In this issue of COVID-19 Morbidity and Mortality Weekly Update (MMWU) N° 21 (13-20 July 2020):

- dashboard with key figures;
- detailed epidemiological update on COVID-19 pandemic in Bangladesh;
- daily and weekly distribution of COVID-19 cases and related deaths;
- growth factor of daily COVID-19 cases;
- daily distribution of COVID-19 cases and rolling three-days average per division;
- gender and age distribution of COVID-19 cases and deaths;
- overall and cumulative weekly attack rate and per division;
- death and recovery rates of closed cases;
- comparison data with selected countries in South East Asia; and
- floods update.

<table>
<thead>
<tr>
<th>Tested</th>
<th>Confirmed</th>
<th>Recovered</th>
<th>Dead</th>
<th>Hotline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,041,661</td>
<td>207,453</td>
<td>113,5588</td>
<td>2,668</td>
<td>17.0 million</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test/1 million</th>
<th>New Cases</th>
<th>Recovery Rate</th>
<th>CFR%</th>
<th>AR/1 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>6,116</td>
<td>2,928</td>
<td>54.7%</td>
<td>1.29%</td>
<td>1,218</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratories</th>
<th>PPE Stock</th>
<th>PoE Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 COVID-19 Labs</td>
<td>1,211,545</td>
<td>376,170</td>
</tr>
<tr>
<td>Last 7 days</td>
<td>87,775 Samples</td>
<td>6,363,659</td>
</tr>
<tr>
<td>61.3% Inside Dhaka Tests</td>
<td>184,394</td>
<td>7,029</td>
</tr>
<tr>
<td>19.9% Positive Tests</td>
<td>536,282</td>
<td>355,435</td>
</tr>
</tbody>
</table>
1. Highlights

As of 20 July 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR), there are 207,453 confirmed COVID-19 cases\(^1\) in Bangladesh, including 2,668 related deaths; Case Fatality Rate (CFR) is 1.29%.

On 18 July 2020, the Civil Aviation Authority issued a circular No. 30.31.0000.112.42.001.20-23150 informing that any Bangladeshi citizen intending to depart for any international destination from any of the airport of Bangladesh should obtain "COVID-19 Test Certificate". The circular referred to the relevant procedures to obtain COVID-19 test certificate established by the Health Service Division Bangladesh with the attached list of 16 approved hospitals/organizations in 8 divisions cities. The provisions will come into effect from 23 July 2020. Full document: www.caab.gov.bd.

On 18 July 2020, the Ministry of Foreign Affairs issued a circular No. 19.00.0000.530.68.000.20-549 informing that Diplomatic, Official and Laissez Passer holders posted in diplomatic missions in Bangladesh and their family members (including holders of ordinary passports) with valid visas will be exempted from the requirement of producing a COVID19 negative/COVID19 symptom free medical certificate. However, the diplomatic missions are advised to kindly ensure self-quarantine of their diplomats/employees if travelling to Bangladesh. Full document: https://mofa.gov.bd/

Floods that started on 30 June and heavy monsoon rain on 18 July with water from upstream sources causing slow-onset of severe flooding in low-lying areas have affected 18 districts. According to weather forecasts, the current floods might be the most prolonged since 1988, and it is unlikely that the water will start receding before the next month.

2. Coordination

On 10 July 2020, WHO published a new tool on Mass Gathering COVID-19 Risk Assessment tool, which covers three pillars: risk evaluation; risk mitigation; and risk communication. The tool has been updated to reflect new WHO guidance and new evidence on both COVID-19 and mass gatherings, as well as feedback from end-users. It provides guidance for authorities and event organizers planning mass gatherings during the current COVID-19 pandemic. Full document https://www.who.int/publications/i/item/10665-333185. This risk assessment should be used in conjunction with the Key planning recommendations for mass gatherings in the context of the current COVID-19 outbreak (Interim guidance) found on the WHO website: https://www.who.int/publications/i/item/key-planning-recommendations-for-mass-gatherings-in-the-context-of-the-current-covid-19-outbreak

