In this issue of COVID-19 Morbidity and Mortality Weekly Update (MMWU) № 23 (28 July – 03 August 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 deaths by division;
- overall and cumulative weekly attack rate and per division;
- death and recovery rates of closed cases;
- number of COVID-19 testing laboratories and number of daily tested;
- Geographical distribution cases and deaths; and
- comparison data with selected countries in South East Asia.
1. Highlights

As of 03 August 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR), there are 242,102 confirmed COVID-19 cases\(^1\) in Bangladesh, including 3,184 related deaths; Case Fatality Rate (CFR) is 1.32%.

On 30 July 2020, Ministry of Health and Family Welfare Health, Services Division issued a circular No. 45.170.00.0000.160.99.002.20 (Part-7)-633 regarding the **Extensive publicity measures to inform the public about the list of organizations designated for issuing COVID-19 free certificates to foreign nationals/travelers wishing to travel abroad**. The list of 19 hospitals/institutions identified/selected across the country for issuing COVID-19 free certificates to Bangladeshi passengers wishing to travel: Sher-e-Bangla Medical College, Barisal; Bangladesh Institute of Tropical and Infectious Diseases, Chattogram Cox’s Bazar Medical College (IEDCR Field Laboratory), Cox’s Bazar; Comilla Medical College, Comilla; National Institute of Laboratory Medicine and Referral Centre, She-e-Bangla Nagar, Dhaka; Institute of Public Health (IPH), Mohakhali, Dhaka; National Institute of Preventive and Social Medicine (NIPSOM), Mohakhali, Dhaka; Narayanganj 300 Bed Hospital, Narayanganj; Khulna Medical College, Khulna; Kushtia Medical College, Kushtia; Mymensingh Medical College, Mymensingh; Shaheed Ziaur Rahman Medical College, Bogra; Rajshahi Medical College, Rajshahi; M. Abdur Rahim Medical College, Dinajpuri; Rangpur Medical College, Rangpur; Sylhet M.A.G. Osmani Medical College, Sylhet; Abdul Malek Uki Medical College, Noakhali; Chattogram Medical College, Chattogram; and ICDDR.B, Mohakhali, Dhaka - to issue COVID-19 free certificate to foreign nationals working in various foreign organizations in Bangladesh. Full document is available on: [http://mohfw.gov.bd/](http://mohfw.gov.bd/).

On 31 July 2020, the Civil Aviation Authority (CAAB) issued a circular No. 30.31.0000.112.42.001.20-3373 regarding the **Operation of Schedule International Flights To/From Bangladesh during COVID-19 Pandemic**. With immediate effect, scheduled international passenger flights to/from China, Malaysia, Maldives, Qatar, Sri Lanka, Turkey, UAE and UK are permitted to be operated as per the schedule approved by CAAB. Foreign nationals coming to Bangladesh with valid visas will be required to produce a medical certificate (with English translation) to be obtained within 72 hours of travel, indicating that he/she is COVID-19 negative. The individual needs to submit these certificates on arrival at the entry point (airport/ sea port/ land port) in Bangladesh. The circular notes that Note Verbale no. 19.00.0000.530.68.000.20-429, Date: 18 June 2020, issued by the Ministry of Foreign Affairs Bangladesh will also remain in force. Full document is available on: [www.caab.gov.bd](http://www.caab.gov.bd).

2. Coordination


On 01 August 2020, WHO published **COVID-19 preparedness and response progress report** (1 February – 30 June 2020). The report highlights the main points of progress that were made up to 30 June 2020 under the three objectives: scaling up international coordination and support; scaling up country preparedness and response by pillar; and accelerating research and innovation. The report also discusses some of the key challenges faced so far and provides an update on the resource requirements for the next phase of WHO’s response as part of an unprecedented whole-of-UN approach to the pandemic. Full document: [https://www.who.int/publications/i/item/strategic-preparedness-and-response-plan-for-the-new-coronavirus](https://www.who.int/publications/i/item/strategic-preparedness-and-response-plan-for-the-new-coronavirus).

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\(^1\) 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 03 August 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR) there were two-hundred-forty-two-thousand-one-hundred-two (242,102) COVID-19 confirmed by rt-PCR, including three-thousand-one-hundred-eighty-four (3,184) related deaths (CFR 1.32%).

In the reported week (epidemiological week 31), in comparison to the previous epidemiological week, the number of new weekly COVID-19 cases decreased by 8.9% (17,293 and 18,982 respectively) and the number of COVID-19 new weekly deaths decreased by 24.7% (226 and 300).

