



















Photo Credit: Social Media, Bangladesh

In this issue of COVID-19 Morbidity and Mortality Weekly Update (MMWU) N° 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.

| Tested | Confirmed | Recovered | Dead | Hotline |
|---|--|--|---|--|
|  1,193,544 |  242,102 |  137,905 |  3,184 |  18.1million |
| Test/1 million | New Cases | Recovery Rate | CFR% | AR/1 million |
| 6,602 | 1,356 | 57.0% | 1.32% | 1,421 |
| Laboratories | | PPE Stock | PoE Screening | |
| 82 COVID-19 Labs | |  978,887 |  402,856 | |
|  7.1% Last 7 days 77,737 Samples | |  6,804,114 |  30,375 | |
|  60.4% Inside Dhaka Tests | |  194,191 |  7,029 | |
|  20.3% Positive Tests | |  1,135,306 |  358,272 | |

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 cases¹ 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, Dinajpur; Rangpur Medical College, Rangpur; Sylhet M.A.G. Osmani Medical College, Sylhet; Abdul Malek Ukil Medical College, Noakhali; Chattogram Medical College, Chattogram; and ICDDR, 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/>

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

2. Coordination

On 29 July 2020, WHO published interim guidance on **Water, sanitation, hygiene, and waste management for SARS-CoV-2, the virus that causes COVID-19.** This document is an update to the interim guidance document entitled 'Water, sanitation, hygiene, and waste management for the COVID-19 virus', published on 23 March 2020. It is intended for water and sanitation practitioners and providers, and health-care providers who want to know more about WASH and waste risks and practices in relation to COVID-19. Full document: <https://www.who.int/publications/i/item/water-sanitation-hygiene-and-waste-management-for-the-covid-19-virus-interim-guidance>

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>

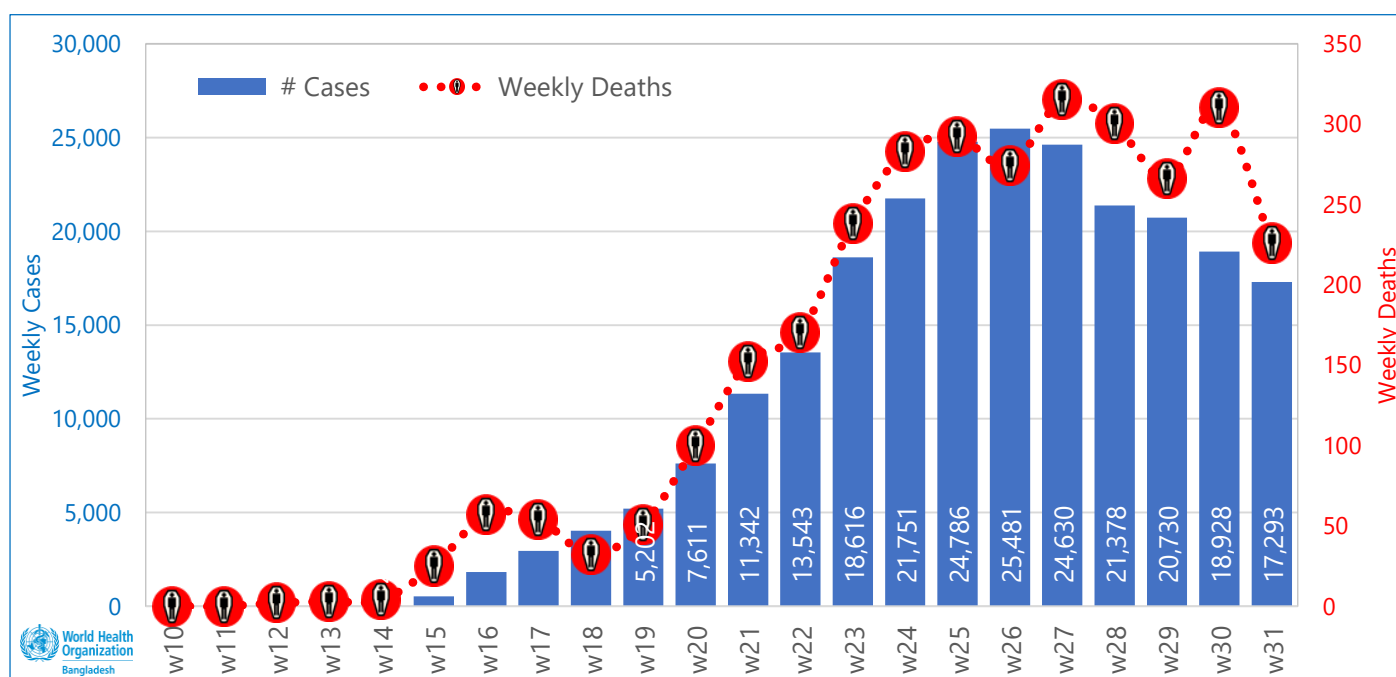
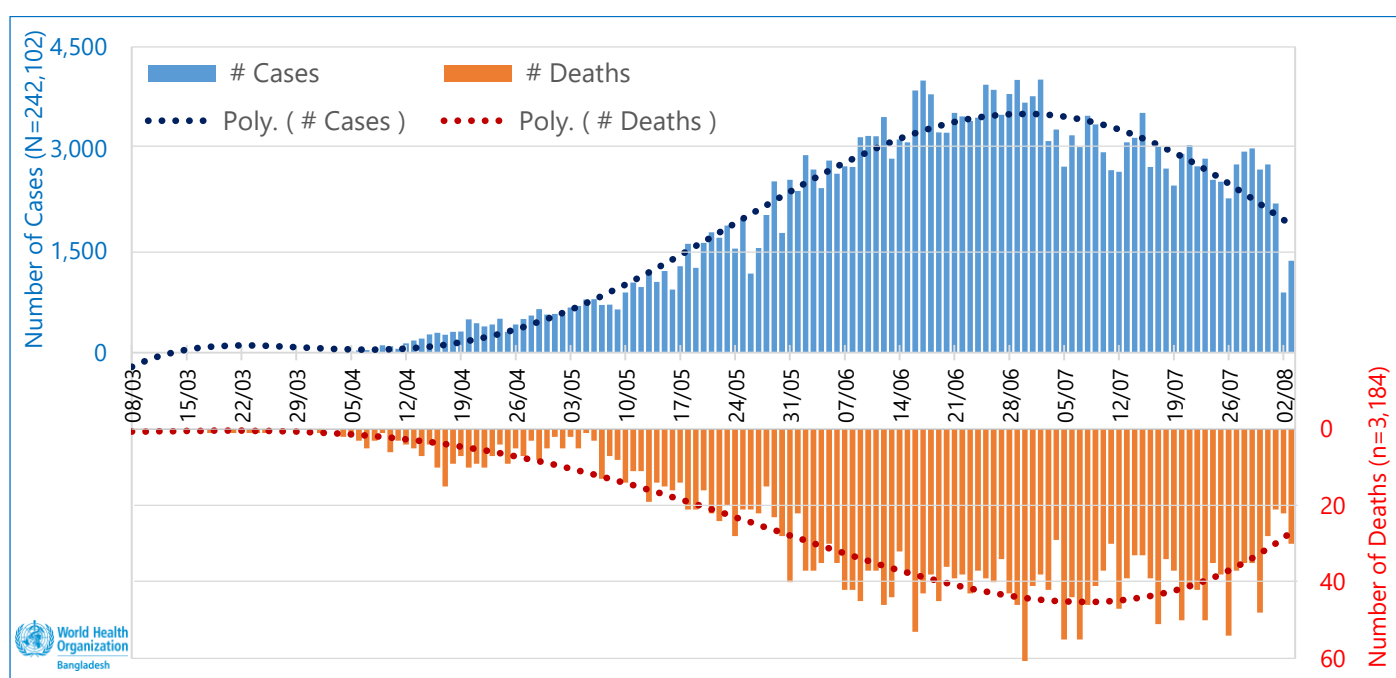
¹ WHO Bangladesh COVID-19 Situation Reports present official counts of confirmed COVID-19 as announced by the IEDCR on the indicated date. Difference in data between the WHO reports and other sources can result from using different cutoff times for the aggregation and reporting of the total number of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

3. Surveillance and Laboratory

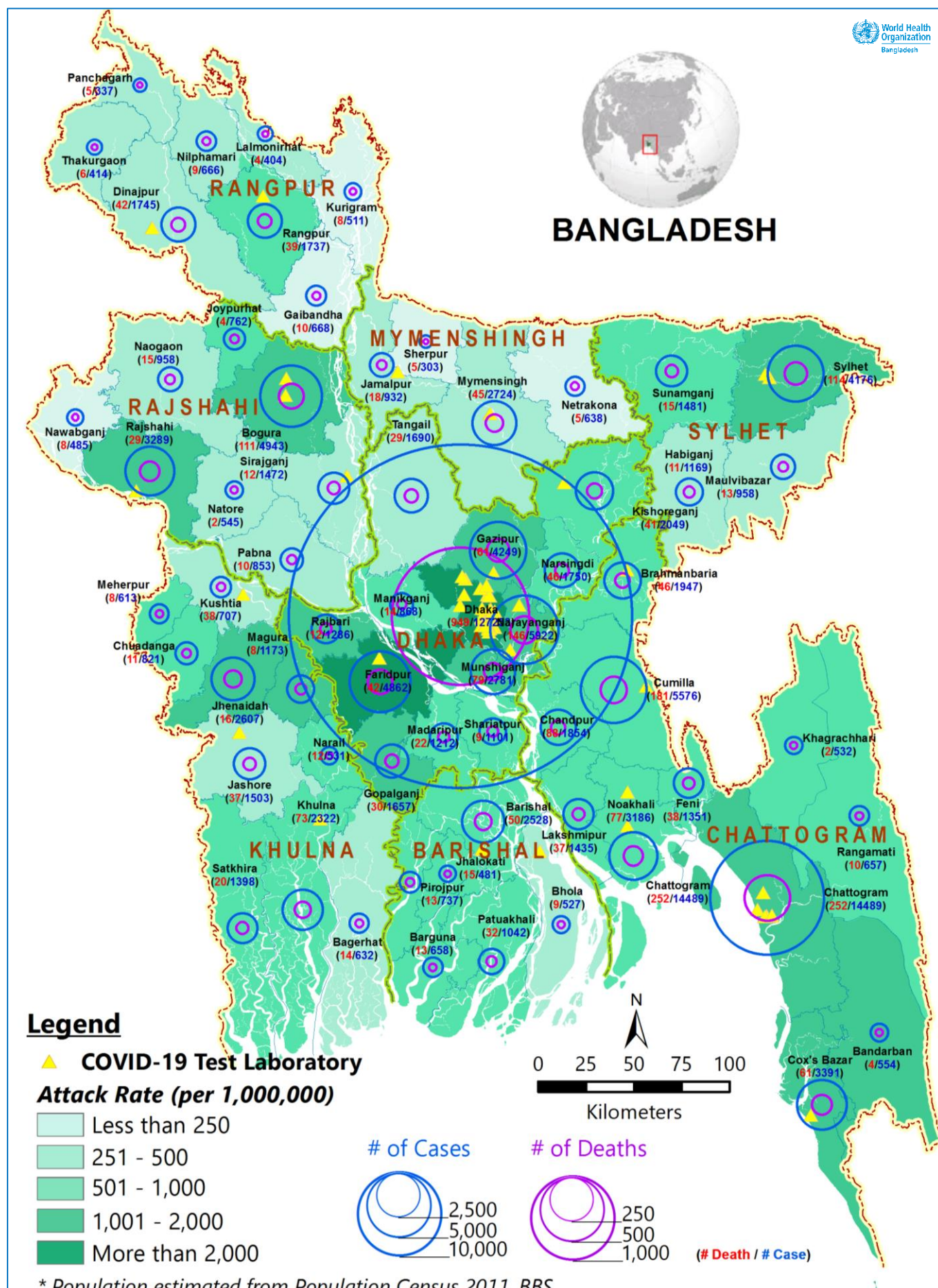
Between 8 March and 03 August 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR) there were two-hundred-forty-two-thousand-one-hundred-two (**242,102**) COVID-19 confirmed by rt-PCR, including three-thousand-one-hundred-eighty-four (**3,184**) related deaths (**CFR 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.

