are low for the latter.

Summary of laboratory-confirmed COVID-19 cases, deaths and transmission by province					
Transmission classification based on WHO definitions					
Reporting Province	Total confirmed cumulative cases	Total cumulative deaths	Transmission classification*	District affected (total districts)	Date of most recent case [#]
Province 1	196	-	Cluster of cases	12 (14)	04-Jun-2020
Province 2	970	1	Cluster of cases	8 (8)	04-Jun-2020
Bagmati	59	3	Sporadic cases	12 (13)	04-Jun-2020
Gandaki	53	-	Sporadic cases	7 (11)	04-Jun-2020
Province 5	887	3	Cluster of cases	11 (12)	04-Jun-2020
Karnali	380	1	Cluster of cases	6 (10)	04-Jun-2020
Sudurpaschim	79	1	Sporadic cases	9 (9)	04-Jun-2020
National Total	2624	9		65 (77)	04-Jun-2020

- Date of last case is the date of onset or date of sample collection or date of lab report based on information available.
 *Case classification is based on [WHO transmission classification](#)
No cases- provinces with no cases
Sporadic cases- provinces with one or more cases, imported or locally detected
Cluster of cases- provinces experiencing cases, clustered in time, geographic location and/or by common exposures
Community transmission- experiencing larger outbreaks of local transmission defined through an assessment of factors including, but not limited to:
 - Large numbers of cases not linkable to transmission chains
 - Large numbers of cases from sentinel lab surveillance
 - Multiple unrelated clusters in several areas of the country/territory/area

• All data are provisional
 • Data updated till 05 Jun 2020 Time 07:00:00

Table 1: Nepal COVID-19 cases by province and districts affected with date of last case

