In this issue of COVID-19 Morbidity and Mortality Weekly Update (MMWU) # 18:

- dashboard with key figures;
- detailed epidemiological update on COVID-19 pandemic in Bangladesh, week 22-29 June 2020;
- 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 attack rate and per division;
- death and recovery rates of closed cases;
- comparison data with selected countries in South East Asia; and
- geographical distribution of COVID-19 laboratories, number of COVID-19 tests and Attack Rate per division.

<table>
<thead>
<tr>
<th>Tested</th>
<th>Confirmed</th>
<th>Recovered</th>
<th>Dead</th>
<th>Hotline</th>
</tr>
</thead>
<tbody>
<tr>
<td>751,034</td>
<td>141,801</td>
<td>57,744</td>
<td>1,782</td>
<td>13.7 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>4,410</td>
<td>4,014</td>
<td>40.7%</td>
<td>1.26%</td>
<td>832.6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratories</th>
<th>PPE Stock</th>
<th>PoE Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>67 COVID-19 Labs</td>
<td>1,235,772</td>
<td>352,888</td>
</tr>
<tr>
<td>Last 7 days 118,033 Samples</td>
<td>3,033,530</td>
<td>24,763</td>
</tr>
</tbody>
</table>

- Inside Dhaka Tests: 187,924 (7,029)
- Positive Tests: 550,471 (350,025)

Last 7 days 118,033 Samples

63.1% Inside Dhaka Tests
22.5% Positive Tests

https://www.who.int/bangladesh/emergencies/coronavirus-disease-(covid-19)-update
1. Highlights

As of 29 June 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR), there are 141,801 confirmed COVID-19 cases¹ in Bangladesh, including 1,782 related deaths; Case Fatality Rate (CFR) is 1.26%.

On 28 June 2020, WHO requested all Member States to start submitting COVID-19 mortality data aggregated by sex, cause of death as stated in the death certificate - in complement to the weekly global surveillance for COVID-19 cases and deaths already in place. The submission will be done through a designated WHO web portal with secure access; each Member State will only be able to upload, revise and view its own data submission. WHO will apply its formal and comprehensive policy for securely managing the data and information including information security, technical and physical data security, data access and retention procedures, and confidentiality arrangements in the context of this public health emergency. Obtaining timely, accurate and complete weekly mortality statistics will help to assess the impact of COVID-19 on mortality across countries as well as to understand the sex and age patterns in these deaths.

2. Coordination

On 23 June 2020, WHO published a scientific brief on Breastfeeding and COVID-19. WHO recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate or continue to breastfeed. Mother and infant should be enabled to remain together while roaming-in throughout the day and night and to practice skin-to-skin contact, including kangaroo mother care, especially immediately after birth and during establishment of breastfeeding, whether they or their infants have suspected or confirmed COVID-19. In infants, the risk of COVID-19 infection is low, the infection is typically mild or asymptomatic, while the consequences of not breastfeeding and separation between mother and child can be significant. The benefits of breastfeeding and nurturing mother-infant interaction to prevent infection and promote health and development are especially important when health and other community services are themselves disrupted or limited. Full document: https://www.who.int/publications/i/item/10665332639.

On 25 June 2020, WHO Regional Officer for South East Asia (SEARO) hosted a webinar on Palliative care of COVID-19 patients: best practices for low-resource settings. The webinar provided an overview on provision of palliative care during the COVID-19 pandemic and introduced a resource tool kit (Pallium COVID-19 resource toolkit) developed for resource-limited countries was introduced. The tool kit is available at https://palliumindia.org/2020/06/resources-for-palliative-care-in-the-context-of-covid19. The webinar targeted health care providers dealing with not just COVID-19 infected, but also COVID-19 affected, including physicians, nurses, allied health professionals, policy makers, experts in charge of national clinical guidelines, protocols for management of COVID-19 disease, staff of WHO and development partners, and others.