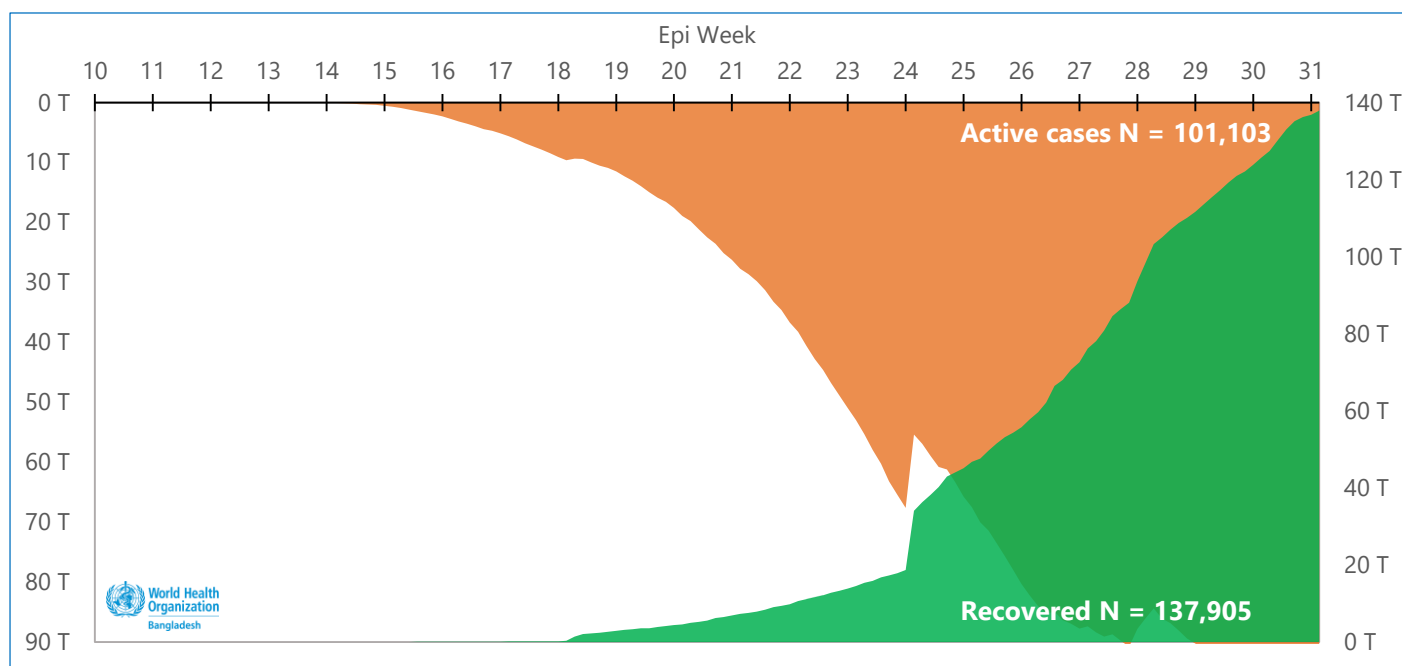


The map below is showing the geographical distribution of reported confirmed COVID-19 cases, deaths and attack rate (AR), 08 March – 03 August 2020, Bangladesh.



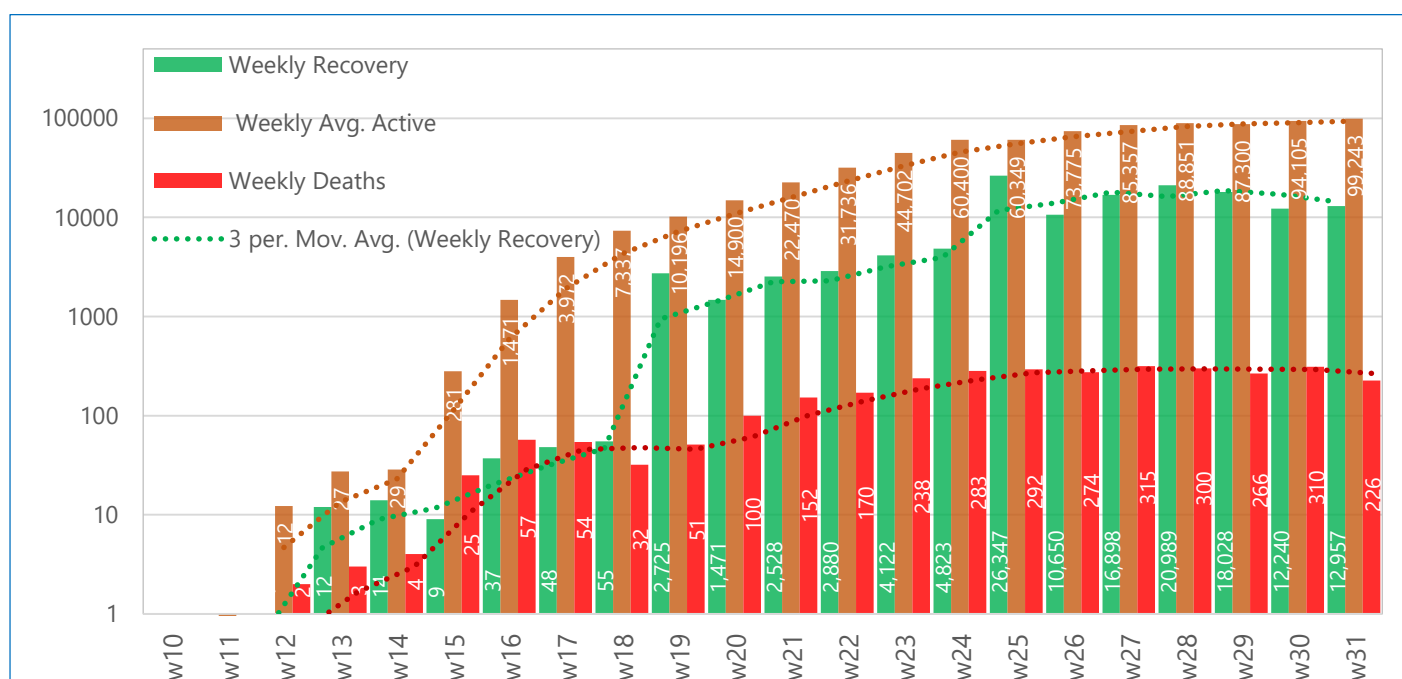
Out of the total **242,102** COVID-19 cases registered as of 03 August 2020, **56.96%** (**137,905/242,102**) - recovered, **1.32%** (3,184) - **died** and **41.72%** (101,103) are active cases.

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).

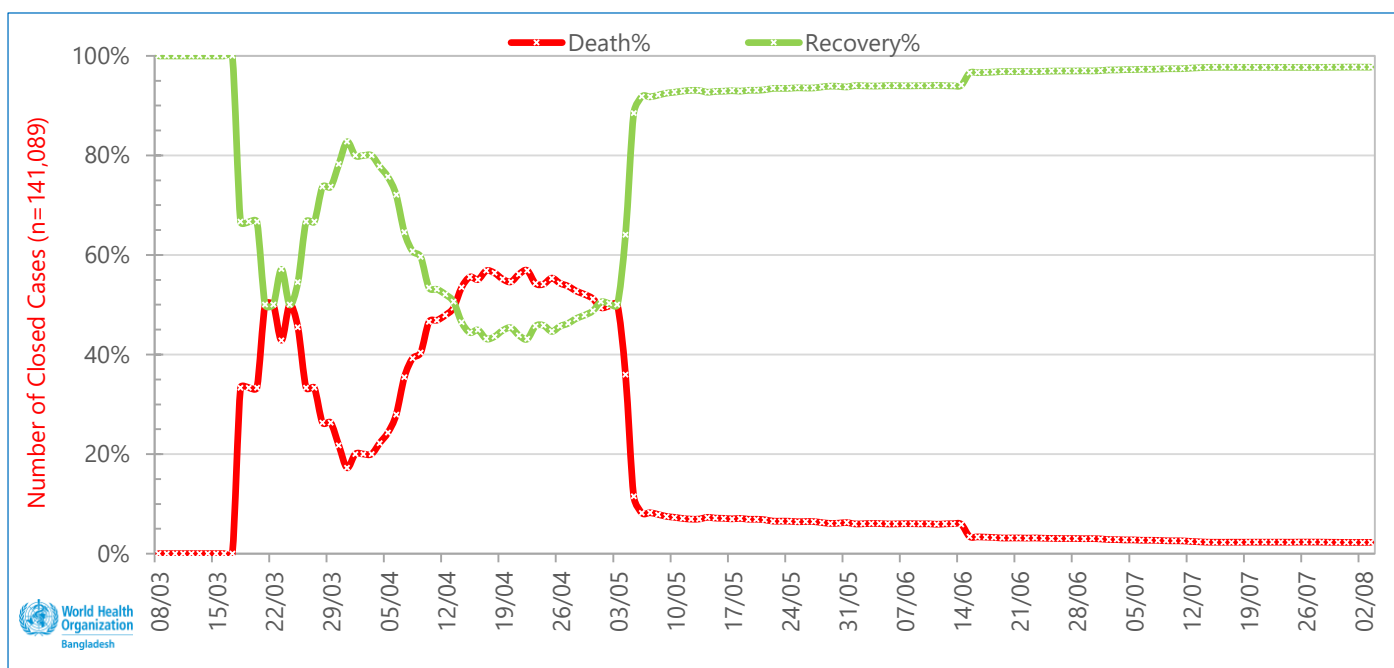
The figure below is showing the weekly outcomes of the reported confirmed COVID-19 cases, 08 March – 03 August 2020, Bangladesh.



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.