WHO launched a global COVID-19 anonymized clinical data platform - the “COVID-19 Data Platform” - for state parties to share with WHO anonymized clinical data related to patients with suspected or confirmed infections with COVID-19. The anonymized COVID-19 data will be used by WHO for purposes of verification, assessment and assistance pursuant to the IHR (2005), including to inform the public health and clinical operation response in connection with the COVID-19 outbreak. To preserve the security and confidentiality of the anonymized COVID-19 data, State Parties and other entities are respectfully requested to take all necessary measures to protect their respective log-in credentials and passwords to the COVID-19 Data Platform.

The Rapid Core Case Report Form is designed to collect data obtained through examination, interview and review of hospital notes. The data collection period is defined as the period from hospital admission to discharge, transfer, death, or continued hospitalization without possibility of continued data collection. Full document: https://www.who.int/publications/i/item/WHO-2019-nCoV-Clinical_CRF-2020.4 The Pregnancy Case Report Form is to be completed for pregnant women or recently pregnant women who delivered within 21 days from onset of symptoms. Full document: https://www.who.int/publications/i/item/WHO-2019-nCoV-Pregnancy_CRF-2020.5

---

\(^1\) WHO Bangladesh COVID-19 Situation Reports present official counts of confirmed COVID-19 as announced by the IEDCR on the indicated date. Difference in data between the WHO reports and other sources can result from using different cutoff times for the aggregation and reporting of the total number of new cases in the country.
3. Surveillance and Laboratory

Between 8 March and 20 July 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR) there were two-hundred-seven-thousand-four-hundred-fifty-three (207,453) COVID-19 confirmed by rt-PCR, including two-thousand-six-hundred-sixty-eight (2,668) related deaths (CFR 1.29%).

In the current week (epidemiological week 29). In comparison to the previous epidemiological week, the number of new weekly COVID-19 cases decreased by 14.9% (20,730 and 23,817 respectively) and the number of COVID-19 new weekly deaths decreased by 12.8% (266 and 315).

The figures below are showing the daily and weekly distribution of reported confirmed COVID-19 cases and deaths, 08 March – 20 July 2020, Bangladesh.
Out of the total 207,453 COVID-19 cases registered as of 20 July 2020, 54.74% (113,558/207,453) - recovered, 1.29% (2,668) - died and 43.97% (91,227) are active cases.

The figure below is showing active vs recovered confirmed COVID-19 cases outcome per epidemiological week, 08 March – 20 July 2020, Bangladesh.

In the epidemiological week 29, the number of COVID-19 active cases decreased by 7.4%, in comparison to the previous week (3,130 and 3,361) and the number of recovered COVID-19 cases increased by 16.4% (18,030 and 20,989 respectively).

The figure below is showing the weekly outcomes of reported confirmed COVID-19 cases, 08 March – 20 July 2020, Bangladesh.

As of 20 July 2020, there were 116,226 (56.0%) COVID-19 cases with known outcome (closed cases). Out of all closed cases, 97.7% (113,558/116,226) were cured and 2.3% (2,668) died. The recovery rate of 97% in the closed cases didn’t
show any change since 16 June 2020. The death rate on closed cases in Bangladesh is lower than the 7.0% (609,118/9,351,815) global average as of 20 July 2020.

The figure below is showing the death and recovery rates over cumulative closed confirmed COVID-19 cases, 08 March – 20 July 2020, Bangladesh.

According to the available data, 26.8% cases were confirmed in people between 31 and 40 years old, 21.0% - in the age group of 21 to 30, 18.7% - 41 to 50 years and 14.8% in the age group between 51 and 60 years old.

As of 20 July 2020, the highest death rate (29.9%) was reported in the age group of 61 to 70 years old, 24.8% in the age group between 51 and 60 years and 24.1% in the older age group of 71 and above. Male represented 72% and 79% of the of total reported confirmed COVID-19 cases and deaths respectively.

