

Annex A

“Sero-surveillance of COVID-19 among slum and non-slum dwellers in Dhaka and Chattogram Cities and the impact of pandemic on mental health status.”

Terms of Reference (Revised: Date: 15th Oct 2020)

Study sites

Division	Slum area	Non-slum area
Dhaka	Korail, Mirpur, Dhalpur	From a point- 360 degree area of each slum
Chottogram	Jamtola, Bank Pahar, Muktijuddha colony, Arafin Nagar	From a point- 360 degree area of each slum

Under the scope of the work (execute sampling procedure, and organize training of the field works- with the participation of icddr,b staff), the specific responsibilities of the agency include the followings:

- To implement key aspects of the sampling strategy, including area mapping, listing of households in slum and non-slum areas;
- To review/adopt data collection instrument with operational guideline- survey and supervisory staff on implementation of sampling strategy; conduction of area mapping, household listing; survey data collection in Tab; monitoring and supervision; quality check activities; data processing and editing;
- To review/adopt field implementation manual for interviewers and supervisors (Bangla and English version);
- To organize and conduct the training on questionnaires (at office and field situation);
- To document and report the training status of the interviewers and supervisors;
- To prepare detailed work plan and timeline of all activities;
- To review/adopt data collection program in Tab;
- To organize field work activities;
- To conduct the mapping and household listing;
- To provide training on biosafety concern, COVID-19 awareness raising and use of PPE;
- To collect information from households using the survey questionnaire (Tab)
- Collect data on anthropometry, blood pressure
- To collect biological specimen (blood etc) and store serum aliquot (5 aliquots) in -20 degrees after centrifugation as per study design;
- Area wise distribution list of blood sample collection will be shared by icddr,b;
- All supplies required for sample collection to be arranged by contractor except heparinized tube (icddr,b will provide heparinized tube only). Quality of supplies will be checked by icddr,b before being used;
- Standard operating procedure (SOP) for sample collection, processing, storage and transportation to be provided by icddr,b;

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- Blood pressure and blood sample collection will be carried out by properly trained and experienced technologists.
- Providing results of lab test (Complete Blood Count) to participants and sharing soft copy with icddr,b. CBC to be performed in hospitals such as Lab Aid, Popular, Ibne Sina or equivalent.
- Weekly/Bi-weekly shipment of serum aliquots to icddr,b Dhaka under frozen condition (dry ice).
- To conduct field work with appropriate monitoring and supervisory and quality check activities;
- To conduct data entry (Tab-based), processing, and editing;
- To conduct appropriate quality checks at different stages of field work, data entry and data management process;
- To prepare preliminary and final datasets with appropriate documentation; and
- To draft a report describing all data collection and data management procedures, supervisor observations/comments, and limitations/problems encountered.
- To complete all the above activities within 2 months.

Selection of area and households:

Urban non-slum area (Dhaka): Adjacent areas of Korial, Dhalpur, and Mirpur slums will be selected as non-slum households (From a point- 360 degree area of each slum). We will select non-slum areas to include middle and upper middle- class families (selection will be based on structure of the house: wall and roof material with bricks and could be a multi-stored building, however no more than one security guard in the building).

Mapping of area will be done by physical verification (5 times bigger area than sample households (1000 households) will be mapped) and area will be divided into clusters; cluster of households will be selected randomly. From each cluster, after household listing, informed written consents will be obtained from the adults and assents from children (10-17 years) of the households and signature of their respective guardians. Thereafter, information will be collected by interviewing household head or an adult member (socio-demographic data for individual and household level – age, sex, education, occupation, marital status, household income/expenditure, COVID awareness/perception, COVID symptom- each member). Blood sample will be collected from selected members as shown in the table below and samples will be transported to icddr,b Laboratory within 2-3 hours of collection, maintaining cold chain. Data includes mental health, physical activity, non-communicable diseases, anthropometry, blood pressure. Blood pressure and blood sample collection will be carried out by properly trained and experienced technologists.