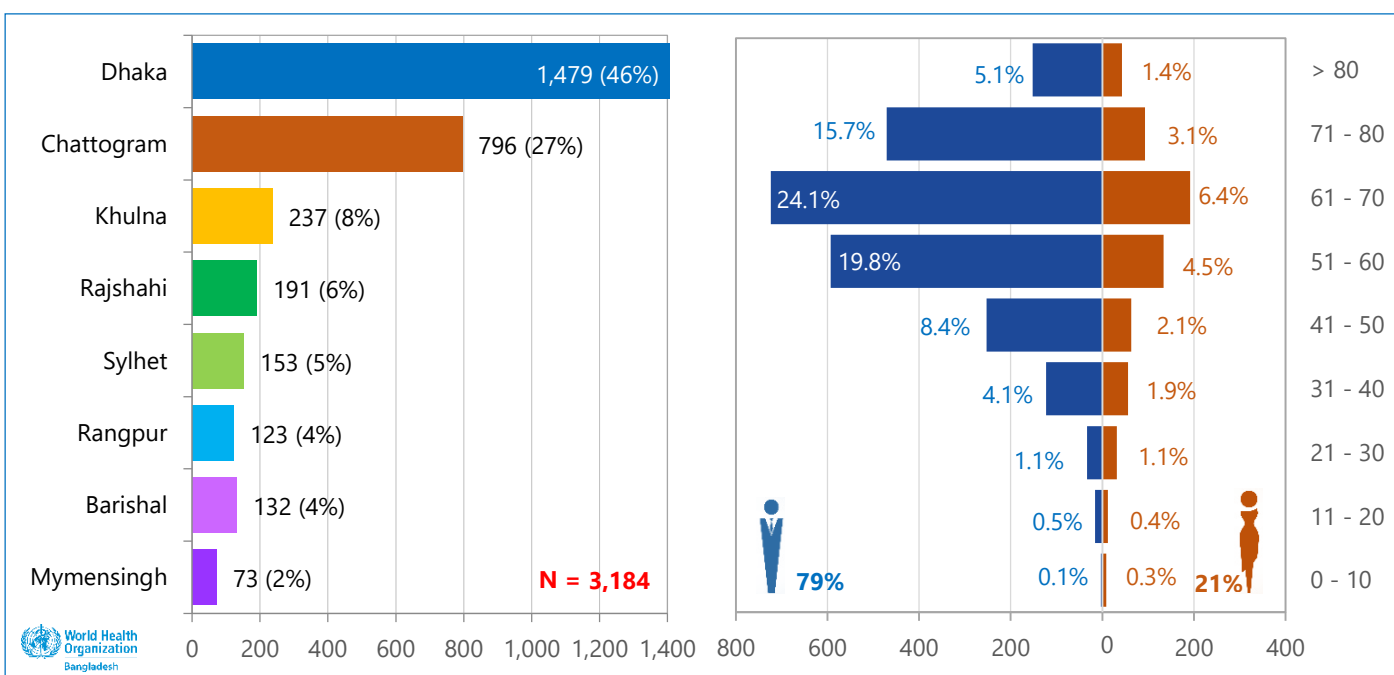
The figure below is showing the death and recovery rates over cumulative closed confirmed COVID-19 cases, 08 March – 03 August 2020, Bangladesh.



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.

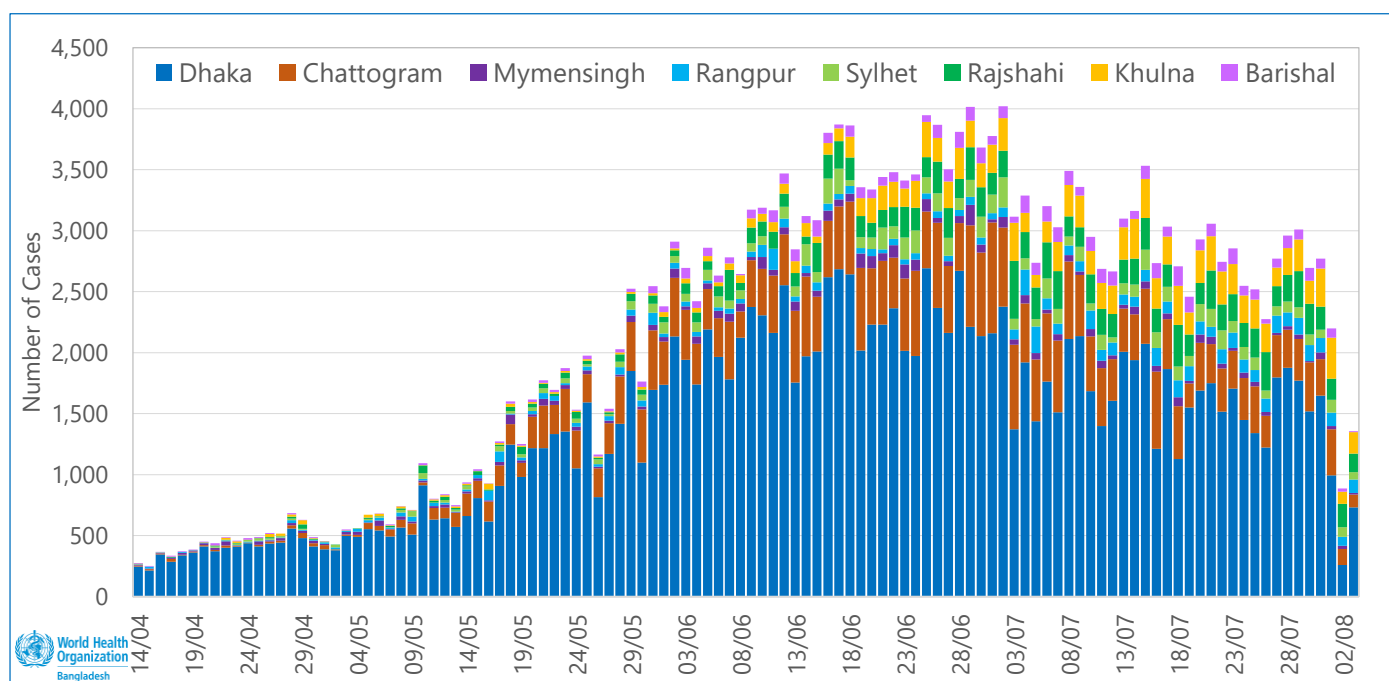
Male represented **72%** and **79%** of the of total reported confirmed COVID-19 cases and deaths respectively.

The figure below is showing geographical and age-sex distribution of the reported confirmed COVID-19 deaths, 03 August 2020, Bangladesh.



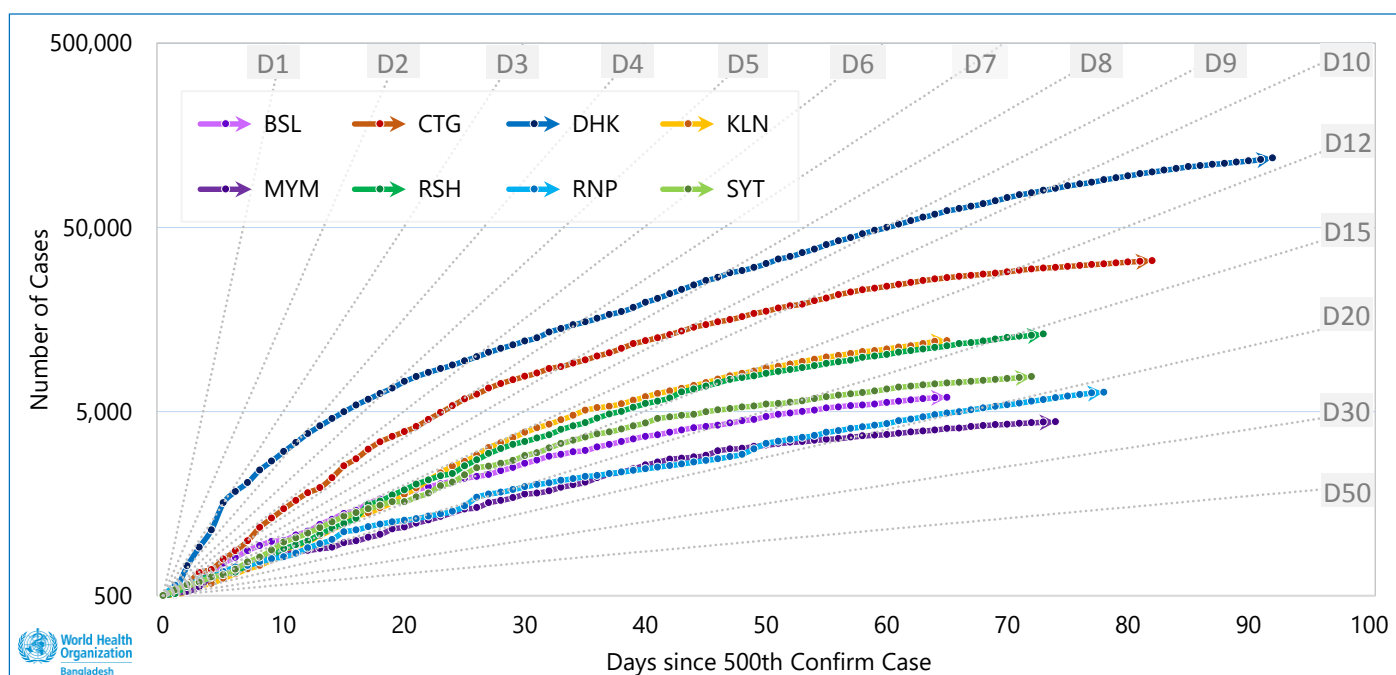
As of 03 August 2020, geographical distribution of confirmed reported COVID-19 cases was available on **100%** of cases (**242,102/242,102**). Of all cases, **64.7%** reported from **Dhaka** division, **14.4%** from **Chattogram**, **5.5%** - from **Rajshahi**, **5.1%** - from **Khulna**, **3.2%** - 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.



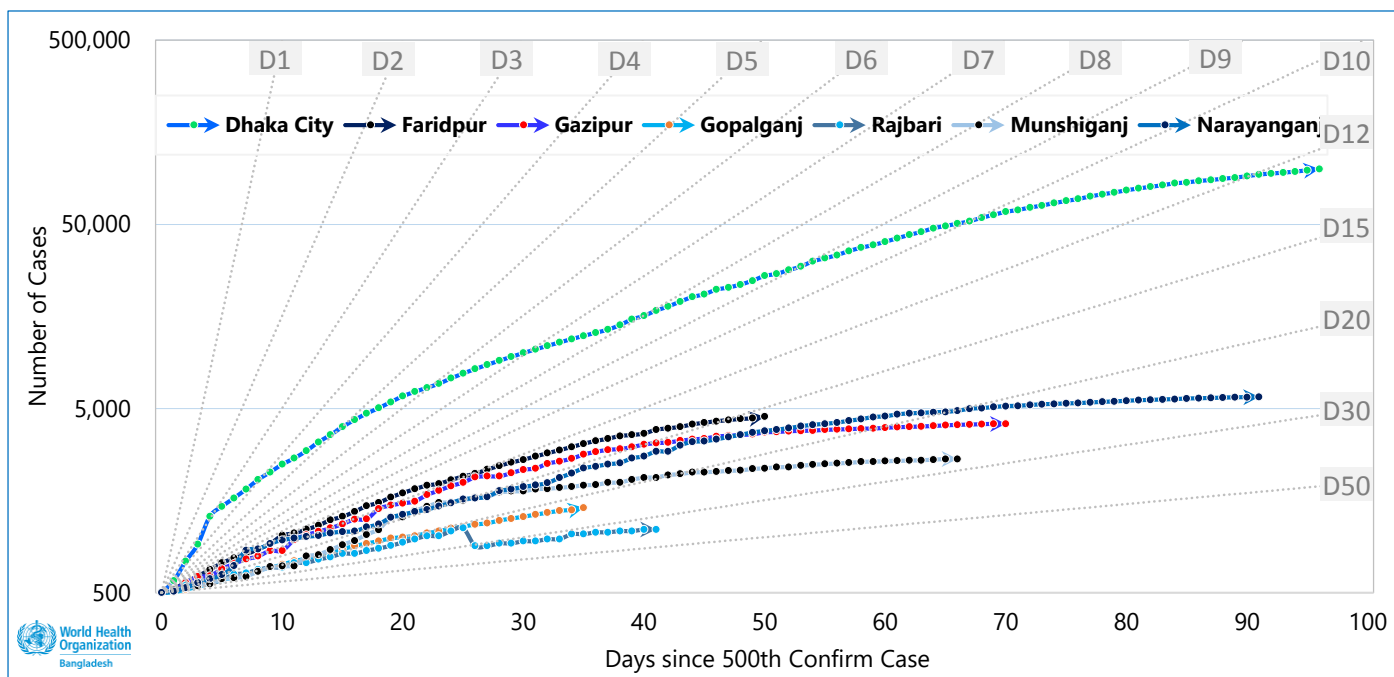
Available data allows to see how quickly the number of confirmed cases increased in different divisions in Bangladesh by looking at the case doubling time in each division. As of 03 August 2020, case doubling time is **11.8** days in **Dhaka** division, **13-14** days in **Chattogram** and **Khulna**, between **15 to 19.5** days in **Rajshahi**, **Sylhet** and **Barisal** 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.