The figures below are showing the daily and weekly distribution of reported confirmed COVID-19 cases and deaths, 08 March – 03 August 2020, Bangladesh.
The map below is showing the geographical distribution of reported confirmed COVID-19 cases, deaths and attack rate (AR), 08 March – 03 August 2020, Bangladesh.
Out of the total **242,102** COVID-19 cases registered as of 03 August 2020, **56.96%** (**137,905/242,102**) - recovered, **1.32%** (**3,184**) - died and **41.72%** (**101,103**) are active cases.

The figure below is showing active vs recovered confirmed COVID-19 cases outcomes per epidemiological week, 08 March – 03 August, Bangladesh.

In the epidemiological week 31, the number of COVID-19 active cases increased by **5.5%**, in comparison to the previous week (**99,243** and **94,105**) and the number of recovered COVID-19 cases increased by **5.9%** (**12,957** and **12,240**) respectively.

The figure below is showing the weekly outcomes of the reported confirmed COVID-19 cases, 08 March – 03 August 2020, Bangladesh.

As of 03 August 2020, there were **141,089** (58.3%) COVID-19 cases with known outcome (i.e. closed cases). Out of all closed cases, **97.7%** (**137,905/141,089**) were cured and **2.3%** (**3,148**) died. The recovery rate of **97.7%** 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 6.0% (692,837/12,139,990) global average as of 03 August 2020.

The figure below is showing the death and recovery rates over cumulative closed confirmed COVID-19 cases, 08 March – 03 August 2020, Bangladesh.

As of 03 August 2020, 26.9% cases were confirmed in people between 31 and 40 years old, 20.8% - in the age group of 21 to 30, 18.8% - 41 to 50 years and 15.0% in the age group between 51 and 60 years old. As of 03 August 2020, the highest death rate (30.5%) was reported in the age group of 61 to 70 years old, 25.3% in the older age group of 71 and above and 24.2% - in the age group between 51 and 60 years.

Male represented 72% and 79% of the of total reported confirmed COVID-19 cases and deaths respectively.

The figure below is showing geographical and age-sex distribution of the reported confirmed COVID-19 deaths, 03 August 2020, Bangladesh.
As of 03 August 2020, geographical distribution of confirmed reported COVID-19 cases was available on 100% of cases (242,102/242,102). Of all cases, 64.7% reported from Dhaka division, 14.4% from Chattogram, 5.5% - from Rajshahi, 5.1% - from Khulna, 3.2% - from Sylhet, 2.7% - from Rangpur, 2.5% from Barishal and the lowest 1.9% from Mymensingh division.

The figure below is showing the daily distribution of reported confirmed COVID-19 cases per division, 14 April – 03 August 2020.

![Daily distribution of confirmed COVID-19 cases per division](image)

Available data allows 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 03 August 2020, case doubling time is 11.8 days in Dhaka division, 13-14 days in Chattogram and Khulna, between 15 to 19.5 days in Rajshahi, Sylhet and Barishal divisions and more than 20 days in for Mymensingh and Rangpur divisions.

The figure below is showing the case-doubling time of COVID-19 confirmed cases in all divisions starting from the day each reported 500th confirmed cases, 03 August 2020, Bangladesh.

![Case-doubling time of COVID-19 confirmed cases](image)
Case doubling time is **12.3 days** in **Dhaka city**, **15 days** in **Faridpur district**, between 20-30 days **Gopalganj, Narayanganj, Gazipur, Munshiganj** and more than **30 days** in and **Rajbari**.

The figure below is showing the growth of COVID-19 confirmed cases in all districts of Dhaka division starting from the day each reported 500th confirmed cases, 03 August 2020, Bangladesh.

In **Chattogram** division by 03 August 2020, the case doubling in **Chattogram** district is **16 days**. This week, **Cumilla**, Bandarban have increased to – **25 days**, while **Cox’s Bazar and Noakhali** – 25-30 days and **Feni, Rangamati**, and **Bandarban** districts are at – more than **30 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, 03 August 2020, Bangladesh.
The figures below are showing the daily distribution of reported confirmed COVID-19 cases and rolling three-days average per division, 14 April – 3 August July 2020, Bangladesh.

2 Source: Population projection from 2011 Census, Bangladesh Bureau of Statistics
On 03 Augusts 2020, Bangladesh overall attack rate (AR) is **1,421.5** per 1 million and **100% (64/64)** of districts with the total population of 170,306,468 people have reported confirmed COVID-19 cases. In the reported week (epidemiological week 31), COVID-19 weekly AR increased by **7.2%** in comparison to the previous week (**1,414** and **1,312** respectively).

