Innovations and Collaborative Actions to Harness Technologies during pandemics

Achievements of Bangladesh:

During the ongoing Covid-19 pandemic, the Government of Bangladesh has taken numerous initiatives to provide healthcare and other necessary services to citizens. Since the first confirmed case of coronavirus was reported in Bangladesh, ICT Division and the Cabinet Division, supported by UNDP Bangladesh, has been implementing initiatives in collaboration with multiple public and private stakeholders. Some of those initiatives are-

1) **Corona Portal:** As an immediate citizen awareness building and online service provision tool, ICTD has launched corona.gov.bd, a web platform where citizens can get up-to-date information on the COVID-19 status of Bangladesh and access to the official COVID-19 prevention guideline from the Bangladesh government.

2) **National Telehealth Services:** More than 4000 private health institutions and 1100 public health institutions, who remain disconnected and for health-related services such as access to relief and food for nutritional support and addressing preventable diseases do not communicate with health institutions, ICTD has taken the initiative to establish a National Telehealth Service Platform which ensure the following services,

   a) **Corona Helpline 333 and Doctor’s Pool App:** The helpline number 333 has included many new services like corona information service, telemedicine service, corona self-testing and emergency food relief for the underprivileged. An app named ‘Volunteer Doctor’s Pool BD’ has been developed to provide online healthcare services. More than 4,500 trained physicians are registered in the app and are providing services through the helpline number 333 at their convenient time.

   b) **BSMMU-a2i Specialized Tele-Health Center:** During the Covid-19 crisis, citizens are being deprived of regular healthcare services. In this regard, the Bangabandhu Sheikh Mujib Medical University (BSMMU) in collaboration with ICT Division launched the BSMMU-a2i Specialized Tele-Health Center (09611677777) to provide medical advice to citizens of the country through video and audio calls.

   c) **Telemedicine Network:** ICT Division has brought together 27 telemedicine service providers in Bangladesh to provide low cost telemedicine services, by trained doctors, for citizens facing obstacles in accessing hospitals or clinics.
d) **Probash Bondhu Call Center:** The Probash Bondhu Call Center has been set up to provide emergency health counseling to expatriate Bangladeshis, initially serving the 24 lakh living in Saudi Arabia and Bahrain. More than 2,663 expatriates and their family members have been provided health advice by 78 expatriate Bangladeshi doctors in Saudi Arabia. 250 more doctors have expressed their interest to serve under this call center.

e) **Plasma Donation Platform ‘Shohojoddha’:** The ICT Division, with support from DGHS, a2i’s Innovation Lab (iLab) and e-Generation, launched the plasma donation network called ‘Shohojoddha’ (www.shohojoddha.com) to ensure plasma collection from Covid-19 recovered patients to treat infected patients.

f) **Telehealth service for COVID-19 positive patients:** This is an uninterrupted health care service delivery to the COVID positive patients (28K+ until 20 July 2020) who are taking treatment staying at home and hospitals. Under this service, the COVID positive patients has been served by the doctors’ pool.

3) **E-learning services:** In response to the pandemic emergency and the “New Normal” beyond the pandemic, and also as a measure to education in emergencies in the future, a2i Program of ICT Division in collaboration with the relevant ministries, organizations and stakeholders has taken the National e-learning services in an integrated way.

   a) **Online course on Corona:** e-learning courses on Corona have been added to the e-learning platform of a2i, MuktoPaath. About 7 lakh trainees, including 30,000 doctors, have participated in MuktoPaath’s online courses.

   b) **Digital Classroom:** In collaboration with a2i, the Ministry of Education and the Ministry of Primary and Mass Education have created digital contents for primary, secondary, madrasa and technical level students, which are being broadcasted nationwide through Sangsad Television - a government-owned TV channel of Bangladesh.

4) **Virtual Court System:** The MyGov platform, was inaugurated by the Honorable Prime Minister and has incorporated numerous services like e-Nothi -online e-filling and office management platform, ekSheba -single platform for all the government services, MuktoPaath -eLearning platform, etc. Amid the Covid19 situation, it has initiated activities of the Virtual Court System (MyCourt) in 87 lower courts. Made for the Judiciary of Bangladesh, this platform has integrated a video conferencing system to conduct hearing activities simultaneously in a secure way.

