Situation Update #155 - Coronavirus Disease 2019 (COVID-19)
WHO Country Office for Nepal

Reporting Date: 27 March – 2 April 2023 (Epi Week 13)

HIGHLIGHTS
(Data published in the MoHP Situation Report as of 2 April 2023 and same data published in EDCD Report as of 3 April 2023)

- Of the total RT-PCR confirmed COVID-19 cases, 98.8% (989,207) of cases have recovered, 0.01% (194) are active cases, and 1.19% (12,020) are deaths.
- Among the new RT-PCR confirmed cases (198) reported this week, 50.5% (100 cases) are from Kathmandu district followed by Lalitpur district with 17.2% (34 cases). Majority of the new cases 72.7% (144) have been reported from Kathmandu Valley (Kathmandu, Lalitpur, and Bhaktapur) in Bagmati Province.

COVID-19 vaccination coverage status (as of 28 March 2023)

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>First dose</th>
<th>Second dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covi-AstraZeneca</td>
<td>5,586,533</td>
<td>4,837,198</td>
</tr>
<tr>
<td>Vero Cell</td>
<td>10,398,255</td>
<td>9,267,745</td>
</tr>
<tr>
<td>Janssen</td>
<td>3,546,120</td>
<td></td>
</tr>
<tr>
<td>Pfizer</td>
<td>5,008,088</td>
<td>3,831,403</td>
</tr>
<tr>
<td>Moderna</td>
<td>3,228,669</td>
<td>2,830,970</td>
</tr>
</tbody>
</table>

NEPAL EPIDEMIOLOGICAL SITUATION

- Since 9 May 2021, all 7 provinces in the country are experiencing community transmission.
- Since the start of the COVID-19 pandemic, a total of 78.2% (783,120/1,001,421) of RT-PCR confirmed cases were reported from three provinces, namely - Koshi, Bagmati, and Lumbini Provinces. The Kathmandu valley area (Kathmandu, Bhaktapur, Lalitpur) in Bagmati Province has substantially high case load with 44.1% of national total (441,948/1,001,421), and 81.4% of the provincial total (441,948/543,048).
- Province-wise, RT-PCR test positivity rate in Epi week 13 ranged from 0.0% (Koshi and Madhesh Provinces) to 13.5% (Gandaki Province) with a national positivity rate at 8.5%. Lumbini and Karnali Provinces did not report any RT-PCR test performed in the last week.
- Nepal reported 383% increase in the number of new RT-PCR confirmed cases (n=198) in Epi week 13 compared to that in the previous week. Of these total cases reported last week, 87% of the cases have been reported from Koshi, Lumbini, and Bagmati Provinces.
- Nepal did not report any death in Epi week 13, same as in the previous week.
**National Influenza Surveillance**

- National Influenza Center (NIC)- National Public Health Laboratory (NPHL) reported 15 Diagnostic Influenza samples on Epi week 13 (27 March-2 April 2023).
  - Two samples tested Influenza B positive.
  - None of the sample tested SARS-CoV-2 positive.
  - One sample tested SARS-CoV-2 positive.
- NIC-NPHL received 32 Influenza samples from sentinel hospitals on Epi week 13.
  - Four samples tested Influenza A positive (to be subtyped) and 4 samples tested SARS-CoV-2 positive.
- Provincial Public Health Laboratories (PPHLs) reported testing of 92 samples for Influenza-SARS-CoV-2 using Multiplex kit on Ep week 13.
  - Four samples tested Influenza A positive (to be subtyped).
  - Two samples tested SARS-CoV-2 positive.
  - A total of 1289 samples have been tested by PPHLs from 2 Jan – 24 Mar 2023.

From 2 January 2023 until 2 April 2023:

- A total of 328 samples have been tested positive for Influenza (42 Influenza B, 245 Influenza A/H3N2, 28 Influenza A(H1N1) pdm09 and 13 Influenza A (to be subtyped)) from 2370 samples (sentinel and non-sentinel SARI and ILI samples)
- Similarly, 19 samples tested positive for SARS-CoV-2 from dual testing of Influenza and SARS-CoV-2 in 2085 samples received from sentinel sites and non-sentinel SARI and ILI samples.¹

**WHO SEAR countries: Number of COVID-19 confirmed cases and cumulative incidence rate (per 100,000). Link Here-** [https://worldhealthorg.shinyapps.io/covid/](https://worldhealthorg.shinyapps.io/covid/)