*The figure below is showing the weekly COVID-19 attack rate (AR) per 1,000,000, 08 March – 03 August 2020, Bangladesh.*

According to the available data as on 03 August 2020, the highest AR continues to be observed in the Dhaka division (3,637.0/1,000,000). Within the Dhaka division, Dhaka city has the highest AR (14,824.2/1,000,000) followed by Faridpur (2,149.7), Narayanganj (1,698.9), Munshiganj (1,627), Gopalganj (1,195.4), Gazipur (1,055.8), Rajbari (1,036.1), Madaripur (879.2), Shariatpur (805.7), Dhaka District (672.5), Narsingdi (665.2), Kishoreganj (595.2), Manikganj (527.1) and the lowest AR 396.5 was reported from Tangail district.

The 2nd highest COVID-19 AR is reported from Chattogram division (1,040.7/1,000,000), the AR in all the 11 districts is over 550 per million. Within the division, Chattogram district reported the highest AR (1,609.0/1,000,000) followed by Cox’s Bazar (1,252.4), Bandarban (1,206.6), Rangamati (932.4), Cumilla (875.4), Noakhali (867), Feni (795), Khagrachhari (732.9), Lakshmipur (701.9), Chandpur (649) and the lowest AR **579.7** was reported from Brahmanbaria district.

The 3rd highest AR in the country was reported from Sylhet division (664.3/1,000,000) with the highest AR in Sylhet district (1,028.5/100,000) followed by Sunamganj (507.5), Habiganj (473.3) and **422.2** in Maulividibazar district.

Khulna division has taken the fourth highest in the overall AR with 663.5/1,000,00 while the highest AR district is Jhenaidah (1,244.8/1,000,000) followed by Magura (1080.2), Khulna (847.1), Meherpur (791.1), Narail (622.3), Chuadanga (615.0), Satkhira (595.4), Jashore (459.8), Bagerhat (362.1) and the lowest AR **307.2** in Kushtia district.

Rajshahi division has overall AR 608.9/1,000,00 with the highest AR in Bogura district (1,229.3/100000), followed by Rajshahi (1071.9), Joypurhat (705.3), Sirajganj (401.9), Naogaon (311.6), Pabna (285.9), Chapainawabganj (279.8) and Natore districts is **240.4/1,000,000.**

In Barishal division the overall AR is 608.8/1,000,00 with the highest AR in Barishal district (919.9/1,000,000), Barguna (623.4), Jhalokathi (595.9), Patuakhali (573.8), Pirojpur (559.9) and the lowest **250.9** in Bhola district.

Although Mymensingh division reported an overall AR of 353.8/1,000,00, Mymensingh district reported high AR (450.8/100000), followed by Jamalpur (343.8), Netrakona (242.0), and **188.7** in Sherpur district.
The lowest AR is reported from Rangpur division (347.3/1,000,000). Rangpur district having the highest AR of 509.9/1,000,000 followed by Dinajpur (493.6), Nilphamari (307.1), Panchagarh (288.6), Lalmonirhat (272.0), Thakurgaon (2051.9) Gaibandha (237.5), and the lowest 208.9 in Kurigram district.

The following figure is showing the COVID-19 attack rate per 1,000,000 population in selected divisions, 14 April – 2 August 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 03 August 2020, it is 1.53.

The figure below is showing the Growth Factor of daily confirmed COVID-19 cases, 08 March – 03 August 2020, Bangladesh.
As of 03 August 2020, according to the IEDCR, 1,193,544 COVID-19 tests with the overall positivity rate of 20.28% were conducted in Bangladesh by 82 laboratories: 46 laboratories in Dhaka city (56.1%) and 36 laboratories outside Dhaka (43.9%). 60.4% of all tests (720,352/1,193,544) were conducted by laboratories in the Dhaka city, and 39.6% (473,192) - outside Dhaka.

COVID-19 testing coverage has been gradually increasing in Bangladesh, reaching 7,008/1,000,000: now almost reached Sri Lanka (7,567/1,000,000) but is lower than Thailand (10,731/1,000,000), India (14,726/1,000,000), Nepal (24,114/1,000,000), Malaysia (30,220/1,000,000) and Maldives (147,442/1,000,000).

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 – 03 August 2020, Bangladesh.

COVID-19 testing coverage notably decreased on 2 and 3 August 2020, most likely due to Eid ul Adha vacation, but the rate of confirmed case per test remains at 1 confirmed case for every 5 samples tested.

