Situation Update #157 - Coronavirus Disease 2019 (COVID-19)  
WHO Country Office for Nepal  

Reporting Date: 10 - 16 April 2023 (Epi Week 15)  

HIGHLIGHTS  
(Data published in the MoHP Situation Report as of 16 April 2023 and same data published in EDCD Report as of 17 April 2023)  

- Of the total RT-PCR confirmed COVID-19 cases, 98.7% (989,779) of cases have recovered, 0.01% (378) are active cases, and 1.19% (12,022) are deaths.  
- Among the new RT-PCR confirmed cases (378) reported this week, 55.6% (210 cases) are from Kathmandu district followed by Lalitpur district with 10.1% (38 cases). Majority of the new cases 68.5% (259) have been reported from Kathmandu Valley (Kathmandu, Lalitpur, and Bhaktapur) in Bagmati Province.

COVID-19 vaccination coverage status (as of 11 April 2023)  

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>First dose</th>
<th>Second dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covi-AstraZeneca</td>
<td>5,586,605</td>
<td>4,837,423</td>
</tr>
<tr>
<td>Vero Cell</td>
<td>10,399,238</td>
<td>9,268,565</td>
</tr>
<tr>
<td>Janssen</td>
<td>3,546,165</td>
<td></td>
</tr>
<tr>
<td>Pfizer</td>
<td>5,013,688</td>
<td>3,847,953</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% (783,776/1,002,178) 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 44.2% of national total (442,474/1,002,178) and 81.4% of the provincial total (442,474/543,637).  
- Province-wise, RT-PCR test positivity rate in Epi week 15 ranged from 0.0% (Madhes Province) to 37.5% (Lumbini Province) with a national positivity rate at 11.6%. Karnali Province did not report any RT-PCR test performed in the last week.  
- Nepal reported a slight decrease in the number of new RT-PCR confirmed cases (n=378) in Epi week 15 compared to that in the previous week. Of these total cases reported last week, 86% of the cases have been reported from Koshi, Lumbini, and Bagmati Provinces.  
- Nepal reported 2 deaths in Epi week 15, compared to none in the previous week.
National Influenza Surveillance

- National Influenza Center (NIC)-National Public Health Laboratory (NPHL) reported 19 diagnostic Influenza samples on Epi week 15.
  - Two samples tested Influenza B positive.
  - Two samples tested SARS-CoV-2 positive.
- NIC-NPHL received 10 Influenza samples from sentinel hospitals on Epi week 15.
  - One sample tested Influenza B positive.
  - One sample tested SARS-CoV-2 positive.
- PPHLs reported testing of 102 samples for Influenza-SARS-CoV-2 using Multiplex kit on Epi week 15.
  - None of the samples tested Influenza positive.
  - Five samples tested SARS-CoV-2 positive.
  - A total of 1512 samples were tested by PPHLs from 2 Jan – 16 Apr 2023.
- From 2 January 2023 until 16 April 2023:
  - A total of 463 samples tested positive for Influenza (92 Influenza B, 336 Influenza A/H3 and 35 Influenza A(H1N1) pdm09 from 2881 samples (Sentinel and non-sentinel SARI and ILI samples)
  - Similarly, 87 samples tested positive for SARS-CoV-2 from dual testing of Influenza and SARS-CoV-2 in 2772 samples received from sentinel 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/

¹ These positive cases are included in the COVID-19 database
Figure 1: RT-PCR confirmed COVID-19 cases and average number of COVID-19 cases over the last seven days, by date of onset/sample/confirmation (N= 1002178) (Data reported on 16 April 2023 up to 19:00:00)

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 middle of March 2023, cases are soaring up following an increasing trend.

Figure 2: Cumulative case count of RT-PCR confirmed COVID-19 (N= 1002178) (Data reported on 16 April 2023 up to 19:00:00)

Note: The first case developed symptoms on 3 Jan 2020 in China and was confirmed on 23 Jan 2020 (not shown here). Reference dates used in order of preference as available – Date onset/Date of sample collection/Date of confirmation. Clinical information presented here is collected on the day of sample collection.
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 16 April 2023)

There were 19 new cases reported in the past week in Koshi Province. Cases have decreased by 30% 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 decreased to 14.0% in the past week. A total of 57 tests were performed in the past week, 5% less than that in the previous week.
There were 5 new cases reported in the past week in Madhes Province. Cases have increased by 150% 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 Madhes Province retained at 0.0% in the past week. A total of 11 tests were performed in the past week, 83% more than that in the previous week.

