

## Before the bird flu pandemic strikes

Dr Md RAJIB HOSSAIN

The rising outbreak of bird flu both in birds and humans has renewed fears of a pandemic that could kill millions of people. Highly pathogenic H5N1 strain of bird flu virus is gradually increasing its ability to spread efficiently and substantially among humans.

It has already met all prerequisites for the outbreak of a pandemic. The World Health Organisation (WHO) states this condition as "Pandemic Alert Period". High officials of WHO recently urged governments to act swiftly to control the spread of bird flu warning that the world is in grave danger of a deadly pandemic triggered by the virus.

Since its first detection in 2003, there are 399 people reported to have contracted the illness, of which 251 have died across the world, according to WHO. Most of these cases were linked with close contacts with sick birds. Experts have warned the H5N1 virus could become far deadlier if it mutates into a form that can be easily transmitted among humans.

The virus can improve its transmissibility among humans through two principal mechanisms. The first is a "reassortment" event, in which genetic material is exchanged between human



Children help gather ducks for culling in Malda, in eastern India after hundreds of birds died in an outbreak of bird flu

and avian viruses during co-infection of a human. Reassortment could result in a fully transmissible pandemic virus, announced by a sudden surge of cases with explosive spread.

The second mechanism is a more gradual process of adaptive mutation, whereby the capability of the virus to bind to human cells increases during subsequent infections of humans. Adaptive mutation, expressed

initially as small clusters of human cases with some evidence of human-to-human transmission, would probably give the world some time to take defensive action, if detected sufficiently early. The virus may mutate or change into a form that passes easily from human to human, causing an epidemic that could spread very rapidly in our densely populated country.

So far, one baby boy have

tested positive in Bangladesh in 2008 and he was one of the few luckiest cases who recovered from this deadly virus. But Bangladeshis are at great risk as 4 million people are directly or indirectly associated with poultry farming.

Avian influenza has already spread through 47 out of 64 districts in Bangladesh. This signifies that it is a matter of time to get large number of human cases in near future.

Dr. Shigeru Omi, the WHO's Western Pacific regional director said, "We at WHO believe that the world is now in the gravest possible danger of a pandemic and the world is now overdue for an influenza pandemic, since mass epidemics have occurred every 20 to 30 years. It has been nearly 40 years since the last one."

Experts identified one of the biggest challenges in controlling avian flu is in

altering traditional farming practices in Asia where animals live in close, often unsanitary quarters with people. Taking extra precaution like wearing protective devices like gloves, glasses, hand washing with simple soap and hot water after handling chickens and birds, eating properly cooked meat and egg (above 70°C) can reduce the transmission to a significant level.

We often forget to wash the egg before handling, disinfecting the slaughtering places or to dispose faeces of the infected birds loaded with the H5N1 properly. These pose a great threat for the spread of the virus along with the migratory routes of wild waterfowl.

Diagnostic tools and surveillance systems should be improved immediately for early warnings and to detect the maximum human cases. Vaccination and early treatment has a great role in slowing the process of spread and preventing a pandemic, according to the experts.

The H5N1 virus has spread in more than 60 countries and caused at least 6,500 poultry outbreaks since 2003. This is why coordinated movement is badly needed to work on a pandemic preparedness plan so that even in an emergency we can provide basic public health support.



## How much water we should drink?

Water for good health is an idea that goes back centuries. It is an old belief that an average person should drink at least '8 glasses of water' a day.

A lot of people believe that drinking water throughout the day can cure many diseases. But the '8 glasses of water' per day is just a rule of thumb, not an absolute standard.

