

## **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 ONGOING IN 2021** *(updated till September, 2021)*

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#### **- 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, BRAC University and Professor Malay Kanti Mridha, Director, CNCDN, BRAC JPGSPH, BRAC University.

Coordinator: Mehedi Hasan, Research Fellow, BRAC JPGSPH, BRAC University.

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 18+ years, living at the 30 surveillance sites using standardized 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
- Noncommunicable 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

Grant Amount: USD 744,332

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

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

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

Coordinator: Moyazzam Hossaine, Deputy Research Coordinator, BRAC JPGSPH, BRAC University.

Timeline: February 2018 - June 2020

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

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's Republic of Bangladesh.

Grant Amount: USD 48,387

- **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, Professor and Director, CNCND, BRAC JPGSPH, BRAC University.

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

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

Timeline: September 2019 - September 2021

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

Objectives:

- To develop and evaluate digital platforms for training and care-coordination by the primary health care teams 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)BRAC

Grant Amount: USD 115,200

**- 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, BRAC University

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

Coordinator: Avijit Saha, Research Fellow, BRAC JPGSPH, BRAC University.

Timeline: January 2016 - June 2020

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

Objective: To determine the effectiveness of ENRICH program'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

Grant Amount: USD 40,247

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

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

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

Coordinator: Md. Rabiul Islam, Sr. Field Coordinator, BRAC JPGSPH, BRAC University.

Timeline: January 2017 – June 2021

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

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 randomized 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

Donors: HarvestPlus

Partners:

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

Grant Amount: USD 456,294

- **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, CNCND, BRAC JPGSPH, BRAC University.

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

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

Timeline: September 2019 - May 2021

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

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.

Grant Amount: USD 28,146

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

PI: Esther Heesemann

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

Coordinator: Fahmida Akter, Sr. Research Fellow, BRAC JPGSPH, BRAC University.

Timeline: December 2019 - March 2022

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

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

Methodology: Quantitative

Donor: UNICEF, Bangladesh

Partners:

- Sylhet City Corporation
- UNDP
- Center for Evaluation and Development (C4ED)

Grant Amount: USD 35,143

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

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

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

Coordinator: Nushrat Jahan Urmay, Research Associate, BRAC JPGSPH, BRAC University.

Timeline: June 2020 - December 2020

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

Objective:

- To increase the capacity and skills of health care providers (doctors/nurses/paramedics) in Cox's Bazar district on the implementation of PEN for primary health care in low resource settings, using a team-based approach
- To strengthen the capacity of community health volunteer supervisors in Cox's Bazar district on healthy lifestyle promotion related to risk factors for NCDs

Methodology: Quantitative

Donors: World Health Organization (WHO), Bangladesh

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

Grant Amount: USD 88,805

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- **DEVELOPMENT OF INTEGRATED NUTRITION MESSAGES FOR SCHOOLS**

PI: Professor Kaosar Afsana, BRAC JPGSPH, BRAC University

Other Researchers:

- Dr. Malay Mridha, Professor and Director, CNCDN, BRAC JPGSPH, BRAC University;
- Saira Parveen Jolly, Sr. Research Fellow, BRAC JPGSPH, BRAC University;
- Abu Ahmed Shamim, Associate Scientist; BRAC JPGSPH, BRAC University
- Fahmida Akter, Sr. Research Fellow, BRAC JPGSPH, BRAC University;
- Barnali Chakraborty, Assistant Scientist. BRAC JPGSPH, BRAC University

Timeline: August 2020 - December 2020

Implemented by: Centre of Excellence for Gender, Sexual and Reproductive Health and Rights (CGSRHR)

Objective: The study aims to develop integrated nutrition messages for the school children (pre-primary to grade 10) using the cover pages of the school textbooks.

Methodology: Mixed methods

Donor: Food and Agriculture Organization (FAO)

Grant Amount: USD 72,000

- **ASSESSMENT OF THE FOOD SAFETY CHARACTERISTICS AND RISKS ASSOCIATED WITH EDIBLE OIL TRANSPORTED AND SOLD IN DRUMS**

PI: Abu Ahmed Shamim, Associate Scientist, CNCND, BRAC JPGSPH, BRAC University.

Co-PI: Prof. Malay Kanti Mridha, Professor and Director, CNCND, BRAC JPGSPH, BRAC University.

Coordinator: Fahmida Akter, Sr. Research Fellow, BRAC JPGSPH, BRAC University.

Timeline: October 2020 - May 2021

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

Objective:

To quantitatively assess the food safety of different edible oil brands sold in drums and bottles and ascertain value/supply chain factors (handling, storage, environmental) associated with food safety risk.

Methodology: Mixed method

Donors: Global Alliance for Improved Nutrition (GAIN)

Partners: Institute of Nutrition and Food Science, Dhaka University.

Grant Amount: USD 138,073

- **BASELINE ASSESSMENT OF THE INTEGRATED HEALTH, WATER, SANITATION AND HYGIENE SERVICES UNDER THE REHABILITATION PROGRAM FOR UPLIFTMENT OF ULTRA-POOR SLUM DWELLERS IN MOHAMMADPUR AND MIRPUR IN DHAKA CITY AND SAIDPUR IN NILPHAMARI DISTRICT IN BANGLADESH**

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

Co-PI: Bachera Akter, Assistant Director, BRAC JPGSPH, BRAC University

Coordinators:

Abu Abdullah Mohammad Hanif, Senior Research Fellow, BRAC JPGSPH, BRAC University  
Fahmida Akter, Senior Research Fellow, BRAC JPGSPH, BRAC University

Timeline: January 2021 – June 2021

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

Objective:

The overall objective of this baseline assessment was to report the current situation of health and WASH services and practices among ultra-poor slum-dwellers in Mohammadpur, Mirpur, and Saidpur.

Methodology: Mixed Method (Quantitative and Qualitative).

Donors: BRAC Urban Development Program (BRAC UDP)

Partners: NA

Grant Amount: BDT 2,499,664

- **PROCESS DOCUMENTATION AND RESEARCH OF PROJECT TITLED  
'IMPLEMENTATION OF THE WORLD HEALTH ORGANIZATION'S FRAMEWORK FOR  
WORKING WITH INDIVIDUALS, FAMILIES AND COMMUNITIES (IFC) TO IMPROVE  
MATERNAL AND NEWBORN HEALTH IN BANGLADESH'**

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

Co-PI: NA

Coordinator:

Fahmida Akter, Senior Research Fellow, BRAC JPGSPH, BRAC University.

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

Timeline: July 2019 – July 2021

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

Objective:

To better understand the operational aspects of the BRAC-MNH, within the context of the BRAC-MNH interventions through a) document and evaluate the resources and processes needed for



implementation of interventions and b) use the findings to explain and interpret program effectiveness results and identify important facilitators and barriers to the success of the intervention, which can be used to improve the performance of current and future programs for scaling up.

Methodology: Mixed method

Donors: **Enfants du Monde (EdM), Geneva** through Health Nutrition and Population Programme (HNPP), BRAC.

Partners: **Health Nutrition and Population Program (HNPP), BRAC.**

Grant Amount: BDT 3,124,965