Combatting the coming malnutrition crisis

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COVID-19 has profoundly impacted all countries, with even the most prosperous nations overwhelmed by the pandemic. For low- and middle-income countries, the consequences are even more severe. With reduced purchasing power, interruptions in critical welfare programmes, and disruptions in global supply chains, many families no longer have access to adequate nutritious food. Shutdowns and fear of infection lead to reduced access to health systems and nutrition services. These factors may create a malnutrition crisis, with the potential to cause even more devastation than the pandemic itself.

While the provision of food may resolve the hunger issue, this does not guarantee people the nutrients their bodies need. Without access to proper nutrition, there will be long-term health impacts, including weaker immune system, lowered resilience to disease, and increased stunting and wasting. Addressing hunger and, more specifically, 'nutrition' need to be a key component of the global COVID-19 response.

Since 2010, Bangladesh has made immense progress in economic growth, food security, health and nutrition, and until COVID-19, the country was on track to achieve the child nutrition targets set in the second Bangladesh National Plan of Action for Nutrition (NPAN2) by 2025.

The pandemic, however, threatens to reverse the gains made so far, especially for children, pregnant and lactating women and adolescent girls. A study to determine the impact of COVID-19 on nutrition, conducted by the Bangladesh National Nutrition Council (BNNC), supported by Nutrition International and other partners, observed that the pandemic has disrupted most food commodity supply chains, causing high-quality protein and micronutrient-rich foods to become more expensive.

School closures have brought weekly iron-folate supplementation for adolescent girls to a halt. This severely impacts the 45 million people in the country who are extremely poor and already cannot afford the minimum food consumption basket. Compounded by food shortages and limited access to essential health services, malnutrition among the country's young children will become more pronounced in the long term, and chronic stunting may return to the 2011 rate of 41%, up from the current 31%.

Pregnant women – and those who become pregnant during the pandemic – are being significantly affected by the disruptions resulting from the need for social distancing and overburdened health facilities. This is leading to decreased quality care visits, increased anxiety, contradictory messages and recommendations, and even increased home births without properly skilled birth attendants.

A timely, well-coordinated and preventive approach is critical to combat the malnutrition crisis. The NPAN2 and the 'Bangladesh Second Country Investment Plan for Nutrition' (CIP2) need to jointly focus on prioritising nutrition security interventions through various implementation platforms including digital platforms, Nutrition Information Systems and multiple community platforms.

Supply chain disruptions of health and nutrition essentials including iron and folic acid, calcium, and vitamin A need to be streamlined urgently. Immunisation drives, which were suspended due to lockdowns, need to be revitalised. Bangladesh's inclusive social safety net programmes and uninterrupted food value chain system can be leveraged strategically to avoid any future crisis of food insecurity and malnutrition.

New plans and strategies for reopening health facilities, resuming school feeding programmes, and delivering nutrition-specific services and programmes must be developed. Home visits and counselling services by frontline workers can play an important role in reaching vulnerable populations with regular health and nutrition services, while dispelling myths and delivering verified facts about the disease and methods to control it.

COVID-19 has created a confluence of nutrition risks that endanger an entire cohort of women and children. Nutrition must be integrated into every phase of the pandemic response – the immediate response, the resilience-building, and the recovery. With nutrition as a key pillar of the response, nations will be able to build back better, healthier and strong enough to overcome the next challenge.

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DIABETES

Insomnia identified as a new risk factor

A new 'global atlas' study published in Diabetologia (the journal of the European Association for the Study of Diabetes [EASD]) is the first to identify insomnia as a risk factor associated with increased risk of developing type 2 diabetes (T2D). The study identifies 34 risk factors that are thought to increase (19) or decrease risk (15), as well as a further 21 'suggestive' risk factors where evidence was not quite as strong.

Researchers found evidence of causal associations between 34 exposures (19 risk factors and 15 protective factors) and T2D. Insomnia was identified as a novel risk factor, with people with insomnia being 17% more likely to develop T2D than those without.

The other 18 risk factors for T2D were depression, systolic blood pressure, starting smoking, lifetime smoking, coffee (caffeine) consumption, blood plasma levels of the amino acids isoleucine, valine and leucine, liver enzyme alanine aminotransferase (a sign of liver function), childhood and adulthood body mass index (BMI), body fat percentage, internal fat mass, resting heart rate, and blood plasma levels of four fatty acids.

The study confirmed several previously established risk factors and identified novel potential risk factors for T2D. Findings should inform public health policies for the primary prevention of type 2 diabetes.

HEALTH *bulletin*

Healthcare cost of COVID-19 in LMICs at US$52 billion every four weeks

Research published in The Lancet Global Health journal, estimates that it could cost low- and middle-income countries (LMICs) around US$52 billion (equivalent to US$ 8.60 per person) over four weeks to provide an effective health-care response to COVID-19, assuming each country's reproductive number remained unchanged.