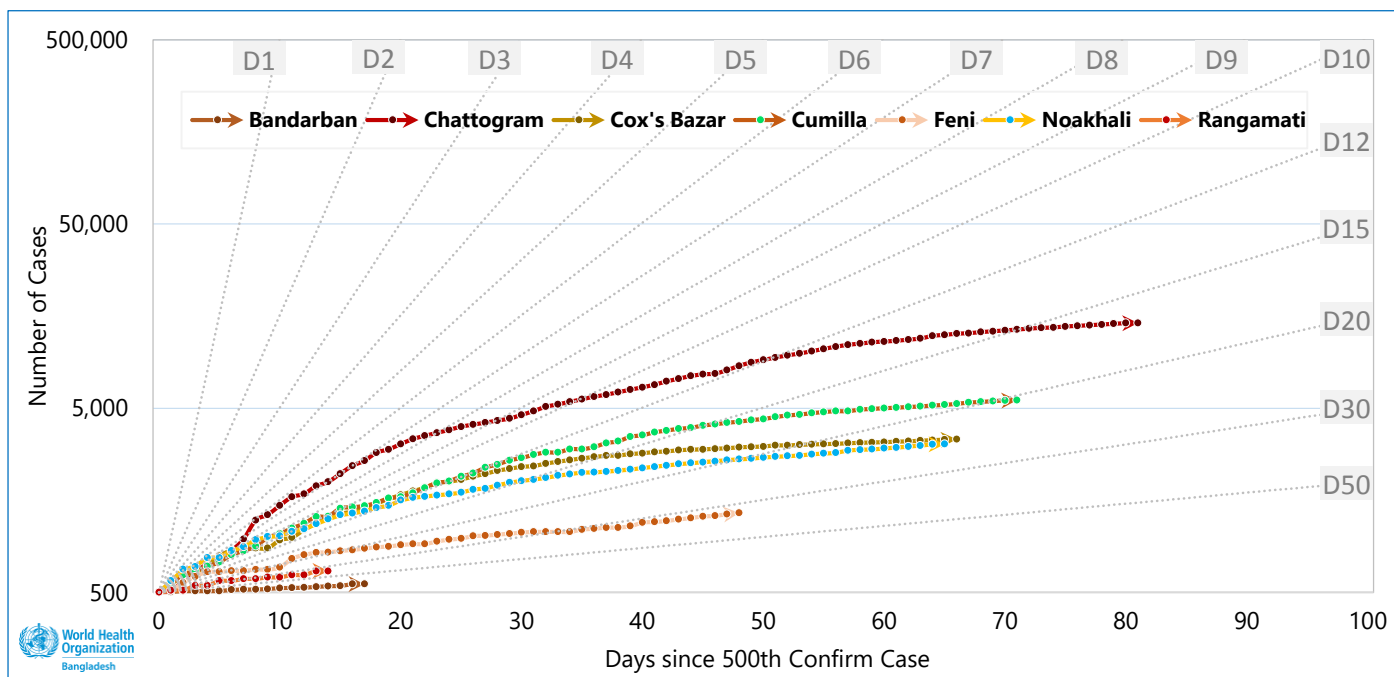
Case doubling time is **12.3** days in **Dhaka city**, **15** days in **Faridpur district**, between 20-30 days **Gopalganj, Narayanganj, Gazipur, Munshiganj** and more that **30** days in and **Rajbari**.

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.

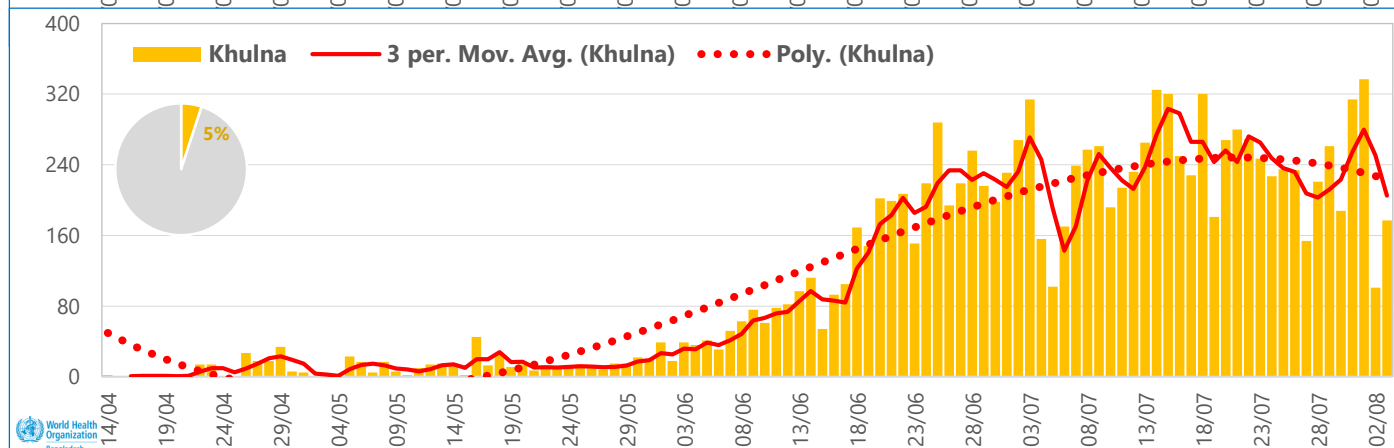
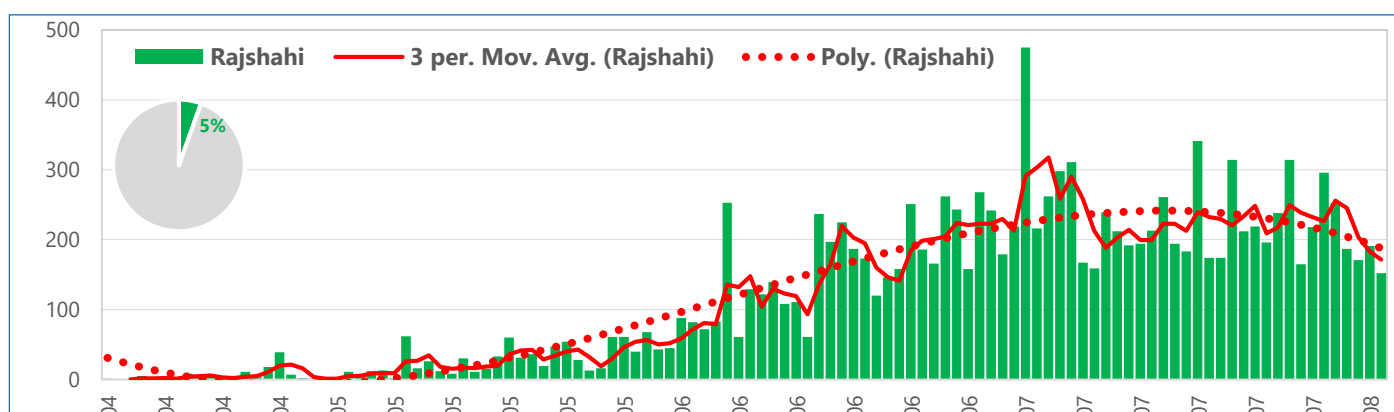
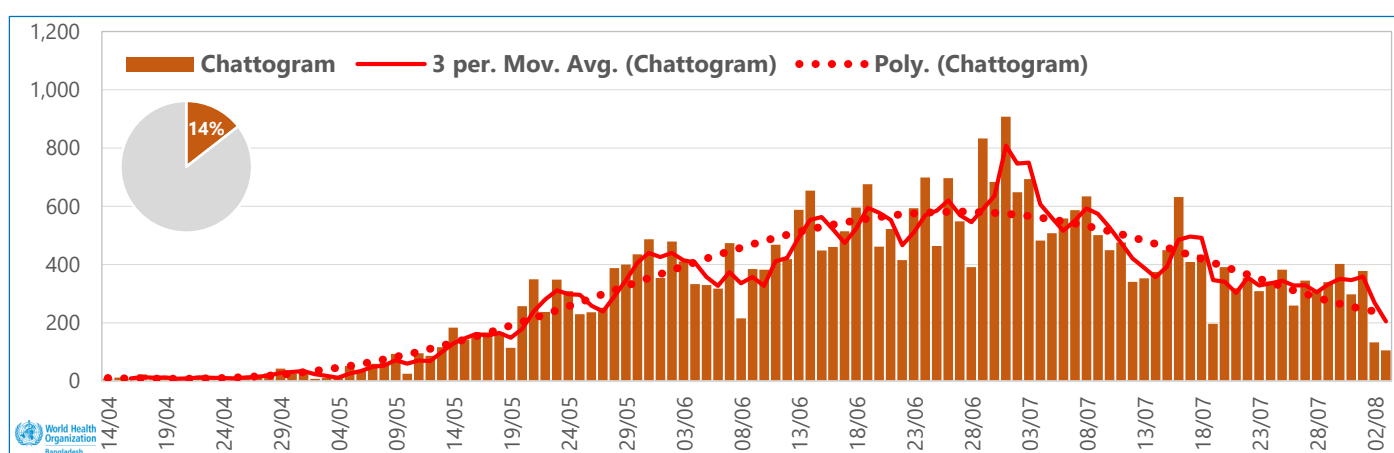
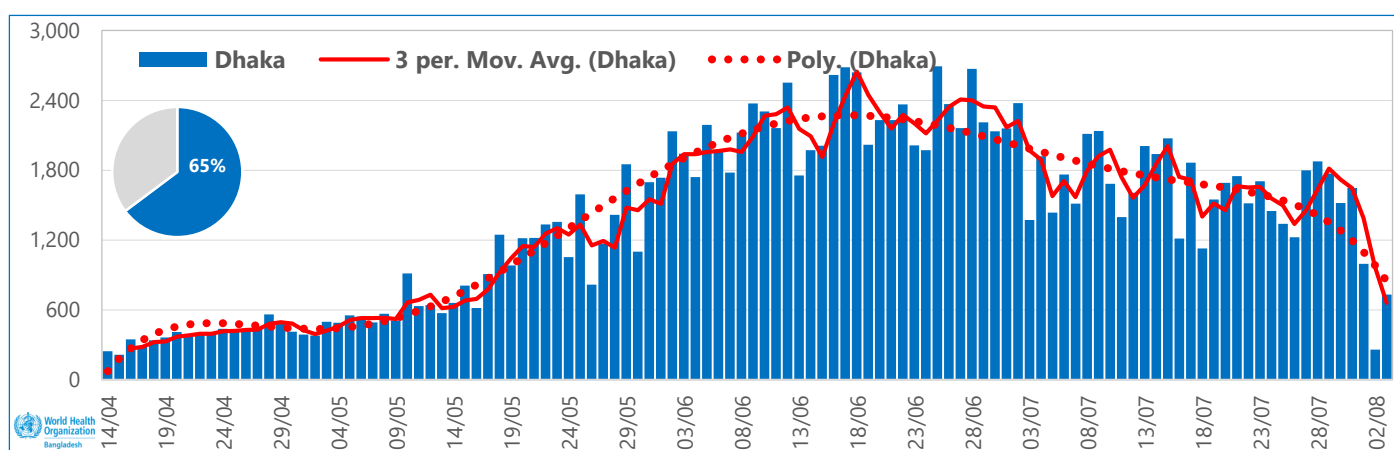


In **Chattogram** division by 03 August 2020, the case doubling in **Chattogram** district is **16** days. This week, **Cumilla**, **Bandarban** have increased to – **25** days, while **Cox's Bazar** and **Noakhali** – 25-30 days and **Feni**, **Rangamati**, and **Bandarban** districts are at – more than **30** days.