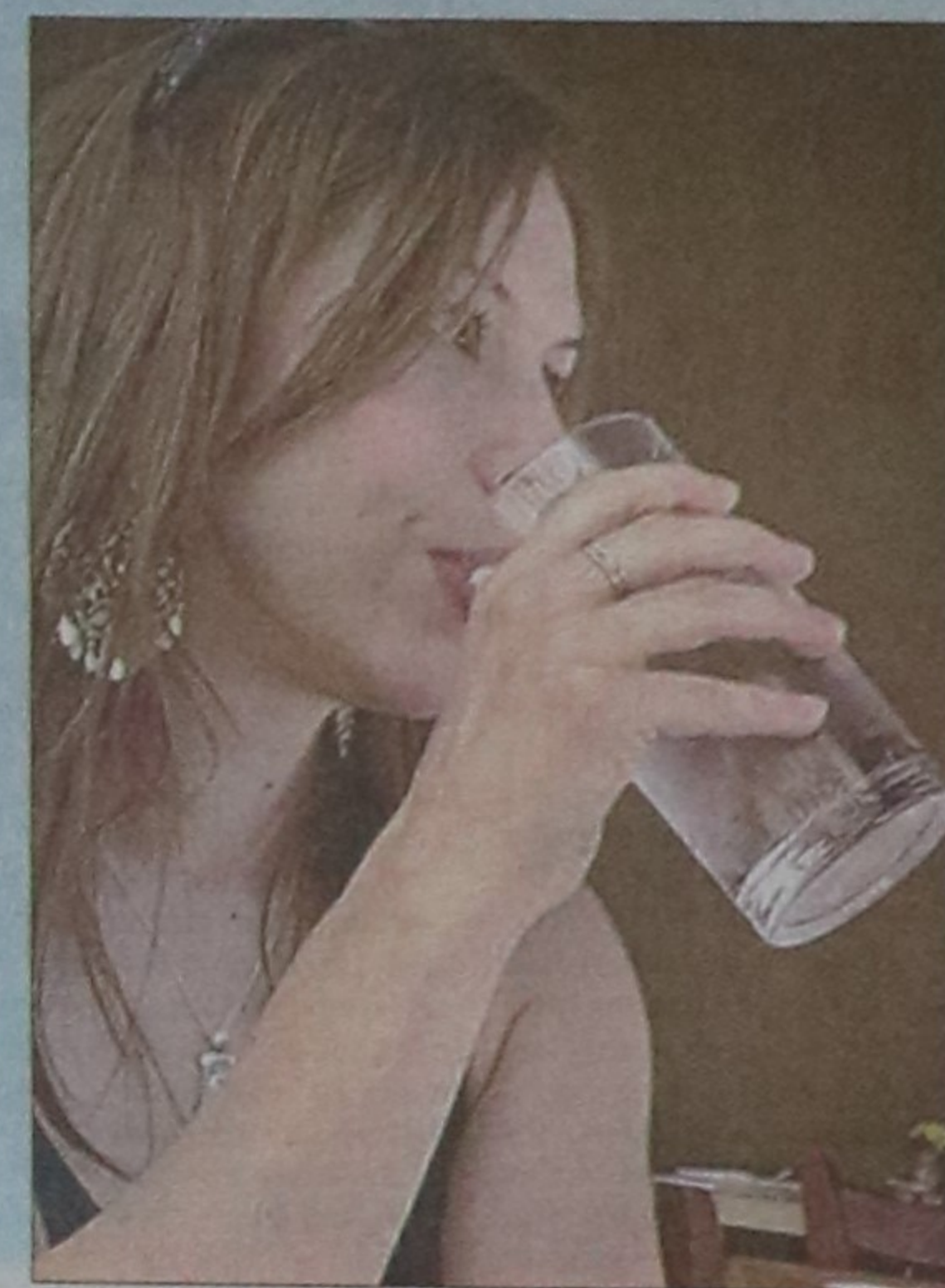
Some people force themselves to drink water throughout the day and facing some small problems as well.

According to some kidney experts of the Pennsylvania University, drinking increased amount of water throughout the day is not beneficial for health. Moreover, they said (Journal of the American Society of Nephrology, April 2008), "since water is cleared from the gas-

have increased need for water. They need to understand the importance of dehydration.

A German physician, Wilhelm Hufeland (1764-1836), who practiced natural medicine and vitalism, was one of the early promoters of '8-10 glasses of water' a day. He and some other practitioners encouraged their followers to drink lots of water for curative properties and to flush out toxins and impurities. He wrote, "fresh spring or mineral water, was the best drink and an excellent means of prolonging life." He also added, "Many special curative properties were attributed to fresh, cold water - which was a fortifier of the stomach and nerves."