On 26 June 2020, WHO published the ACT-Accelerator Investment Case: Invest now to change the course of the COVID-19 pandemic. The document provides a consolidated overview of the Access to COVID-19 Tools (ACT) Accelerator, its goals, and the investments that partners have calculated are required to carry out its mission. Launched on 24 April 2020, the Access to COVID-19 Tools (ACT) Accelerator brings together governments, health organizations, scientists, businesses, civil society, and philanthropists, who have joined forces to speed up the end of the pandemic by supporting the development and equitable distribution of the tests, treatments and, vaccines the world needs to save lives, restoring full societal and economic activity globally in the near term, and facilitating high-level control of COVID-19 in the medium term. The ACT-Accelerator partners will collaborate under four pillars: vaccines, therapeutics, diagnostics and health system connector. This document, the ACT-Accelerator Investment Case, is intended for countries, foundations, and civil society, and is available at: https://www.who.int/publications/m/item/act-accelerator-investment-case.

¹ WHO Bangladesh COVID-19 Situation Reports present official counts of confirmed COVID-19 as announced by the IEDCR and DGHS 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 9 March and 29 June 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR) there were forty-one-thousand-eight-hundred-one (141,801) COVID-19 confirmed by rt-PCR, including one-thousand seven-hundred-eight-two (1,782) related death cases (CFR 1.26%).

In the current week (epidemiological week 26), the number of COVID-19 confirmed cases increased by 2.8%, in comparison to the previous week (25,481 and 24,786 and respectively). In comparison to the previous epidemiological week, the number of COVID-19 related deaths decreased by 7.4% (272 and 292 respectively), leading to CFR to go down from 1.30% in epidemiological week 25 to 1.26% in the current week.

The figures below are showing the daily and weekly distribution of reported confirmed COVID-19 cases and deaths, 08 March – 29 June 2020, Bangladesh.
Out of the total 141,801 confirmed COVID-19 registered as of 29 June 2020, 40.7% (57,744/141,801) of the cases recovered, 1.3% (1,782) died and 58.0% (82,275) active cases.

The figure below is showing active vs recovered confirmed COVID-19 cases outcome per epidemiological week, 08 March – 29 June 2020, Bangladesh.

According to the available data, 28% cases were confirmed in people between 31 and 40 years old, 23% in the age group of 21 to 30 years, 18% in the age group of 41 to 50 years and 14% in the age group between 51 and 60 years old.

As on 29 June 2020, the highest death rate (30%) was reported in the age group of 61 to 70 years old, 25% in the age group between 51 and 60 years and 21% in the older age group of 71 and above. Male represented 69% and 80% of the of total reported confirmed COVID-19 cases and deaths respectively.

The table below is showing gender and age distribution the reported confirmed COVID-19 cases and deaths 29 June 2020, Bangladesh.
Growth factor (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 persistently above 1 this could signify exponential growth. Since mid-April, the Growth Factor (GF) for recovered COVID-19 cases in Bangladesh was within the range 1.3 – 1, dropping once to 0.8 on 16 June; and as of 29 June, the GF is **1.02**.

**The figure below is showing the Growth Factor of daily recovered confirmed COVID-19 cases, 08 March – 29 June 2020, Bangladesh.**

As of 29 June 2020, there were **59,526** (42.0%) COVID-19 cases with known outcome (closed cases). Out of all closed cases, **97.0%** (57,744/59,526) were cured and **3.0%** (1,782) died. The recovery rate of **94%** 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 **8.0%** (504,943/6,076,829) global average as of 29 June 2020.

**The figure below is showing the death and recovery rates over cumulative closed confirmed COVID-19 cases, 08 March – 29 June 2020, Bangladesh.**
As of 29 June 2020, geographical distribution of confirmed reported COVID-19 cases was available on 100% of cases (141,801/141,801). Of all cases, 14.1% were reported from Chattogram division, 3.7% - from Rajshahi division, 2.9% - from Khulna division, 2.8% - from Sylhet division, 2.2% - from Mymensingh division, 1.9% - from Rangpur division, and 1.8% - from Barisal division.

The figure below is showing the daily distribution of reported confirmed COVID-19 cases per division (except Dhaka), 16 April – 29 June 2020, Bangladesh.

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.

As of 29 June 2020, the case doubling time is 7 days in Dhaka division; 7.5 days in Chattogram; in Khulna, Sylhet and Rajshahi divisions - 8 days, in Rangpur, Mymensingh and Barisal divisions – 9.5 days.

