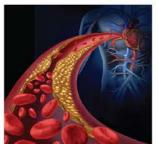
# TheHealthBulletin

February 01, 2025



Compliance with Lipid-Lowering Therapy: A Must for Young Adults in Their 40s

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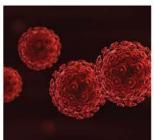
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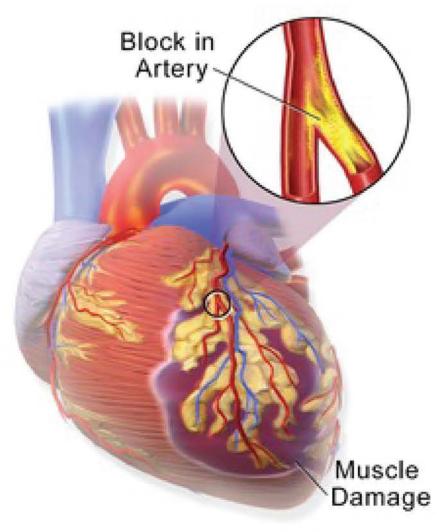
### Early Signs of a Heart Attack: What Every Bangladeshi Should Know

Heart disease is one of the leading causes of death in Bangladesh. In 2022, the Bangladesh Bureau of Statistics (BBS) reported that 17.45% of all deaths were due to heart attacks. This alarming statistic highlights the growing need for awareness and understanding of heart disease, its early signs, and the importance of prompt action. Heart attacks, which occur when the blood flow to the heart is suddenly blocked, can cause severe damage if not treated immediately. Yet, many heart attacks can be prevented if the symptoms are recognized early and people act quickly.

## Heart Disease: Not Just a Problem for the Elderly

While heart disease has traditionally been associated with older age groups, cardiologists in Bangladesh are seeing an alarming rise in heart-related issues among younger populations. Dr. Saidur Rahman Khan, a leading cardiologist at Ibrahim Cardiac Hospital, notes, "Heart-related problems in Bangladesh often start as early as 30 years old, and it's especially dangerous in the 30-45 age range." This shift is largely due to lifestyle factors such as poor diets, high stress levels, and a lack of physical activity. More than ever, understanding heart disease is crucial for people of all ages.

Leading cardiologists like Dr. Jahangir Kabir also stress the growing vulnerability of younger generations. "We are seeing more and more young people with heart disease, often linked to unhealthy habits like smoking, lack of exercise, and poor eating habits," he says. The rapid urbanization and modern lifestyle in Bangladesh have made heart disease a pressing concern for the younger demographic as well



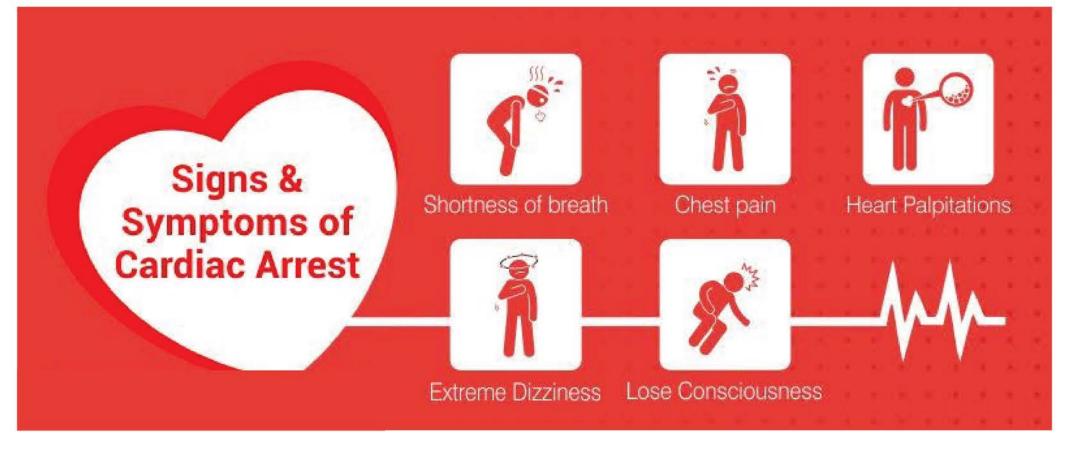
#### **Heart Attack**

## Recognizing the Early Symptoms of a Heart Attack

Most people are familiar with the classic symptom of chest pain, but heart attacks can present with a range of symptoms that are often overlooked or mistaken for less serious conditions. Dr. Lutfur Rahman, a renowned cardiologist, explains, "Many people ignore mild chest pain, fatigue, or shortness of breath, attributing them to stress or acidity. However, these could be early signs of heart disease."

## Common early symptoms of a heart attack include:

- Chest pain or discomfort: A feeling of tightness, pressure, or heaviness in the chest that can radiate to the arms, back, neck, or jaw.
- **Shortness of breath:** Difficulty breathing even when not exerting yourself.
- **Sweating:** Unexplained, excessive sweating.
- **Fatigue:** Feeling unusually tired or weak, especially without any apparent reason.
- Rapid heartbeat: An irregular or fast heartbeat that may be accompanied by dizziness or light-headedness.



According to Dr. Momenuz Zaman, a leading cardiologist, these symptoms are often mistaken for less serious issues, which can delay treatment. "People often think of chest pain as just a result of acidity, but it could actually be the first sign of a heart attack," he warns. Understanding these subtle symptoms can help save lives by prompting early intervention.