5) **Food for Nation and Phone-E-Nittoponno:** A public-private coordination group has been set up under the initiative of a2i’s ekShop and a logistic network has been established coordinating 116 e-commerce and logistics companies, e-CAB and Dhaka Divisional Administration. 1000 pharmacies and more than 1 lakh registered points/shops including grocery stores have been prepared. Marketing of agricultural products of local farmers has also been initiated across the country and the ‘Food for Nation’ platform’s activities are underway in coordination with the Ministry of Agriculture.
6) **Crowd-funding platform ‘Ek Desh’:** The country's first Crowd-funding platform 'EkDesh' has been launched to facilitate Zakat and/or donations distribution for people, easily from anywhere anytime through banking channels. The technology based ‘EkDesh’ platform has been launched to ensure financial assistance and social security to the underprivileged people and small businesses affected by the Corona crisis. Through the ‘EkDesh’ platform, people from different walks of life across the country can pay Zakat or small financial donations to selected government and non-government organizations, including the Prime Minister’s Relief Fund and the Islamic Foundation.

7) **Supply of Health and Hygiene products:** a2i’s Innovation Lab (iLab) is facilitating the production of emergency healthcare products made in Bangladesh for doctors and health workers. So far, 6,308 PPEs, 14,622 sanitizers, 30,720 masks, 48,980 hand gloves, 7,550 hand wash and 620 goggles have been provided. Furthermore, iLab Innovators have developed 5 ventilators in partnership with 14 private sector individuals/organizations and in technical collaboration with the US-based company Medtronic. The ventilators are in trial stage and will soon be available for public use.

**Challenges in Bangladesh for COVID-19 Response:**

In actualizing the objectives, however, ICT Division has encountered several challenges in Bangladesh such as:

1) Unavailability of data (2) data silos that prevent interoperability, (3) inadequate data analytics capacity within government, and (4) ensuing coordination gap between agencies that are now more pronounced during COVID-19. (5) Lack of awareness among mass people.

**Strategies to mitigate these problems:**

In response to multitude of needs, in two weeks since the first case was detected, ICT Division developed the following initiatives to mitigate these problems such as,

a. **Syndromic Surveillance:** The ‘Corona BD’ app has been developed to provide information on potential corona patients and to enable self-testing infection risk at home. More than 1 lakh people have download and are using the app. In addition, a contact tracing app has been developed to help identify corona patients and those who came in contact with them.

b. Citizens are accessing corona self testing support through helplines 333, 16263 and *3332#, and 25 web and mobile apps. A preliminary screening through the ‘self-testing’ tools identified 15 million initially suspected personnel carrying symptoms related to coronavirus.

c. **Zoning:** a2i of ICT Division is assisting the Ministry of Health, field administration and law enforcement agencies in effective decision making by marking zone-based high risk, low risk, and safe areas (red, yellow, and green on the basis of corona patient’s positional information) on the map.
d. **Central COVID-19 Dashboard for Decisions Making:** There has been so many fragmented technological solutions developed by a2i in collaboration with DGHS and IEDCR to monitor nationwide COVID-19 scenario and take timely policy response & decisions by the policy makers.

e. **Field Administration Dashboard:** In collaboration with the Cabinet Division, a2I, ICT Division has created a dashboard for the Covid-19 reporting system for the field administration. Through this, the Cabinet Division is coordinating the necessary healthcare activities, and the allocation and distribution of relief by the field administration.

f. **Health Administration Dashboard:** The primary users of Health Administration Dashboard are DGHS and IEDCR. This dashboard helps them to guide field level health officers and district level Civil Surgeons to take timely actions on health-related services. This dashboard covers epidemiological analysis on disease spread and helps health administrators to generate insight on disease containment approaches.

g. **Mass awareness during COVID-19:** To tackle the current COVID19 crisis in Bangladesh, a lot of campaign initiatives have been taken by ICT Division:

   - **Number of Corona Awareness Campaign:** A total of 1254 types of content have been developed for Corona awareness building through a2i and various government and non-government partner organizations. Content promotion is going on through Bangladesh Television, social media, billboards, and various traditional and new media.

   - **Corona Helpline promoted on private Televisions:** The 'Corona Helpline' programs have been regularly aired on ‘RTV’ and 'Ekattor Television' since April with participation of doctors from Bangabandhu Sheikh Mujib Medical University (BSMMU). So far, 100 episodes have been aired with citizen participation; through this, 4 Crore citizens have been reached with corona related information and advice.

   - **Awareness TV Program against violence against women (Nari-Nokkhotro):**
     A new television series, Nari-Nokkhotro, is about to be launched to facilitate healthcare for women in particular, raising awareness among citizens against violence against women and encouraging women's contribution in the fight against corona. This program will be launched under the partnership among the private TV channel ‘RTV’, the private sector company ‘SMC’ and the ‘a2i’ programme of ICT Division. As part of pre-program publicity, it is being promoted on social media.