The figure below is showing the case-doubling time of COVID-19 confirmed cases in all divisions starting from the day each reported 10 confirmed cases, 29 June 2020, Bangladesh.
Case doubling time has increased in **Dhaka city** from 6 days in the last week to 7 days this week. **Faridpur district** – 7 Days, **Dhaka** district and **Gazipur** - 9 days, **Narayanganj, Munshiganj** and **Kishoreganj** are doubling at more than 11 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 10 confirmed cases, 29 June 2020, Bangladesh.*

In **Chattogram** division till 29 June 2020, the doubling of cases was the fastest in **Cox’s Bazar, Noakhali** and **Feni** districts at 7.5 days, **Chattogram** at 8 days, **Cumilla** – 9.5 days, while, **Chandpur Laxmipur** districts at 10.5 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 10 confirmed cases, 29 June 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 – 29 June 2020, Bangladesh.
The overall COVID-19 attack rate (the total number of cases divided by the total population) in Bangladesh has been on a steady increase since the first reported confirmed COVID-19 case on 08 March 2020. On 29 June, Bangladesh attack rate (AR) is 832.6 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 current week (epidemiological week 26), COVID-19 AR increased by 22.5%, in comparison to the previous week (809 and 659 respectively).

The figure below is showing the weekly COVID-19 attack rate, 08 March – 29 June 2020, Bangladesh.

According to the available data, the highest AR continues to be observed in the Dhaka division (2321.7/1,000,000). Within the Dhaka division, Dhaka city has the highest AR (9422.1/1,000,000) followed by Narayanganj district (1460.5), Munshiganj (1158.4), Faridpur (844.5), Gazipur (844.3), Madaripur (514.3), Narsingdi (509.8), Gopalganj (460.3), Kishoreganj (408.7), Rajbari (368.2), Shariatpur (352.7), Manikganj (347.3), and the lowest AR 134.2 was reported from Tangail district.

The 2nd highest COVID-19 AR is reported from Chattogram division (594.7/1,000,000), having all of the 11 districts AR over 300 per million. Within the division, Cox’s Bazar district reported the highest AR (922.6/1,000,000) followed by Chattogram (892.3), Bandarban (723.1), Noakhali (557), Cumilla (507.4), Feni (484.9), Lakshmipur (388.9), Rangamati (363.3), Khagrachhari (323.8), Chandpur (295.1), and the lowest AR 264.1 was reported from Brahmanbaria District.

The 3rd highest AR in the country was reported from Sylhet division (342.7/1,000,000) with the highest AR in Sylhet district (530.3/100,000) followed by Sunamganj (325.2), Habiganj (215.4), and Maulvibazar (167.9) district.

Barishal division is the fourth highest in overall AR with 276.8/1,000,000 with the highest AR in Barishal district (532.4/1,000,000) followed by Jhalokathi (239.1), Barguna (210.3), Patuakhali (202.7), Pirojpur (155.7) and the lowest 130.4 at Bhuola district.

Rajshahi division has overall AR (241.4/1,000,000) with the highest AR in Bogura district (696.1/1000000), following Joypurhat (339.7), Natore (223.5), Rajshahi (185.1), Pabna (149.8), and Sirajganj (104.6); while AR in Chapainawabganj and Naogaon districts are less than 100/1,000,000.

In Khulna division overall AR is 219.5/1,000,000 while the highest AR district is Khulna district (649.3/1000000) followed by Kushtia (248.9), Narail (209.8), Jashore (171.6), Chudanga (158.1), Magura (120.6) and Bagerhat (111.2); while, Meherpur, Jhenaidah, and Satkhira districts are having AR less than 100/1,000,000.
Rangpur is the lowest reporting division with overall AR of (142.4/1,000,000). Within the division Rangpur district having the highest AR (265.4/1000000) followed by Dinajpur (166.3), Nilphamari (153.1), Thakurgaon (123.5) and Panchagarh (116.5); while Gaibandha, Lalmonirhat and Kurigram districts are having AR less than 100/1,000,000.

