In this issue of COVID-19 Morbidity and Mortality Weekly Update (MMWU) #17:

Detailed epidemiological update on COVID-19 pandemic in Bangladesh, week 15-22 June 2020, including:

- dashboard with key figures; 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;
- overall attack rate and per division;
- comparison data with selected countries in South East Asia;
- death and recovery rates of closed cases; and
- number of COVID-19 laboratories and total weekly number of samples tested.

![Image of a sign with COVID-19 information]

The banner says, Health Department of Bangladesh has declared Red Zone to contain spread of COVID-19 in a locality.

<table>
<thead>
<tr>
<th>Tested</th>
<th>Confirmed</th>
<th>Recovered</th>
<th>Dead</th>
<th>Hotline</th>
</tr>
</thead>
<tbody>
<tr>
<td>630,719</td>
<td>115,786</td>
<td>46,719</td>
<td>1,502</td>
<td>12.6 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>3,703</td>
<td>3,480</td>
<td>40.3%</td>
<td>1.30%</td>
<td>679.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laboratories</th>
<th>PPE Stock</th>
<th>PoE Screening</th>
</tr>
</thead>
<tbody>
<tr>
<td>62 COVID-19 Labs</td>
<td>1,254,742</td>
<td>347,536</td>
</tr>
</tbody>
</table>

Last 7 days

<table>
<thead>
<tr>
<th>110,699 Samples</th>
<th>Inside Dhaka Tests</th>
<th>63.7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Tests</td>
<td>18.4%</td>
<td>184,391</td>
</tr>
</tbody>
</table>

| 474,847 | 347,233 |

World Health Organization Bangladesh

1. Highlights

As of 22 June 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR), there are 115,786 confirmed COVID-19 cases in Bangladesh, including 1,502 related deaths; Case Fatality Rate (CFR) is 1.30%.

On 18 June 2020, the Civil Aviation Authority issued a circular notifying that with effect from 16 June until further notice, all passenger flights to/from Bahrain, Bhutan, Hongkong, India, Kuwait, Malaysia, Maldives, Nepal, Oman, KSA, Sri Lanka, Singapore, Thailand, Turkey, shall not be allowed to land at any Airport in Bangladesh. Full document: www.caab.gov.bd

On 17 June 2020, the Ministry of Foreign Affairs (MoFA) issued a Note Verbal to inform 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 to submit COVID-19 negative/COVID-19 symptom free medical certificate upon arrival. The diplomatic missions are requested to ensure self-quarantine of their diplomats/employees upon travelling to Bangladesh. Full document: https://mofa.gov.bd

2. Coordination

On 21 June 2020, the Ministry of Public Administration issued a notification that in accordance with the 2018 Infectious Diseases (Prevention, Control and Eradication) Act certain areas in ten (10) districts in the country were declared as ‘Red Zones’. The Ministry of Public Administration further declared conditional general holidays in the Red Zones for the period of 21 days, these general holidays will be applicable to all the officials/employees of government, semi-government, autonomous, private offices/organizations of the specified Red Zone areas, and who live outside the areas. The emergency services will be excluded from these general holidays. Full document: www.mopa.gov.bd

The technical working group on PPE quality control (TWG on PPE QC) developed a draft guideline for PPE visual inspection, for consideration by DGDA. The document aims to guide local producers and importers of PPE on the sampling methods and algorithms for ensuring compliance of PPE batches with the specifications and explains methods to conduct visual inspection for the most common PPE items. It is also a useful guide to procurement agencies and buyers to conduct a quality check of PPE upon delivery. The guide was drafted by Japanese inspection firm K2 with financial support from JICA, with technical inputs from the other technical working group members. The technical working group is coordinated by WHO and includes members from BUET, icddr,b, USAID, JICA and K2. The guide will be considered by DGDA. After review, it is expected that the guide will be posted for public comments on the DGDA website and then finalized after incorporation of stakeholders’ feedback. The TWG also produced draft parameters for testing cloth masks, for consideration by DGDA.

MoHFW established a technical committee on Investigational New Drugs (IND). Membership of the committee comprises of 12 participants coordinated by DGDA and chaired by Bangabandhu Shaikh Mujibur Rahman Medical University (BSMMU). Members include senior academicians and clinicians. The committee aims to advise DGDA on the evaluation of locally produced or imported medicines, investigational drugs, vaccines and medical devices to treat, prevent or detect Covid-19, as a public health emergency. On Sunday 21 June, DGDA convened a technical committee meeting for consultation on the minimum sensitivity and specificity level of serological test for COVID-19. The committee will be meeting regularly to ensure expedited decisions on access to new products related to COVID-19 management.

