

Catastrophic impact of climate change on health

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Climate change is now regarded as the biggest global health threat of the 21st century. Enormous health hazards ranging from large number of deaths through natural disasters to emergence of vector-borne diseases, water and food insecurity, vulnerable shelter and human settlements, population migration etc. are already evident. If timely action, appropriate public health policy to combat climate change is not taken, more human lives will be destroyed by frequent catastrophic events and health will be endangered severely.

Bangladesh, one of the most vulnerable nations to

climate change is likely to face the devastating impact of climate change on health. The country is already experiencing more frequent number of cyclones like Sidr and Aila at short interval. Flood is a common phenomenon here. These extreme climatic events have already claimed the huge toll of human lives, marooned many people.

The World Health Organisation published findings as early as 2000 showing that global warming caused 150,000 deaths in the world each year — those would not have occurred in a normal context. They expect that the number will rise to 500,000 deaths per year by 2030. Yet the impact of climate change on

our health is a less-pronounced issue. Many think it as a marginal problem.

In addition to death, climate change contributes to the global burden of disease, and this contribution is expected to grow in the future. There is an apparent increase in many vector-borne diseases which survive better in changing climate. Climate change dramatically alters the patterns and rate of spread of certain diseases like malaria and dengue; as well as other major killers such as malnutrition and diarrhoea. These climate-sensitive diseases are among the largest global killers.

Diarrhoea, malaria and protein-energy malnutrition alone caused more than 3

million deaths globally in 2002. Statistics say that 20 to 70 million more people could be living in malarial regions due to climate change by 2080. Continuing climate change will affect, in profoundly adverse ways, some of the most fundamental determinants of health: food, air and water. Water and food security will add load to the global disease burden in indirect way.

Increasing global temperatures affect levels and seasonal patterns of both man-made and natural air-borne particles, such as plant pollen, which can trigger asthma. About 300 million people suffer from asthma, and 255,000 people died of the disease in 2005. Asthma

deaths are expected to increase by almost 20 percent in the next 10 years if urgent actions to curb climate change and prepare for its consequences are not taken.

Intense short-term fluctuations in temperature can also seriously affect health — causing heat stress (hyperthermia) or extreme cold (hypothermia) — and lead to increased death rates from heart and respiratory diseases.

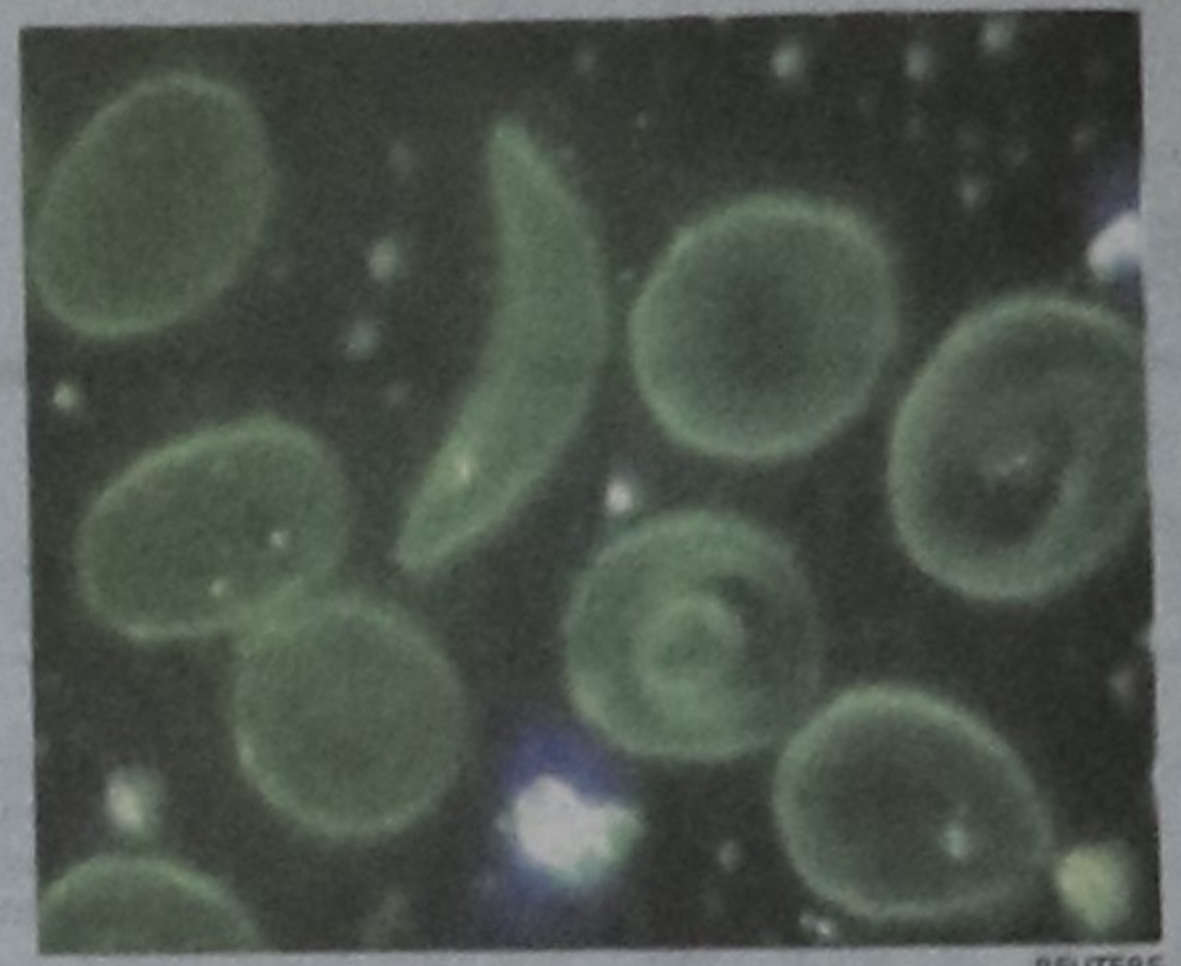
Although there is tremendous and terrible impact on public health, there is almost no distinct intervention to fight the health related consequences of climate change.

