



Global trends in cardiovascular disease: rising burden in transitioning regions

Cardiovascular disease remains a leading global cause of death and disability, with ischemic heart disease and stroke accounting for 16% and 11% of total deaths in 2019, respectively. While global incidence rates for these conditions have generally declined over the past three decades, certain regions are experiencing increases, according to a study in PLOS Global Public Health led by Wanghong Xu of Fudan University.

The research analysed global data from 1990 to 2019, examining trends in ischemic heart disease and stroke alongside exposure to 87 risk factors. Worldwide, ischemic heart disease cases dropped from 316 to 262 per 100,000 people, and stroke cases fell from 181 to 151 per 100,000. However, rates of ischemic heart disease are rising in regions such as East and West Sub-Saharan Africa, East and Central Asia, and Oceania.

This rise may be linked to eight key factors: diets high in trans fats or low in calcium, high BMI, household air pollution from solid fuels, nonexclusive breastfeeding, vitamin A deficiency, occupational ergonomic risks, and exposure to particulate matter and fumes. These factors, influenced by socioeconomic development and rapid economic transitions, may exacerbate disease rates in vulnerable regions.

The study highlights the importance of understanding how changing lifestyles and economic conditions contribute to cardiovascular disease. Targeted interventions addressing these risks could mitigate the growing burden in affected regions. Researchers emphasise that these findings reveal the critical role of socioeconomic shifts in shaping global cardiovascular health.

Achieving remission in Type 2 Diabetes

DR SHAHJADA SELIM

Type 2 diabetes remission refers to a state where blood sugar levels return to normal or prediabetic levels without the need for diabetes medications, especially insulin or oral hypoglycemic agents. It is important to note that remission does not mean a cure; rather, it indicates effective management of the condition to the point where glucose levels remain in a healthy range for an extended period.

The American Diabetes Association (ADA) defines remission as:

Partial remission: Blood glucose levels are lower than the diabetes range but still above the normal range for at least one year without the use of medications.

Complete remission: Blood glucose levels are within the normal range for at least one year without medications.

Prolonged remission: Normal glucose levels maintained for at least five years.

- Key parameters for remission:
- **HbA1C (Glycated Hemoglobin):** Below 6.5% without medication.
 - **Fasting blood glucose:** Less than 6.1 mmol/L.
 - **Post-meal blood glucose:** Less than 7.8 mmol/L (two hours after eating).

How can type 2 diabetes remission be achieved?

Remission is most often achieved through significant lifestyle changes, weight management, and, in some cases, medical interventions. Here are some of the primary strategies:

- **Weight Loss and calorie restriction:** Achieving and maintaining significant weight loss, particularly in the early stages of type 2 diabetes, can dramatically improve insulin sensitivity and lower blood glucose levels.

Methods:

- **Very Low-Calorie Diets (VLCD):** These involve consuming around 800 calories per day for a short period (usually 8-12 weeks), often followed by a structured plan for reintroducing normal foods.
- **Weight loss of 10-15%:** Studies



show that losing 10-15% of body weight can lead to diabetes remission in many individuals, especially those who are overweight or obese.

• Bariatric surgery

Who it is for: Bariatric surgery is a viable option for individuals with type 2 diabetes and obesity, especially if other weight-loss methods have failed.

Types of surgery: Procedures like gastric bypass and sleeve gastrectomy can lead to significant weight loss and hormonal changes that improve blood glucose control.

Success rate: Many patients experience remission of diabetes after bariatric surgery, with some studies showing remission rates of 50-80%.

• Dietary changes

Low carbohydrate diets: Reducing carbohydrate intake can lower blood sugar levels and improve insulin sensitivity.

Mediterranean diet: Emphasises whole foods, healthy fats, lean proteins, and plenty of fruits and vegetables.

Plant-based diets: Diets rich in fiber, vegetables, legumes, and whole grains can help improve insulin sensitivity and reduce blood sugar levels.

• Increased physical activity

Exercise types: Incorporating aerobic exercises (like walking, jogging, and swimming) and strength training can enhance insulin sensitivity and promote weight loss.

Frequency: At least 150 minutes of moderate exercise per week, plus strength training exercises twice a week, is recommended for optimal results.

• Intermittent fasting

Concept: Intermittent fasting (e.g., the 16/8 method, where you eat during an 8-hour window and fast for 16 hours) has shown promise in improving insulin sensitivity and reducing blood sugar levels.

Impact: Some studies suggest intermittent fasting may help achieve diabetes remission by improving insulin sensitivity and reducing insulin resistance.

• Factors influencing type 2 diabetes remission

Duration of diabetes: The shorter the time someone has had type 2 diabetes, the higher the chances of achieving remission, particularly if it's within the first few years of diagnosis.

Age: Younger individuals tend to have better outcomes due to increased insulin sensitivity and the ability to make lifestyle changes.