The following figure is showing the COVID-19 attack rate per 1,000,000 population in selected divisions, 16 April - 29 June 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. On April 3, the Growth factor (GF) for COVID-19 cases in Bangladesh reached the highest of 2.5, the GF was above 2 on 9 and 12 April. Since the beginning of June 2020, the GF was within the range of 0.8 – 1.2, and on 29 June 2020, the GF is 1.05.

The figure below is showing the Growth Factor of daily confirmed COVID-19 cases, 08 March – 29 June 2020, Bangladesh.
As of 29 June 2020, according to IEDCR, **751,934** COVID-19 tests with the overall positivity rate of **22.5%** were conducted in Bangladesh by **67** laboratories (**36** laboratories in Dhaka city and **32** laboratories in outside Dhaka). The latest laboratories, which have started the testing: in Dhaka - Sheikh Russel Gastro Liver Institute & Hospital, Dhaka, DNA Lab Limited, and Centre for Advanced Research in Sciences (CARS), Dhaka University. Outside Dhaka - Brahmanbaria Medcial College Hospital, and Chevron Clinical Laboratory (Pte) Ltd. Chattogram. **63.1%** of all samples were tested by laboratories in the Dhaka city, and **37.9%** – outside Dhaka.

**The graph below is showing the weekly and cumulative number of COVID-19 conducted tests, 08 March – 29 June 2020, Bangladesh.**

COVID-19 testing coverage has been gradually increasing in Bangladesh, reaching now **4,409/1,000,000**; it is now nearing Sri Lanka (**4,727/1,000,000**) but is lower than India (**6,086/1,000,000**), Thailand (**6,707/1,000,000**), Nepal (**17,902/1,000,000**), Malaysia (**23,366/1,000,000**) and Maldives (**89,933/1,000,000**).

**The graph below is showing the daily cumulative number of COVID-19 tests per 1,000,000 population, 08 March – 29 June 2020, Bangladesh.**
The map below is showing the geographical distribution and COVID-19 laboratories and Attack Rate per division, 29 June 2020, Bangladesh.

1-National Institute of Laboratory Medicine & Referral Centre, 2-Institute of Epidemiology Disease Control & Research, 3-National Polio-Measles Laboratory - IPH, 4-International Centre for Diarrhoeal Disease Research, Bangladesh, 5-Bangabandhu Shaikh Mujib Medical University, 6-Child Health Research Foundation & Dhaka Shishu Hospital, 7-Armed Forces Institute of Pathology & CMH, 8-Dhaka Medical College, 9-Institute for Developing Science and Health Initiatives, 10-Bangladesh Livestock Research Institute, 11-National Institute of Preventive and Social Medicine, 12-Cumilla Medical College, 13-Kushtia Medical College, 14-Shahheed Saimul Latin Medical College, 15-Shah Amanat International University, 16-United Hospital Limited, 17-Kushtia Medical College, 18-United Hospital Limited, 19-Abedul Malek Ukhil Medical College, 20-Manus Medical College, 21-Sheikh Hasina Medical College, 22-Rajshahi Medical College, 23-Abdul Malek Malek Medical College, 24-Khulna Medical College, 25-Jashore Science and Technology University, 26-Rajshahi Medical College Hospital, 27-Shahed Sayed Nazrul Islam Medical College, 28-Comilla Medical College, 29-Comilla Medical College, 30-Cox's Bazar Medical College, 31-Cox's Bazar Medical College, 32-CSBF Health Centre, 33-CSBF Health Centre, 34-CSBF Health Centre, 35-CSBF Health Centre, 36-CSBF Health Centre, 37-CSBF Health Centre, 38-CSBF Health Centre.
As of 29 June 2020, the overall case doubling time in Bangladesh remains eight (8) days.

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.

The figure below is showing the growth of COVID-19 confirmed cases in selected South East Asian countries starting from the day they reported 100 confirmed cases, 29 June 2020.

As of 29 June 2020, the death doubling time in Bangladesh is eleven (11.0) days (one day more than in the previous update on 22 June 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

The figure below is showing the growth of COVID-19 confirmed deaths in selected South East Asian countries starting from the day they reported 100 confirmed cases, 29 June 2020.
4. Contact Tracing, Points of Entry (PoEs) and Quarantine

According to the DGHS, as of 29 June 2020, the current institutional quarantine capacity in the country is represented by 629 centres across 64 districts, which can receive 31,991 persons. A total of 18,864 individuals were placed in quarantine facilities and of them 14,302 (75.8%) have been already released. By 29 June 2020, in total 25,838 individuals were isolated in designated health facilitates all over the country, of them 10,896 (42.2%) have been released, and 12,467 (57.8%) are presently in isolation facilities which is 20% increase than the last week.