The health professional and policy makers have not yet distinctly prioritised the

problem in terms of adopting public health strategy and allocation of fund coping with climate change. Experts urged to well-prepare the health system for any emergency.

However, effects on health of climate change will be indeed felt by most populations in the next decades and put the lives and well being of billions of people at increased risk. We need to act now to prevent these avoidable dangers. Otherwise, death and injury from extreme climatic events and other obvious health hazards like malnutrition, diarrhea, vector-borne diseases will worsen and cause disastrous effect on global health.

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An electron microscopic view of fragile red blood corpuscles seen in sickle cell disease

MEDICAL ADVANCEMENT

Marrow transplant cures adult sickle cell disease

REUTERS, Boston

Bone marrow transplants, already used to treat some children with sickle cell disease, also may cure some adults with this deadly genetic defect that causes red blood cells to contort, U.S. scientists said recently.

Nine of 10 adult patients given an experimental bone marrow transplant treatment were cured of sickle cell disease, researchers at the U.S. government's National Institutes of Health reported in the New England Journal of Medicine.

If the early results hold, the treatment "could be ideal for patients with severe sickle cell disease," Dr. Miguel Abboud of American University of Beirut Medical Center in Lebanon said in an editorial accompanying the study.

Such transplants already are used to cure children with the disease who have a compatible donor who provides bone marrow. Bone marrow gives rise to blood cells.

Destroying a patient's bone marrow and replacing it with healthy marrow from a donor, often a sibling, is considered too risky for adults.

In conventional bone marrow transplants, doctors try to destroy all of a patient's own bone marrow. Using the new technique, adults are given a lower dose of radiation, only partially destroying the patient's bone marrow.

This approach leaves enough space inside the patient's bones for the donated marrow to find a home and produce enough healthy red blood cells to compensate for the defective ones.

In sickle cell disease, an inherited disorder, blood cells become stiff and sickle-shaped, causing them to block blood vessels and starve tissues of oxygen.

It had been thought that by the time people with sickle cell disease become adults, they had have suffered too much kidney, lung and liver damage to allow for a safe transplant.



Like this woman and the little child in her lap seen in the photo, cyclone Aila has displaced many people leaving them insecure to food, shelter and safe water. Continuing climate change affects profoundly the fundamental determinants of health, which are often neglected.

