

## **PURE Study: Cardiovascular Disease Medications Underused**



A study published in the *Journal of the American College of Cardiology* highlights the persistent underuse of secondary prevention medications for cardiovascular disease (CVD) worldwide. Researchers emphasise the urgent need for additional strategies to improve medication uptake, enhance CVD management, and reduce premature mortality.

Secondary prevention aims to prevent further complications in patients already diagnosed with CVD by addressing risk factors through lifestyle changes, medications, and treatments. Without intervention, these patients face an increased risk of death, heart attacks, strokes, and heart failure.

Leading global health organisations, including the World Health Organization (WHO) and the United Nations (UN), have set targets to reduce premature CVD-related deaths through better treatment and medication access. However, researchers warn that these goals are unlikely to be met.

The PHRI Prospective Urban Rural Epidemiology (PURE) study, a multinational, community-based cohort study, analysed data from more than 11,000 CVD patients aged 30-70 across urban and rural areas of countries with varying income levels.

The study tracked individuals with CVD from 17 countries over 12 years, revealing consistently low medication use with minimal improvement over time. In participants with coronary artery disease, the researchers focused on antiplatelet agents, statins, renin-angiotensin system (RAS) inhibitors, and  $\beta$ -blockers. In participants with stroke, they focused on antiplatelet agents, statins, RAS inhibitors, and other blood pressure—lowering drugs.

The participating countries and income classification for the analysis include:

- High-income: Canada, Sweden, United Arab Emirates
- Upper-middle-income: Argentina, Brazil, Chile, Malaysia, Poland, South Africa, Türkiye
- Lower-middle-income: China, Colombia, Iran
- · Low-income: Bangladesh, India, Pakistan, Zimbabwe

The analysis shows that secondary prevention medications for CVD remain substantially underutilised, with little progress over time. Findings also show that medication use for secondary CVD prevention varied by income level and declined in most countries by the final study visit, except in upper-middle-income nations.

At baseline, 41.3% of participants used at least one secondary prevention medication. Usage peaked at 43.1% before dropping to 31.3% at the study's end. Trends by income level included:

- High-income countries: Declined from 88.8% to 77.3%
- Upper-middle-income countries: Increased from 55% to 61.1%
- Lower-middle-income countries: Rose from 29.5% to 31.7% before falling to 13.4%
- Low-income countries: Increased from 20.8% to 47.3% before dropping to 27.5%

Additionally, the use of three or more guideline-recommended medication classes remained low across all income groups.

These findings indicate that current strategies are failing to ensure adequate secondary prevention, leaving many CVD patients untreated or undertreated. Study researchers stressed the urgency of addressing this gap.

This landmark study highlights a significant opportunity to improve global cardiovascular health. It is unacceptable that so many people who have already experienced heart disease are not receiving widely available, cost-effective treatments that could save lives. There are tools available to close this gap. It is now time to act and utilise these tools effectively.

Source: American College of Cardiology

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