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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 22 June 2020, according to the Institute of Epidemiology, Disease Control and Research (IEDCR) there were fifteen-thousand-seven-hundred-eighty-six (115,876) COVID-19 confirmed by rt-PCR, including one-thousand-five-hundred-twelve (1,502) related death cases (CFR 1.30%).

In the current week (epidemiological week 25), COVID-19 confirmed cases increased by 14%, in comparison to the previous week (24,786 and 21,751 respectively). In comparison to the previous epidemiological week, while the number of COVID-19 related deaths increased by 3.2% (292 and 283 respectively), the overall Case Fatality Rate (CFR) decreased from 1.34% in epidemiological week 24 to 1.30% in the current week.

The figures below are showing the daily and weekly distribution of reported confirmed COVID-19 cases and deaths, 09 March – 22 June 2020, Bangladesh.
In the current week (epidemiological week 25), COVID-19 Attack Rate (AR) increased by **28.3%**, in comparison to the previous week (659 and 514 respectively).

**The figure below is showing the weekly attack rate confirmed COVID-19 cases, 08 March – 22 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 22 June 2020, the GF is 1.0.

**The figure below is showing the Growth Factor of daily confirmed COVID-19 cases, 08 March – 22 June 2020, Bangladesh.**
As of 22 June 2020, the case doubling time in Bangladesh remains eight (8.0) days (about 1/2 day) more than the previous update on 15 June 2020). 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, 22 June 2020.

As of 22 June 2020, the death doubling time in Bangladesh remains teen (10.0) days (no change from the previous update on 15 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, 22 June 2020.
As of 22 June 2020, geographical distribution of confirmed reported COVID-19 cases was available on 97% of cases (112,306/115,786); of which 13.4% from Chattogram division, 3.2% from Rajshahi division, 2.6% from Sylhet division, 2.1% from Mymensingh division, 2.1% from Khulna division, 2.0% 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 city), 16 April – 21 June 2020, Bangladesh.

The case doubling time can be used to determine how fast COVID-19 infection has been spreading in the country. Available data allows us to see how quickly the number of confirmed cases increased in different divisions in Bangladesh.

As of 22 June 2020, the case doubling time is 6 days in Dhaka division and Chattogram; in Khulna, Sylhet and Rajshahi divisions - 7 days, in Rangpur, Mymensingh and Barisal divisions - 9 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, 22 June 2020, Bangladesh.
The case doubling time is 6 days in Dhaka city, Faridpur district – 7 Days, Narayanganj and Gazipur districts - 8 days, Munshiganj district – 9 days, and slightly more than 10 days for Kishoreganj district.

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, 22 June 2020, Bangladesh.

In Chattogram division till 22 June 2020, the case doubling time was the fastest in Noakhali district - 6 days, Chattogram, Cox’s Bazar and Feni districts - 7 days, Cumilla district - 8 days, Chandpur district - 10 days and 15 days for Laxmipur and Chandpur districts.

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, 22 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 – 21 June 2020, Bangladesh.
WHO Bangladesh COVID-19 Morbidity and Mortality Weekly Update (MMWU)

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Barishal 3 per. Mov. Avg. (Barishal)

Khulna 3 per. Mov. Avg. (Khulna)

Rangpur 3 per. Mov. Avg. (Rangpur)

Mymensingh 3 per. Mov. Avg. (Mymensingh)
The overall COVID-19 attack rate (the total number of cases divided by the total population) in Bangladesh \[\text{[1]}\] has been on a steady increase since 4 April 2020. On 22 June, Bangladesh attack rate (AR) is 679.9 per 1 million, and 100% (64/64) of districts with the total population of 170,306,468 people have confirmed COVID-19 cases.

According to the available data for 112,306 cases, the highest AR continues to be observed in the Dhaka division (1,893.3/1,000,000). Within the Dhaka division, Dhaka city has the highest AR (7,612.2/1,000,000), followed by Narayanganj district (1,332.0/1,000,000), Munshiganj (1,039.1/1,000,000), Gazipur (1,039.1/1,000,000), Faridpur (548.7/1,000,000), Dhaka district (466.4/1,000,000), Narshingdi (461.9/1,000,000), Madaripur (397.5/1,000,000), Kishoreganj (354.4/1000,000), Gopalganj (331.8/1,000,000), Manikganj (286.6/1,000,000), Shariatpur (276.6/1,000,000), Rajbari (166.0/1,000,000), and the lowest AR 99.7/1,000,000 was reported from Tangail district.