However, the sizeable costs of a COVID-19 response in the health sector are likely to escalate if transmission increases — rising to as much as US$62 billion (US$ 10.15 per person) over four weeks under a scenario where current restrictions are relaxed and transmission increases by 50%. The main cost drivers were clinical case management (54% overall cost; e.g., field hospitals, biomedical equipment, drugs, safe burial teams), maintaining essential services (21%; e.g., coordination and outreach teams, salaries, rented ambulances), rapid response and case investigation (14%; e.g., contact-tracing teams), and infection prevention and control (9%; e.g., protective equipment, masks, hand-washing stations).

The results emphasise that critical components of health systems need to exist when an outbreak occurs – including healthcare staff, laboratories, and mechanisms for coordination – as these are essential to deliver an effective response.

Antibody responses in COVID-19 patients could guide vaccine design

Star Health Report

A comprehensive analysis of antibody responses in coronavirus disease 2019 (COVID-19) patients could inform the development of an effective vaccine, according to a study published recently in the open-access journal PLOS Pathogens by Chao Wu and Rui Huang of Nanjing University Medical School, and colleagues.

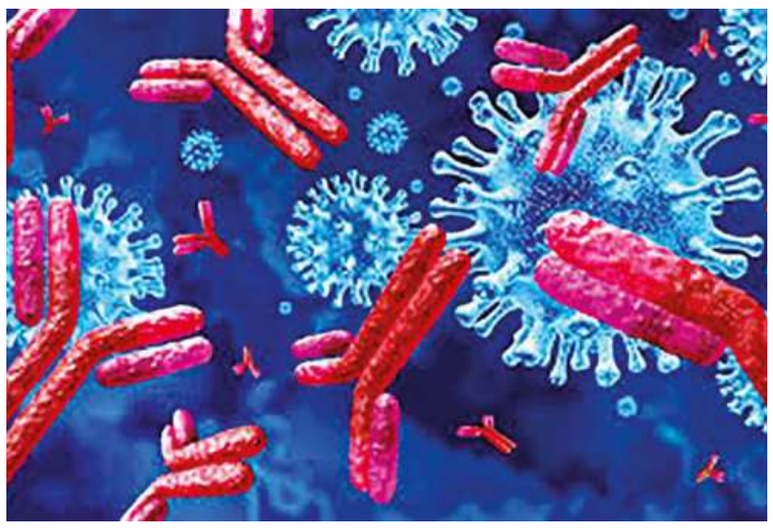
The results show that the neutralising activity of antibodies from recovered patients is typically not strong, and declines sharply within one month after hospital discharge.

The world is facing an unprecedented challenge with communities and economies affected by the growing COVID-19 pandemic. Currently, there is no vaccine or effective drugs approved to treat or prevent the disease. A better understanding of antibody responses against SARS-CoV-2 – the virus that causes COVID-19 – will provide fundamental information for developing effective treatments and a preventive vaccine. In the new study, researchers continuously monitored SARS-CoV-2-specific antibody responses in 19 non-severe and seven severe COVID-19 patients for seven weeks from disease onset.

Most patients generated antibody responses against SARS-CoV-2, including the viral nucleoprotein and three parts of the spike protein: the receptor-binding domain, S1 protein, and ectodomain. Although 80.7% of recovered COVID-19 patients had varying levels of antibody neutralisation activity against SARS-CoV-2, only a small portion of patients elicited a potent level of neutralisation activity.

This result highlights the importance of carefully selecting blood samples from recovered patients using antibody neutralisation assays prior to transfusion into other COVID-19 patients. Three to four weeks after hospital discharge, the neutralising activity of antibodies from recovered patients declined significantly, suggesting that recovered COVID-19 patients might be susceptible to reinfection with SARS-CoV-2.

In addition, severe COVID-19 patients had a large amount of non-neutralising antibodies, which may contribute to the antibody-dependent enhancement of infection. According to the authors, the study provides important insights for serological testing, antibody-based intervention, and vaccine design.



Bangladesh Army donated essential medical equipment for COVID-19 response at Evercare Hospital Dhaka

The Bangladesh Army recently has provided specialised trolleys and isolation beds for the COVID-19 patients at Evercare Hospital Dhaka to help combat the deadly pandemic, says a press release.

Dr Arif Mahmud, Head of Medical Services, Evercare Hospital Dhaka expressing his gratitude to the Bangladesh Army said, "It is a brilliant gesture of the Bangladesh Army to donate these apparatus that will provide us with enhanced capability to serve the sickest, thus helping the nation to tackle this unprecedented pandemic and national crisis."

This is the latest in a long line of efforts by the Bangladesh Army to help the people during the COVID-19 pandemic. This exemplary gesture by the Bangladesh Army will not only help combat the COVID-19 pandemic but will also inspire more institutions and organisations to help the frontline health care workers.

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