Initial blood sugar levels: Those with lower A1C levels at diagnosis may find it easier to go into remission.

Lifestyle commitment: Consistent adherence to a healthy lifestyle, including diet and exercise, plays a crucial role.

Achieving remission of type 2 diabetes is possible, especially with early intervention, significant lifestyle changes, and, in some cases, medical procedures. However, it requires dedication and a long-term commitment to healthy habits to sustain it.

The writer is the Associate Professor of Department of Endocrinology at Bangabandhu Sheikh Mujib Medical University. E-mail: selimshahjada@gmail.com

What you should know about uterine fibroids

Uterine fibroids are non-cancerous growths in or on the uterus, common in women and individuals assigned female at birth. By age 50, up to 80% will develop fibroids, though many may not notice symptoms.

Symptoms to watch for:

While some fibroids cause no issues, others can lead to:

- Heavy or painful periods.
- Bloating or pelvic pain.
- Frequent or difficult urination.
- Low back pain or constipation.
- Anemia from heavy bleeding.

When to seek help:

Unusual symptoms, like heavy bleeding between periods or after menopause, should prompt a visit to your doctor. Fibroids can also affect fertility or pregnancy, so consult a healthcare provider if you are trying to conceive.

Treatment options:

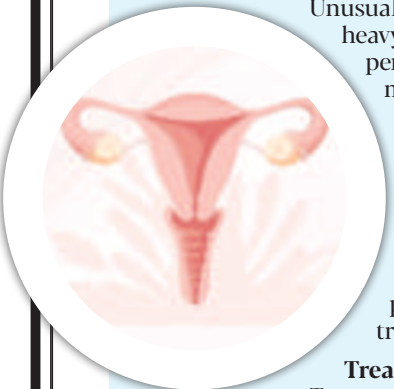
Treatment depends on your symptoms:

- **Lifestyle changes:** A healthy diet and regular exercise can help.
- **Medications:** Pain relievers or hormonal therapies to ease symptoms.
- **Surgery:** For severe cases, procedures like myomectomy (fibroid removal) or hysterectomy (uterus removal) may be recommended.

Prevention and self-care:

Though you can not always prevent fibroids, you can lower your risk:

- Eat more fruits, vegetables, and whole grains while limiting red meat and alcohol.
- Get regular exercise and maintain a healthy weight.
- Manage stress through mindfulness or yoga.
- Regular pelvic exams can detect fibroids early. If you are concerned, discuss your symptoms with a doctor for the best care plan.



WORLD AMR AWARENESS WEEK Educate. Advocate. Act now

Antimicrobial resistance (AMR) occurs when bacteria, viruses, fungi, and parasites no longer respond to antimicrobial agents. As a result of drug resistance, antibiotics and other antimicrobial agents become ineffective, and infections become difficult or impossible to treat, increasing the risk of disease spread, severe illness, and death.

The World AMR Awareness Week (WAAW) is a global campaign to raise awareness and understanding of AMR and promote best practices among One Health stakeholders to reduce the emergence and spread of drug-resistant infections. WAAW is celebrated from 18-24 November every year.

The theme for the World AMR Awareness Week (WAAW) 2024 is "Educate. Advocate. Act now." This theme was chosen based on feedback from an online survey among stakeholders from the human, animal, plant, and environmental health sectors, which collected nearly 200 responses globally.

Antimicrobial resistance (AMR) is a pressing global health and socioeconomic crisis. It has significant impacts on human and animal health, food production, and the environment. Drug-resistant pathogens pose a threat to everyone, everywhere. Yet, much more can be done to raise public and stakeholder awareness. Therefore, this year's theme calls on the global community to educate stakeholders on AMR, advocate for bold commitments, and take concrete actions in response to AMR.

The 2024 UNGA High-level Meeting on AMR and the fourth Global High-Level Ministerial Conference on AMR, for instance, provide a critical window of opportunity for political and financial commitments as well as increased accountability in response to AMR. Stronger political leadership, advocacy, and accountability are needed at all levels, and the time to act is now.

Immediately ahead of WAAW 2024, the Kingdom of Saudi Arabia will host the 4th Global High-Level Ministerial Conference on Antimicrobial Resistance, which will facilitate the implementation of the commitments outlined in the political declaration approved at the 2024 UNGA High-Level Meeting on AMR.



SOURCE: WORLD HEALTH ORGANISATION

A global push for cervical cancer elimination

As the world unites for the "Day of Action for Cervical Cancer Elimination," efforts are in full swing to spotlight the importance of prevention and treatment. In Rio de Janeiro, Brazil, the Christ the Redeemer statue shone in teal, symbolising global commitment to this cause. Advocacy campaigns, vaccination drives, and health policy launches are taking place across the globe, aligning with the World Health Organisation's (WHO) initiative to eliminate cervical cancer.