#### Why Immediate Action is Essential

The chances of surviving a heart attack are much higher if immediate action is taken. Dr. Sohrabuz Zaman, a respected cardiac surgeon, emphasizes the critical importance of the first 60 minutes after a heart attack. "Immediate treatment within the first hour can significantly improve survival rates and reduce the damage to the heart," he says. The sooner heart attack symptoms are recognized and treated, the better the chances of recovery.

Dr. Jahangir Kabir adds, "Many people do not realize that heart disease can have symptoms beyond chest pain. Nausea, dizziness, and even back pain can be signs of a heart attack. Recognizing these signs early can help prevent fatalities."

#### What to Do in Case of a Heart Attack

If you or someone near you experiences symptoms of a heart attack, acting quickly is vital. The first step is to call an ambulance. Emergency medical services are equipped to begin treatment immediately, even before reaching the hospital, which can save valuable time. If an ambulance is unavailable, get the person to the nearest hospital as quickly as possible. While waiting for help, Dr. Lutfur Rahman recommends the following steps:

- **1. Help the person sit down:** Position the individual comfortably, leaning against a chair or wall to reduce pressure on the heart.
- **2. Avoid letting them lie down:** Sitting helps reduce strain on the heart.
- **3. Start CPR if necessary:** If the person stops breathing or loses their pulse, perform hands-only CPR—press hard and fast on the chest, about 100 to 120 compressions per minute. If you are trained, you can follow the standard procedure of 30 chest compressions followed by two rescue breaths.

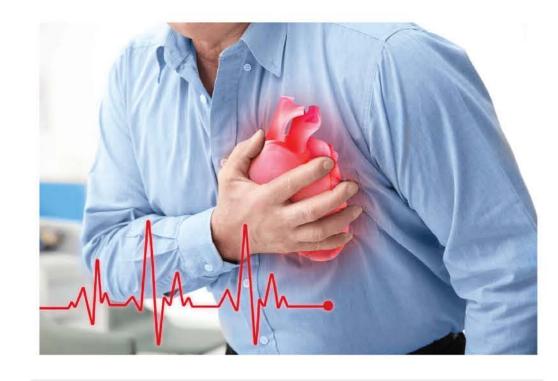
Dr. Mohammad Aminul Islam stresses the importance of not leaving the individual alone during this time. "It's important to stay with the person and offer reassurance. Many people may try to downplay their symptoms, but you must be firm in getting medical help," he advises.

## Prevention: Lifestyle Changes Can Make a Difference

Preventing a heart attack is possible, and it starts with adopting a heart-healthy lifestyle. Dr. Sohrabuz Zaman emphasizes that regular exercise, a balanced diet, and stress management are key to reducing the risk of heart disease. "Avoiding smoking, cutting down on salt and

sugar, and eating more fruits and vegetables can significantly reduce the risk of heart attacks," he explains.

Dr. Mizanur Rahman also highlights the importance of regular health check-ups. "People over 40, especially those with a family history of heart disease, should get regular screenings to monitor cholesterol, blood pressure, and blood sugar levels," he recommends.



#### **Conclusion:** Early Action Can Save Lives

Heart attacks are increasingly affecting younger generations in Bangladesh, making it more important than ever for people to recognize the early signs of heart disease and take immediate action. Leading cardiologists and cardiac surgeons like Dr. Saidur Rahman Khan, Dr. Jahangir Kabir, Dr. Lutfur Rahman, Dr. Sohrabuz Zaman, and others emphasize that early detection, lifestyle changes, and seeking immediate medical help can significantly improve outcomes and save lives.

By paying attention to early symptoms, such as chest pain, shortness of breath, and fatigue, individuals can act quickly to seek treatment. Immediate intervention can be the difference between life and death. If you or someone you know shows signs of a heart attack, don't wait—seek medical attention immediately. It's better to be safe than sorry when it comes to heart health.

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- 2. Dr. Saidur Rahman Khan Insights and expert opinions provided by Dr. Saidur Rahman Khan, Cardiologist at Ibrahim Cardiac Hospital, were gathered through an interview conducted for this piece. His recommendations on early symptoms and actions during heart attacks are based on his expertise in cardiology.
- 3. American Heart Association (AHA) The general symptoms and early signs of heart attacks, as well as CPR recommendations, are aligned with the guidelines from the AHA. American Heart Association.
- 4. Mayo Clinic Information on heart attack symptoms and what to do during an emergency is based on guidelines from Mayo Clinic. Mayo Clinic Heart Attack Symptoms.

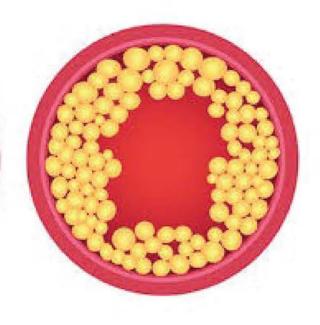
## Compliance with Lipid-Lowering Therapy: A Must for Young Adults in Their 40s

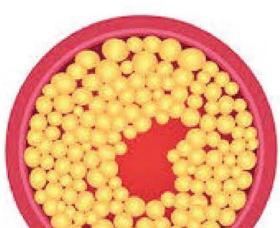




Phase 1







**Artery Narrowed** 

Phase 2 Phase 3

Phase 4

Lipid-lowering therapies have emerged as critical tools in combating cardiovascular diseases and managing diabetes by effectively controlling cholesterol levels. Elevated low- density lipoprotein (LDL) cholesterol is a primary driver of atherosclerosis, a condition where plaques build up in arteries, leading to blockages and restricting blood flow. For individuals in their 40s, especially those with a history of heart disease or diabetes, adherence to lipid-lowering medications is not just beneficial—it is life-saving.

