Libya COVID-19 Surveillance Monthly Bulletin
Epidemiological Month of December
(1–31 December)

COVID-19 Surveillance and Vaccination Data Source: as received from the National Center for Disease Control (NCDC), Libya

<table>
<thead>
<tr>
<th>Total tested</th>
<th>New tested</th>
<th>Total active</th>
<th>Total confirmed</th>
<th>New confirmed</th>
<th>Total recovered</th>
<th>New recovered</th>
<th>Total deaths</th>
<th>New deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,050,097</td>
<td>117,236</td>
<td>6,746</td>
<td>388,734</td>
<td>15,524</td>
<td>376,278</td>
<td>28,048</td>
<td>5,710</td>
<td>244</td>
</tr>
</tbody>
</table>

Highlights:

- At the national level, Libya reported stabilization in COVID-19 cases and a declining trend in deaths compared with November. Since October, Libya has stabilized cases (15000-17000 cases per month) at the national level and COVID-19 testing (117000-118000 lab tests per month). For week 52, at the national level, Libya had a high incidence of community transmission (CT3) with 58.8 cases/100,000 population/week and a 13% weekly test positivity rate. Moreover, for reporting week 52, Libya had adequate lab testing capacity with 452 persons tested/100,000 population/week. (See Table III)
- However, it is essential to note that there is still an ongoing high to a very high incidence of community transmission (CT3-CT4) in most districts in the country based on positivity rates. Low case incidence and high positivity rates show districts’ limited lab capacity, suggesting that we are not capturing the actual levels of COVID-19 cases, and daily new cases are higher than what is currently reported, especially in the East and South Region.
- 33 COVID-19 labs (out of 41) reported 117,236 new lab tests (115,129 PCR and 2,107 Ag-RDT) new lab tests done for December. Thus, out of the 2,050,097 tests in Libya since the beginning of the response, 388,734 (19%) were confirmed positive for SARS-CoV-2 (COVID-19).
- Case incidence per 100,000 increased from 57.8 in week 51 to 58.8 in week 52. The overall number of new cases reported in December shows a 2% increase (15,524 cases) from 15,246 cases in November, with West reporting a 10% increase in new patients. Conversely, the East reported a 66% decrease, and the South had a 59% decrease in cases. The trend in cases at the regional level is proportional to the trend of lab tests done for the reporting month. An increasing trend in COVID cases was observed in the West for all municipalities, especially urban areas like Tripoli, Aljafra Al Margeb and Azzawya. By the end of December, Tripoli is already showing very high levels (160 cases per 100000 population/week) of community transmission (150+, CT4) from high levels (125 cases/100000 population per week) of community transmission (50-150, CT3) in November, based on case incidence/per 100000 population/week.
- In December, the number of new deaths (244) decreased by 29% compared to last month (344). As a result, the monthly mortality rate was 3.6 per 100,000 cases, with a case fatality rate of 1.6%. However, the CFR remained high in the East (5.8), showing increased disease severity. Compared to last month, West reported a 17% decrease while East reported a 37% decrease and South reported a 60% decrease in deaths for the reporting month. (- see table I).
- Compared to Nov, there was a 2% decrease in overall national testing: by regions, West (1% increase), East (51% decrease) and South (7% decrease). Thus, 96.9% (113,541) of national testing was performed in the West as compared to both East (2.6%, only 3056 tests) and South (0.5%, only 639 tests) Regions. (-see fig. 1).
- The national positivity rate for Epi-week remained stable. It decreased from 13.7% in week 51 to 13% in week 52. West had a positivity rate of 13.2%. It cannot be generalized based on the positivity rate in the East (16.1%) and South (14.1),
which differ markedly from the national-level positivity rate. It is recommended that positivity rates be kept below 5% in all administrative levels.

- Libya remains classified under high community transmission (CT3) with Alpha, Beta, Delta, and Omicron Variants of Concern (VOC) circulation. As of 29 December 2021, as per the NCDC website, Libya reported the presence of Omicron VOC.