The second highest COVID-19 Attack Rate is reported from Chattogram division of (274.8/1,000,000) having all of the 11 districts AR over 100 per million. Within the division, Cox’s Bazar district reported the highest AR (735.4/1,000,000) followed by Chattogram (698.6/1,000,000), Noakhali (458.0/1,000,000), Cumilla (408.5/1,000,000), Bandarban (394.2/1000,000), Feni (384.2/1,000,000), Lakshmipur (281.2/1,000,000), Rangamati (220.0/1,000,000), Chandpur (193.9/1,000,000), Khagrachhari (172.2/1,000,000), and the lowest reported from Brahmanbaria (158.7/1,000,000) district.

The third highest AR in the country was reported from Sylhet division (246.2/1000,000) with the highest AR in Sylhet district (387.4/1000,000) followed by Sunamganj (262.2/1,000,000), Habiganj (129.6/1,000,000) and Maulvibazar (100.0/1,000,000) district.

Barishal division is the fourth highest in overall AR with 205.3/1,000,000 with the highest AR in Barishal district (427.6/1,000,000) followed by Jhalakathi (153.6/1,000,000), Barguna (153.5/1,000,000), Patuakhali (131.6/1,000,000), Pirojpur (101.8/1,000,000) and Bhola (89.0/1,000,000) district.

Mymensingh division reported overall AR (180.6/1,000,000). Within the Mymensingh division, Mymensingh district has the highest AR (217.6/1,000,000) followed by Jamalpur (168.2/1,000,000), Netrokona (144.5/1,000,000) and Sherpur (121.4/1,000,000) district.

Rajshahi division has overall AR (164.0/1,000,000) with the highest AR in Bogura (522.8/1,000,000), followed by Joypurhat (235.1/1,000,000).

The following figure is showing the attack rate per 1,000,000 population of reported confirmed COVID-19 cases in selected divisions, 13 April - 21 June 2020, Bangladesh.
Out of the total 115,786 conformed COVID-19 registered as of 22 June 2020, 40.3% (46,719/115,786) of the cases recovered, 58.4% are active cases and 1.3% - died.

The figure below is showing the outcomes of reported confirmed COVID-19 cases outcome per epidemiological week, 08 March – 22 June 2020, Bangladesh.

As of 22 June 2020, there were 48,220 (48.2%) COVID-19 cases with known outcome (closed cases), and out of all closed cases 96.9% (46,719/48,220) were cured and 3.1% (1,502) died. The death rate on closed cases in Bangladesh is lower than the 8.8% (471,199/5,326,333) global average as of 22 June 2020.

The figure below is showing the death and recovery rates over cumulative closed confirmed COVID-19 cases, 11 March – 22 June 2020, Bangladesh.
As of 22 June 2020, according to IEDCR, a total of 630,719 COVID-19 tests with the overall positivity rate of 18.4% were conducted in Bangladesh by 62 laboratories (32 laboratories in Dhaka city and 30 laboratories in outside Dhaka). The latest laboratories, which have started the testing: in Dhaka - Zainul Haque Sikder Women's Medical College and Hospital Ltd., and AMZ Hospital Ltd. 63.9% of all samples were tested by laboratories in the Dhaka city, and 36.1% - outside Dhaka. Notably, the number of samples does not represent the number of individuals tested, as some patients may be tested more than once/several times.

The graph below is showing the weekly and cumulative number of COVID-19 conducted tests, 08 March – 22 June 2020, Bangladesh.

COVID-19 testing coverage has been gradually increasing in Bangladesh, reaching now 3,703/1,000,000 but is still lower than in Maldives (65,771/1,000,000), Malaysia (21,140/1,000,000), Nepal (15,435/1,000,000), Thailand (6,708/1,000,000), Sri Lanka (4,441/1,000,000) and India (5,038/1,000,000).

The graph below is showing the daily cumulative number of COVID-19 tests per 1,000,000 population, 08 March – 22 June 2020, Bangladesh.
4. Contact Tracing, Points of Entry (PoEs) and Quarantine

According to the DGHS, as of 15 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 17,837 individuals were placed in quarantine facilities and of them 13,708 (76.9%) have been already released. By 22 June 2020, in total 20,432 individuals were isolated in designated health facilities all over the country, of them 7,965 (37%) have been released, and 12,467 (61%) are presently in isolation facilities.