The table below is showing gender and age distribution of the reported confirmed COVID-19 cases and deaths 20 July 2020, Bangladesh.
As of 20 July 2020, geographical distribution of confirmed reported COVID-19 cases was available on 100% of cases (207,453/207,453). Of all cases, 16.4% were reported from Chattogram division, 5.4% from Rajshahi division, 4.8% - from Khulna division, 3.5% - from Sylhet division, 2.6% - from Barisal and Rangpur divisions, and 2.2% from Mymensingh division.

The figure below is showing the daily distribution of reported confirmed COVID-19 cases per division (except Dhaka), 16 April – 20 July 2020.

Available data allows us to see how quickly the number of confirmed cases increased in different divisions in Bangladesh by looking at the case doubling time in each division. As of 20 July 2020, case doubling time is 9.8 days in Dhaka division, 11 days in Chattogram, between 12 to 14 days in Rajshahi, Khulna and Sylhet, Barisal and Rangpur at 15 days and 17 days for Mymensingh division.

The figure below is showing the case-doubling time of COVID-19 confirmed cases in all divisions starting from the day each reported 100th confirmed cases, 20 July 2020, Bangladesh.
Case doubling time has increased in **Dhaka city** to 10 days in week 29. Cases are doubling in more than 10 but less than 12 days in **Faridpur, Narayanganj, Gazipur, Munshiganj, Madaripur** and **Gopalganj** districts are in between 15 to 20 days.

The figure below is showing the growth of COVID-19 confirmed cases in all districts of Dhaka division starting from the day each reported 100th confirmed cases, 20 July 2020, Bangladesh.

In **Chattogram** division by 20 July 2020 case doubling time has increased in **Chattogram** district from 9 days in the previous week to 11 days this week, **Noakhali, Cox’s Bazar, Bandarban** and **Cumilla** – 14 days, **Feni** and **Rangamati** district – 15 days.

The figure below is showing the growth of COVID-19 confirmed cases in all districts of Chattogram division starting from the day each reported 100th confirmed cases, 20 July 2020, Bangladesh.
The figures below are showing the daily distribution of reported confirmed COVID-19 cases and rolling three-days average per division, 16 April – 20 July 2020, Bangladesh.
On 20 July, Bangladesh overall attack rate (AR) is 1,218.1 per 1 million (207,543/170,306,489) and 100% (64/64) of districts with the total population² of 170,306,468 people have reported confirmed COVID-19 cases. In the reported week (epidemiological week 29), COVID-19 cumulative weekly AR increased by 10.2%, in comparison to the previous week (1,201 and 1,079 respectively).

The figure below is showing the cumulative weekly COVID-19 attack rate, 08 March – 20 July 2020, Bangladesh.

According to the available data, the highest AR continues to be observed in the Dhaka division (3,182.6/1,000,000). Within the Dhaka division, Dhaka city has the highest AR (12,915.9/1,000,000) followed by Faridpur (1,758.4), Narayanganj (1,651.6), Munshiganj (1,650.8), Gazipur (1,006.8), Gopalganj (888.8), Madaripur (783.4), Rajbari (700.1), Shariatpur (673.2), Dhaka (District) (633.8), Manikganj (491.2) and the lowest AR was reported from Tangail district.

The 2nd highest COVID-19 AR is reported from Chattogram division (913.3/1,000,000), the AR in all the 11 districts is over 500 per million. Within the division, Chattogram district reported the highest AR (1,435.5/1,000,000) followed by Cox’s Bazar (1,166), Bandarban (1,104.2), Cumilla (771.3), Noakhali (747), Rangamati (725.2), Feni (644.9), Lakshmipur (587.4), Khagrachhari (582.8), Brahmanbaria (521.4) and the lowest AR 511.8 was reported from Chandpur district.

The 3rd highest AR in the country was reported from Sylhet division (551.7/1,000,000) with the highest AR in Sylhet district (814/100,000) followed by Sunamganj (442.8), Habiganj (419.5) and 366.2 in Maulvi Bazar district.