#### The Importance of Lipid-Lowering Therapy

Lipid-lowering medications, such as statins, have been shown to reduce LDL cholesterol levels by 30% to 50%, significantly lowering the risk of heart attacks and strokes. Research from the American Heart Association (AHA) underscores that every 1 mmol/L reduction in LDL cholesterol corresponds to a 22% decrease in major vascular events. Despite the welldocumented benefits, adherence rates remain suboptimal, with approximately 50% of patients discontinuing therapy within the first year. For individuals with diabetes, the risk of cardiovascular disease is two to four times higher than in the general population. LDL cholesterol, often referred to as "bad cholesterol," exacerbates this risk by contributing to the formation of plaques that can rupture, leading to acute events such as myocardial infarctions or strokes. Lipid- lowering therapies act as a safeguard, preventing such events and improving long-term survival.

#### **Challenges to Adherence**

Non-adherence to lipid-lowering therapy is a pervasive issue influenced by various factors:

- **1. Perceived Lack of Symptoms:** High cholesterol is often asymptomatic, leading many individuals to underestimate its severity and discontinue their medication prematurely.
- **2. Concerns About Side Effects:** Fears of muscle pain, liver dysfunction, or other adverse effects, though rare, deter some patients from maintaining therapy.
- **3. Financial Barriers:** The cost of medications can be prohibitive for some, particularly in low-income populations.
- **4. Complex Medication Regimens:** Polypharmacy, or the use of multiple medications, can overwhelm patients, particularly those managing coexisting conditions such as hypertension or diabetes.

#### Consequences of Non-Adherence

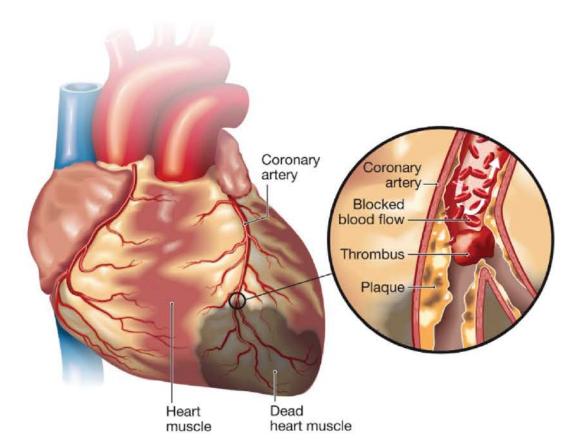
Discontinuing lipid-lowering therapy can lead to severe health outcomes. A study published in The Lancet highlighted that patients who stopped statins after a heart attack were 36% more likely to experience a recurrent cardiovascular event within the next year. Elevated LDL cholesterol fosters progressive arterial damage, which, if left unchecked, increases the likelihood of major adverse cardiovascular events (MACE).

#### **Supporting Patients for Better Outcomes**

Healthcare providers play an indispensable role in improving adherence. Key strategies include:

- **1. Patient Education:** Explaining the silent yet harmful nature of high cholesterol and the life-saving benefits of therapy.
- **2. Addressing Misconceptions:** Providing evidence-based reassurance about the safety profile of lipid-lowering medications.
- 3. Simplifying Regimens: Prescribing once-daily formulations or combination pills to reduce pill burden.
- **4. Regular Follow-Ups:** Routine check- ups allow healthcare providers to monitor progress, address side effects, and make necessary adjustments.

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#### **Evidence-Based Insights**

Recent studies continue to affirm the importance of adherence. The IMPROVE-IT trial demonstrated that adding ezetimibe to statin therapy further reduced LDL levels and cardiovascular events, particularly in high-risk patients. Similarly, the FOURIER trial showed that PCSK9 inhibitors could lower LDL cholesterol to unprecedented levels, reducing major cardiovascular events by an additional 15% when added to statin therapy.

#### PublicHealthImplications

The global burden of cardiovascular disease remains a significant challenge, with over 17.9 million deaths annually attributed to heart disease and stroke. Among young adults in their 40s, early interventionwith lipid-lowering therapy is crucial for mitigating long-term risks. Public health initiatives aimed at improving awareness, accessibility, and affordability of these medications can bridge gaps in adherence and save lives

#### Conclusion

Adherence to lipid-lowering therapy is a cornerstone of cardiovascular disease prevention, particularly for individuals in their 40s at heightened risk. By addressing barriers to compliance and leveraging the latest medical advancements, healthcare providers can ensure better outcomes for patients, paving the way for a healthier future.