**Epidemiological situation:**

<table>
<thead>
<tr>
<th>Region</th>
<th>New cases in the last 30 days (%)</th>
<th>Change in new cases in the previous 30 days (%)</th>
<th>Cumulative cases (%)</th>
<th>New deaths in the last 30 days (%)</th>
<th>Change in new deaths in the last 30 days (%)</th>
<th>Cumulative deaths (%)</th>
<th>New lab tests done in the last 30 days (%)</th>
<th>Change in new lab tests in the last 30 days (%)</th>
<th>Cumulative lab tests (%)</th>
<th>Positivity rate</th>
<th>Cumulative positivity rate</th>
<th>Deaths</th>
<th>Mortality rate per 100,000</th>
<th>CFR%</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>14,943 (96.3%)</td>
<td>10%</td>
<td>366,916 (88.8%)</td>
<td>128 (51.4%)</td>
<td>-17%</td>
<td>6,006 (70.1%)</td>
<td>113,341 (56.9%)</td>
<td>1%</td>
<td>1,916,640 (93.5%)</td>
<td>13.2</td>
<td>18.2</td>
<td>155</td>
<td>128</td>
<td>3</td>
</tr>
<tr>
<td>East</td>
<td>491 (5.3%)</td>
<td>-66%</td>
<td>23,413 (8.6%)</td>
<td>112 (46%)</td>
<td>-37%</td>
<td>1,261 (22.1%)</td>
<td>3,056 (6.0%)</td>
<td>-51%</td>
<td>91,990 (4.5%)</td>
<td>16.1</td>
<td>25.4</td>
<td>179</td>
<td>112</td>
<td>3.8</td>
</tr>
<tr>
<td>South</td>
<td>90 (0.6%)</td>
<td>-59%</td>
<td>16,402 (4.2%)</td>
<td>4 (1.65)</td>
<td>-60%</td>
<td>(0.5%)</td>
<td>639 (0.5%)</td>
<td>-7%</td>
<td>41,459 (3%)</td>
<td>14.1</td>
<td>39.6</td>
<td>10</td>
<td>4</td>
<td>0.7</td>
</tr>
<tr>
<td>Libya</td>
<td>15,524 (100%)</td>
<td>2%</td>
<td>388,754 (100%)</td>
<td>244 (100%)</td>
<td>-29%</td>
<td>5,710 (100%)</td>
<td>117,126 (100%)</td>
<td>-2%</td>
<td>2,050,097 (100%)</td>
<td>13.2</td>
<td>19</td>
<td>344</td>
<td>244</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Table 1: Cumulative and within 30 days comparative positive COVID-19 cases, deaths, and Mortality rates.

**Fig. 1:** Number of COVID-19 Laboratory tests performed vs confirmed positive cases per Month 2020-2021 calendars.

**Fig. 2:** Monthly COVID-19 cases and deaths, per Months 2020-2021 calendars.
In December, Al Jabal al Akhdar in East, Wadi Ashaati in South, Al Jabal al Gharbi, Aljfarra, Azzawya, Tripoli and Nalut in the West showed a significant increase in cases compared to the last reporting month. The three districts reporting the highest number of new cases continue to be: Tripoli with 6,831 (17% increase), Al Margeb with 2,257 (19% decrease) and Azzawya 1,793 (35% increase). The highest case incidences per 100,000 population were recorded in Tripoli for West, Sabha in South, and Al Jabal al Akhdar for East, showing elevated levels of ongoing community transmission. The recommended levels of 10 and less than 10 cases per 100,000 population signify low levels of community transmission. See Table I below for absolute numbers.

Due to limited lab testing capacity within the district, Aljfarra in the West and all districts in the East and South had limited testing capacity for EPID week 52. So, the positivity rates and lab tests per 100,000 populations were not calculated or underestimated, and limited capacity to testing was assigned to these districts. (Table III). Both East (31/100,000 pop) and South (37/100,000 pop) regions had limited lab testing capacity to respond to the transmission level for Week 52.