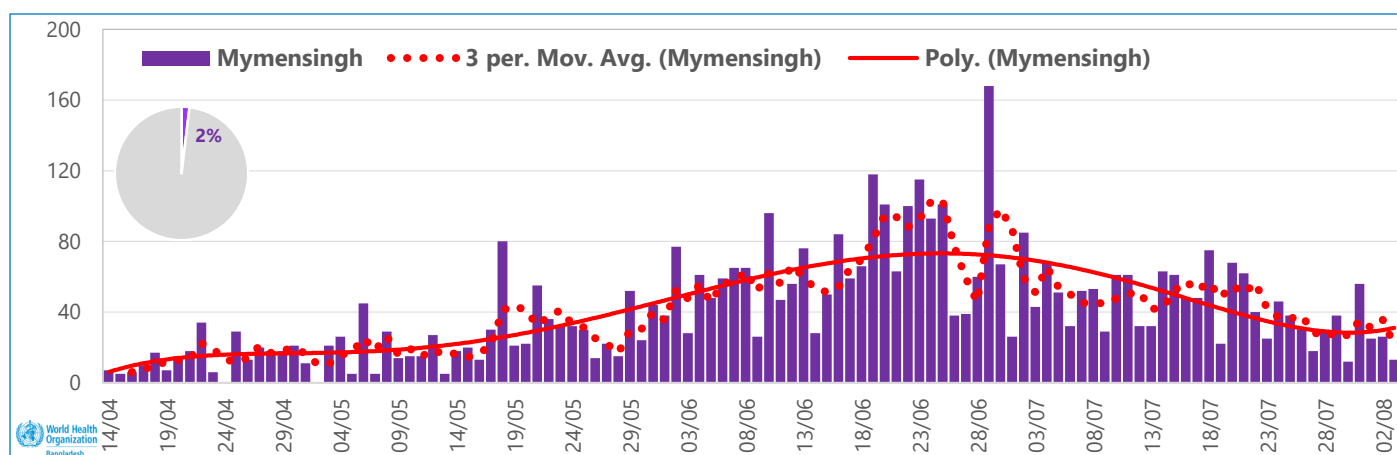
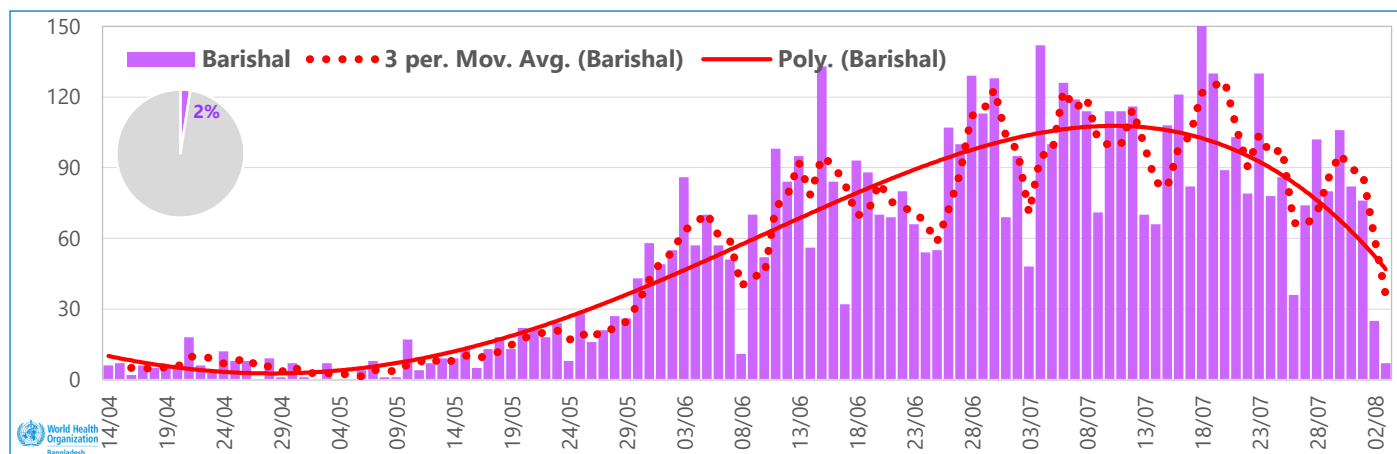
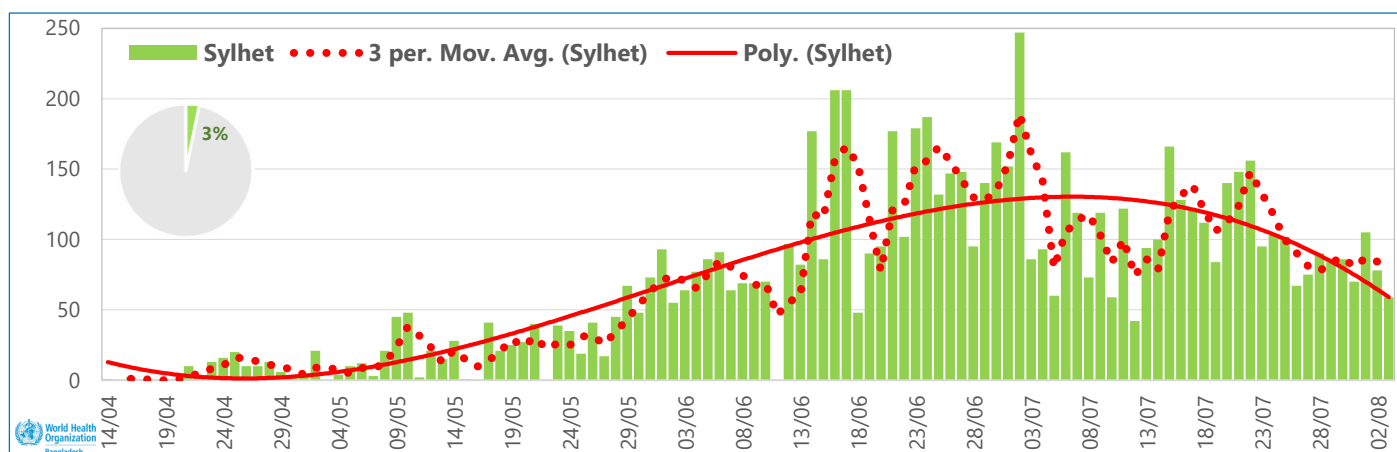
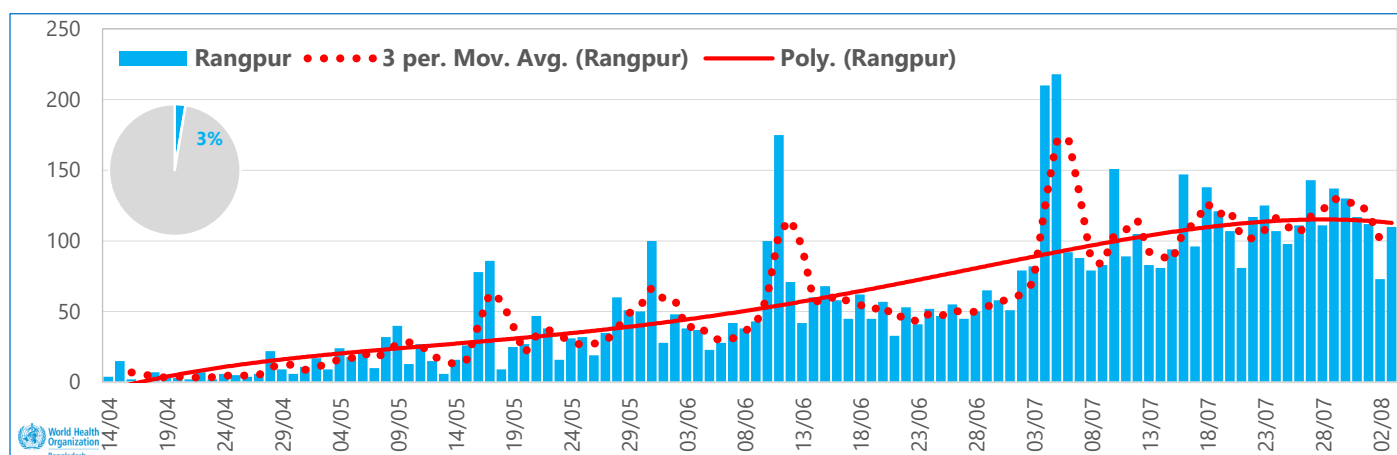
The figure below is showing the growth of COVID-19 confirmed cases in all districts of Chattogram division starting from the day each reported 100th confirmed cases, 03 August 2020, Bangladesh.



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 2020, Bangladesh.

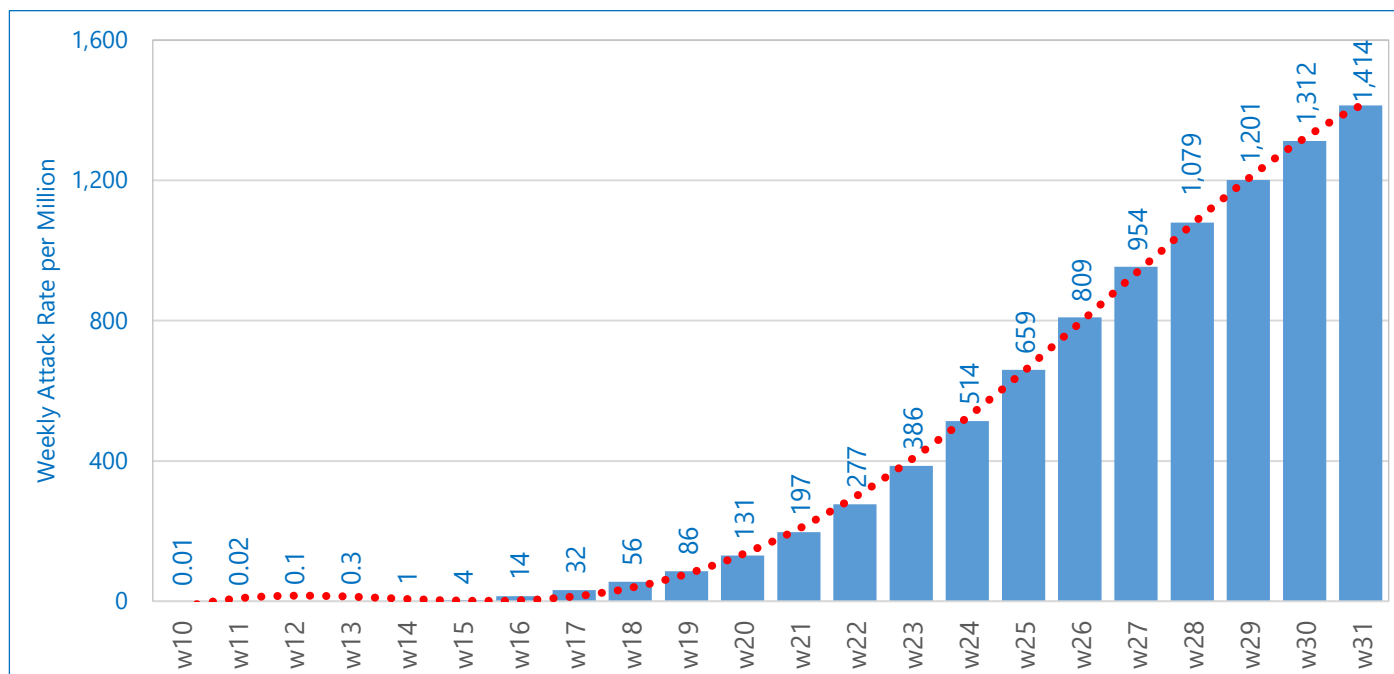


² Source: Population projection from 2011 Census, Bangladesh Bureau of Statistics



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 (**1,028.5/100,0000**) followed by **Sunamganj** (507.5), **Habiganj** (473.3) and **422.2** in **Maulvibazar** 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 **307.2** in **Kushtia** district.