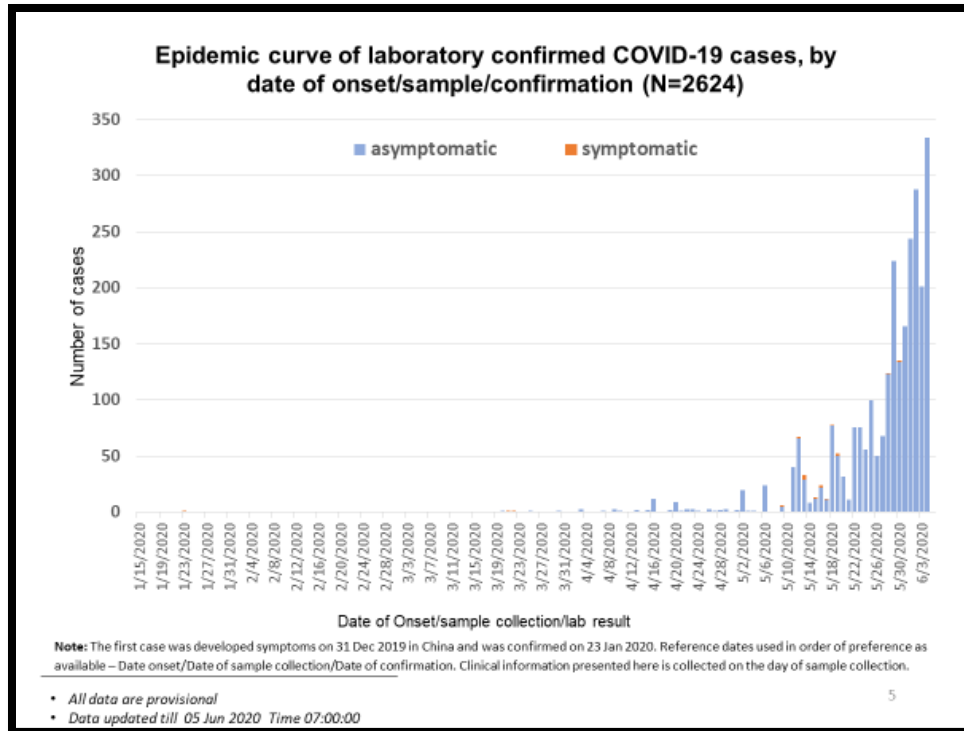


Figure 1: COVID-19 daily incident cases by symptom at presentation

- Nearly two months after this first case, from 20 March 2020 and thereafter, sporadic cases started occurring in Nepal as confirmed at the National Public Health Laboratory (NPHL), Nepal. [Figure 1]
- Government of Nepal announced nationwide lockdown from 24 March 2020 and domestic flights were suspended. International flights were suspended from 23 March 2020.
- Until mid-April confirmed COVID-19 (PCR positive) cases were detected sporadically but they were largely confined to persons returning or visiting from foreign countries.
- Starting third week of April and later, clusters of cases were detected. Initially in province-1 (at Udaipur – 28 cases) and in province-2 (Bara, Parsa and Rautahat – 2 each). Other than Rautahat, these clusters were associated with community religious events or congregations in India and Nepal.
- From around 10 May 2020, as the national lock down in India was gradually being relaxed (started on 23 March), number of returnees crossing the southern border increased and many cases were confirmed amongst these returnees mainly in province 2 and province 5.
- Of late, Karnali province has also shown a very sharp increase in COVID-19 cases in returnees.
- **The returning migrant workers and their accompanying family members have been confined to quarantine centres and those testing positive isolated in border municipalities and districts thus effectively preventing widespread community transmission to other municipalities inside the country.**
- **Aggressive testing irrespective of symptoms in such high-risk groups and locations has played a part in the prevention of apparent seeding of infection. More than 80,000 PCR tests have been conducted.** [<https://covid19.mohp.gov.np/#/> accessed on 5 June 2020 0800]

- This staccato step-wise progression of case counts is largely driven by large number of imported cases detected amongst returning migrant workers through the testing mechanism deployed. Many of them were residing in the western part of India which has turned out to be a high transmission zone of community wide transmission of COVID-19 and were presumably infected there. [Figure 2 and Figure 3]
- The increase in the number of positive cases and their profile reflects mainly the testing approach, i.e. the targeting of recently arrived returnees from India. Only few people have tested positive outside this group.