Drinking 8 glasses of water was rarely questioned until Dr. Valtin's important investigation in 2002. He tries to find



## Eat more, weigh less

Dr TAREQ SALAHUDDIN

One of the most basic tenets of weight loss is to burn more calories than you consume. It is not terribly complicated, but it can easily lead to one of the most common weight-loss misconceptions: The less you eat, the more you lose.

This truth does apply to a certain extent — if you eat more calories than your body needs to maintain your weight, you will gain weight. However, if you suddenly drop your caloric intake too low, your body will think you are starving and go into survival mode. If you do not eat enough, you will sabotage your weight-loss efforts.

A healthy diet generally will not drop your caloric intake below 1,200 calories, but you will need to find your "magic number" for optimum weight loss. Research suggests that women who consume less than the optimal amount see their resting metabolic rate plummet by as much as 45 percent.

Don't be surprised if you need to adjust your calories several times throughout your weight-loss journey, especially if you have a lot of weight to lose. Your calories will need to be adjusted to account for your changing weight, activity level and metabolism.

The best way to lose weight is to keep your metabolism firing on all cylinders by eating enough calories, which can be accomplished by following these simple steps:

Always eat breakfast. May be there is no time for breakfast, you are not hungry enough and you can save some calories by skipping it.

But this is completely wrong. While you are asleep, your metabolism slows down, and it does not pick back up until you eat something. Eating breakfast is crucial for boosting your metabolism first thing in the morning and burning more calories all day long. It does not need to be a hot-cooked breakfast that takes long to prepare, either.

Even if you just grab a piece of fruit and a string cheese on your way out the door, you need to at least eat something to get your system going in the morning.

Eat more often. That is right, eating every two to three hours will not only keep you from gorging at meals because you are starving, but it also keeps your metabolic rate higher because it takes more energy to digest food. Shoot for eating smaller meals and snacks — yes, you can snack! Aim for 200 to 400 calorie mini-meals every few hours and keep your metabolism stoked.

Plan your meals. It does take a little work to learn to plan ahead, but once you get into the groove, it is a piece of cake. You will find that by knowing what and when you are going to eat, you have more energy throughout the day and you will have a steadier stream of nutrients supplied to your body. The other key is to make sure you have proper snack foods on hand, like whole grains, fruits, vegetables and nuts — anything that is high in fiber is helpful, too.

Once you get your body used to a regular healthy routine, you will be on your way to serious weight loss without the starvation associated with it.

## Stress Corner

### Stressed men more likely to suffer stroke

A Japanese study conducted over 11 years has found that job stress can significantly increase the risk of stroke in men.

The study involved 3,190 men and 3,363 women, aged 65 and younger. They were first interviewed between 1992 and 1995 and were then monitored over the next 11 years.

They came from a variety of occupational backgrounds and included managers, professionals, technicians, clerks, salespeople, farmers, craftsmen and laborers, and were classified into four groups:

- \* low job demand and high job control - low strain
- \* high job demand and low job control - high strain