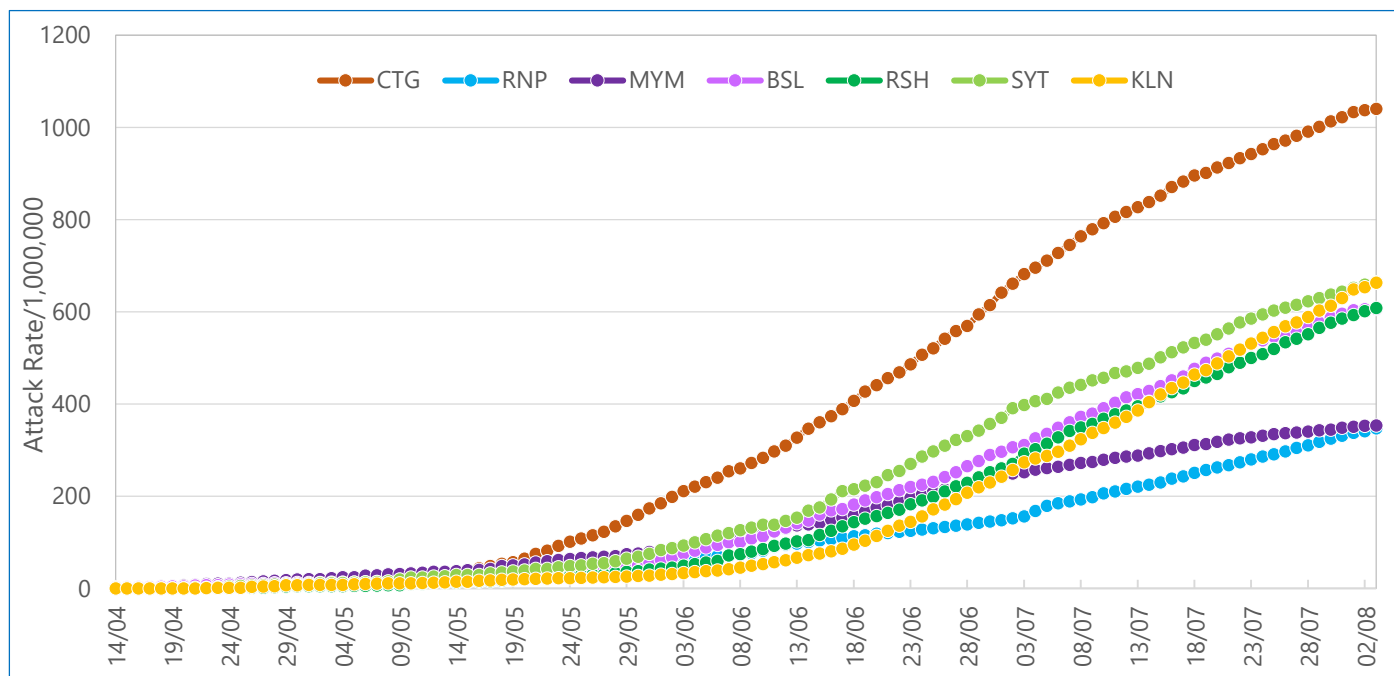
Rajshahi division has overall AR **608.9/1,000,000** with the highest AR in **Bogura** district (**1,229.3/1000000**), followed by **Rajshahi** (1071.9), **Joypurhat** (705.3), **Sirajganj** (401.9), **Naogaon** (311.6), **Pabna** (285.9), **Chapainawabganj** (279.8) and **Natore** districts is **240.4/1,000,000**.

In **Barishal** division the overall AR is **608.8/1,000,000** 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 (**450.8/1000000**), followed by **Jamalpur** (343.8), **Netrakona** (242.0), and **188.7** in **Sherpur** district.

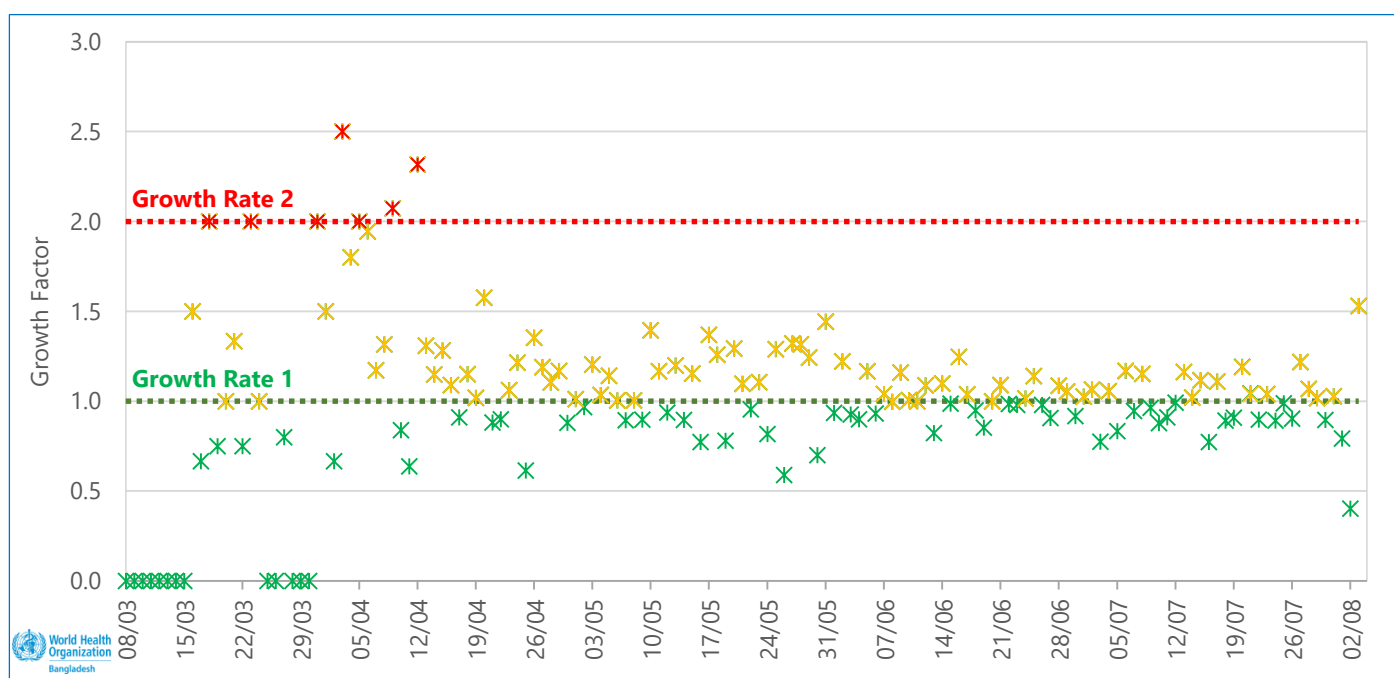
The lowest AR is reported from **Rangpur division (347.3/1,000,000)**. **Rangpur** district having the highest AR of **509.9/1,000,000** followed by **Dinajpur (493.6)**, **Nilphamari (307.1)**, **Panchagarh (288.6)**, **Lalmonirhat (272.0)**, **Thakurgaon (2051.9)** **Gaibandha (237.5)**, and the lowest **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 it 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**.

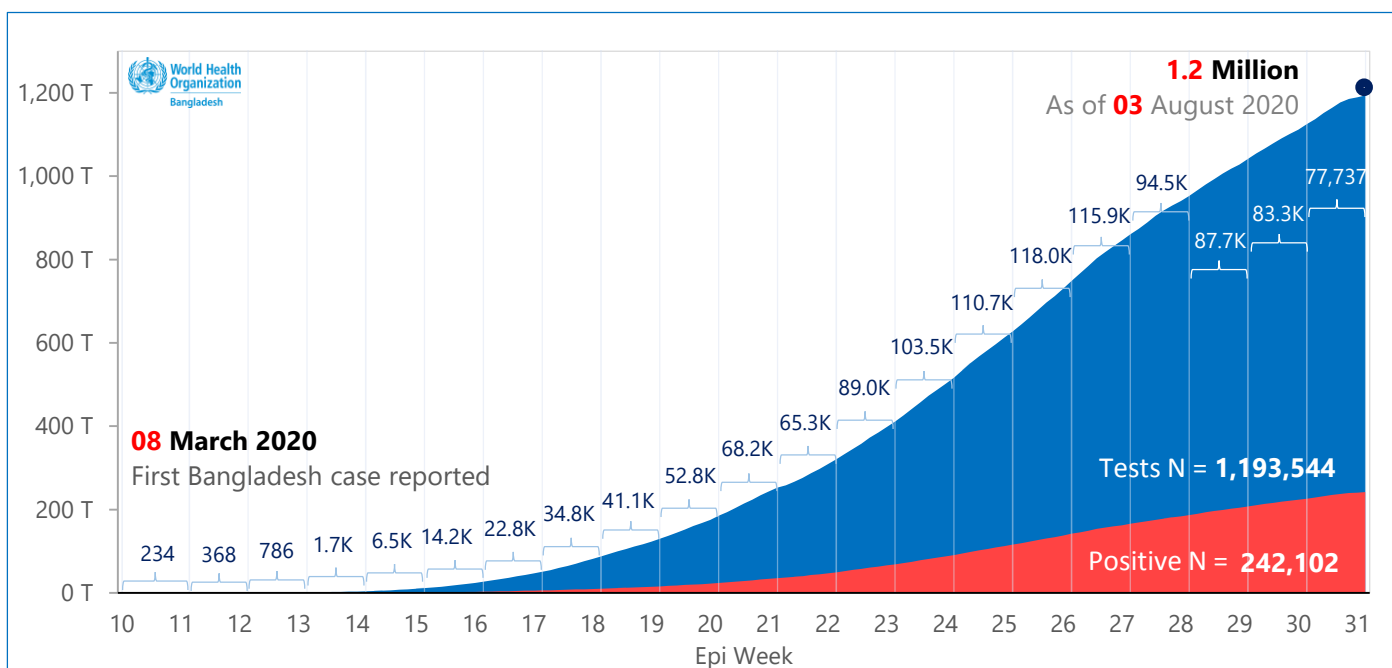
The figure below is showing the Growth Factor of daily confirmed COVID-19 cases, 08 March – 03 August 2020, Bangladesh.



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.

