**Situation Update #158 - Coronavirus Disease 2019 (COVID-19)**

**WHO Country Office for Nepal**

**Reporting Date: 17 - 23 April 2023 (Epi Week 16)**

**HIGHLIGHTS**

*(Data published in the MoHP Situation Report as of 23 April 2023 and same data published in EDCD Report as of 24 April 2023)*

- Of the total RT-PCR confirmed COVID-19 cases, 98.7% (990,201) of cases have recovered, 0.01% (370) are active cases, and 1.19% (12,027) are deaths.
- Among the new RT-PCR confirmed cases (420) reported this week, 51.7% (217 cases) are from Kathmandu district followed by Lalitpur district with 9% (38 cases). Majority of the new cases 61.7% (259) have been reported from Kathmandu Valley (Kathmandu, Lalitpur, and Bhaktapur) in Bagmati Province.

**COVID-19 vaccination coverage status (as of 18 April 2023)**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>First dose</th>
<th>Second dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covii-AstraZeneca</td>
<td>5,586,605</td>
<td>4,837,430</td>
</tr>
<tr>
<td>Vero Cell</td>
<td>10,400,68</td>
<td>9,269,562</td>
</tr>
<tr>
<td>Janssen</td>
<td>3,546,165</td>
<td></td>
</tr>
<tr>
<td>Pfizer</td>
<td>5,017,959</td>
<td>3,855,042</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% (784,139/1,002,598) 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 (442,743/1,002,598) and 81.4% of the provincial total (442,743/543,941).
- Province-wise, RT-PCR test positivity rate in Epi week 16 ranged from 10.3% (Bagmati Province) to 85.7% (Lumbini Province) with a national positivity rate at 10.6%. Madhesh and Karnali Provinces did not report any RT-PCR test performed in the last week.
- Nepal reported a 11% increase in the number of new RT-PCR confirmed cases (n=420) in Epi week 16 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 5 deaths in Epi week 16, 150% increase compared to that in previous week.

**SITUATION OVERVIEW**

*(Data as of 23 April 2023)*

**NEPAL**

- **Cumulative confirmed cases**
  - RT-PCR: 1,002,598
  - Antigen RDT: 153,309
- **Cumulative deaths**: 12,027
- **Cumulative tests**
  - RT-PCR: 6,030,560
  - Antigen RDT: 1,565,888

**SOUTH-EAST ASIA REGION**

- **Cumulative cases (%)**: 61,005,983 (8%)
- **Cumulative deaths (%)**: 804,726 (12%)

**GLOBAL**

- **Cumulative cases (%)**: 764,416,156 (100%)
- **Cumulative deaths (%)**: 6,918,434 (100%)
National Influenza Surveillance

- WHO Nepal facilitated National Influenza Centre (NIC)-National Public Health Laboratory (NPHL) for the “Onsite monitoring and review meeting of Influenza and SARS-CoV-2 Surveillance network at Bharatpur Hospital” on 19 April 2023. The Medical Superintendent of Bharatpur Hospital, focal lab personnel, focal physicians, along with NPHL team and WHO laboratory staff attended the meeting.
- NIC-NPHL reported 15 diagnostic Influenza samples on Epi week 16.
  - One sample tested Influenza B positive.
  - Two samples tested SARS-CoV-2 positive.
- NIC-NPHL received 31 Influenza samples from sentinel hospitals on Epi week 16.
  - None of the sample tested Influenza positive.
  - Five samples tested SARS-CoV-2 positive.
- Provincial Public Health Laboratories (PPHLs) reported testing of 94 samples for Influenza-SARS-CoV-2 using Multiplex kit on Epi week 16.
  - Two samples tested Influenza A positive, (to be subtyped).
  - Three samples tested SARS-CoV-2 positive.
  - A total of 1606 samples were tested by PPHLs from 2 Jan – 23 Apr 2023.
- From 2 January 2023 until 23 April 2023:
  - A total of 473 samples tested positive for Influenza [94 Influenza B, 341 Influenza A/H3, 36 Influenza A(H1N1) pdm09 and 2 Influenza A positive (to be subtyped)] from 3296 samples (Sentinel and non-sentinel SARI and ILI samples).
  - Similarly, 99 samples tested positive for SARS-CoV-2 from dual testing of Influenza and SARS-CoV-2 in 2929 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
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.
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 23 April 2023)