high job control - active job

\* low job demand and low job control - passive job

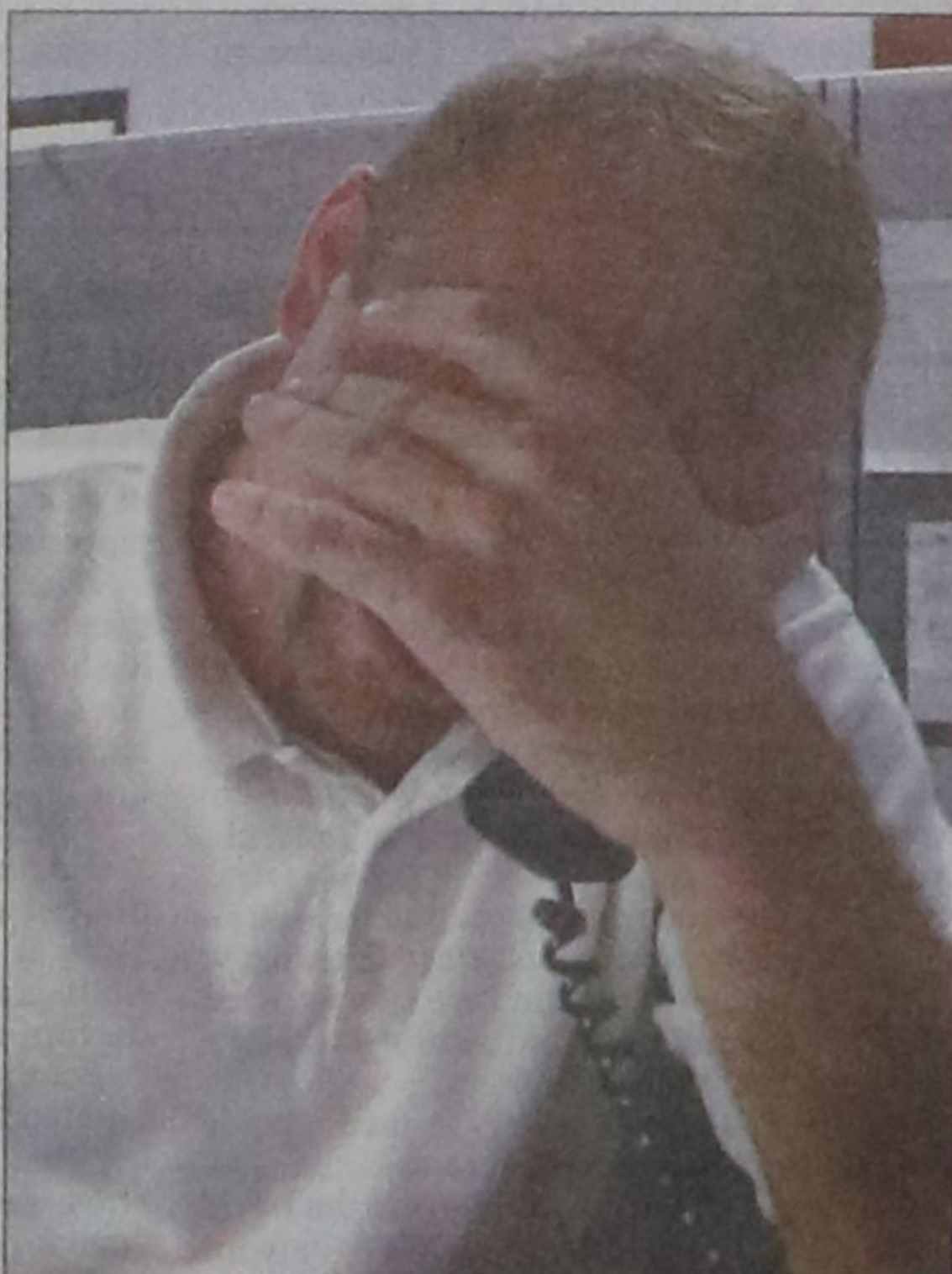
\* high job demand and low job control - high strain

Over the course of the next 11 years, 147 strokes occurred — to 91 men and 56 women.

"Men with high strain jobs had a more than two-fold higher risk of total stroke than did men with low-strain jobs," the Japanese researchers wrote.

However, while women in high-strain jobs appeared to have a higher risk of stroke than women with low-strain jobs, the difference was not statistically significant.

Source: Archives of Internal Medicine



### Stressed kids at risk of asthma in adulthood

Children who suffer physical abuse, death of a parent or other childhood adversity and are anxious or depressed are at increased risk of developing asthma in adulthood, a study suggests.

"This is interesting," Dr. Kate M. Scott told, "because, although it has been known for a long time that people with asthma are more likely to also experience some anxiety disorders and possibly depression, it is usually thought that these mental disorders occur as a consequence of asthma."