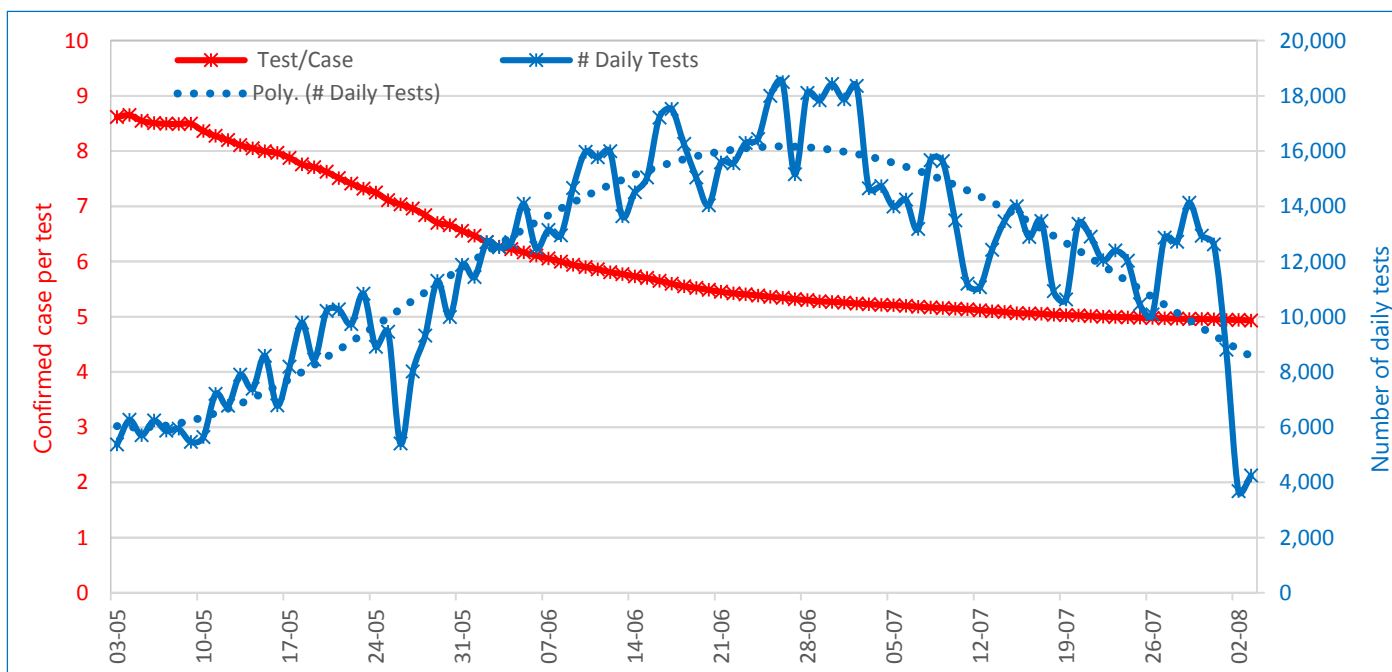
COVID-19 testing coverage has been gradually increasing in Bangladesh, reaching **7,008/1,000,000**: now almost reached **Sri Lanka** (**7,567/1,000,000**) but is lower than **Thailand** (**10,731/1,000,000**), **India** (**14,726/1,000,000**), **Nepal** (**24,114/1,000,000**), **Malaysia** (**30,220/1,000,000**)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



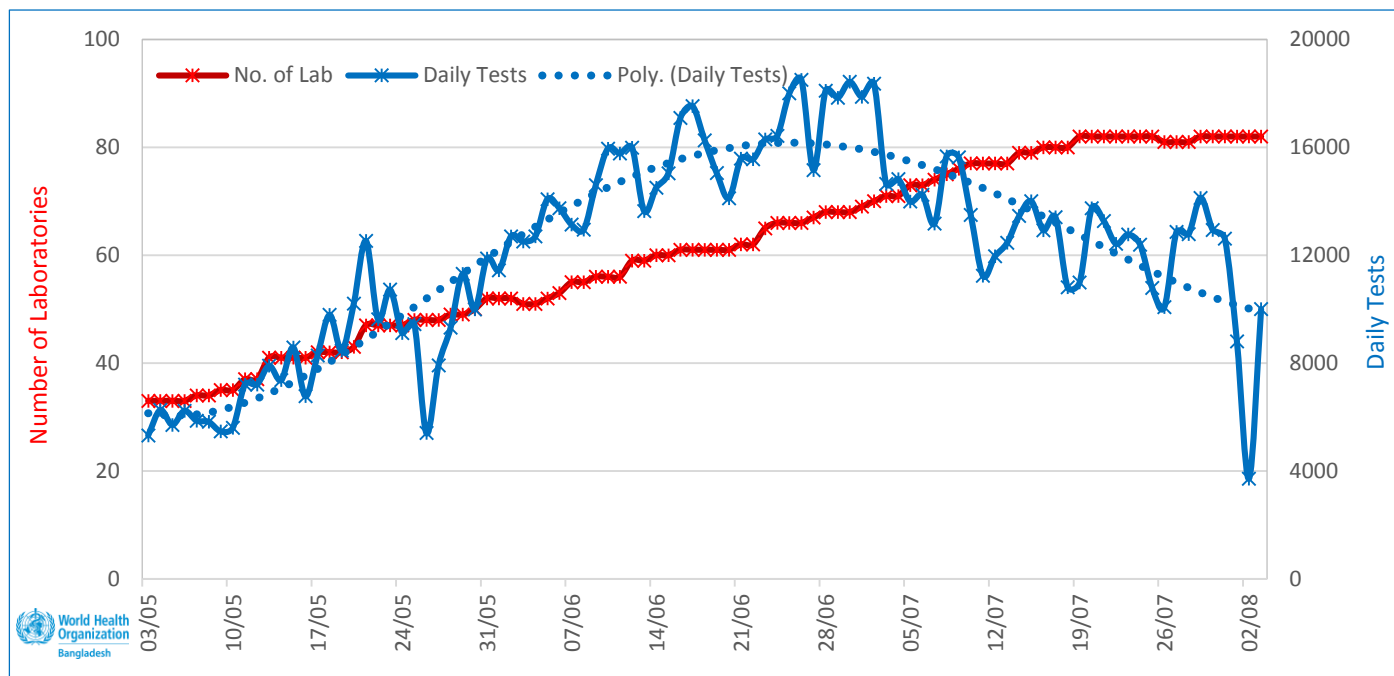
COVID-19 testing coverage notably decreased on 2 and 3 August 2020, most likely due to **Eid ul Adha** vacation, but the rate of confirmed case per test remains at **1** confirmed case for every **5** samples tested.

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



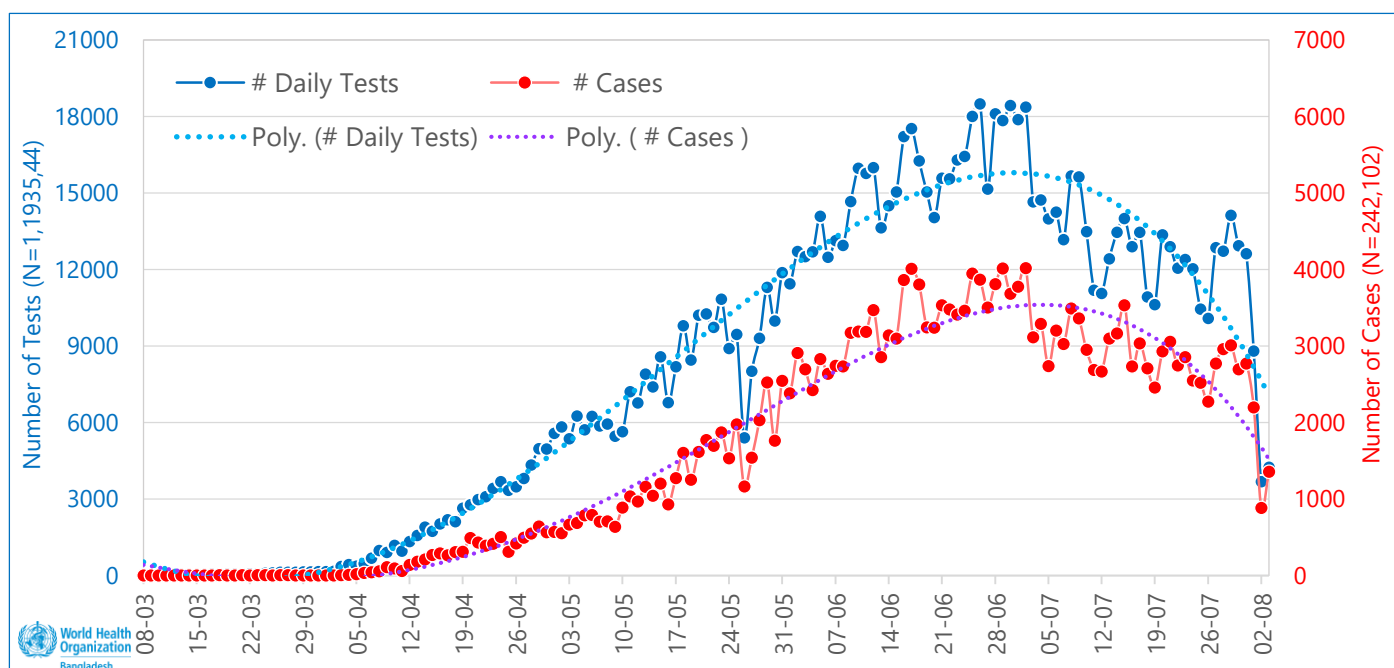
Since Bangladesh started to conduct COVID-19 testing in February 2020, the number of COVID-19 laboratories has increased from **1** in Dhaka to **82** across the country. Despite the steady increase of the number of laboratories, a lower number of samples have been tested daily since 03 July 2020.

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.



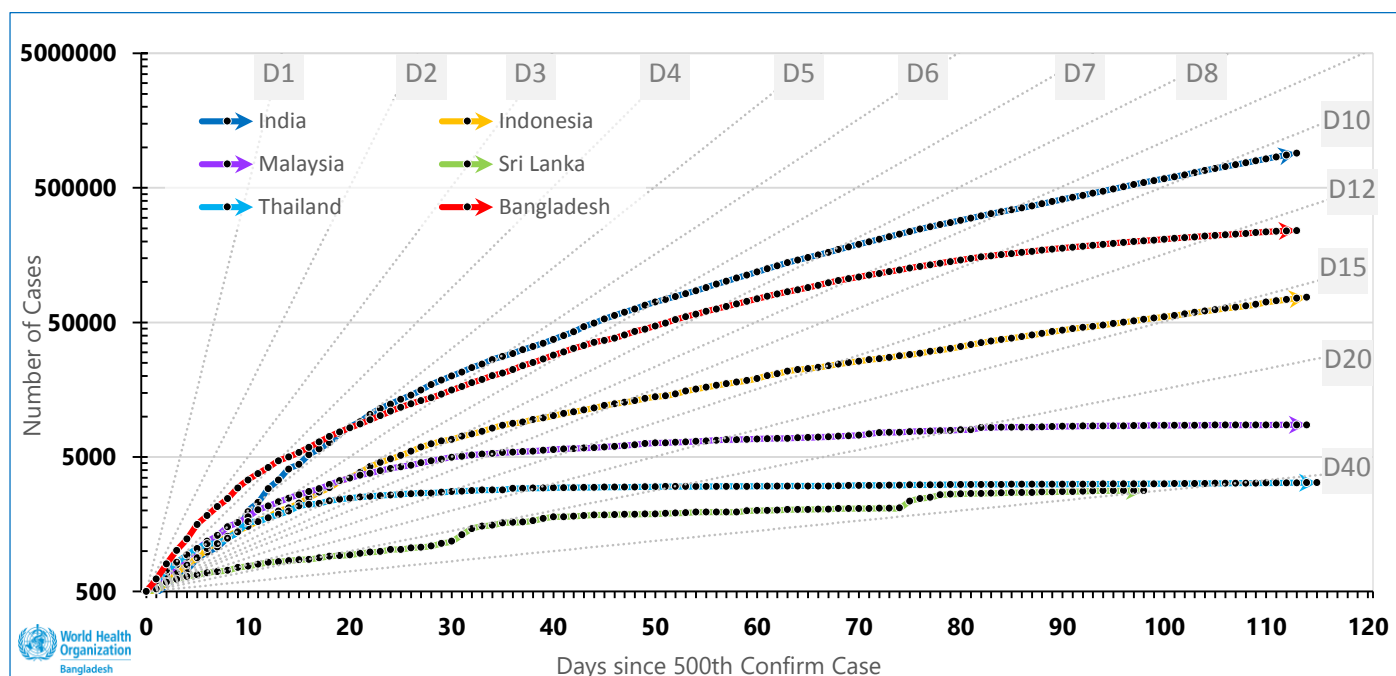
The correlation coefficient (**R**) is a statistical measure of the strength of the relationship between the relative movements of two variables. A correlation of 1.0 shows a perfect positive correlation. The analysis of data on the the two in Bangladesh showed **R** between the two variables as **0.982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