Note: The first case developed symptoms on 3 Jan 2020 in China and was confirmed on 23 Jan 2020 (not shown here). Reference dates used in order of preference as available — Date onset/Date of sample collection/Date of confirmation.
In Bagmati Province, 294 new cases were reported in the past week. Cases have decreased by less than 1% in the past week compared to that in the previous week. There was 1 death reported in the past week, compared to none in the previous week. The test positivity rate in Bagmati Province decreased to 11.3% in the past week. A total of 3039 tests were performed in the past week, 28% more 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 16 April 2023)

In Gandaki Province, 21 new cases were reported in the past week. Cases have decreased by 5% in the past week compared to that in the previous week. There was 1 death reported in the past week, compared to none in the previous week. The test positivity rate in Gandaki Province decreased to 19.0% in the past week. A total of 42 tests were performed in the past week, 75% more than that in the previous week.
Lumbini Province reported 11 new cases in the past week. Cases have increased by 10% 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 Lumbini Province increased to 37.5% in the past week. A total of 8 tests were performed in the past week, 700% more than that in the previous week.

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 16 April 2023)
In Karnali Province, 7 new cases were reported in the past week, 250% more than 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 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 16 April 2023)

In Sudurpaschim Province, 21 new cases were reported in the past week. Cases have remained stable 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 decreased to 16.8% in the past week. A total of 95 tests were performed in the past week, 40% more than that in the previous week.
### Table 1: Summary of confirmed COVID-19 cases, deaths and transmission by Provinces (Data reported on 16 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 Antigen RDT test</th>
<th>Total confirmed cumulative cases</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>129618</td>
<td>30329</td>
<td>159947</td>
<td>14.1</td>
<td>1722</td>
<td>Community transmission</td>
<td>4</td>
<td>46</td>
<td>50</td>
<td>3.8</td>
<td>0</td>
</tr>
<tr>
<td>Madhesh</td>
<td>53915</td>
<td>1181</td>
<td>55096</td>
<td>4.9</td>
<td>783</td>
<td>Community transmission</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>Bagmati</td>
<td>543637</td>
<td>33063</td>
<td>576700</td>
<td>50.9</td>
<td>5204</td>
<td>Community transmission</td>
<td>238</td>
<td>589</td>
<td>827</td>
<td>63.0</td>
<td>1</td>
</tr>
<tr>
<td>Gandaki</td>
<td>95453</td>
<td>24716</td>
<td>120169</td>
<td>10.6</td>
<td>1429</td>
<td>Community transmission</td>
<td>36</td>
<td>43</td>
<td>79</td>
<td>6.0</td>
<td>1</td>
</tr>
<tr>
<td>Lumbini</td>
<td>110521</td>
<td>28247</td>
<td>138768</td>
<td>12.3</td>
<td>1874</td>
<td>Community transmission</td>
<td>69</td>
<td>21</td>
<td>90</td>
<td>6.9</td>
<td>0</td>
</tr>
<tr>
<td>Karnali</td>
<td>24029</td>
<td>6375</td>
<td>30404</td>
<td>2.7</td>
<td>492</td>
<td>Community transmission</td>
<td>32</td>
<td>9</td>
<td>41</td>
<td>3.1</td>
<td>0</td>
</tr>
<tr>
<td>Sudurpashchim</td>
<td>45005</td>
<td>6392</td>
<td>51397</td>
<td>4.5</td>
<td>518</td>
<td>Community transmission</td>
<td>175</td>
<td>42</td>
<td>217</td>
<td>16.5</td>
<td>0</td>
</tr>
<tr>
<td>National Total</td>
<td>1002178</td>
<td>130303*</td>
<td>1132481</td>
<td>100</td>
<td>12022</td>
<td>Community transmission</td>
<td>556</td>
<td>757</td>
<td>1313</td>
<td>100</td>
<td>2</td>
</tr>
</tbody>
</table>

*Total reported in Health Emergency Operation Center (HEOC) Sitrep as of 16 April 152978, IMU reported 130303.

**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.
**Figure 4: Distribution of RT-PCR positive COVID-19 cases by age and sex (N= 996941)** (Data reported on 16 April 2023 up to 19:00:00)

Core epidemiological variables under process for 5237 cases.