The highest number of people (6,547) in quarantine facilities was reported on 24 April 2020 while presently, the figure reduced to 4,129. Between 17 March to 22 June 2020, total 324,409 individuals were placed under home quarantine all over the county and to date 81.6% (364,642/324,409) have been already released. Remaining 18.4% (59,765 individuals) are in home quarantine now.

The figures below are showing the number of individuals in home and facility quarantine and individuals in isolation, 17 Mach – 22 June 2020, Bangladesh.
5. Case Management and Infection Control

An updated version of the Emergency Global Supply Chain System (COVID-19) Catalogue was released. The catalogue lists all medical devices, including personal protective equipment, medical equipment, medical consumables, single use devices, laboratory and test-related devices that may be requested through the COVID-19 Supply Portal. In Bangladesh, a group of development partners (DPs) and government officials are coordinating procurements related to COVID-19, in support of the national response. The Pillar is chaired by WFP with participation of relevant partners under the DGHS leadership. A system has been established to validate procurement requests from partners to ensure alignment with the overall national needs, for COVID-19 response. Full document: https://www.who.int/publications/i/item/emergency-global-supply-chain-system-(covid-19)-catalogue.

Two (2) meetings of the WHO global technical advisory group (TAG) on PPE specifications and testing parameters were conducted during the past week. The group includes members from CDC/NIOSH, EU notifying body laboratories, International Medical Corps, CHAI, UNICEF, Saudi FDA (WHO collaborating centre for medical devices), WHO and others. The TAG discussed technical specifications and testing parameters for surgical gowns and surgical and examination gloves. The decisions of the group are subject to online voting by the experts and will inform WHO’s updated technical requirements for PPE in the disease commodity package for COVID-19. WHO list of priority medical devices for COVID-19 prevention, diagnostic and management is available at the following link: https://www.who.int/medical_devices/priority/COVID-19/en/.

On 16 June 2020, WHO Regional Office for South-East Asia (SEARO) hosted a virtual meeting on Antimicrobial stewardship during the COVID-19 pandemic: best practice and guidance on prescribing antibiotics. The webinar provided a brief about key principles & good practices for antimicrobial stewardship during the COVID-19 pandemic and discussed recent updates from WHO on managing COVID-19 patients. The webinar targeted physicians and other health care professionals involved in care of COVID-19 patients, policy makers, experts in charge of national antibiotic policies and clinical guidelines, and WHO and development partner staff. The WHO toolkit on antimicrobial stewardship programmes in health-care facilities in low- and middle-income countries is available at the following link https://apps.who.int/iris/rest/bitstreams/1257395/retrieve. An online course on Antimicrobial Stewardship: A competency-based approach is available at the following link https://openwho.org/courses/AMR-competency.

On 20 June 2020, a consultative meeting was held on Bangladesh’s participation in the WHO Solidarity trials for candidate medicines for COVID-19 treatment. The IEDCR has been assigned by MoH&FW as a focal point for the trial and is coordinating efforts of research institutions and health facilities to develop local protocols, based on the WHO global protocols, and other aspects of the study. It was decided that Chloroquine/Hydroxychloroquine will be excluded from the study. Sample size, ethical approval and randomization were discussed during the meeting.

6. Risk Communication and Public Awareness

RCCE partners are scaling up communication and information activities towards the use of masks as one of the main components of protection measures against COVID-19 for the general public, together with maintaining physical distancing and sustaining hygiene practices. Infographics and audio-video materials have been developed by the DGHS with support from RCCE partners and are currently being disseminated through RCCE network. Additional materials—public service announcements (PSA), instructional videos and mass media materials are being produced for wide dissemination.

Furthermore, intensified RCCE activities have been conducted focusing on domestic violence and child protection as well as on stigma and discrimination in order to address the increasing incidence of the issues in communities, especially attitudes towards frontline responders, including health workers.

Ongoing activities are implemented to address disinformation, misinformation and rumors especially in online environment, with constant efforts to eliminate or reduce the spread of such information in social media, promoting accurate and reliable information.
RCCE partners continue to conduct regular monitoring and rapid assessments to measure the effectiveness of the interventions and to guide messaging as the outbreak and the response evolves.

7. Useful COVID-19 links:


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


Addressing violence against children, women and older people during the covid-19 pandemic: Key actions: https://www.who.int/publications/i/item/WHO-2019-nCoV-Violence_actions-2020.1


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