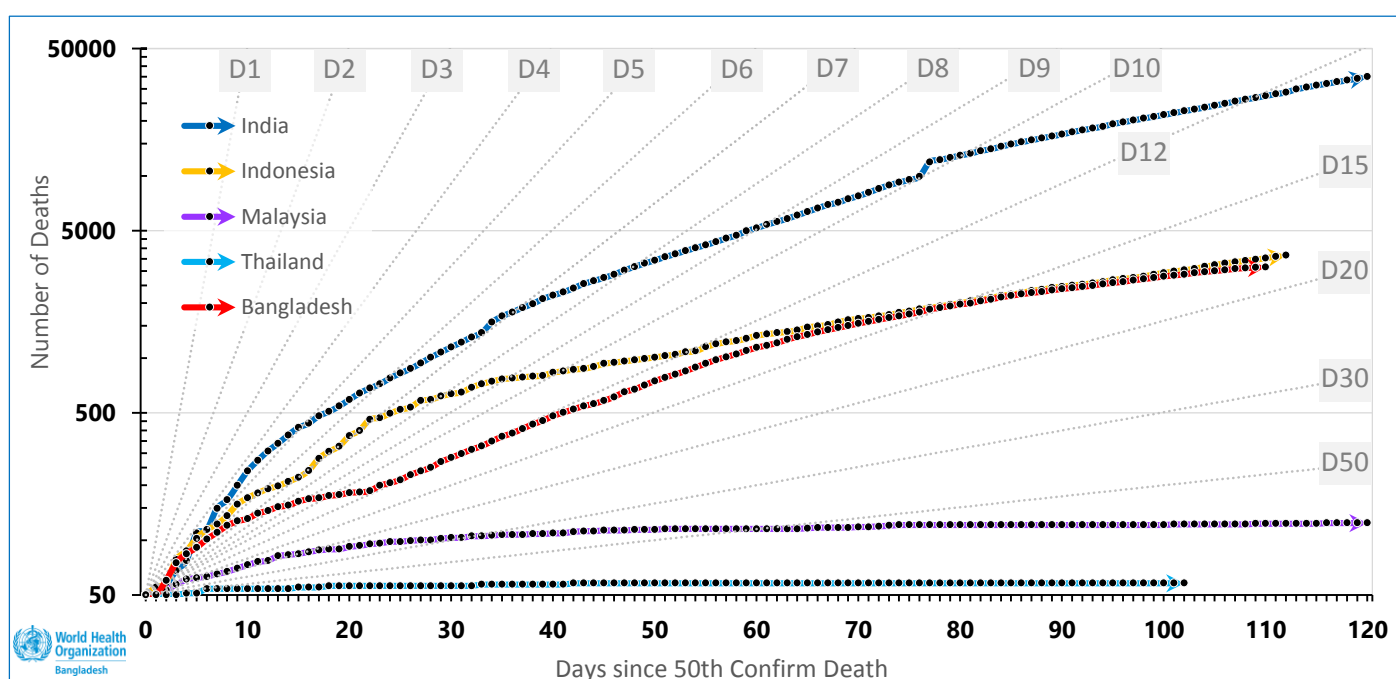
Available data allows us to see how quickly the number of confirmed cases increased in Bangladesh and some other countries in the WHO South-East Asia region: India, Indonesia, Thailand and Sri Lanka. As of 03 August 2020, the overall case doubling time in Bangladesh has slowed to **12.5 days** this week (**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.

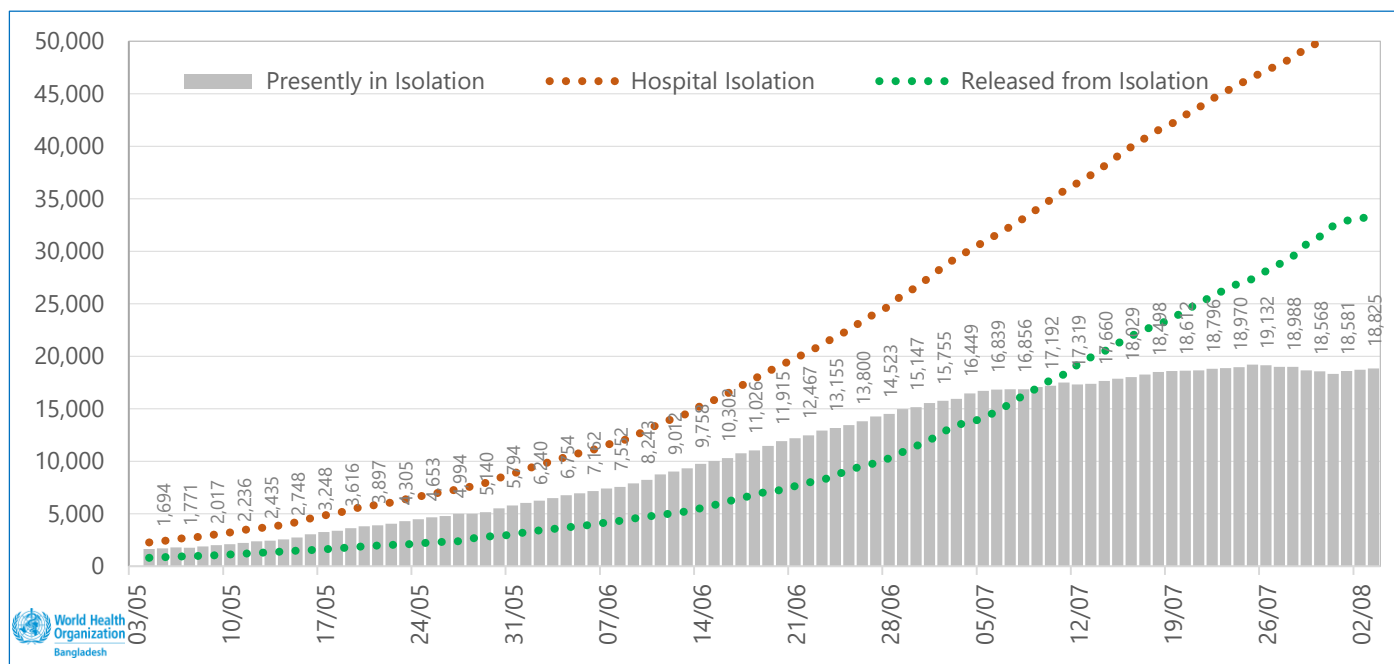
The figure below is showing the growth of COVID-19 confirmed deaths in selected South East Asian countries starting from the day they reported 50th confirmed cases, 03 August 2020.



4. Contact Tracing, Points of Entry (PoEs) and Quarantine

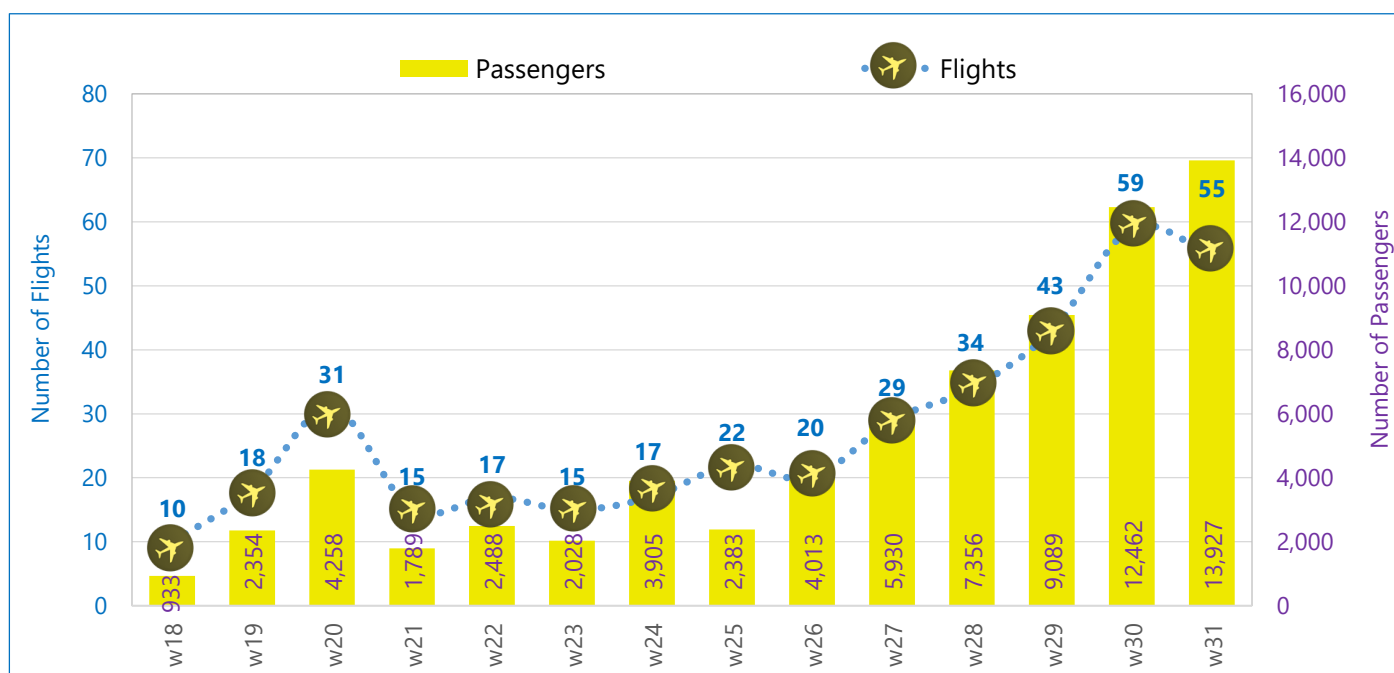
According to DGHS, as of 03 August 2020, the current institutional quarantine capacity in the country is represented by **629** centres across the 64 districts, which can receive **31,991** persons. A total of **25,172** individuals were placed in quarantine facilities and of them **19,780** (78.6%) have been already released. Over the same period, total of **51,805** individuals were isolated in designated health facilities 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:

WHO Bangladesh COVID-19 Situation Reports: [https://www.who.int/bangladesh/emergencies/coronavirus-disease-\(covid-19\)-update/coronavirus-disease-\(covid-2019\)-bangladesh-situation-reports](https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19)-update/coronavirus-disease-(covid-2019)-bangladesh-situation-reports)

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

Latest global WHO Situation Report # **195** as of 2 August 2020: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200802-covid-19-sitrep-195.pdf?sfvrsn=5e5da0c5_2

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

COVID-19 updates from the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of The People's Republic of Bangladesh: <https://dghs.gov.bd/index.php/en/home/5343-covid-19-update>

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