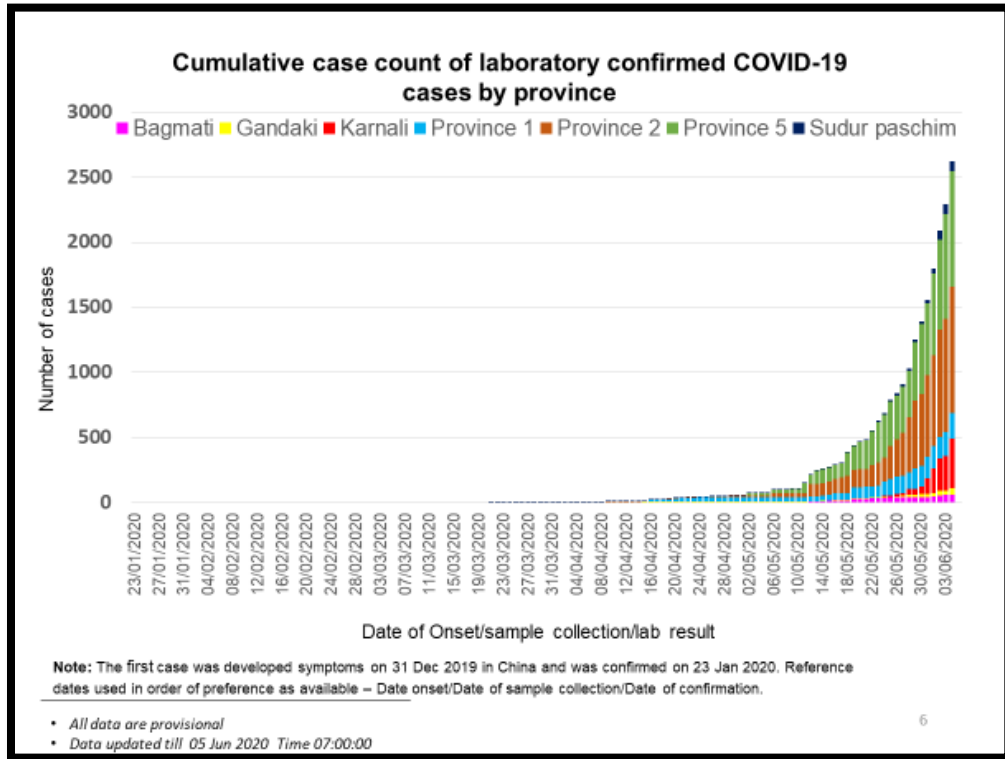


Figure 2: Cumulative incidence of COVID-19 confirmed cases by province

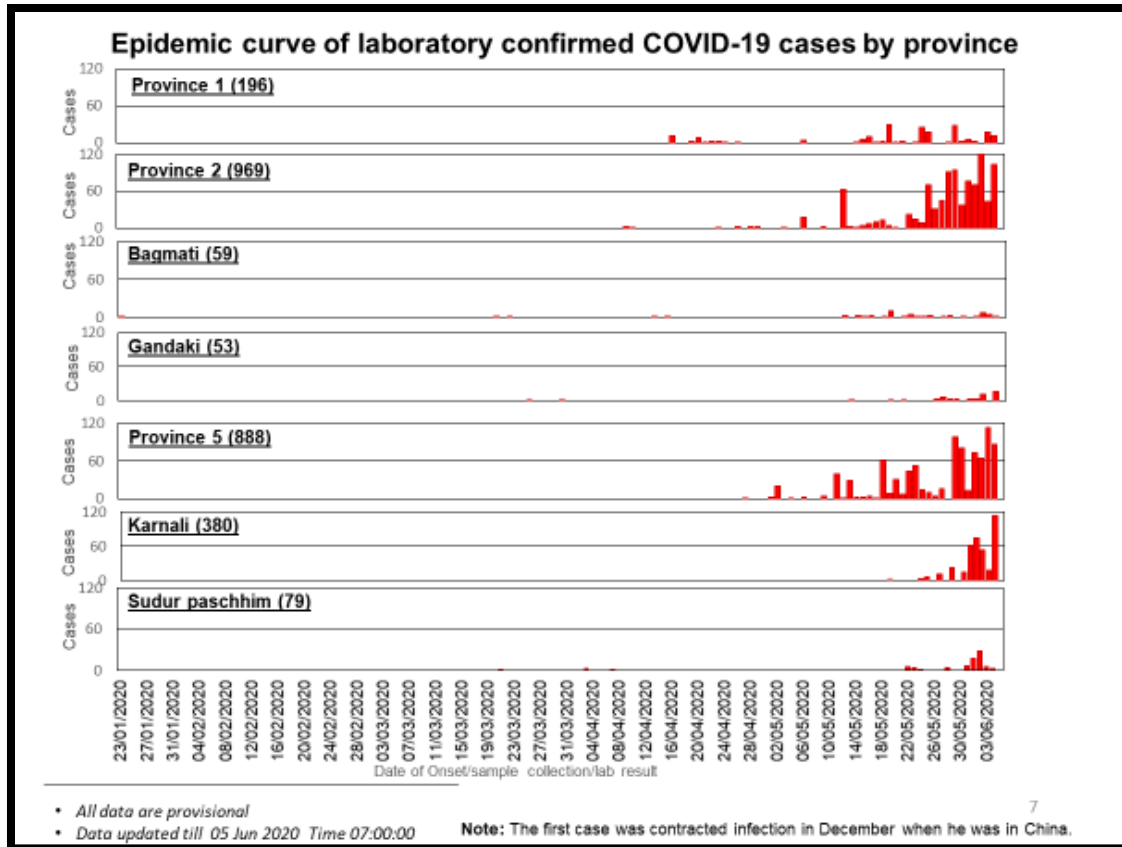


Figure 3: Province wise epi-curve of confirmed COVID-19 cases

- The geographic distribution shown below demonstrates clustering within some municipalities. [Figure 4]
- The age sex distribution is highly skewed towards males, who constitute 93% of the confirmed cases. Of the males, 94% are in 15-54-year age group, indicating that these large increases in confirmed cases are occurring because of large groups of infected migrant workers (who are predominantly males in economically productive age group) returning to Nepal. [Figure 5]