The graph below is showing the daily number of COVID-19 conducted tests and daily number of cases per sample tested, 03 May – 03 August 2020, Bangladesh.
Since Bangladesh started to conduct COVID-19 testing in February 2020, the number of COVID-19 laboratories has increased from 1 in Dhaka to 82 across the country. Despite the steady increase of the number of laboratories, a lower number of samples have been tested daily since 03 July 2020.

The graph below is showing the number of COVID-19 testing laboratories and daily number of COVID-19 tests, 03 May – 03 August 2020, Bangladesh.

The correlation coefficient (R) is a statistical measure of the strength of the relationship between the relative movements of two variables. A correlation of 1.0 shows a perfect positive correlation. The analysis of data on the the two in Bangladesh showed R between the two variables as 0.982 (positive correlation).

The graphs below are showing the daily number of COVID-19 conducted tests and daily number of confirmed cases, 08 March – 03 August 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 03 August 2020, the overall case doubling time in Bangladesh has slowed to 12.5 days this week (0.5 days more in comparison with the epidemiological week 30).

The figure below is showing the growth of COVID-19 confirmed cases in selected South East Asian countries starting from the day they reported 500th confirmed cases, 03 August 2020.

As of 03 August 2020, the death doubling time in Bangladesh is 18 days (1 day more in comparison with the previous epidemiological week). In the reported week, the death doubling time in Bangladesh is 0.5 day higher than in Indonesia. India had the shortest among other countries death doubling time of 13 days.

The figure below is showing the growth of COVID-19 confirmed deaths in selected South East Asian countries starting from the day they reported 50th confirmed cases, 03 August 2020.
According to DGHS, as of 03 August 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 25,172 individuals were placed in quarantine facilities and of them 19,780 (78.6%) have been already released. Over the same period, total of 51,805 individuals were isolated in designated health facilitates and of them 33,085 (63.9%) have been released.

The figure below is showing the number of individuals in hospital isolation and released, 05 May – 03 August 2020, Bangladesh.

In the reported week (epidemiological week 31), although the number of international flights decreased by 6.8%, in comparison to the previous week (55 and 59), the number of passengers increased by 11.8% (13,927 and 12,462 respectively).

The figures below are showing the weekly international flights and number of passengers, 27 April – 03 August 2020, Bangladesh.
5. Case Management and Infection Control

WHO has published a revised disease commodity package (DCP) for COVID-19, based on experience to-date in providing healthcare services to COVID-19 patients. The DCPS are a series of disease specific datasheets that list the critical commodities and the technical specifications for each commodity per disease. The DCPS inform Member States and operational partners of commodity requirements and potential gaps in the health emergency supply chain. From an operational readiness perspective, the DCPS provide the basis for a globalized stockpile system, response planning, technical guidance and supply market assessments. The DCPS are based on three standard intervention pillars; i) Surveillance, ii) Prevention & Control, and iii) Case Management. The commodities are listed with the technical specifications which have been determined by WHO technical experts in consultation with external experts. The updated DCP for COVID-19 is available online at https://www.who.int/emergencies/what-we-do/prevention-readiness/disease-commodity-packages/dcp-ncov.pdf?ua=1.

6. Risk Communication and Public Awareness

Risk Communication and Community Engagement (RCCE) partners have scaled up communication activities for community protection before the Eid celebration, reflecting the expected high movements of people between districts and divisions as well as increased shopping in all types of markets, retail stores or malls. Messages on mask wearing, observation of physical distance and hand hygiene have been widely distributed through social and traditional media, as well through community activities such as disseminating messages by speakers from mosques, banners, billboards, posters or leaflets. In addition, talk shows with high level religious leaders from Islamic Foundation have been organized on national TV stations to answer questions and to provide proper guidance in observing Eid specific rituals with the proper observation of the individual and community protection measures.

Additional activities are further conducted to fight misinformation which continues to be present especially in social media but also through traditional media outlets. Additional rumours have been observed and addressed especially regarding alleged newly discovered preventive medicines or cures against COVID-19.

RCCE work have been also conducted in regard to the floods in the country that pose additional risks due to COVID-19 outbreak. SMS and social media messages have been created and disseminated to increase awareness of people on the risks posed by the floods, how to react and what to do, as well as how to respond to the natural emergency in a manner that will not augment the chances to further spread the virus.

7. Useful COVID-19 links:


COVID-19 Situation in the WHO South-East Asia Region: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200727-covid-19-sitrep-189.pdf?sfvrsn=b93a6913_2


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/