Table II: Comparative number and trends of COVID-19 positive cases in months November vs December

<table>
<thead>
<tr>
<th>Region</th>
<th>District</th>
<th>Total population</th>
<th>Causes</th>
<th>New confirmed cases per 100,000 population</th>
<th>Level of Community transmission (ICU based on case incidence)</th>
<th>Tests</th>
<th>Number of persons tested per 100000</th>
<th>Test positivity rate per week (ECIF: CT1, CT2, CT3)</th>
<th>Level of Community transmission (ICU based on Positivity Rate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>Al Jabal al Akhdar</td>
<td>253,854</td>
<td>188</td>
<td>188</td>
<td>CT1</td>
<td>26</td>
<td>Moderate</td>
<td>31,3</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Al Mhouse</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Azeza</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Wadi Ashaati</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Sabha</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Al Jabal al Gharbi</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Aljfarra</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Sabha</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
<tr>
<td>East</td>
<td>Aljfarra</td>
<td>12,000</td>
<td>0</td>
<td>0</td>
<td>CT1</td>
<td>0</td>
<td>Moderate</td>
<td>-</td>
<td>CT3</td>
</tr>
</tbody>
</table>

Table III: Generic risk assessment based on primary epidemiological and public health response indicators calculated for the Epi week 52

Epidemiological Focus of the current epidemiological week: Enhancing Readiness for Omicron (B.1.1.529) as of 23 December 2021

Background

- On 26 November 2021, WHO designated variant B.1.1.529 a variant of concern (VOC), following the WHO’s Technical Advisory Group’s on Virus Evolution. The variant has been given the name Omicron. Omicron is a highly divergent variant with a high number of mutations, including 26-32 mutations in the spike protein, some of which may be associated with humoral immune escape potential and higher transmissibility.
- As of 22 December 2021, the Omicron variant had been identified in 110 countries across all six WHO Regions. The current understanding of the Omicron variant continues to evolve as more data become available.
The overall threat posed by Omicron largely depends on four key questions:
- how transmissible the variant is.
- how well vaccines and prior infection protect against infection, transmission, clinical disease, and death.
- how virulent the variant is compared to other variants, and
- how populations understand these dynamics, perceive risk, and follow control measures, including public health and social measures (PHSM). Public health advice is based on current information and will be tailored as more evidence emerges around those critical questions.

There is consistent evidence that Omicron has a substantial growth advantage over Delta. It is spreading significantly faster than the Delta variant in countries with documented community transmission, doubling 2-3 days.

Data on the clinical severity of patients infected with Omicron is growing but is still limited. Early data from South Africa, the United Kingdom (UK) and Denmark suggest a reduced risk of hospitalization for Omicron compared to Delta. However, the risk of hospitalization is only one aspect of severity, which admission practices may alter.

Preliminary data from several non-peer-reviewed studies suggest a reduction in neutralizing titers against Omicron in individuals who have received a primary vaccination series or in those who have had prior SARS-CoV-2 infection.

To date, there are still limited available data, and no peer-reviewed evidence, on vaccine efficacy or effectiveness for Omicron.

The diagnostic accuracy of routinely used PCR and antigen-based rapid diagnostic test (Ag-RDT) assays does not appear to be impacted by Omicron; studies of the comparative sensitivity of Ag-RDTs are ongoing. Most.

Therapeutic interventions for managing patients with severe or critical Omicron-associated COVID-19 that target host responses (such as corticosteroids and interleukin six receptor blockers) are expected to remain effective.

Risk Assessment

The overall risk related to Omicron remains very high for several reasons.

- First, the global risk of COVID-19 remains very high overall
- Second, current data indicate that Omicron has a significant growth advantage over Delta, leading to rapid spread in the community.
- The increases in cases, particularly rapidly, have and will continue to increase hospitalizations and burden health systems where Omicron circulates subsequently.
- Our understanding is still growing, and the risk assessment will be updated as more information becomes available.

Priority actions for the Member States

- WHO asks all member states to regularly reassess and revise national plans based on their current situation and national capacities.
- With the emergence of the Omicron variant, the use of well-fitting masks, physical distancing, ventilation of indoor spaces, crowd avoidance—especially during holiday periods—and hand hygiene remain vital in reducing transmission of SARS-CoV-2. In addition, enhanced surveillance with rapid testing and stricter cluster investigations and contact tracing of cases suspected to be infected with a variant of concern (VOC) are strongly advised to interrupt chains of transmission.
- In anticipation of increased COVID-19 caseloads and associated pressure on the health system (many of which are significantly overburdened after two years of the COVID-19 pandemic), ensure mitigation plans are in place to maintain essential health services and that necessary health care resources are in place to respond to potential surges. This would include surge capacity plans for health workers and plans for
providing additional practical support to health workers, with particular attention to the needs of mothers and single-parent families.