Urban slum area (Chattogram): Using the slum census report-2014 (BBS), four slums will be targeted from Chattogram and these are Jamtola slum (1,125 households), Bank Pahar slum (1,650 households), Muktijoddha colony (800 households) and Arafin Nagar slum (2,000 households). Area maps will be prepared by physical verification (5 times bigger area than sample households (1000 households) will be mapped) and area will be divided into clusters; cluster of households will be selected randomly. From each cluster, after household listing, informed written consents will be obtained from the adults and assents from children (10-17 years) of the households. Thereafter, information will be collected by interviewing household head or an adult member (socio-demographic data for individual and household level – age,

sex, education, occupation, marital status, household income/expenditure, COVID awareness/perception, COVID symptom- each member). Blood sample will be collected from selected adult and adolescent members (10 years and above) as shown the table below and data includes mental health, physical activity, non-communicable diseases, anthropometry, blood pressure. Blood pressure and blood sample collection will be carried out by properly trained and experienced technologist.

Urban non-slum area (Chattogram): Adjacent areas of Bank Pahar slum and Arafin Nagar slum will be selected as non-slum households (From a point- 360 degree area of each slum). We will select non-slum areas to include middle and upper middle- class families (selection will be based on structure of the house: wall and roof material with bricks and could be a multi-stored building, however no more than one security guard in the building).

Mapping of area will be done by physical verification (5 times bigger area than sample size (1000 households) will be mapped) and area will be divided in to clusters; cluster of households will be selected randomly. From each cluster, after household listing, informed written consents will be obtained from the adults and assents from children (10-17 years) of the households and signature of their respective guardians. After consenting, information will be collected by interviewing household head or an adult member (socio-demographic data for individual and household level – age, sex, education, occupation, marital status, household income/expenditure, COVID awareness/perception, COVID symptom- each member). Blood sample will be collected from selected adult member and adolescent members (10 years and above) as shown in the table below and data includes mental health, physical activity, non-communicable diseases, anthropometry, blood pressure.

Following are the details of the activities that the agency is expected to carry out.

Household survey

The selected firm will conduct area mapping of the slum and non-slum (neighboring slum area) area. After mapping (5 times bigger than the desired sample), the area will be divided into clusters (approximately 100 households in each clusters). Clusters will be selected randomly to cover the required sample (1000 HHs from Dhaka non-slum (neighboring slums of Korail, Gazipur, and Mirpur), Chattogram slum (1000 HHS) and Chattogram non-slum (for example, neighboring non-slum of Jamtola, Bank Pahar, Muktijoddha colony, Arafin Nagar). After the household listing, baseline data will be collected i.e. basic demographic and socioeconomic information of the household (individual and household level). Eligible member of the household (standard definition of household will be followed- not hostel/mess) will be selected for interview for the baseline survey (individual and household level information including income, expenditure, COVID awareness, COVID symptom, food security). Informed written consents will be obtained from the adults and assents from children (10-17 years) of the households. Blood sample will be collected from selected adult and adolescent members (10 years and above) with about equal number of male and female (ratio may vary between 45% and 55%) including data on mental health, anthropometry, blood pressure, physical activity, non-communicable diseases.

Table 1: Sample size for blood/mental health/anthropometry (Approximate)

Areas	Dhaka	Chittagong	Total
Slums	-	286	286
Non-slums	666	234	900
		Grand total	1186

Adult and adolescent ratio will be 60:40 and male female ratio will about 1:1

The fieldwork responsibilities will include: mapping, household listing; administering individual-level instruments (per within-cluster sampling rules and interview procedures to be developed under the oversight of icddr,b).

Household listing

Once the clusters are selected, the survey agency will organize teams (field workers) to visit all of these selected areas to list all the households within the area. For each household, the firm will complete census of all the household members (age, sex, DOB, age, marital status, education, occupation). These lists will be used to collect individual and household level data including data on blood sample, mental health, anthropometry, blood pressure, physical activity, non-communicable diseases. icddr,b will have the authority to supervise the household selection process. The survey agency will be responsible for organizing training for the field worker in Dhaka for about a week with the guidance from the icddr,b team. Field workers will be trained to find the selected enumeration areas, to make sketch maps of the areas and to fill the listing forms. The firm will develop the listing form in icddr,b prescribed format. The training will include practical exercises in the field to demonstrate proper procedures (will be done for both Dhaka and Chattogram team- pretesting will also be done in Chattogram – to adopt local language). The agency will adopt a data collection manual in English and Bangla for use by the interviewer. This manual will be subject to review/approval by icddr,b. It is expected that the Household Questionnaire will take about 45 minutes to administer.

