

## CENTRE OF EXCELLENCE FOR NON-COMMUNICABLE DISEASES AND NUTRITION (CNCDN)

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Established in 2017, the Centre aims to reduce mortality and complications related to Non-Communicable Diseases (NCDs) and malnutrition in Bangladesh through prevention, treatment and control. The Centre conducts research and works with the government of Bangladesh to develop guidelines for prevention, treatment and control, and perform evidence-based advocacy around NCDs and malnutrition.

Research at the Centre includes identifying evidence-based practices in clinical and population settings, implementing health system research to optimise delivery of interventions, and conducting economic evaluation of novel and evidence-based interventions. Health care providers are trained on risk stratification for NCDs through prevention and management. The Centre also strengthens capacity of programme managers and policy makers on evidence-based policy and interventions for prevention and control. To further promote and advocate for the prevention, treatment and control of NCDs and malnutrition, and encourage people to adopt healthier lifestyles, the Centre also develops communication materials based on their research.

### RESEARCH PROJECTS IN 2019

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#### - **BASELINE SURVEY OF STRENGTHENING HEALTH SYSTEMS THROUGH ORGANIZING COMMUNITIES (SHASTO)**

PI: Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH.

Co-PI: Mehedi Hasan, Senior Lecturer, BRAC JPGSPH.

Coordinator: Moyazzam Hossain, Deputy Research Coordinator, BRAC JPGSPH.

Timeline: February 2018 - June 2020

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To report the current situation of non-communicable diseases (NCDs) and their behavioural and clinical risk factors in selected intervention (Narsingdi district and Dhaka City North) and control sites (Gazipur district and Dhaka City South) of SHASTO project.

Methodology: Mixed method

Donor: Japan International Cooperation Agency (JICA)

Partner: Non-communicable Disease Control, Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare (MoHFW), Government of the People Republic of Bangladesh.

## - **UNDERSTANDING THE PATTERNS AND DETERMINANTS OF HEALTH IN SOUTH ASIANS PEOPLE-SOUTH ASIA BIOBANK**

PI:

- Professor Malabika Sarker, Associate Dean and Director, CoE-SISU, BRAC JPGSPH;
- Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH.

Coordinator: Mehedi Hasan, Senior Lecturer, BRAC JPGSPH.

Timeline: May 2018 - September 2021

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To strengthen NCD surveillance systems in Bangladesh by establishing 30 surveillance sites across the country and complete structured assessments on a representative sample of up to 30,000 Bangladeshi men and women aged above 18 years, living at the 30 surveillance sites using standardised approaches; to provide nationally representative data on the burden of T2D, CVD and their risk factors, and on the quality of care for these major NCDs to quantify needs, in Bangladeshi populations.

Methodology: Quantitative

Donor: National Institute for Health Research (NIHR)

Partners:

- Imperial College London, UK;
- Non-communicable Disease Control, Directorate General of Health Services (DGHS);
- National Institute of Cardiovascular Diseases (NICVD);
- Bangladesh Institute of Research and Rehabilitation in Diabetes;
- Endocrine and Metabolic Disorders (BIRDEM);
- Bangladesh University of Health Science (BUHS)
- BRAC

## - **DELIVERY OF TRAINING ON WORLD HEALTH ORGANIZATION (WHO) BANGLADESH PACKAGE OF ESSENTIAL NON-COMMUNICABLE DISEASE INTERVENTIONS (PEN) FOR PRIMARY HEALTH CARE**

PI: Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH.

Co-PI: Rina Rani Paul, Consultant, BRAC JPGSPH.

Coordinator: Ali Ahsan, Research Medical Officer, BRAC JPGSPH.

Timeline: September 2019 - December 2019

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To increase the capacity and skills of primary health care providers (doctors/nurses/paramedics) in Cox's Bazar district on the implementation of PEN low resource

settings, using a team-based approach; to strengthen the capacity of community health volunteer supervisors in Cox's Bazar district on behavioral and clinical-risk factors for NCDs.

Methodology: Quantitative

Donors: World Health Organization (WHO), Dhaka

Partners:

- Non-Communicable Disease Control, Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare (MoHFW), Government of the People Republic of Bangladesh;
- Community Health Working Group.

**- TRAINING AND DIGITAL CARE COORDINATION FOR IMPROVED PREVENTION OF TYPE 2 DIABETES AND CARDIOVASCULAR DISEASE BY PRIMARY HEALTH CARE TEAMS IN BANGLADESH**

PI: Professor Malay Kanti Mridha, Director, CNCND, BRAC JPGSPH.

Co-PI: Professor Malabika Sarker, Associate Dean and Director, CoE-SISU, BRAC JPGSPH.

Coordinator: Abu Abdullah Mohammad Hanif, Senior Research Fellow, BRAC JPGSPH.

Timeline: September 2019 - September 2021

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCND)

Objective: To develop and evaluate digital platforms for training and care-coordination by the primary health care team in Bangladesh; to improve prevention and control of Type 2 Diabetes (T2D) and Cardiovascular disease (CVD).

Methodology: Mixed method

Donor: National Institute for Health Research (NIHR), UK

Partners:

- Imperial College London, UK;
- Non-Communicable Disease Control, Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare (MoHFW), Government of the People Republic of Bangladesh;
- BRAC.