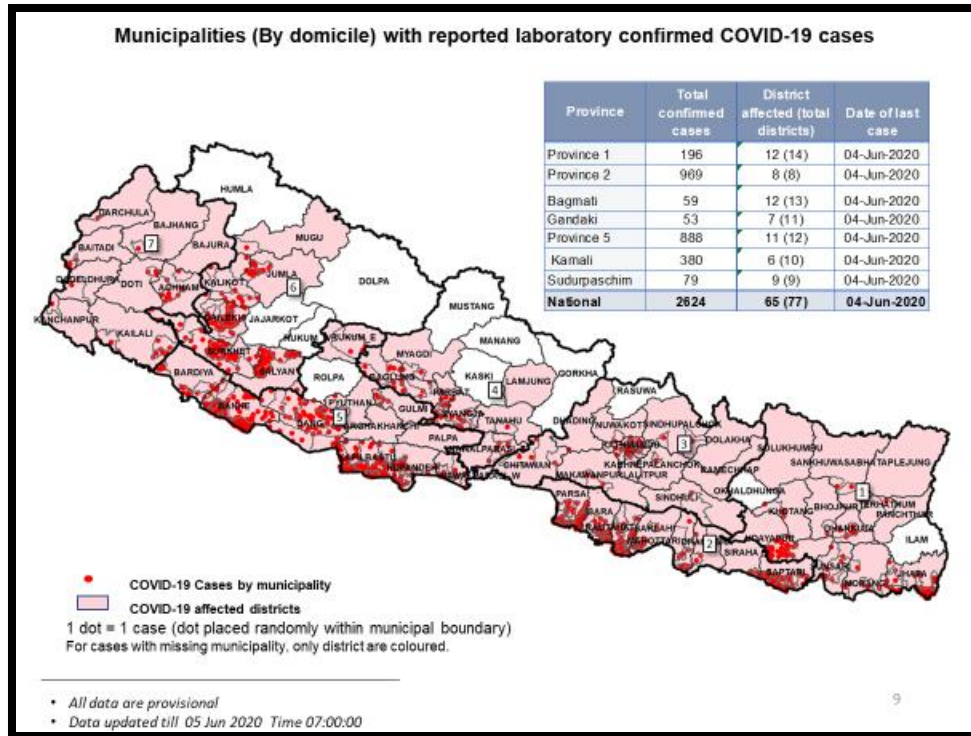


Figure 4: Geographic distribution of cases by place of confirmation or residence

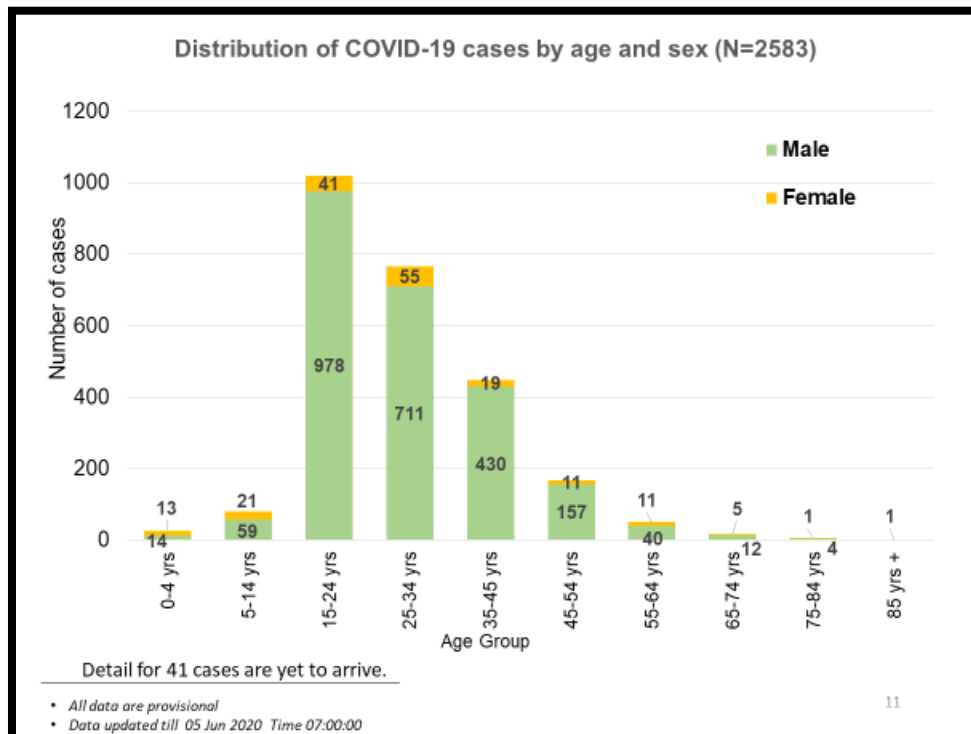


Figure 5: Age-sex distribution of confirmed COVID-19 cases

- Currently, all PCR positive cases irrespective of presence or absence of symptoms are isolated in designated hospitals.
- They are discharged on clinical recovery if symptomatic or after 14 days of isolation.
- Two hundred and ten persons have “recovered” / discharged, and nine persons have died. [Figure 6]

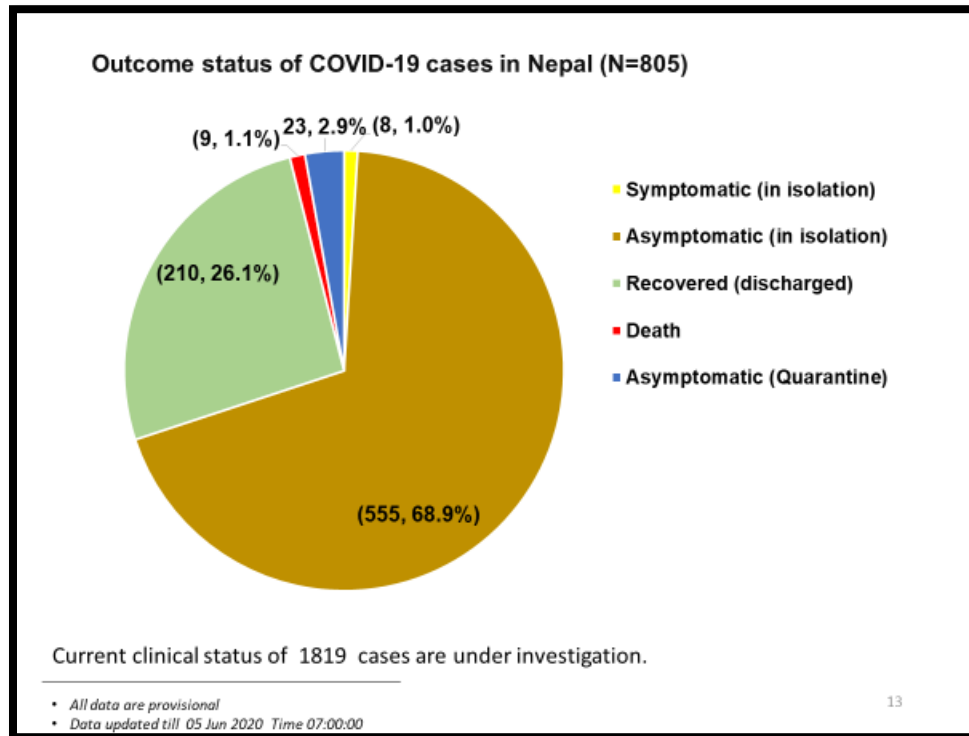


Figure 6: outcome status of confirmed COVID-19 cases

Deaths associated with COVID-19

Nine persons (two female) who tested positive for COVID-19 have died. Of these, five persons had one or more co-morbid conditions and two were above 60 years of age. One was a child of two years.

One female (29 years) died in past partum period.

Four persons (all under 40 years of age including the child) had history of travel from India or possible contact while four had no such travel history and for one person the travel history is being ascertained.

ILI / SARI update

- Since January 2020 until 21 May 2020, 586 cases of influenza like illness (ILI) and severe acute respiratory infection (SARI) have been tested for SARS-CoV2 and five have tested positive (1 in January and 4 in March). All five have been included in the COVID-19 confirmed cases list.
- All samples received for influenza cases after the national lockdown are also tested for COVID.
- Early warning alert and response system (EWARS plus) module has been developed in the HMIS system for daily reporting of the SARS, ILI, and suspected COVID cases with facility for lab samples collection.
- However, there is need to have case-based record for samples sent to testing for rt-PCR for all SARI/ILI and suspected COVID-19 cases. There is also a need to improve the reporting rates of the participating EWARS sites.