Calcium may help prevent severe pregnancy complications

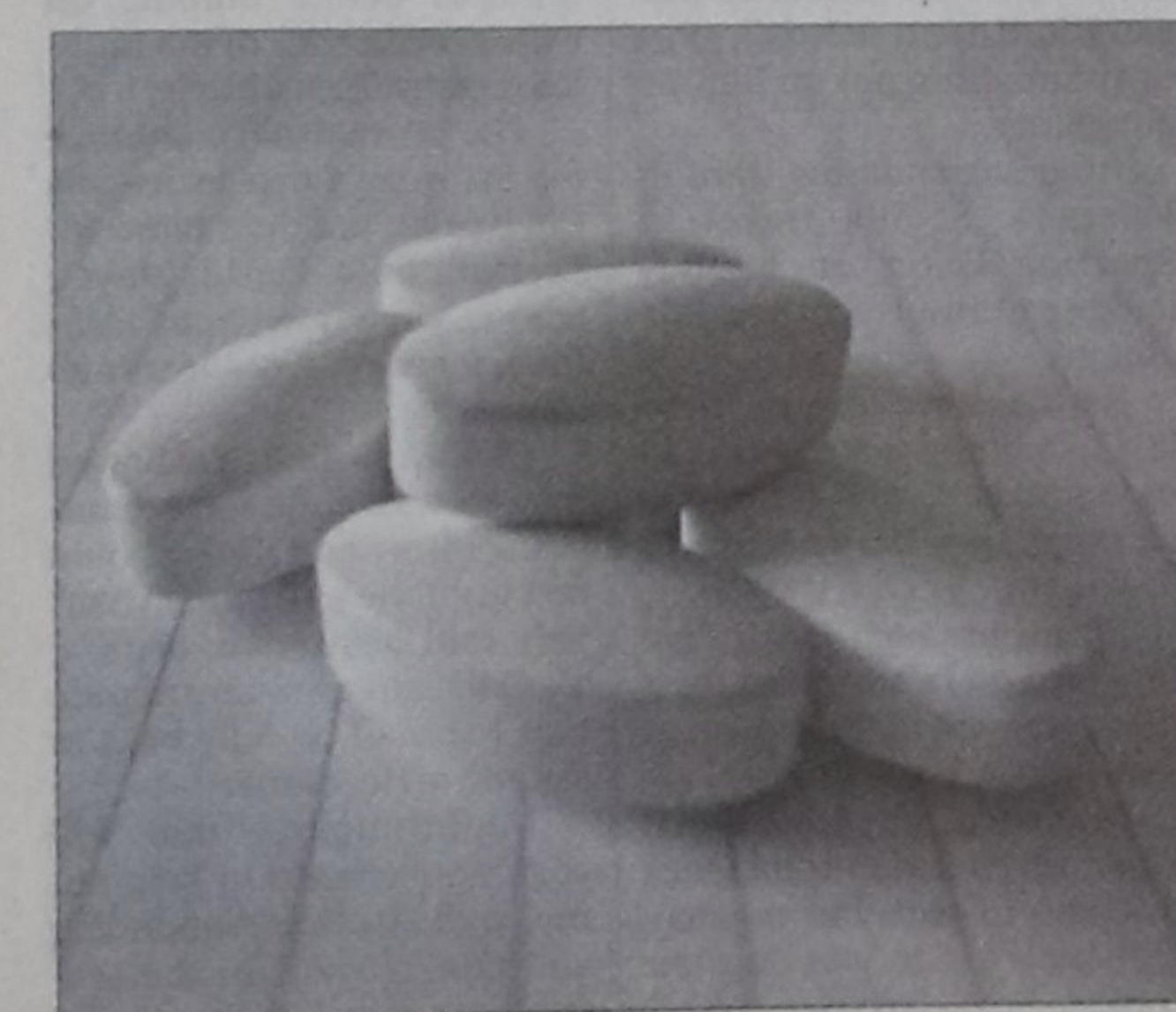
STAR HEALTH REPORT

Providing calcium supplements to women who are deficient in the mineral can lower the incidence of several severe complications of pregnancy, according to research published in the American Journal of Obstetrics and Gynecology.

The study conducted by a global team of investigators under the auspices of the World Health Organisation (WHO), aimed to find out whether a calcium supplement could reduce the complications and mortality caused by preeclampsia — the development of high blood pressure and protein in the urine during pregnancy.

A link to calcium deficiency had been suggested by earlier research. Preeclampsia and its more severe complications — such as eclampsia — can threaten the lives of both mother and child. Over 8,300 women with low dietary calcium — that is, less than 600 mg per day, which is about half of that recommended during pregnancy — were selected for the study. The subjects were randomly divided into two groups that had similar gestational ages, demographic characteristics, and normal blood pressures before treatment started. Half were given 1.5g of a calcium supplement per day and half received a placebo. "While supplementation with 1.5 gm calcium/day did not result in a statistically significant decrease in the overall incidence of preeclampsia, calcium significantly decreased the risk of its more serious complications, including maternal and severe neonatal morbidity and mortality," states author Jose Villar, MD.

The incidence of severe gestational hypertension was significantly lower. Preterm and early preterm delivery — that is, at less than 32 weeks — tended to be reduced among women under 20 years of age who were at highest risk for low calcium and complications. Neonatal mortality also was lower in the calcium group, the researchers pointed out.



Ways to prevent UTI in women

STAR HEALTH DESK

Urinary Tract Infection (UTI) is one of the common causes for which women visit physicians. Women tend to get urinary tract infections more often than men because bacteria can reach the bladder more easily in women. The urethra is shorter in women than in men. So bacteria have a shorter distance to travel. But with little precaution and simple measures, women can prevent UTI effectively.

Health professionals recommend the following tips to reduce your risk of developing a UTI.