- Efforts to accelerate COVID-19 vaccination coverage in at-risk populations in all countries should be reinforced. Focus among populations designated as a high priority who remain unvaccinated or are not yet fully vaccinated should be a priority for vaccination campaigns in all countries. Delta is still the predominant variant worldwide, causing significant transmission and disease. Vaccines are highly effective against Delta and are likely to effectively against Omicron, particularly for preventing severe disease, even if performance is lower than with other variants. Finally, boosters could play an essential role in some countries with high COVID-19 hospitalizations and deaths, especially for individuals at the highest risk of severe disease and death.

- Ensure early warning systems are in place to inform efficient and rational adjustment of public health and social measures, with practical approaches for engaging affected communities and communicating these adjustments while anticipating populations’ concerns.

- Enhance surveillance, including increasing testing and sequencing efforts to understand better circulating SARS-CoV-2 variants, including Omicron.

- Because SGTF from commercial PCR kits is indicative for Omicron, it can be used as a proxy marker for this variant. However, it should be noted that a small minority of Omicron sequences lack this deletion and will be missed by this screening method.

- All initial cases/clusters associated with Omicron variant infection should be reported to WHO through the International Health Regulations (IHR) mechanism.

- Member States are further encouraged to report (publicly or through IHR) the weekly relative prevalence of Omicron as the number of sequences of Omicron (numerator) divided by the total number of sequences generated through routine surveillance (denominator) and, where available, the number of SGTF out of the number tested in the same unit of time, according to sampling date.

- A risk-based approach to adjust international travel measures promptly is recommended. See WHO advice for international traffic in relation to the SARS-CoV-2 Omicron variant for additional information.

- Authorities should regularly communicate evidence-based information on Omicron and other circulating variants and potential implications for the public in a timely and transparent manner, including what is known, what remains unknown and what is being done by responsible authorities.

**Technical guidance and other resources**

**New global COVID-19 WHO normative guidance made available:**

- [Interim recommendations for the use of the Moderna mRNA-1273 vaccine against COVID-19](https://who.int) (who.int)
- Therapeutics and COVID-19 (who.int)
- Interim recommendations for the use of the Janssen Ad26.COV2.S (COVID-19) vaccine (who.int)
- Annexes to the interim recommendations for use of the Janssen Ad26.COV2.S vaccine (who.int)
- Acknowledgements: The Unity Studies for sero-epidemiological investigation of COVID-19 (who.int)
- Infection prevention and control (IPC) in health-care facilities in the event of a surge or resurgence in cases of COVID-19 (who.int)
- [COVID-19 infection prevention and control living guideline: mask use in community settings, 22 December 2021](https://who.int) (who.int)
- [WHO recommendations on mask use by health workers, in light of the Omicron variant of concern: WHO interim guidelines, 22 December 2021](https://who.int)
- An implementation guide for the management of COVID-19 on board cargo ships and fishing vessels (who.int)
- [Enhancing Readiness for Omicron (B.1.1.529): Technical Brief and Priority Actions for Member States](https://who.int) (who.int)
Checklists for care, cleaning, disinfection, and sterilization of respiratory devices (who.int)
Care, cleaning, and disinfection of respiratory equipment in sterile services department (who.int)
Medical equipment related to oxygen therapy – Cleaning – task sequence (who.int)

Links to important resources:
- Technical Guidance
- WHO Coronavirus Disease (COVID-19) Dashboard
- WHO COVID-19 Operational Updates
- WHO COVID-19 case definitions
- WHO Eastern Mediterranean Region Update
- COVID-19 Dynamic Infographic Dashboard for Libya
- National Center for Disease Control Libya Facebook page
- WHO Libya Facebook page
- WHO Libya Twitter handle
- Risk Communication and Community Engagement Resources and Updates
- COVID-19 vaccination tracker for EMRO countries

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