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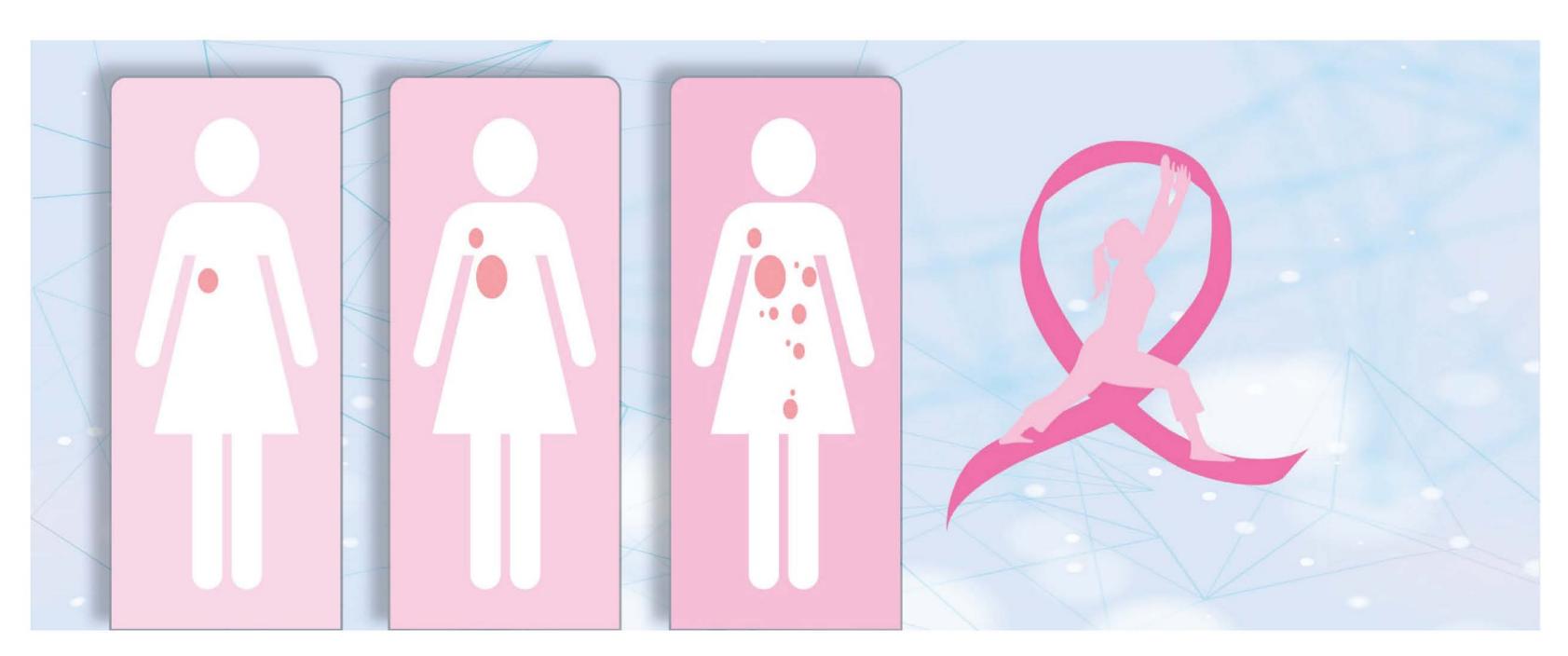
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## Rising Breast Cancer Cases and Economic Burden in the Bangladesh-India Subcontinent: A Growing Public Health and Economic Challenge



Breast cancer has emerged as one of the leading causes of cancer-related deaths among women in the South Asian region, particularly in India and Bangladesh. Both countries are experiencing a significant increase in breast cancer cases, with projections indicating an alarming rise in the coming years. This health bulletin aims to raise awareness of the growing prevalence of breast cancer in the subcontinent and highlight the accompanying economic and social burden.

## Increasing Incidence of Breast Cancer in Bangladesh and India

Over the past decade, both India and Bangladesh have seen a substantial increase in breast cancer cases, contributing to a rising public health concern. In Bangladesh, the incidence of breast cancer has steadily risen, with new data showing that in 2022, breast cancer accounted for 18.0% of all new cancer cases in women, with 12,989 reported cases (IARC, 2022). The incidence rate of breast cancer in Bangladesh is approximately 22.5 per 100,000 women (PubMed, 2022), reflecting a growing health challenge.

In neighboring India, the situation is even more concerning. The number of women undergoing treatment for breast cancer is projected to increase by 50,000 annually this decade. A study published in Nature titled "Economic Burden of Breast Cancer in India, 2000–2021 and Forecast to 2030" predicts that the economic burden of breast cancer in India will average \$19.55 billion annually due to increasing case numbers and the rising cost of treatment (Nature, 2021). This figure reflects the direct costs of treatment, including hospital visits, chemotherapy, surgery, and follow-up care. The economic strain is particularly burdensome for rural, poor, and agricultural households.

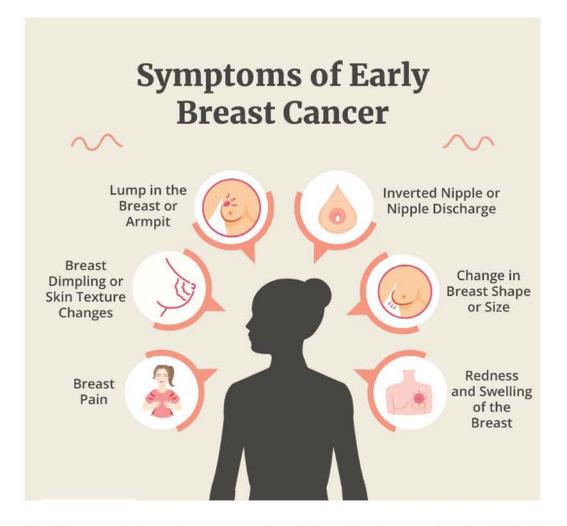
## Contributing Factors to the Rising Breast Cancer Cases