"It is also well understood that psychological influences like stress or anxiety can exacerbate asthma, but it is rather novel to find suggestive evidence that they may increase the risk of its initial development," added Scott, who is with the Department of Psychological Medicine, at the University of Otago School of Medicine and Health Sciences in Wellington, New Zealand.

"Our research suggests that psychosocial stressors like childhood adversity and mental disorders occurring earlier in life actually increase the risk of the later development of asthma," said Scott.

The findings, published in the journal Psychosomatic Medicine, stem from information gathered from more than 18,000 adults in the Americas, Europe and Asia who were interviewed between 2001 and 2004 as

part of the World Mental Health surveys.

According to Scott and colleagues, childhood adversity predicted adult-onset asthma, with increasing risk correlating with a greater number of adversities suffered in childhood. These adversities included physical or sexual abuse, neglect, parental death, parent divorce, other parental loss, parental mental disorder, parental substance use, parental criminal behavior, family violence, and family economic adversity.

Anxiety and depressive disorders in childhood also strongly predicted the development of asthma later in life, Scott and colleagues found. The presence of both childhood adversity and childhood anxiety or depression also increased the risk of a child suffering from asthma as an adult.

The ties between childhood adversity and anxiety and depression held up in analyses that factored in the impact of smoking on the risk of asthma. This suggests that the relationship between mental disorders and subsequent asthma onset is independent of smoking.

"Chronic stress and mental disorders," Scott explained, "are known to be associated with deleterious changes in stress hormone pathways and in immune responses, leading to inflammation."

Source: Psychosomatic Medicine

gastrointestinal tract very quickly, it is likely that people who try to diet by not changing their food consumption and just drinking water, will be hungry between meals."

There has yet to be a study that compares two groups of people and weight loss through water consumption.

In general, to remain healthy one need to drink enough water to replace the amount we lose daily through excretion, perspiration and other body functions. But that amount can vary from person to person. Different things are important like surrounding weather, physical condition and one's activity level.

In fact, total water intake includes water in other beverages, and the water in food. But how do we know whether we are drinking enough water or not? Some experts say, "If you are not thirsty, your fluid intake is probably ok." That is why marathon runners and bikers all need to recognise the signs of dehydration.

The American College of Sports Medicine recommends that athletes drink 16 ounces of fluids a couple of hours before starting sports practice. And certainly people in hot or in dry climates

any scientific justification for drinking so much water. Dr. Valtin conducted a 10-month review of the scientific literature and historic documents and interviewed many medical experts. He also tried to uncover a definitive science-based origin for the above conventional recommendation.

Than again, it does not mean that we do not need to drink water. Water is important to maintain a healthy body.

Our body is estimated to be about 60 to 70 percent water. Water transports oxygen to your cells, removes waste, and protects our joints and organs. Blood is mostly water, and our muscles, lungs and brain also contain a lot of water. Our body needs water to regulate body temperature and to provide the means for nutrients to travel to all our organs.

Anyhow, these views about water have certainly helped the plastic bottled water industries. But remember, bottled water available in our local markets is mostly purified waters. They are not mineral waters. And clearly, we need better sources of information about this bottled water as well.

## Medical Miracle

### Baby delivered 2 days after mom dies

British doctors have delivered a baby girl two days after the mother collapsed and died from a brain haemorrhage, a hospital in Oxford confirmed, says a news on Times of India.

Jayne Soliman's heart was kept beating until baby Aya Jayne was born by Caesarian section 25 weeks prematurely at Oxford's John Radcliffe hospital.

Soliman, who was 41, was a professional ice skater who in 1989 was British champion and number seven in the world in professional free skating.

Doctors said she had suffered a brain haemorrhage caused by an aggressive tumour which had struck a major blood vessel.

She was given large doses of steroids to help the child's lungs develop and within 48 hours gave birth to the baby.

Although exceedingly rare, this is not the first time a baby has been kept alive in the womb of a dead mother. In 1999, a boy was born at Cabuenes Hospital in Gijon, northern Spain, on New Year's Eve to a mother who had been clinically dead since mid-November.