Barishal division has taken the fourth highest in the overall AR with 498.7/1,000,000 with the highest AR in Barishal district (790.4/1,000,000) followed by Jhalokathi (488.1), Barguna (483.2), Patuakhali (476.9), Pirojpur (398.9) and the lowest 210.4 in Bhola district.

In Khulna division the overall AR is 488.6/1,000,000 while the highest AR district is Jhenaidah (892.4/1,000,000) followed by Khulna (765.7), Magura (642.8), Meherpur (473.6), Narail (454.7), Chuadanga (406.8), Satkhira (380.7), Jashore (355.5), Kushtia (283.7) and the lowest 222.9 in Bagerhat district.

Rajshahi division has overall AR (465.8/1,000,000) with the highest AR in Bogura district (1,043.8/1000000), followed by Rajshahi (717.6), Joypurhat (581.3), Natore (386.1), Sirajganj (289.2), Pabna (225.3), Chapainawabganj (180.7) and Naogaon districts is 95/1,000,000.

² Source: Population projection from 2011 Census, Bangladesh Bureau of Statistics
Although **Mymensingh division** reported an overall AR of **318.4/1,000,000**, **Mymensingh district** reported high AR (405/1000000), followed by Jamalpur (303.6), Netrakona (224.2), and Sherpur district (172.5).

The following figure is showing the COVID-19 attack rate per 1,000,000 population in selected divisions, 16 April - 20 July 2020, Bangladesh.

**Growth factor** (every day's new cases / new cases on the previous day) between 0 and 1 indicates a decline; when it is above 1 it signals an increase, and if is persistently above 1 this could signify exponential growth. Since the beginning of June 2020, the GF has been within the range of 0.8 – 1.2 and on 20 July 2020, it is **1.19**.

The figure below is showing the Growth Factor of daily confirmed COVID-19 cases, 08 March – 20 July 2020, Bangladesh.

As of 20 July 2020, according to the IEDCR, **1,041,661** COVID-19 tests with the overall positivity rate of **19.92%** were conducted in Bangladesh by **80** laboratories (46) laboratories in Dhaka city (58%) and (34) laboratories in outside Dhaka
(42%). The latest laboratories, which have started the testing: in Dhaka - Sarkari Karmachari Hospital, Authentic Diagnostic & Consultation Limited and Popular Diagnostic Centre Ltd. 61.3% (638,258/1,041,661) of all samples were tested by laboratories in the Dhaka city, and 38.7% (403,403) - outside Dhaka.

COVID-19 testing coverage has been gradually increasing in Bangladesh, reaching 6,116/1,000,000: now almost reached Sri Lanka (6,416/1,000,000) but is lower than Thailand (8,648/1,000,000), India (10,175/1,000,000), Nepal (21,536/1,000,000), Malaysia (27,473/1,000,000) and Maldives (124,338/1,000,000).

The correlation coefficient (R) is a statistical measure of the strength of the relationship between the relative movements of two variables. The values range between -1.0 and 1.0. A calculated number greater than 1.0 or less than -1.0 means that there was an error in the correlation measurement. A correlation of 1.0 shows a perfect positive correlation. Analyzing data showed that R between number of samples tested and number of confirmed COVID-19 cases is 0.985 (positive correlation).

The graphs below are showing the weekly and cumulative number of COVID-19 conducted tests and daily number of samples tested and number of daily confirmed COVID-19 cases, 08 March – 20 July 2020, Bangladesh.
Available data allows us to see how quickly the number of confirmed cases increased in Bangladesh and some other countries in the WHO South-East Asia region: India, Indonesia, Thailand and Sri Lanka. As of 20 July 2020, the overall case doubling time in Bangladesh has slowed to 9.5 days this week (0.5 days less in comparison with the epidemiological week 28).

The figure below is showing the growth of COVID-19 confirmed cases in selected South East Asian countries starting from the day they reported 100th confirmed cases, 20 July 2020.