The rising incidence of breast cancer in both India and Bangladesh can be attributed to several factors:

- 1. Urbanization and Changing Lifestyles: Urbanization in both countries has led to lifestyle changes, such as increased alcohol consumption, smoking, and physical inactivity. These lifestyle shifts, combined with delayed childbearing and smaller family sizes, have contributed to the growing prevalence of breast cancer in urban areas (ASCOPost, 2021).
- **2. Genetic Factors:** A family history of breast cancer is a significant risk factor in both countries, and genetic predisposition plays a key role in the rising number of cases.
- **3. Lack of Early Detection:** A major challenge in both India and Bangladesh is the lack of widespread breast cancer screening programs. Many cases are diagnosed in advanced stages, when treatment options are limited, and survival rates are lower. Early detection is crucial for improving outcomes and reducing the disease's mortality rate.
- **4. Economic and Social Strain:** The financial burden of breast cancer treatment is a significant issue, particularly in lower-income households. The cost of treatment, including hospital visits, chemotherapy, and surgery, places a heavy strain on patients and their families, especially in rural areas where access to healthcare facilities is limited.

#### **Economic Burden of Breast Cancer in India**

In India, the economic impact of breast cancer is staggering. The study conducted by the International Institute for Population Sciences (IIPS) in Mumbai shows that the economic burden of breast cancer is projected to increase significantly. With 50,000 new cases each year, the total economic burden of the disease is expected to reach \$19.55 billion annually by 2030. The study also highlights the catastrophic health expenditure faced by many breast cancer patients, particularly those from rural and low- income backgrounds, who often struggle to afford the high costs of treatment (Nature, 2021).



Dr. Denny John, who supervised the study, emphasized that the figures do not account for the fluctuating costs of treatment or the depreciation of currency, meaning that the economic burden is likely an underestimation. Dr. Vani Parmar, Chief of Breast Surgical Oncology at Punyashlok Ahilyadevi Holkar Head and Neck Cancer Institute, noted that while medical advances have improved treatment outcomes, they come with high costs, which significantly impact working women's incomes. Furthermore, rural populations are particularly vulnerable to the economic impact of breast cancer, as access to affordable healthcare is limited.

#### Addressing the Growing Challenge

To effectively tackle the rising incidence of breast cancer in both India and Bangladesh, several measures must be taken:

- 1. Early Detection and Screening: Implementing national breast cancer screening programs that focus on early detection is crucial for improving survival rates. Increasing awareness about self-examination and regular screenings can help detect the disease at an early stage when treatment is more effective.
- 2. Improving Healthcare Access: Both India and Bangladesh need significant investments in healthcare infrastructure, particularly in rural areas. Expanding access to diagnostic services, medical professionals, and advanced treatment options is essential for reducing the burden of breast cancer.

#### 3. Financial Assistance and Support:

Given the high treatment costs, particularly in private hospitals, it is critical to provide financial assistance and subsidies for low-income patients. Additionally, companies and policymakers must recognize the economic burden of breast cancer on women and work towards supportive policies that address both healthcare access and financial strain.

**4. Raising Public Awareness:** Public health campaigns must focus on raising awareness about the risk factors, symptoms, and importance of early detection. Engaging communities and local healthcare providers in educational initiatives can play a significant role in spreading awareness about breast cancer and promoting preventive measures.

## Conclusion: A Shared Challenge in the Subcontinent

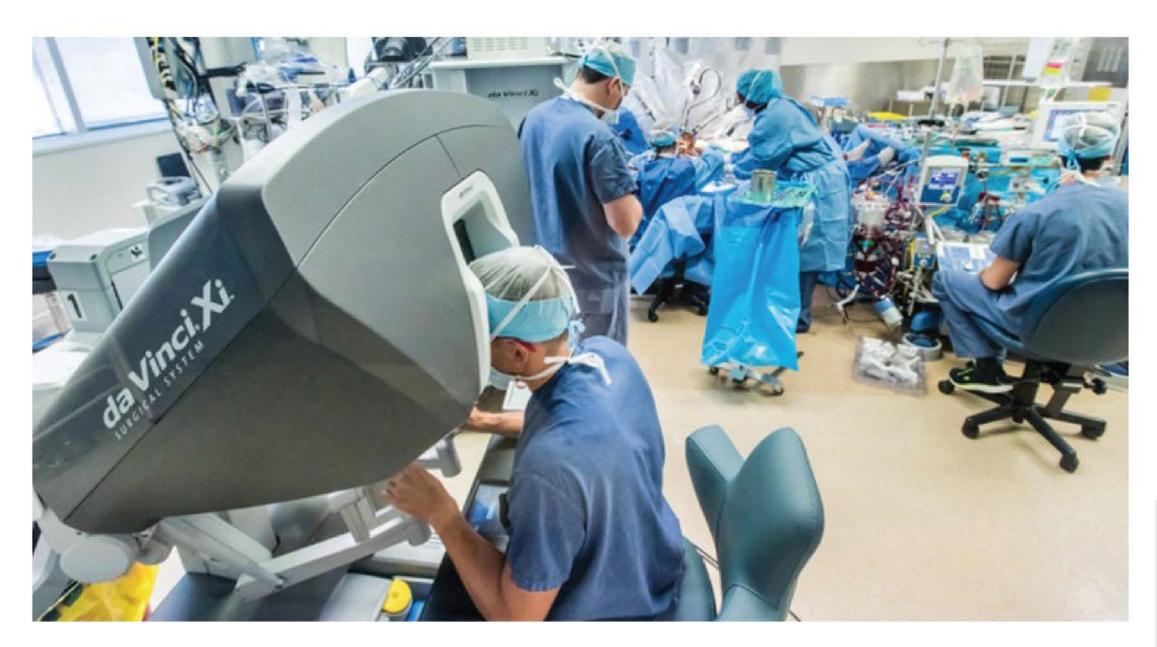
The rising incidence of breast cancer in both Bangladesh and India is a shared challenge that requires urgent attention from governments, healthcare providers, and communities. While the economic burden in India is significant, the rising case numbers in Bangladesh underscore the growing public health crisis in the region. By investing in early detection, improving healthcare access, and raising public awareness, both countries can work towards reducing the burden of breast cancer and improving survival outcomes for women.