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¹ These positive cases are included in the COVID-19 database
At national level, the first wave of cases between July 2020 and February 2021 was followed by the second wave from the middle of March 2021. Since the middle of December 2021, a third wave of cases soared up exceeding the highest number of single day cases reported in the past surges towards the end of January 2022. Another wave of cases steadily soared up towards the middle of May 2022 following an overall declining trend since the middle of August 2022. Since the end of March 2023, cases are soaring up following an increasing trend.
The cumulative case incidence has been increasing in Nepal since the first case confirmed on 23 January 2020. Cases have been largely reported from Bagmati Province followed by Koshi Province and Lumbini Province.

Figure 3A1: RT-PCR confirmed COVID-19 cases in Province 1: Trend of Cases, 7 days Rolling Average, Weekly Cases and Deaths and Test Positivity Rate (Data reported on 2 April 2023)

There were 9 new cases reported in the past week in Koshi province. Cases have increased by 50% in the past week compared to that in the previous week. There was no death reported in the past week, same as in the previous week. The test positivity rate in Koshi province retained at 0.0% in the past week. A total of 35 tests were performed in the past week, 9% more than that in the previous week.
There was no new case reported in the past week in Madhesh province. Cases have decreased by 100% in the past week compared to that in the previous week. There was no death reported in the past week, same as in the previous week. The test positivity rate in Madhesh province retained at 0.0% in the past week. A total of 58 tests were performed in the past week, 29% more than that in the previous week.

Figure 3A3: RT-PCR confirmed COVID-19 cases in Bagmati Province: Trend of Cases, 7 days Rolling Average, Weekly Cases and Deaths and Test Positivity Rate (Data reported on 2 April 2023)
In Bagmati Province, 161 new cases were reported in the past week. Cases have increased by 496% in the past week compared to that in the previous week. There was no death reported in the past week, same as in the previous week. The test positivity rate in Bagmati Province increased to 8.9% in the past week. A total of 2145 tests were performed in the past week, 1% less than that in the previous week.

**Figure 3A4: RT-PCR confirmed COVID-19 cases in Gandaki Province: Trend of Cases, 7 days Rolling Average, Weekly Cases and Deaths and Test Positivity Rate** (Data reported on 2 April 2023)

In Gandaki Province, 18 new cases were reported in the past week. Cases have increased by 350% in the past week compared to that in the previous week. There was no death reported in the past week, same as in the previous week. The test positivity rate in Gandaki Province increased to 13.5% in the past week. A total of 37 tests were performed in the past week, same as in the previous week.
Lumbini Province reported 3 new cases in the past week. Cases have increased by 50% in the past week compared to that in the previous week. There was no death reported in the past week, same as in the previous week. There was no test performed reported in the past week.

Figure 3A5: RT-PCR confirmed COVID-19 cases in Lumbini Province: Trend of Cases, 7 days Rolling Average, Weekly Cases and Deaths and Test Positivity Rate (Data reported on 2 April 2023)

Figure 3A6: RT-PCR confirmed COVID-19 cases in Karnali Province: Trend of Cases, 7 days Rolling Average, Weekly Cases and Deaths and Test Positivity Rate (Data reported on 2 April 2023)
In Karnali Province, no new case was reported in the past week, same as in the previous week. There was no death reported in the past week, same as in the previous week. There was no test performed reported in the past week.

Figure 3A7: RT-PCR confirmed COVID-19 cases in Sudurpaschim Province: Trend of Cases, 7 days Rolling Average, Weekly Cases and Deaths and Test Positivity Rate (Data reported on 2 April 2023)

In Sudurpaschim Province, 7 new cases were reported in the past week. Cases have increased by 600% in the past week compared to that in the previous week. There was no death reported in the past week, same as in the previous week. The test positivity rate in Sudurpaschim Province was 4.3% in the past week. A total of 47 tests were performed in the past week, compared to none reported in the previous week.
**Table 1: Summary of confirmed COVID-19 cases, deaths and transmission by Provinces** (Data reported on 2 April 2023 up to 19:00:00)