There were 44 new cases reported in the past week in Koshi province. Cases have increased by 132% 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 increased to 14.3% in the past week. A total of 56 tests were performed in the past week, 2% less than that in the previous week.
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WHO Country Office for Nepal
Friday 28 April 2023

Figure 3A2: RT-PCR confirmed COVID-19 cases in Madhesh Province: Trend of Cases, 7 days Rolling Average, Weekly Cases and Deaths and Test Positivity Rate (Data reported on 23 April 2023)

There were 8 new cases reported in the past week in Madhesh province. Cases have increased by 60% 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 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 23 April 2023)

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, 304 new cases were reported in the past week. Cases have increased by 3% in the past week compared to that in the previous week. There were 3 deaths reported in the past week, 200% increase compared to that in the previous week. The test positivity rate in Bagmati Province decreased to 10.3% in the past week. A total of 3,776 tests were performed in the past week, 24% 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 23 April 2023)

In Gandaki Province, 29 new cases were reported in the past week. Cases have increased by 38% in the past week compared to that in the previous week. There was no death reported in the past week, 100% decrease compared to that in the previous week. The test positivity rate in Gandaki Province decreased to 14.0% in the past week. A total of 43 tests were performed in the past week, 2% more than that in the previous week.
Lumbini Province reported 15 new cases in the past week. Cases have increased by 36% 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 85.7% in the past week. A total of 7 tests were performed in the past week, 13% less 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, 5 new cases were reported in the past week, 29% less 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 23 April 2023)

In Sudurpaschim Province, 15 new cases were reported in the past week, 29% less than that in the previous week. There were 2 deaths reported in the past week, compared to none in the previous week. The test positivity rate in Sudurpaschim Province decreased to 15.4% in the past week. A total of 78 tests were performed in the past week, 18% less than that in the previous week.
### Table 1: Summary of confirmed COVID-19 cases, deaths and transmission by Provinces (Data reported on 23 April 2023 up to 19:00:00)

<table>
<thead>
<tr>
<th>Reporting Province</th>
<th>Total confirmed cumulative cases</th>
<th>Total Confirmed cumulative cases Antigen RDT test</th>
<th>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>129662</td>
<td>30342</td>
<td>160004</td>
<td>1722</td>
<td>Community transmission</td>
<td>16</td>
<td>63</td>
<td>79</td>
<td>5.2</td>
<td>0</td>
</tr>
<tr>
<td>Madhesh</td>
<td>53923</td>
<td>1183</td>
<td>55106</td>
<td>783</td>
<td>Community transmission</td>
<td>4</td>
<td>13</td>
<td>17</td>
<td>1.1</td>
<td>0</td>
</tr>
<tr>
<td>Bagmati</td>
<td>543941</td>
<td>33163</td>
<td>577104</td>
<td>5207</td>
<td>Community transmission</td>
<td>259</td>
<td>598</td>
<td>857</td>
<td>56.9</td>
<td>4</td>
</tr>
<tr>
<td>Gandaki</td>
<td>95482</td>
<td>24755</td>
<td>120237</td>
<td>1429</td>
<td>Community transmission</td>
<td>61</td>
<td>50</td>
<td>111</td>
<td>7.4</td>
<td>1</td>
</tr>
<tr>
<td>Lumbini</td>
<td>110536</td>
<td>28329</td>
<td>138865</td>
<td>1874</td>
<td>Community transmission</td>
<td>135</td>
<td>26</td>
<td>161</td>
<td>10.7</td>
<td>0</td>
</tr>
<tr>
<td>Karnali</td>
<td>24034</td>
<td>6401</td>
<td>30435</td>
<td>492</td>
<td>Community transmission</td>
<td>45</td>
<td>12</td>
<td>57</td>
<td>3.8</td>
<td>0</td>
</tr>
<tr>
<td>Sudurpashchim</td>
<td>45020</td>
<td>6461</td>
<td>51481</td>
<td>520</td>
<td>Community transmission</td>
<td>189</td>
<td>36</td>
<td>225</td>
<td>14.9</td>
<td>2</td>
</tr>
<tr>
<td>National Total</td>
<td>1002598</td>
<td>130634*</td>
<td>1133232</td>
<td>12027</td>
<td>Community transmission</td>
<td>709</td>
<td>798</td>
<td>1507</td>
<td>100</td>
<td>7</td>
</tr>
</tbody>
</table>