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## Groundbreaking Robotic Cardiac Telesurgery: Redefining Remote Healthcare in Bangladesh



In a remarkable advancement for Bangladesh's healthcare sector, the country has recently witnessed a groundbreaking achievement in cardiac care—robotic cardiac telesurgery. This new frontier in medical technology is not only transforming the landscape of healthcare but is also playing a pivotal role in bridging the gap between urban and rural healthcare access.

#### What is Robotic Cardiac Telesurgery?

Robotic cardiac telesurgery refers to the use of advanced robotic systems to perform heart surgeries remotely. Through a combination of robotic assistance and telecommunication technologies, surgeons can operate on patients from a distance, utilizing real-time video feeds and robotic arms to execute complex procedures. This is particularly transformative for regions that lack specialized medical facilities or skilled cardiac surgeons, making it a potential game-changer in countries like Bangladesh.

## The First Remote Robotic Cardiac Procedure in Bangladesh

In January 2024, Bangladesh marked a significant milestone in its healthcare sector with the successful completion of its first remote robotic cardiac stent placement surgery. This landmark procedure was conducted at the National Institute of Cardiovascular Diseases (NICVD) in Dhaka, one of the country's leading cardiac hospitals. The operation utilized the cutting-edge R-ONE® vascular intervention robot, which allowed a cardiac surgeon, Dr. Pradip Kumar Karmakar, to control the robotic system from a remote location, while the patient was in the NICVD operating room.

This pioneering procedure is the first of its kind in Bangladesh and is a result of collaboration between MicroPort® and MedBotTM, two leaders in the field of robotic surgical technology. The robotic system's R-LinkTM remote control system enables the surgeon to perform delicate heart interventions from a distance, offering the patient high-quality care without requiring them to travel long distances to reach a specialized center.

## Impact of Robotic Cardiac Telesurgery on Healthcare in Bangladesh

The introduction of robotic telesurgery in Bangladesh has profound implications for the country's healthcare system, especially in addressing the disparities in healthcare access between urban and rural areas. Traditionally, patients in rural regions have had to travel long distances to cities like Dhaka to receive specialized heart care. With the advent of robotic telesurgery, this obstacle is being overcome.

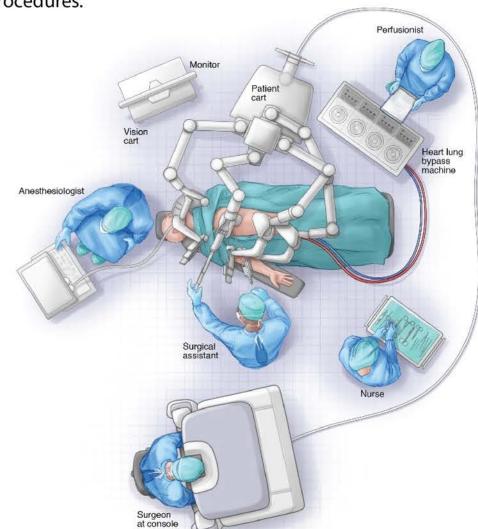
Dr. Mohammad Aminul Islam, a prominent cardiologist in Bangladesh, stated, "Robotic telesurgery brings specialized cardiac care to areas where it was previously unavailable. This not only reduces the burden on urban hospitals but also ensures that patients in remote locations

can receive world-class cardiac interventions without the need for long travels."

This advancement significantly improves the accessibility and efficiency of healthcare in Bangladesh, particularly for those living in underserved regions. The success of robotic cardiac telesurgery is also a testament to the growing adoption of telemedicine and robotic technologies, which are transforming how healthcare services are delivered globally.

#### The Benefits of Robotic Cardiac Telesurgery

- 1. Enhanced Accessibility: One of the biggest advantages of robotic telesurgery is its ability to bring highly specialized treatments to remote areas. Patients who previously had limited access to top-tier cardiac care can now benefit from surgeries performed by expert surgeons without leaving their locality.
- **2. Minimized Risks:** Remote robotic surgeries allow for precise, minimally invasive procedures that reduce the risk of complications and recovery time. The use of robotics ensures that surgeries are more accurate, leading to improved patient outcomes.
- **3. Reduced Healthcare Costs:** By reducing the need for patients to travel long distances for treatment, robotic telesurgery can help lower overall healthcare costs. This is particularly important in Bangladesh, where many people cannot afford expensive transportation or extended stays in urban areas.
- **4. Training and Skill Development:** The implementation of robotic telesurgery also opens new avenues for training healthcare professionals in Bangladesh. Local surgeons and medical staff can collaborate remotely with expert surgeons from around the world, gaining valuable experience and expanding their skill set in advanced medical procedures.