<table>
<thead>
<tr>
<th>Reporting Province</th>
<th>Total confirmed cumulative cases RTPCR Tests</th>
<th>Total Confirmed cumulative cases</th>
<th>Total confirmed cumulative cases Antigen RDT test</th>
<th>% of total confirmed cumulative cases</th>
<th>Total cumulative deaths</th>
<th>Transmission classification</th>
<th>Total confirmed cases in last 14 days Antigen RDT test</th>
<th>Total confirmed cases in last 14 days RT-PCR test</th>
<th>Total confirmed cases in last 14 days</th>
<th>% of total confirmed cumulative cases in last 14 days</th>
<th>Total Deaths in last 14 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Province 1</td>
<td>129572</td>
<td>30325</td>
<td>159897</td>
<td>14.1</td>
<td>1722</td>
<td>Community transmission</td>
<td>3</td>
<td>15</td>
<td>18</td>
<td>4.2</td>
<td>0</td>
</tr>
<tr>
<td>Madhesh</td>
<td>53908</td>
<td>1179</td>
<td>55087</td>
<td>4.9</td>
<td>783</td>
<td>Community transmission</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Bagmati</td>
<td>543048</td>
<td>32825</td>
<td>575873</td>
<td>50.9</td>
<td>5203</td>
<td>Community transmission</td>
<td>45</td>
<td>188</td>
<td>233</td>
<td>54.4</td>
<td>0</td>
</tr>
<tr>
<td>Gandaki</td>
<td>95410</td>
<td>24680</td>
<td>120090</td>
<td>10.6</td>
<td>1428</td>
<td>Community transmission</td>
<td>10</td>
<td>22</td>
<td>32</td>
<td>7.5</td>
<td>0</td>
</tr>
<tr>
<td>Lumbini</td>
<td>110500</td>
<td>28178</td>
<td>138678</td>
<td>12.3</td>
<td>1874</td>
<td>Community transmission</td>
<td>37</td>
<td>5</td>
<td>42</td>
<td>9.8</td>
<td>0</td>
</tr>
<tr>
<td>Karnali</td>
<td>24020</td>
<td>6343</td>
<td>30363</td>
<td>2.7</td>
<td>492</td>
<td>Community transmission</td>
<td>18</td>
<td>0</td>
<td>18</td>
<td>4.2</td>
<td>0</td>
</tr>
<tr>
<td>Sudurpashchim</td>
<td>44963</td>
<td>6217</td>
<td>51180</td>
<td>4.5</td>
<td>518</td>
<td>Community transmission</td>
<td>75</td>
<td>8</td>
<td>83</td>
<td>19.4</td>
<td>0</td>
</tr>
<tr>
<td><strong>National Total</strong></td>
<td><strong>1001421</strong></td>
<td><strong>129747</strong></td>
<td><strong>1131168</strong></td>
<td><strong>100</strong></td>
<td><strong>12020</strong></td>
<td>Community transmission</td>
<td><strong>189</strong></td>
<td><strong>239</strong></td>
<td><strong>428</strong></td>
<td><strong>100</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

*Total reported in Health Emergency Operation Center (HEOC) Sitrep as of 2 April 152422, IMU reported 129747.*

Notes:
1. The source for the case data used in this update is from RT-PCR test positivity reported by laboratories from various locations across Nepal, as shared by HEOC Sitrep; and IMU/IHIMS.
2. Case data is screened and cleaned by our data team for double entry, wrong entries and manual errors such as city names in place of districts, district names in place of province etc.
3. Whereas the test positivity rate is calculated based on the test positivity reported in Sitrep for RT-PCR which may or may not be scrutinized or cleaned the same way and mark the cases on location of the laboratories rather than their place of residence.
Overall, the sex-distribution remains skewed towards males. The incidence of cases is higher in the economically productive age group (15-54 years) for both males and females.

Table 2: Age Specific Case Fatality Ratio and Co-morbidity of Deaths in RT-PCR confirmed COVID-19 cases (N= 1001421) (Data reported on 2 April 2023 up to 19:00:00)

