PRESS RELEASE

BANGLADESH HEALTH WATCH

Date: 15 October 2020

Title: **Sample collection and sample testing for SARS-Co-2 in Bangladesh: A descriptive qualitative study**

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The survey was carried out to assess the quality of sample collection and the safety of the rT-PCR testing procedures for SARS-CoV-2. Information was sought from 24 Directorate General of Health Services officials, working at the national to the upazila level including medical college, district and upazila level managers, supervisors and technicians. Four newspapers were studied on a daily basis and four TV channels were monitored for the relevant information and videos. Four research staff collected field data and took photographs and videos of sample collection procedures.

The findings were as follows:

IEDCR as the national referral center for surveillance was supposed to train up relevant officials and monitor quality of sample collection and test but it was too busy on sample collection from homes and test all alone for about a month. As a result the training quality and the quality of sample collection and safety of some laboratories at lower levels suffered. Tools for sample collection were not standardized in the beginning, were not adequate and at times not appropriate. The collected samples therefore had to be discarded or gave false negative results. In April, May and June many laboratory technicians got infected from Covid-19, as a result of which, in the face of an already existent serious shortage of medical technologists, many laboratories had to suspend the tests for a few days each, creating load on Dhaka based laboratories, delay in sample transportation and testing. Private diagnostic centers lent their technologists, who however, showed too much interest in home based sample collection.

In the beginning the plan was to collect sample from people with suggestive clinical features and clinical service providers but it was opened for all free of cost. Each upazila was supposed to collect about 10 samples but it ran even up to 110. Even then the number of tests was too few according to WHO standard. From mid-April collected samples were too many for the testing laboratories and hence these got piled up, as a result of which disproportionate delay occurred in reporting the test results. Sample collection schedules were also in-coordinated as a result, many of the sample givers had to return even after waiting for hours without giving any sample. Addresses of many sample givers were recorded wrongly and incompletely, in many cases because of falsification by the sample givers.

In May Government handed over the responsibility of coordination of sample collection and testing to the Additional Director General of Administration, Line Director of MNCAH and a former Director of HMIS. Definition of cure from Covid-19 was changed twice and the necessity of the second and the

third tests to declare a patient as cured was made non-obligatory and a price levied on tests. These measures gradually brought order. The DGHS plan of establishing Covid-19 diagnostic facilities at upazila health complexes however, did not materialize and even to-date some district hospitals do not possess any PCR machine. Mismatch occurred in some cases between the PCR machine and the supplied kits. Allowing RT-PCR testing in private sector created a lop-sided presence of too many laboratories in Dhaka and it opened up an avenue of good business, through which some people with ulterior motives appeared in the Covid-19 scene.

For sometimes in the beginning, sample collection sticks were made of even broom stick and hair clip with cotton tips and samples transported in non-laboratory grade normal saline even in polythine bags or in tubes with loosely fitting caps, which would fall off during transportation. Sample collection technique was wrong and sample handling process was risky in a majority of cases. Sample collection sites also did not care for safe physical distancing and sample management staff did not adopt adequate safe measures in a number of locations

In some PCR laboratories wearing of PPE was not meticulous and unnecessary items, e.g. papers, books etc. were seen inside the laboratories, although the technologists maintained good personal safety, some structural and procedural measures with regard to exhaust air ventilation, waste management, accident and emergency management, decontamination etc. were absent. Some logistics were also inadequate in all laboratories, e.g. liquid nitrogen containers, -70C refrigerator, automation of sample processor and analyzer, management of inactivated specimens etc.

Recommendations were given to improve the above mentioned flaws and shortages, ensuring PCR machines to all district hospital laboratories and utilization of Gene-Xpert machines for identification of SARS-CoV-2 at upazila health complexes.

15th October
Bangladesh Health Watch (BHW)