#### **Recent Studies and Global Trends**

Globally, robotic telesurgery is gaining traction, especially in countries with rapidly evolving healthcare infrastructures. In a recent study published by the Journal of Robotic Surgery in 2023, researchers noted that robotic telesurgery has shown a significant reduction in recovery times for patients, with some procedures having up to 30% shorter recovery periods compared to traditional surgeries. Additionally, the study found that patient satisfaction rates are significantly higher, as patients feel more comfortable knowing they are receiving care from highly specialized experts, even from a distance.

Studies also indicate that robotic telesurgery is a valuable tool for addressing the shortage of skilled surgeons in developing countries. According to the International Journal of Medical Robotics (2022), robotic telesurgery helps leverage global expertise to support local healthcare providers, reducing the burden on healthcare systems and ensuring that patients in remote areas are not neglected.

## The Future of Robotic Cardiac Telesurgery in Bangladesh

Looking ahead, Bangladesh is poised to continue expanding its capabilities in robotic telesurgery. The success of the initial procedure has paved the way for further development, with plans to implement more robotic surgeries in other parts of the country. As the technology becomes more widespread, it is expected that more hospitals in rural areas will adopt robotic telesurgery, improving overall access to cardiac care and other specialized treatments.

According to experts, the potential for robotic telesurgery in Bangladesh is immense. Dr. Lutfur Rahman, a leading cardiologist, predicts that this technology will play a crucial role in the country's efforts to reduce heart disease mortality rates. "Robotic telesurgery is not just a technological breakthrough; it is a solution to many of the challenges that we face in providing equitable healthcare," Dr. Rahman said.

#### **Conclusion:** A New Era for Remote Healthcare

The introduction of robotic cardiac telesurgery in Bangladesh marks a new era for remote healthcare. This innovative technology is not only enhancing access to critical heart treatments but also setting a global example of how advanced surgical technology can be integrated into healthcare systems in developing countries. As robotic telesurgery becomes more commonplace in Bangladesh, it will continue to reshape how healthcare is delivered, ensuring that more people can receive the care they need, when they need it.



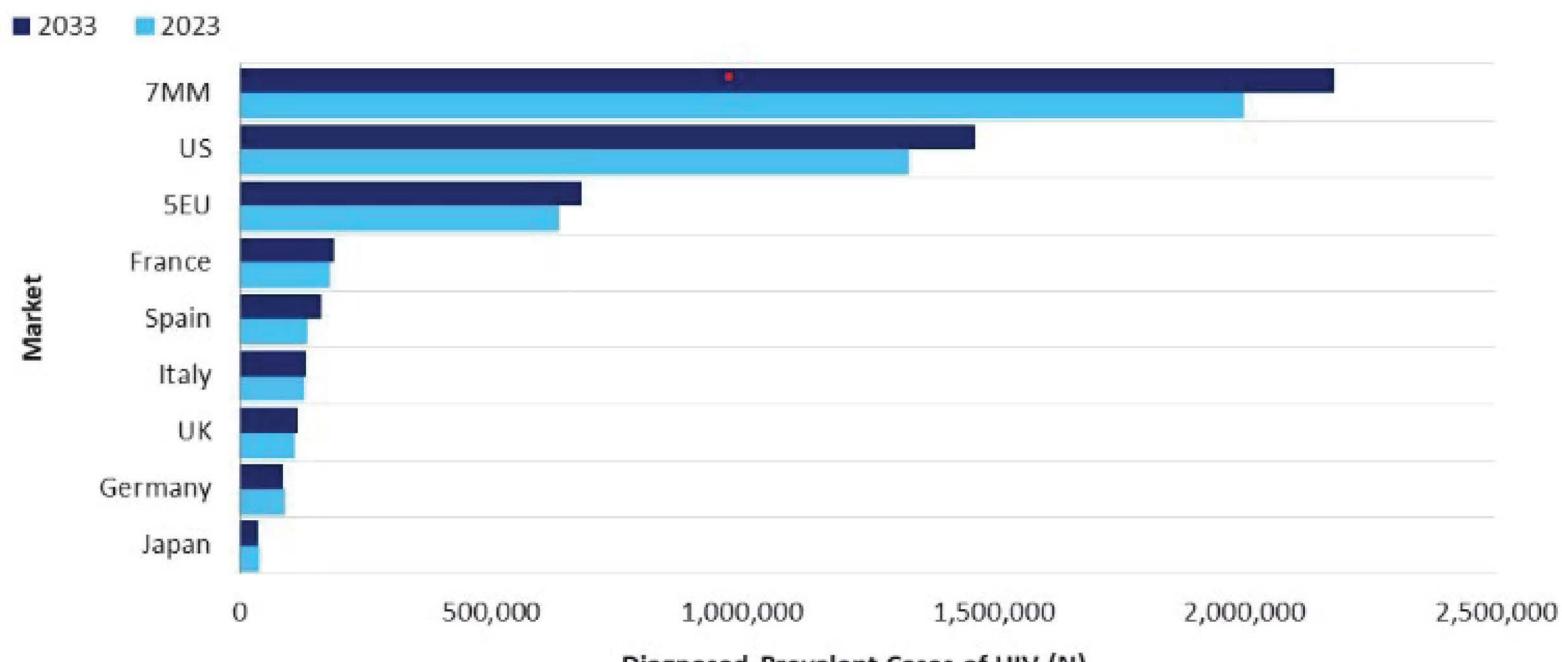
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### Global HIV Cases Projected to Reach 2.2 Million by 2033