Launched in 2020, WHO's Global Strategy for Cervical Cancer Elimination has led to significant progress. HPV



vaccines have been introduced in many countries, while HPV testing is increasingly integrated into screening programs. Additionally, surgical care for cervical cancer is being incorporated into health benefits in numerous regions.

Despite these advancements, inequities remain stark, with women in underserved communities disproportionately affected. "While we are making progress, we still face huge inequities, with women in low-income settings bearing most of the burden," noted WHO Director-General Dr Tedros Adhanom Ghebreyesus. Strengthened leadership and sustained investment are vital to bridging these gaps.

Marking this year's campaign, global activities include awareness campaigns, vaccination drives for young girls, self-collection HPV testing pilots, and training programs for healthcare providers. New guidance on HPV screening tests is also being released to ensure high-quality, cost-effective, and accessible solutions, particularly in resource-limited areas.

These collective efforts represent a significant step toward achieving a historic milestone: the global elimination of cervical cancer.

SOURCE: WORLD HEALTH ORGANISATION

SUDDEN CARDIAC ARREST: The hidden threat to healthy young lives

PROF DR MOHSIN ZILLUR KARIM

Sudden cardiac arrest (SCA) occurs when the heart abruptly stops functioning, leading to haemodynamic collapse and sudden death. It can manifest within an hour of symptom onset in witnessed cases or within 24 hours in unwitnessed cases. In autopsy findings, it is described as a natural, unexpected death due to cardiac or unknown causes.

SCA is responsible for nearly 50% of all cardiovascular deaths, with up to half of these being the first sign of an underlying cardiac issue. The causes of SCA vary with age. In younger individuals, primary electrical diseases, cardiomyopathies, myocarditis, and coronary anomalies are more prevalent. In contrast, older populations typically experience SCA due to chronic structural heart diseases, often associated with coronary artery disease, acute coronary events, or valvular heart conditions.

Genetic cardiac conditions are linked to 25-49% of SCA cases in the young, potentially affecting family members as well. Reversible factors, such as electrolyte imbalances (e.g., hypokalaemia and hypomagnesaemia), ischaemia, coronary spasms, drug-induced arrhythmias, or even lifestyle factors like dehydration and unsupervised use of supplements, contribute to some cases. While reversible causes may account for up to half of SCA instances, identifying them remains



challenging.

Athletes, despite appearing fit, may develop cardiac issues from dehydration, inadequate diets, or misuse of supplements or hormones aimed at muscle growth. Additionally, inherited conditions affecting the heart's structure or electrical function can lead to fatal arrhythmias. When SCA strikes, the heart ceases to pump blood, halting oxygen delivery to vital organs. Without immediate intervention—ideally within three minutes—death or irreversible brain damage may occur.

Some warning signs, such as dizziness, fainting during exercise, chest pain, palpitations, and unexplained seizures, may precede SCA. Recognising and addressing these signs can save lives.

Preventing sudden cardiac arrest:

key measures

- Regular cardiovascular health check-ups
- Screening for diabetes, hypertension, and obesity, alongside regular moderate exercise
- Avoiding unsupervised use of supplements, chemicals, or hormones
- Adopting a balanced diet and avoiding smoking or tobacco use
- Managing blood pressure, cholesterol, and blood sugar levels
- Genetic testing for families with a history of early cardiac arrest
- Proactive steps like these, combined with awareness of the risks, can help mitigate the threat of SCA among young, seemingly healthy individuals.

The writer is a Consultant at the Cardiac Care Heart and General Hospital. Email: cardiac.hospital@yahoo.com

Boosting self-esteem: Overcoming insecurities

Occasional self-doubt is normal, but persistent insecurity can impact your happiness, relationships, and career. Building self-esteem takes effort, but small, intentional changes can make a big difference.

Acknowledge your strengths:

Focus on the positive things you do each day, no matter how small. Reflect on your abilities and accomplishments to shift your mindset toward self-appreciation.

Practice self-care: Taking care of your physical and emotional needs

reinforces your self-worth. Prioritize sleep, enjoy a hobby, or treat yourself to activities that bring joy and relaxation.

Accept mistakes:

Embrace life's imperfections and use mistakes as opportunities for growth. Learning to laugh at missteps can ease self-consciousness and build resilience.

Reframe negative thoughts:

Challenge self-critical thoughts by analysing and replacing them with positive or constructive perspectives. This practice can break the cycle of self-

doubt.

Build a supportive network: Surround yourself with people who encourage and value you. Distance yourself from relationships or environments that make you feel inadequate.

Celebrate achievements: Take pride in your accomplishments, whether big or small. Keeping track of your successes and compliments can serve as a reminder of your capabilities.

Seek guidance: Professional support or self-help tools can provide strategies to address insecurities and boost self-confidence.

Improving self-esteem is a gradual process, but with persistence and the right approach, you can cultivate a stronger sense of self-worth and a more confident outlook.