Available data allows us to see how quickly the number of confirmed deaths increased in Bangladesh and some other countries in the WHO South-East Asia region: India, Indonesia, Thailand and Sri Lanka. As of 20 July 2020, the death doubling time in Bangladesh is 13 days (1 day less in comparison with the previous epidemiological week).

The figure below is showing the growth of COVID-19 confirmed deaths in selected South East Asian countries starting from the day they reported 100th confirmed cases, 20 July 2020.
4. Contact Tracing, Points of Entry (PoEs) and Quarantine

According to the Directorate General of Health Services (DGHS), as of 20 July 2020, the current institutional quarantine capacity in the country is represented by 629 centres across the 64 districts, which can receive 31,991 persons. A total of 23,331 individuals were placed in quarantine facilities and of them 17,406 (74.6%) have been already released. The highest number of people (6,547) in quarantine facilities was reported on 24 April 2020 while presently, the number reduced to 5,925. Between 17 March to 20 July 2020, total 389,150 individuals were placed under home quarantine all over the county and to date 86.3% (335,643/389,150) have been already released. Remaining 13.8% (53,507 individuals) are in home quarantine now.

By 20 July 2020, in total 42,970 individuals were isolated in designated health facilitates all over the country, of them 24,358 (56.7%) have been released, and 18,612 (43.3%) are presently in isolation facilities.

The figures below are showing the number of individuals in home quarantine and individuals in hospital isolation, 16 March – 20 July 2020, Bangladesh.
5. Case Management and Infection Control

On 19 July, DGDA released the specifications and minimum testing parameters for the non-medical fabric masks for community use. This is a timely intervention as government has initiated a media campaign with development partner support on use of fabric masks by the general public. In Bangladesh, it remains a legal requirement that people use face-coverings in public areas, to limit the risks of infection, by limiting droplets. It is also an important part of socio-economic recovery, as people going back to work should adhere to mask-wearing, along with other preventive measures such as hand and respiratory hygiene, and physical distancing. The document is available on the DGDA website at http://www.dgda.gov.bd/index.php/news/item/58. The latest WHO interim advice on the use of masks in the context of COVID-19 is available at https://apps.who.int/iris/rest/bitstreams/1279750/retrieve.

DGDA initiated a series of virtual meetings with experts on setting the minimum acceptable specificity and sensitivity levels of rapid diagnostic test to detect SARS-CoV-2 antigens. On 9 June, WHO had extended the global call for expressions of interest for Emergency Use Listing to include Immunochromatographic (lateral flow) or Immuno-filtration (flow through) rapid diagnostic test to detect SARS-CoV-2 antigens. On 3 July the EUL pipeline was further expanded to antibody detection enzyme immunoassays (EIAs). Updates on the EUL pipeline are available online at https://www.who.int/diagnostics_laboratory/EUL/en/.

Upon the request from the DGHS, UN and other development partners have agreed to support health facilities preparedness and readiness assessment in COVID-19 and non-COVID-19 health facilities. The main purpose of the assessment was to understand the health system’s response to COVID-19 against a set of indicators in order to identify the critical gaps and where resource mobilization can be expedited to tackle the COVID-19 pandemic. The checklist was developed based on the WHO essential health commodities package and a similar checklist prepared by Pan American Health Organization (PAHO). Following the approval of comprehensive checklist by DGHS, a data-collection guideline was developed by a core technical team from supporting organisations, which was used for training of data collectors. Sixty data collectors - project-based staff of different development partners at district level, including surveillance immunization medical officers of WHO - were trained in three batches. DGHS sent out communication regarding the assessment to 120 health facilities, including medical college hospitals, specialized hospital, district hospital, Covid-19 designated hospitals including some private and NGO health facilities. The assessment was conducted at the facility level through interview, physical observation and document reviews using the checklist. Data collection was completed in 25 June. The partners who supported the assessment includes USAID, Save the Children, MTaPs, Concern -World Wide, iccdr,b, WHO, UNFPA & UNICEF. The contents of the checklist included status of local level response to COVID; health workforce capacity with regards to infection prevention and control (IPC) and case management; triage protocol implementation; status of essential health services; status and functionality of critical equipment and oxygen supply system and status of WASH and waste management. The results of assessment will be shared soon.