<table>
<thead>
<tr>
<th>Age Group (Years)</th>
<th>Total confirmed cases</th>
<th>Death (male)</th>
<th>Death (female)</th>
<th>Deaths with any known comorbid condition</th>
<th>Age specific case fatality ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>9324</td>
<td>16</td>
<td>23</td>
<td>13</td>
<td>0.42</td>
</tr>
<tr>
<td>5-14</td>
<td>34189</td>
<td>13</td>
<td>7</td>
<td>10</td>
<td>0.06</td>
</tr>
<tr>
<td>15-24</td>
<td>151472</td>
<td>92</td>
<td>96</td>
<td>70</td>
<td>0.12</td>
</tr>
<tr>
<td>25-34</td>
<td>277757</td>
<td>387</td>
<td>265</td>
<td>151</td>
<td>0.23</td>
</tr>
<tr>
<td>35-44</td>
<td>206411</td>
<td>875</td>
<td>452</td>
<td>281</td>
<td>0.64</td>
</tr>
<tr>
<td>45-54</td>
<td>144414</td>
<td>1396</td>
<td>645</td>
<td>574</td>
<td>1.41</td>
</tr>
<tr>
<td>55-64</td>
<td>92187</td>
<td>1691</td>
<td>803</td>
<td>783</td>
<td>2.71</td>
</tr>
<tr>
<td>65-74</td>
<td>49947</td>
<td>1640</td>
<td>893</td>
<td>957</td>
<td>5.07</td>
</tr>
<tr>
<td>75-84</td>
<td>23612</td>
<td>1228</td>
<td>659</td>
<td>773</td>
<td>7.99</td>
</tr>
<tr>
<td>85+</td>
<td>6871</td>
<td>524</td>
<td>289</td>
<td>279</td>
<td>11.83</td>
</tr>
<tr>
<td>Unknown</td>
<td>5237</td>
<td>19</td>
<td>7</td>
<td>11</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td><strong>1001421</strong></td>
<td><strong>7881</strong></td>
<td><strong>4139</strong></td>
<td><strong>3902</strong></td>
<td><strong>1.20</strong></td>
</tr>
</tbody>
</table>

Case Fatality ratio (CFR, in%) = \( \frac{\text{Number of deaths from disease}}{\text{Number of confirmed cases of disease}} \times 100 \)

COVID-19 positive lab result is temporally associated with death; causal association under investigation.
A total of 12,020 deaths have been reported. Out of the total deaths, 7,881 (65.6%) were male and 4,139 (34.4%) were female. Amongst the deaths, 3,902 persons (32.5%) had at least one known comorbidity. The age specific case fatality ratio (CFR) progressively increases with age, ranging from 0.06% to 11.8%.

**PREPAREDNESS AND RESPONSE**

**What are the Government of Nepal (GoN) & the Ministry of Health & Population (MoHP) doing?**

- From 3 November 2022 onwards, the Government of Nepal has started administering second dose COVID-19 booster vaccination for people aged 55 and above and the vulnerable population group (immune-deficiency/chronic patients, pregnant women, and health workers).

**What is the WHO Country Office for Nepal doing?**

**Laboratory Diagnosis**

- WHO Nepal has been providing support to the NPHL in continued routine work.
- WHO Nepal provided technical support to NPHL in following activities
  - Performing and disseminating the result of genome sequencing of 24 SARS-CoV-2 samples. The genomic sequencing detected Omicron variant in all 24 samples with Omicron (BA.1.1) in 2 samples, Omicron (BA.2) in 2 samples, Omicron (BA.2.76) in 1 sample, Omicron (BA.5) in 2 samples, Omicron (BA.5.2) in 2 samples, Omicron (XBB.1.16) in 10 samples, Omicron (XBB.1.5) in 3 samples, Omicron (XBB.2.6) in 1 sample, and Omicron (XBF) in 1 sample respectively.
  - Basic orientation on Biosafety – Mask use (fit test) and Personal Protective Equipment (PPE) use (Glo germ) - was envisioned to advocate, sensitize, and capacitate officials, center and divisions under DoHS on the adequate and standard use of PPE to mitigate potential consequences while handling infectious samples.
  - Standardization of Bacillus anthracis.

**Technical Expertise and Training**

- Continued routine work from the team of Technical Expertise and Training.²
- WHO Nepal provided technical and financial support for conduction of “Basic orientation on Biosafety – Mask use (fit test) and PPE use (Glo germ)” to National Health Training centre (NHTC) on 2 April 2023. This basic orientation advocated, sensitized, and capacitated officials, centers ,and divisions under DoHS on the adequate and standard use of PPE to mitigate potential consequences while handling infectious samples.