Survey tool

Data will be collected through one to one interview by using a survey tool (Baseline census and socioeconomic and questionnaire). The questionnaires will have sections that will collect socio-demographic information including income/expenditure, COVID awareness, COVID symptom. Blood sample will be collected from selected members including data on mental health, anthropometry, physical activity, blood pressure, non-communicable diseases. It is expected that the Household Questionnaire will take about 45 minutes to administer.

icddr,b will provide the questionnaire in English and Bangla. The consulting firm will be responsible to adopt the questionnaire. The consulting firm will be responsible for pre-testing of the survey instruments outside the area to be drawn in the sample. These pretesting will occur under the supervision and guidance of icddr,b. At least 20 households (each category) will be interviewed in the pretest (from Dhaka non-slum and Chattogram slum and non-slum). The results of this pretest will be used to modify the survey instruments (local language) as

necessary. Any change in the questionnaire after the pretest shall be decided after holding discussion with icddr,b.

Other technical documents to be prepared by the consultancy firm for the survey include:

- Interviewers' and supervisors' manuals (English and Bangla)
- Household listing forms and,
- Interviewer and supervisor assignment sheets for fieldwork
- Detailed work plan and timeline of activities

The agency will be responsible, for printing of listing form (Tab), survey questionnaires (Tab), interviewers' and supervisors' manuals under close coordination, direction and authorization of icddr,b including the consent form.

Quality control of fieldwork

Quality control will be assured through supervision and monitoring of data collection teams during fieldwork. Team leaders will be responsible for the performance of their teams. In addition to the internal supervision of each field team (by the team leader), they will maintain close contact with the teams under their responsibility and with headquarters staff and survey manager. Field coordinators will carry out spot checking re-interview, editing, and troubleshooting and necessary quality control checks as per the implementation manual. In addition, icddr,b quality control team will also check data in the field (survey and blood sample).

In addition, a set of data quality tables will be run at the central office on a weekly basis. These tables will be specially designed to detect systematic errors made by individual interviewers and specific interviewing teams. Data collection errors that will be detected will be discussed with the concerned interviewers and interviewing teams to ensure that the problem does not persist.

Data management and processing

Data editing, cleaning and processing will be done using standard software and will be the responsibility of the consultant agency. The consultant will develop the software for data processing and to be approved by icddr,b. Data editing should include the checking of range, structure and a selected set of checks for internal consistency. All errors detected during machine editing should be corrected.

Data storage and access to data

The agency will ensure that collected data is properly stored and backed up ensuring it is not damaged and lost in any form. The agency will work closely with icddr,b and allow them the full access to the stored data. No data will be disclosed by the agency to any organization or individual at any stage of the data collection without consulting icddr,b.

Deliverables:

- A copy of the final data collection questionnaires (Bangla version)
- A copy of the data collection instruction manuals (Bangla and English version)
- Detailed work plan and timeline of activities
- Listing manual
- Report on pre-testing
- Weekly reports on training activities
- Biweekly reports on field work preparations and progress
- Biweekly monitoring and evaluation report from supervisors
- Biweekly reports on data processing progress, including reports of quality check results
- Weekly report on supervisor observations/comments, and limitations/problems encountered during the first month of the household survey and bi-weekly reports thereafter
- Cleaned and fully labeled data set (in a CD or pen drive) in STATA or other agreed upon software
- A copy of the codebook and any other data documentation
- Soft copies of questionnaire and all raw data
- Provision of electronic files and other materials produced by this activity
- Providing results of lab test to participants and sharing electronic copy with icddr,b
- Financial invoice (need to set payment milestone)

Table 3: Time line of activities

Key activities	Oct 2020	Nov 2020	Dec 2020
Recruitment of household enumerators Development, modification and finalization of listing form Pre-testing and finalization of data collection tools Training of household enumerators and recruitment of data collection staff	X	X	
Training of data collection staff Household enumeration Start field activity for data collection, biological sample collection, processing, testing, transportation, supervision and quality check	X	X	X
Continue field activities Data entry, editing and cleaning			X
Delivery of final cleaned data set			X