*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= 1002178)** (Data reported on 16 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>9332</td>
<td>16</td>
<td>23</td>
<td>13</td>
<td>0.42</td>
</tr>
<tr>
<td>5-14</td>
<td>34206</td>
<td>13</td>
<td>7</td>
<td>10</td>
<td>0.06</td>
</tr>
<tr>
<td>15-24</td>
<td>151583</td>
<td>92</td>
<td>97</td>
<td>71</td>
<td>0.12</td>
</tr>
<tr>
<td>25-34</td>
<td>277977</td>
<td>387</td>
<td>265</td>
<td>151</td>
<td>0.23</td>
</tr>
<tr>
<td>35-44</td>
<td>206560</td>
<td>875</td>
<td>452</td>
<td>281</td>
<td>0.64</td>
</tr>
<tr>
<td>45-54</td>
<td>144503</td>
<td>1396</td>
<td>645</td>
<td>574</td>
<td>1.41</td>
</tr>
<tr>
<td>55-64</td>
<td>92251</td>
<td>1691</td>
<td>803</td>
<td>783</td>
<td>2.7</td>
</tr>
<tr>
<td>65-74</td>
<td>50007</td>
<td>1640</td>
<td>893</td>
<td>957</td>
<td>5.07</td>
</tr>
<tr>
<td>75-84</td>
<td>23639</td>
<td>1229</td>
<td>659</td>
<td>774</td>
<td>7.99</td>
</tr>
<tr>
<td>85+</td>
<td>6883</td>
<td>524</td>
<td>289</td>
<td>279</td>
<td>11.81</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>1002178</strong></td>
<td><strong>7882</strong></td>
<td><strong>4140</strong></td>
<td><strong>3904</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 temporarily associated with death; causal association under investigation**
A total of 12,022 deaths have been reported. Out of the total deaths, 7,882 (65.6%) were male and 4,140 (34.4%) were female. Amongst the deaths, 3,904 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 administrating 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, and provided technical support to the NPHL in following activities:
  - Performing genome sequencing of 16 SARS-CoV-2 samples,
  - Preparation of SOP for Bacillus anthrax,
  - Preparation of Proficiency testing panel for Influenza and SARS-CoV-2 for Provincial Public Health Laboratories (PPHLs).

**Technical Expertise and Training**

- Continued routine work from the team of Technical Expertise and Training.²

**Operational Support and Logistics**

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

**Risk Communication and Community Engagement**

- Support is being provided to the MoHP and relevant partners on commemorating and contextualizing key messages and related content for *World Immunization Week (WIW) 2023* and national immunization month. Messages will highlight the importance of vaccines and immunization, and the collective action needed to protect people from vaccine-preventable diseases.
- IEC materials (developed by WHO) on the following topics were shared via social media:
  - Importance of immunizations,
  - Importance of wearing masks,
  - Importance of COVID-19 vaccinations,

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.

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.
• Importance of isolation after testing positive,
• Physical activity and COVID-19,
• Smoking and COVID-19

• IEC materials developed by MoHP, which are related to preventive measures on COVID-19 and reminders for vaccinations and boosters, are being shared via social media.
• 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 social media.

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.
• 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 Nepal provided technical support in the conduction of COVID-19 preparedness meeting of hub and satellite hospitals of Kathmandu valley (Tribhuwan University Teaching Hospital, Bir Hospital, Patan Academy of Health Sciences, Civil Hospital, Bhaktapur Hospital, Shree Birendra Army Hospital, Sukraraj Tropical and Infectious Disease Hospital, and Armed Police Force Hospital) at Health Emergency Operation Center (HEOC), MoHP, on 10 April 2023.

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

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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 emergency 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.
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](#).

CONTACT DETAILS

**WHO Representative**
Dr. Rajesh Sambhajirao Pandav
WHO Representative to the Government of Nepal
Email: pandavr@who.int

**WHO Incident Manager/ Health Cluster Co-lead**
Dr. Allison Gocotano
Team Leader - WHO Health Emergencies Program (WHE)
WHO Country Office for Nepal
Email: gocotanaa@who.int

**Communication/Media Focal Point**
Ms. Tsering Dolkar Gurung
Media, Communication and Public Information Officer
WHO Country Office for Nepal
Email: gurungt@who.int