**- ENHANCING NUTRITION SERVICES TO IMPROVE MATERNAL AND CHILD HEALTH IN AFRICA AND ASIA (ENRICH)- MIDLINE EVALUATION, BANGLADESH**

PI: Professor Malabika Sarker, Associate Dean and Director, CoE-SISU, BRAC JPGSPH.

Co-PI: Avijit Saha, Research Fellow, BRAC JPGSPH.

Coordinator: Avijit Saha, Research Fellow, BRAC JPGSPH.

Timeline: January 2016 - June 2020

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To determine the effectiveness of ENRICH programme's monitoring and evaluation (M&E) plan (MEP) that guides a coordinated approach to measuring the effectiveness and impact of ENRICH programme interventions across the whole implementation cycle- including achievements of immediate and intermediate outcomes and impact evaluation at end-line as identified within the Performance Measurement Framework (PMF).

Methodology: Quantitative

Donor: World Vision

Partner: University of Toronto

### **- EFFICACY OF ZINC-BIO FORTIFIED RICE IN IMPROVING ZINC STATUS IN YOUNG BANGLADESHI CHILDREN**

PI: Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH.

Co-PI: Professor Sabina Faiz Rashid, Dean and Director CGSRHR, BRAC JPGSPH.

Coordinator: Md. Rabiul Islam, Senior Field Coordinator, BRAC JPGSPH.

Timeline: January 2017 – June 2021

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To determine the efficacy of newly developed zinc biofortified rice on plasma zinc concentrations in children between 12-36 months of age in a rural area of Bangladesh, using a double blind randomised controlled trial, in an effort to alleviate public health problems, such as impaired child growth and diarrhoea-related morbidity, in a sustainable way.

Methodology: Quantitative

Donor: HarvestPlus

Partners:

- ETH Zurich;
- Bangladesh Rice Research Institute;
- icddr,b.

### **- ANALYTICAL TASK IN SUPPORT OF CAPACITY DEVELOPMENT IN NUTRITION SURVEILLANCE AND RESEARCH IN BANGLADESH**

PI: Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH;

Co-PI: Dr Md. Tanvir Hasan, Co-Director Research and Co-Director, CUEH, BRAC JPGSPH  
Coordinator: Md. Mokbul Hossain, Analyst (Statistics), BRAC JPGSPH  
Timeline: April 2017 - March 2019  
Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To support the government of Bangladesh in making evidence-based decisions on multi-sectoral nutrition programming for adolescent girls by analysing nationally representative FSNSP data (2009 to 2015).

Donors: The World Bank

Methodology: Quantitative

Partners:

- UNICEF Bangladesh;
- Global Alliance for Improved Nutrition (GAIN);
- Shornokishoree Network Foundation (SKNF).

#### - **FOOD SECURITY AND NUTRITION SURVEILLANCE-NATIONAL NUTRITION SERVICES (FSNS-NNS)**

PI: Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH.  
Co-PI: Md. Showkat Ali Khan, Assistant Scientist, BRAC JPGSPH.  
Coordinator: Moyazzam Hossain, Deputy Research Coordinator, BRAC JPGSPH  
Timeline: April 2018 - December 2019  
Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To assess food security of the rural and urban households and nutritional situation of women, children, adolescent boys and girls, adult makes and geriatric population.

Methodology: Quantitative

Donor: National Nutrition Services, Ministry of Health and Family Welfare (MoHFW), Government of the People Republic of Bangladesh.

Partner: Bangladesh Bureau of Statistics

#### - **SCALING UP NUTRITIONAL, PSYCHOSOCIAL AND ENVIRONMENTAL INTERVENTIONS FOR CHILD GROWTH AND DEVELOPMENT THROUGH GOVERNMENT SYSTEM OR HEALTH SYSTEM (RINEW-G)**

PI: Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH.

Co-PI: Abu Abdullah Mohammad Hanif, Senior Research Fellow, BRAC JPGSPH.

Coordinator: Md. Mokbul Hossain, Analyst (Statistics), BRAC JPGSPH.

Timeline: September 2019 - May 2021

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To implement an integrated package of interventions (maternal nutrition, infant and young child nutrition, early child stimulation, water, sanitation, hygiene and prevention of arsenic and lead) through the government health system in one sub-district; assess uptake by government personnel, impact on target mother's knowledge and practices, and barriers, prospects and pathways for broader scale-up.

Methodology: Quantitative

Donor: Bill and Melinda Gates Foundation

Partners:

- Stanford University;
- Johns Hopkins University;
- University of California, Davis;
- University of California, Berkeley.
- icddr,b.

### **- IMPACT EVALUATION OF THE UNICEF MULTISECTOR INTEGRATED PROGRAMME FOR IMPROVED NUTRITION IN URBAN SLUMS**

PI: Dr Esther Heesemann, Chair of Econometrics, Department of Economics, University of Mannheim.

Co-PI: Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH.

Coordinator: Fahmida Akter, Senior Research Fellow, BRAC JPGSPH.

Timeline: December 2019 - March 2022

Implemented by: Centre of Excellence for Non-Communicable Diseases and Nutrition (CNCDN)

Objective: To provide evidence on the effectiveness of the UNICEF urban slums nutrition programme targeting children and caregiver living in the Sylhet City Corporation.

Methodology: Quantitative

Donor: UNICEF, Bangladesh

Partners:

- Sylhet City Corporation;
- UNDP;
- Centre for Evaluation and Development (C4ED).