² The routine works of the technical expertise and training team included technical support to the Ministry of Health and Population and its department for developing different guidelines/manuals, conducting health programs, and conducting capacity building activities. To perform these activities, the team coordinates and discuss with relevant government authorities and partners for effective planning and conducting the various activities.
Operational Support and Logistics

- Continued routine work from the team of Operation Support and Logistics.³

Risk Communication and Community Engagement

- The news of the handover of a solar power generation system to the Province Hospital, Surkhet, was shared via Facebook (link here), Twitter (link here), Instagram (link here), and website (link here). The 150KW photovoltaic solar power generation system will support to power the Pressure Swing Adsorption (PSA) oxygen plant and a wide variety of essential medical and basic information and communication technology equipment, which are also essential for COVID-19 response. The use of solar energy system will also help reduce operational cost by minimizing usage and dependency on diesel required to run the plant, resulting in affordable medical oxygen for the public.

³ The routine works of the operation support and logistics team included technical support to the Management Division of the Department of Health Services for the forecasting, quantification, procurement, and distribution plan of COVID-19 commodities. The other routine activities included daily operational support to the WHO country office and seven provincial health emergency operation centers, including fleet and travel management and the procurement of required logistics and supplies.
The 150KW photovoltaic solar power generation system at the Province Hospital, Surkhet, which will support to power the Pressure Swing Adsorption oxygen plant and a wide variety of essential medical and basic information and communication technology equipment, which are also crucial for COVID-19 response. Photo credit: WHO Nepal

Handover of the 150KW photovoltaic solar power generation system at the Province Hospital, Surkhet. Photo credit: WHO Nepal

- The latest episode of Science in 5 on Mpox (status update, lessons learned from the response so far, and who is at risk) was shared via Facebook (link here) and Twitter.
  - IEC materials on the following topics were shared via social media:
    - Preventive measures of COVID-19,
    - Importance of COVID-19 vaccines and boosters,
    - Physical activity and COVID-19,
    - HIV and COVID-19
- The Weekly COVID-19 EPI Dashboard was uploaded on ReliefWeb (link here) and WHO, Country Office for Nepal, website (link here).
- The Weekly WHO Nepal COVID-19 Situation Update was uploaded on ReliefWeb (link here) and WHO, Country Office for Nepal, website (link here).
- The Focused COVID-19 and Health Media Monitoring was uploaded on ReliefWeb (link here).
- WHO press briefings on COVID-19 are being shared via Facebook and Twitter.

What are the health clusters partners doing?
- Continued routine work from the team of Partner Coordination and Donor Relation
- UNICEF and WHO are providing overall support for COVID-19 vaccination campaign in close coordination with health partners and donors.
- All members of the health clusters are supporting the COVID-19 vaccination campaign of Nepal.

4 The routine works include coordinating with all the divisions, units, centers of Ministry of Health and Population (MoHP) and Department of Health Services (DoHS), and the health partners for effective conduction of Health Cluster Coordination meeting. Furthermore, the works included the documentation and distribution of meeting minutes, health partner’s support updates in the 3Ws (Who, What, Where) and thematic mapping, updates of WHO’s support in the UNRCO 3W sheet, participate in multi-sectoral and disaster preparedness and response platforms and activities and the humanitarian country team operational meetings. Moreover, necessary support for effective coordination of Health Emergency Operation Centre (HEOC) with different stakeholders is provided.
• Health partners are continuing their technical, operational, and logistics support for COVID-19 responses to health-related offices and institutions throughout the country.
• COVID-19 consultation is being provided continuously by specialist teams through tele-medicine services.

WHO’s STRATEGIC OBJECTIVES FOR COVID-19 RESPONSE- [link here](#)

RECOMMENDATION AND ADVICE FOR THE PUBLIC

- Protect yourself
- Questions and answers
- Travel advice
- **[EPI-WIN](#)**: tailored information for individuals, organizations and communities

USEFUL LINKS

- MoHP COVID-19 official portal is available [here](#).
- Nepal COVID-19 regular updates and resources are available [here](#).
- For COVID-19 updates from the WHO South-East Asia Region Office, please visit [here](#).
- For information about coronavirus disease (COVID-19) Pandemic from WHO, please visit [here](#).
- Please visit this [site](#) for all technical guidance from WHO.
- Online courses on COVID-19 from WHO can be found [here](#).
- WHO Coronavirus (COVID-19) Dashboard can be found [here](#).
- Visit the WHO Nepal [Facebook page](#) and webpage on COVID-19 [here](#).

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