### 7MM, Diagnosed prevalent cases of HIV, both sexes, N, all ages, 2023-33



Diagnosed Prevalent Cases of HIV (N)

A comprehensive report by Global Data projects a steady increase in diagnosed HIV cases across seven major markets (7MM\*), with numbers expected to rise from 2.00 million in 2023 to 2.18 million by 2033. This represents an annual growth rate (AGR) of 0.90%. The rise is attributed to advancements in diagnostics, improved access to antiretroviral therapy (ART), and demographic changes.

#### **Regional Insights:**

- **United States:** Leading the tally with an estimated 1.46 million cases by 2033, the US continues to face a significant burden despite ongoing efforts to curb the epidemic.
- **Japan:** The lowest figures are projected here, with approximately 34,400 diagnosed cases in 2033, highlighting regional variations in transmission rates, healthcare infrastructure, and public health policies.
- **Europe:** Countries like France, Germany, Italy, Spain, and the UK are expected to see moderate increases, collectively contributing significantly to the overall prevalence.

#### **Key Contributing Factors:**

- **1. Improved Diagnosis:** Efforts to expand testing services and increase awareness have led to higher detection rates, which in turn contribute to the rise in diagnosed cases. Early diagnosis plays a crucial role in initiating timely treatment and reducing transmission.
- **2. Longer Life Expectancy:** Thanks to advancements in ART, people living with HIV (PLHIV) now enjoy significantly improved life expectancy. ART not only suppresses viral loads but also reduces the likelihood of HIV transmission, underscoring its dual role in individual and public health.
- **3. Population Dynamics:** Changes in population size, aging, and migration patterns are influencing HIV prevalence across the 7MM. Urban areas remain hotspots for transmission due to higher population density and mobility.

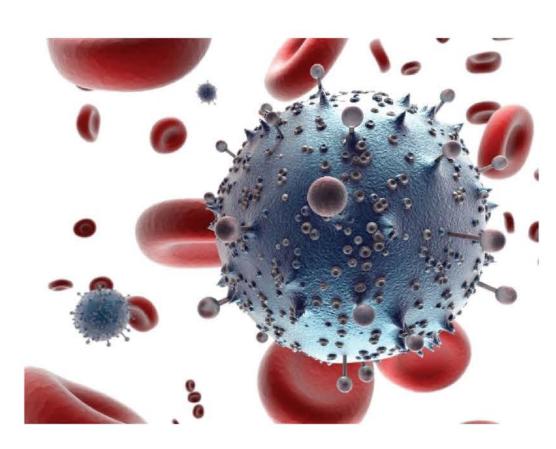


#### **Current Global HIV Statistics:**

According to UNAIDS, approximately 39 million people globally were living with HIV in 2022, with 1.3 million new infections reported that year.

#### Despite progress, challenges remain:

- Regions with High Prevalence: Sub-Saharan Africa accounts for nearly two-thirds of all global HIV cases. The 7MM, while having better healthcare infrastructure, continue to see a steady rise in prevalence.
- **ART Coverage:** As of 2022, about 76% of adults living with HIV globally had access to ART. However, disparities in coverage persist, particularly in low-income countries.
- **Key Populations at Risk:** Groups such as men who have sex with men (MSM), sex workers, intravenous drug users and transgender individuals remain disproportionately affected.



#### **Expert Commentary:**

"Diagnosed prevalent cases of HIV are expected to increase due to a combination of higher diagnosis rates, longer life expectancy of HIV-positive individuals, and population changes," explained Casey Freimuth, Senior Epidemiologist at Global Data. "Future efforts to reduce the burden of HIV should focus on reducing transmission through pre-exposure prophylaxis (PrEP) and ART, coupled with education and expanded access to testing."

#### **Prevention and Treatment Strategies:**

To address the growing prevalence, experts recommend a multi-pronged approach:

- **PrEP:** Widely recognized as a preventive measure, PrEP can reduce the risk of HIV transmission by up to 99% when taken consistently.
- **Education Campaigns:** Increasing public awareness about HIV transmission and prevention remains critical, particularly among high-risk groups.
- **Access to Testing:** Scaling up diagnostic services ensures early detection and timely treatment, which are key to controlling the epidemic.
- **ART Expansion:** Ensuring universal access to ART not only improves individual health outcomes but also reduces community transmission rates.

#### **Looking Ahead:**

While the projected increase in diagnosed HIV cases highlights significant challenges, it also underscores the importance of sustained investment in public health initiatives. Collaborative efforts involving governments, healthcare providers, and non-governmental organizations are crucial to reversing the trend and achieving global targets for HIV prevention and treatment.

\*7MM: US, France, Germany, Italy, Spain, UK, and Japan.

#### References:

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- pre- exposure prophylaxis (PrEP) and its effectiveness.

  5. Global Data Expert Commentary Casey Freimuth, Senior

Epidemiologist, discussing factors influencing HIV trends.