The highest number of people (6,547) in quarantine facilities was reported on 24 April 2020 while presently, the number reduced to 4,562. Between 17 March to 29 June 2020, total 342,460 individuals were placed under home quarantine all over the county and to date 82.4% (282,063/342,460) have been already released. Remaining 21.4% (60,397 individuals) are in home quarantine now.

The figures below are showing the number of individuals in home quarantine and individuals in hospital isolation, 16 March – 29 June 2020, Bangladesh.
5. Case Management and Infection Control

On 23 and 24 July 2020, the MoHFW Technical Committee on Investigational New Drugs, Vaccines and Medical Devices was convened at Directorate General of Drug Administration (DGDA). Several issues were discussed during the meetings with a focus on setting the minimum requirements for sensitivity and specificity of rapid diagnostic tests used for detection of COVID-19 antibodies. The consensus of the technical experts was that the minimum acceptable level of specificity is set at 90% and sensitivity at 95%. As of date, none of the rapid diagnostic tests available in the country conform to this requirement. The recommendation of the group is in line with the WHO guidance to use rapid tests only in research settings and not for patient care decisions. Full document: https://apps.who.int/iris/rest/bitstreams/1274536/retrieve

On 23 June 2020, WHO hosted a consultative meeting with member states on WHO-Listed Authorities (WLA). The purpose of the meeting was to review a policy document on Evaluating and Publicly Designating Regulatory Authorities as WHO Listed Authorities. The designation of a regulatory authority as a WLA is ultimately meant to promote access, supply and the intended use of safe, effective and quality medicines and vaccines. The framework will also help guide international and national procurement decisions on medical products and increase the pool of regulators contributing to the WHO Prequalification program. This is especially relevant to the COVID-19 pandemic as regulatory preparedness needs to be enhanced in many countries, in anticipation of the imminent release of a vaccine and other new products for prevention, treatment and diagnosis of COVID-19.

The Directorate General of Health Services issued an important circular to all public health facilities regarding the classification of personal protective equipment (PPE), according to the specifications determined by the DGDA. Following this circular, all public health facilities are required to enter existing and new stocks of PPE in the MoHFW Supply Chain Management (SCM) portal with specifying the level 1-4. This is an important step as it will allocating the PPEs to frontline workers and health patients according to the level of risk and exposure to infection, thus improving the infection prevention and control practices at facility level. Updated information on PPE stocks can be accessed online at https://scmpbd.org/index.php/covid-19-dashboard.

6. Risk Communication and Public Awareness

WHO together with RCCE partners have produced infographics and audio-video messages on the correct using of fabric masks as well as how to produce the items at home. The messages are being rolled out by the entire network of partners. Telecom companies are also contributing to the dissemination of information through pre-recorded automatic voice messages when subscribers are initiating calls and through short message regarding the wear of masks displayed on the screen of the mobile phones.

RCCE is supporting the piloting of Community Support Teams (CST) in 10 areas of Dhaka with high numbers of suspected or confirmed cases. The CSTs will have a health approach to better identify persons with symptoms, provide them medicines and further refer them for testing. The CSTs will also have socio-economical interventions through food provisions to households where there are people with symptoms and encourage people to stay at home. Another area of intervention for CSTs will be dissemination of risk communication information with emphasis on personal and community protection as well as on health seeking behaviors.

WHO has finalized additional risk communication materials on mental health as well as on stigma and discrimination in efforts to address the changing health seeking behaviors due to the discrimination that people showing symptoms may face in the family and within the community.
7. Useful COVID-19 links:


Latest global WHO Situation Report # 161 as of 29 June 2020: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200629-covid-19-sitrep-161.pdf?sfvrsn=74fde64e_2

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

EPI-WIN: WHO information network for epidemics: https://www.who.int/teams/risk-communication


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