- Water helps flush your urinary tract, so make sure you drink plenty of plain water daily.
- Taking showers instead of baths helps prevent bacteria from entering the urethra and causing a UTI.
- Do not hold it when you need to urinate. Holding it when you need to go can help any bacteria that may be present develop into a full-fledged urinary tract infection.
- You should wipe from front to back after a bowel movement. This is especially important to help prevent bacteria from the anus from entering the vagina or urethra.



Urine sample to test UTI

- Always wash your genital area both before and after sexual intercourse to help prevent transferring bacteria to the urethra or vaginal area, which can create a breeding ground for UTI.
- Feminine hygiene sprays and douches, particularly scented douches, can irritate the urethra and possibly lead to a UTI. Avoiding these products will help prevent not only urinary tract infections, but also other infections and irritations that these products may cause.

Ref: <http://www.nichd.nih.gov>

ALTERNATIVE MEDICINE

How homeopathy treats a patient

DR AFSHANA YAQOOT

Homeopathy is a form of alternative medicine developed by German physician and chemist, Dr Christian Fredric Samuel Hahnemann (1755-1843). It is based on the principle "Law of Similar". It states that a disease can be cured by a substance that produces similar symptoms in healthy people. Dr Hahnemann believed that by inducing a disease through use of drugs, the artificial symptoms empowered the vital force to neutralise and expel the original disease and that this artificial disturbance would naturally subside when the dosing ceased.

Homeopathy does not pre-select any medicine for a particular disease; it treats the person as individual based on genetic and personal health history, body type and current physical, emotional and mental symp-



oms. It creates ability to fight against infection and weakness of disease and it is designed to encourage the body's natural healing forces.

Homeopathy seeks to stimulate the body's ability to heal itself by giving very small doses of highly diluted substances. The principle of dilutions (or "law of minimum dose") states that the lower the dose of the medication, the greater its effectiveness. In homeopathy,

substances are diluted in a stepwise fashion and shaken vigorously between each dilution.

Homeopathic treatment is based on person's health, to strengthen acting motivating the body's ability to fight against infection as well as resist the disease. Many symptoms appear in ill health. Including mental and emotional symptoms, this can sometimes play a vital role in understanding

the susceptibility. So the medicine varies from person to person. For the first consultation, the homeopath may take an hour or more, to seek patient's personal behaviour, which is separated him from others.

However, simple acute complaints may only take 15-30 minutes. Treatment then involves the prescription of the most suitable medicine, matching most of the symptoms and individual characteristics of the patient to the medicine. Every medicine has separate characteristics, when the two become similar, the disease will be away and after hitting the disease the power of medicine will be vanished. Two people with the same condition may have very different prescriptions because of their own unique personality.

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Promoting perinatal health is an urgent need

PROF M SHAHIDULLAH

Despite significant improvement in medical science in recent decades, mothers and their babies in the third world countries like Bangladesh are still at risk during the perinatal period, which covers pregnancy, delivery and the postpartum.

Babies born too early are more likely to die than that of born at term. They are also more likely to have neurological and developmental disorders that carry long-term consequences for their quality of life, their families and for health and social services.

Perinatal health includes care for both mother and their new born babies. But we often forget about the care of the mothers during and after delivery. However, maternal deaths are less than babies. This is a tragic event as a significant proportion of these deaths are associated with sub-standard care.

When we talk about paediatrics (child care), it only deals with children. And the obstetricians deal with mothers only. But we need to set up a sturdy bridge in between these two separate entities. It is impossible to think about healthy child without healthy mother. In fact, perinatal science deals with a unique two in one health delivery system.

Bangladesh has made a significant progress in reducing maternal and infant death in recent years. This has been possible because of strong leadership of the Ministry of Health and Family Welfare (MOHFW) in creating a supportive policy environment, technical and financial commitment of donors and UN agencies, active engagement of professional bodies and academic institutions. National Neonatal Health Strategy has already been prepared by the MOHFW. Now we need to operationalise the recommendations outlined in the strategy and begin to roll out the crucial interventions needed to prevent unnecessary deaths.

Immediate and early postnatal care for mothers and newborns is one such crucial intervention. Most of maternal and newborn deaths occur within the first three days of childbirth. Therefore we need to deliver the services to them in those crucial days.

Neonatal sepsis (infection of the newborn) is the single largest contributor to neonatal mortality. We need to ensure that the health service providers at community level can prevent, detect and manage sepsis when it occurs. Now operation research is underway to see the feasibility of different approaches in order to determine the best way to deliver this service to the majority of the newborns who are born at home.

We need to strengthen the policies, guidelines and service providers' capacity to ensure that the neonates and the mothers are not left without care. Unless we can scale up these services to reach the primary level of health system, we will not be able to attain the Millennium Development Goals by 2015. We need to create additional posts of neonatologists and obstetricians at the district hospital level as a starting point.

The writer is the Secretary General of Bangladesh Perinatal Society.