*Total reported in Health Emergency Operation Center (HEOC) Sitrep as of 23 April 153309, IMU reported 130634

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= 1002598)(Data reported on 23 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>9337</td>
<td>16</td>
<td>23</td>
<td>13</td>
<td>0.42</td>
</tr>
<tr>
<td>5-14</td>
<td>34214</td>
<td>13</td>
<td>7</td>
<td>10</td>
<td>0.06</td>
</tr>
<tr>
<td>15-24</td>
<td>151670</td>
<td>92</td>
<td>97</td>
<td>71</td>
<td>0.12</td>
</tr>
<tr>
<td>25-34</td>
<td>278102</td>
<td>388</td>
<td>265</td>
<td>152</td>
<td>0.23</td>
</tr>
<tr>
<td>35-44</td>
<td>206627</td>
<td>875</td>
<td>452</td>
<td>281</td>
<td>0.64</td>
</tr>
<tr>
<td>45-54</td>
<td>144541</td>
<td>1397</td>
<td>645</td>
<td>575</td>
<td>1.41</td>
</tr>
<tr>
<td>55-64</td>
<td>92291</td>
<td>1692</td>
<td>803</td>
<td>784</td>
<td>2.7</td>
</tr>
<tr>
<td>65-74</td>
<td>50041</td>
<td>1640</td>
<td>894</td>
<td>958</td>
<td>5.06</td>
</tr>
<tr>
<td>75-84</td>
<td>23651</td>
<td>1229</td>
<td>659</td>
<td>774</td>
<td>7.98</td>
</tr>
<tr>
<td>85+</td>
<td>6887</td>
<td>524</td>
<td>290</td>
<td>280</td>
<td>11.82</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>National</td>
<td>1002598</td>
<td>7885</td>
<td>4142</td>
<td>3909</td>
<td>1.20</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 12,027 deaths have been reported. Out of the total deaths, 7,885 (65.6%) were male and 4,142 (34.4%) were female. Amongst the deaths, 3,909 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.

*Technical Expertise and Training*
- Continued routine work from the team of Technical Expertise and Training.\(^2\)
- WHO Nepal provided technical and financial support for the conduction of a 2-day program on 'Infection Prevention and Control (IPC) Guidelines Implementation Manual Finalization Workshop' organized by Nursing and Social Security Division (NSSD) on 23-24 April 2023. This program will help to implement IPC guidelines and bring uniformity in IPC practice in all health facilities across the country. There was participation of experts from infectious disease specialists, clinical microbiologists, animal health, clinical pharmacists, IPC nurses, professional societies, critical care, WHO, UNICEF, FHI 360, and relevant government entities like NSSD, Curative Service Division (CSD), Epidemiology and Disease Control Division (EDCD), NPHL, Quality Standards and Regulation Division (QSRD), Management Division, and National Health Training Centre (NHTC).

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\(^2\) 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

- 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, which also includes COVID-19. Related IEC materials were also shared via social media.

- The news of the workshop on STAR (Strategic Toolkit for Assessing Risk), a comprehensive and easy-to-use toolkit, to further strengthen Nepal’s health sector’s disaster risk management and emergency preparedness, was shared via Facebook (link here), Twitter (link here), and Instagram (link here). The workshop was organized by the MoHP, with the support of WHO. This toolkit helps national and subnational stakeholders rapidly assess public health risks, develop a country risk profile, and

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.
strategically plan early warnings and actions. Additionally, it improves national emergency risk management, capacity building programs, and policies.

Participants at the workshop on STAR (Strategic Toolkit for Assessing Risk), which was organized by the MoHP, with the support of WHO, to further strengthen Nepal’s health sector’s disaster risk management and emergency preparedness. Photo Credit: WHO Nepal

- IEC materials on the following topics were shared via social media:
  - Importance of immunizations,
  - Importance of COVID-19 vaccinations,
  - Air pollution and COVID-19,
  - Harmful use of alcohol and COVID-19,
  - Physical activity 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 social media.
What are the health clusters partners doing?

- Continued routine work from the team of Partner Coordination and Donor Relation\(^4\)
- 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’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](#).

\(^4\) 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.
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