6. Risk Communication and Public Awareness

Risk Communication and Community Engagement (RCCE) partners continue to implement Mask Promotion and Prevention Campaign through a large variety of channels including social media, networks of NGOs, community radio networks and faith leaders. Tools for monitoring the implementation of the campaigns have been developed and are currently implemented to assess the implementation of the campaign and its efficacy in both rural and urban settings.

A special emphasis is given to scale up communication regarding personal protection measures in observance of Eid celebration when big movement of people is expected between districts and divisions. In this regard’s messages have been developed for safe transportation and for limiting the potential of COVID-19 transmission. Also, for observing the Eid celebrations, RCCE partners have been develop messages based on the DGHS and WHO guidelines addressed to administrators, vendors and customers of cattle markets, spots that are traditionally generating crowded environments and where special messaging, display of information and enforcing measures are needed to avert infection hubs.

While focusing on personal and community protection messages, WHO continues to produce risk communication materials on stigma and discrimination for addressing increasing incidence of the issues in communities especially towards frontline responders, including health workers.
7. Monsoon Floods Update:

The floods started on 30 June 2020, by 20 July fully or partially affected a total of 18 districts, including 60 Upazilas and 280 unions. In the last 21 days, between 30 June - 20 July 2020, the National Health Emergency Operations Centre and Control Room of DGHS recorded a total of 4,609 cases reported from health facilities of affected districts; among which were 2,391 cases of Acute Watery Diarrhea (AWD), 607 case of Acute Respiratory Infection (ARI), 293 - skin diseases, 119 - injury cases, 116 - eye infections, 68 - near to drowning, 17 - lightning, 15 - snake-bite cases, and 983 other cases. The death toll during the same period was 78 (64 persons - from drowning, 8 – from lightning, 5 - from snake-bite, and 01 from Acute Watery Diarrhea). Considering the health impacts represented by the number of cases and deaths, the most affected districts are Kurigram, Jamalpur, Lalmonirhat, Gaibandha, Sirajganj, Tangail and Netrokona.

To coordinate response to the flood-affected districts with due consideration for COVID-19 situation, WHO and DGHS organized a special meeting with Divisional Directors of Dhaka, Mymensingh, Rangpur, Rajshahi and Sylhet, all Civil Surgeons and Upazila Health & Family Planning Officer (UHFPO) of the affected areas. The main issues discussed included status of the Emergency buffer stock, activation of mobile medical teams, reducing death due to drowning, management of snakebite issues in flood affected districts, etc. The main concern is that a shortage of safe drinking water, food and proper sanitation facilities would increase the probability of respiratory infections, communicable and water borne diseases.

To reduce morbidity and mortality due to the floods, the DGHS activated total 1,271 Mobile Medical Teams at local level, and some of them are working 24/7 to tackle the flood-related health problems. Pre-positioned emergency drugs of the medical buffer stock (antibiotic, IV saline, ORS, WPT, anti-snake venom etc.), mainly supported by WHO, are being released to manage health problems, and will have to be replenished as soon as possible.

Health Cluster Co-Leads (DGHS and WHO) are monitoring the overall flood situation from the National Health Emergency Operations Centre and Control Room of DGHS. There has been no severe disease outbreak, and currently, there is no shortage of emergency drugs in flood affected districts. WHO Surveillance & Immunization Officers (SIMO) and Divisional Coordinators (DCs) are providing technical support to the District Civil Surgeon Offices and Divisional Director Offices in disease surveillance and coordination activities without hampering routine immunization activities.

8. Useful COVID-19 links:


WHO Bangladesh awareness and risk communication materials in Bengali: https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19)-update


Institute of Epidemiology, Disease Control and Research (IEDCR): https://www.iedcr.gov.bd/