

ADVANCING CARDIOVASCULAR HEALTH IN INDIA ROUNDTABLE: OUTCOME REPORT

OVERVIEW

With a population of more than 1.4 billion people, representing nearly 18% of the world's population, India is projected to overtake China as the world's most populous country this year. Given the size of both the country and the population, and the fact that roughly 10% of the population lives below the international poverty line, it's not surprising that the burden of noncommunicable diseases (NCDs), including cardiovascular disease, is high. In fact, mortality from NCDs accounted for 65% of total deaths in India in 2019, of which more than 25% could be attributed to cardiovascular diseases and related risk factors like diabetes.

More recently, updated findings from the Global Burden of Diseases Collaboration, published in the *Journal of the American College of Cardiology*, showed age-standardized mortality rates from cardiovascular diseases in South Asia, including India, on the rise and ranging from 248.6 to 350.9 per 100,000 persons in 2021, with ischemic heart disease, ischemic stroke and intracerebral hemorrhage among the leading causes of death. Among all risks for cardiovascular diseases, high systolic blood pressure accounted for the largest proportion of disability-adjusted life years, while air pollution and dietary risks were the leading environmental and behavioral risks, respectively.

“There is an urgency to manage the burden of cardiovascular disease in India. We need to realize the urgency of this public health crisis and develop a roadmap that will allow us to manage the multiple challenges effectively.”

- B. Hadley Wilson, ACC President

These challenges led the American College of Cardiology (ACC) to convene a roundtable in January 2023 made up of leading cardiovascular clinicians from the ACC and the ACC India Chapter, as well as stakeholders from local nonprofits, government agencies and industry related to cardiovascular disease in India. The goal: to identify potential collaborative solutions to some of the specific cardiovascular challenges in India, ranging from patient access to prevention and screening services and chronic disease management.



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ADDRESSING CVD PREVENTION AND SCREENING

According to Prof. D. Prabhakaran, from the Public Health Foundation of India (PHFI), approximately 50% of individuals who develop heart disease in India die within three to four years of diagnosis, a rate double that in Western populations.

Heart failure and the overall burden of cardiovascular disease throughout the country is amplified by risk factors like diabetes and hypertension, especially in urban areas where social determinants of health, including diet, tobacco use, lack of physical activity and air pollution, increase these risks. Access to care, including guideline-based medical therapy, in rural areas and among the impoverished populations living in urban areas is also a major factor driving disease.

Roundtable participants highlighted the lack of awareness and education around cardiovascular disease and related risk factors as one of the biggest challenges facing the health care community when it comes to tackling these trends.

“Approximately 50% of individuals who develop heart disease in India die within three to four years of diagnosis ...”

For example, less than 30% of individuals with high blood pressure are aware of the condition and it is controlled in only 12%, according to Dr. Anupam Khungar Pathni from PHFI.

Lifestyle changes like maintaining a healthy diet and exercising can have a big impact on heart health, but the size of the population, overall economic status and access to education leads to disparity in understanding and awareness, said Dr. Vijay Bang, ACC's India Chapter governor.

The lack of clinical trial data specific to the Indian population and gross underreporting of cardiovascular disease are two more major challenges cited by Roundtable participants for addressing the burden of cardiovascular disease across the country. With what appears to be a growing spike in cardiovascular disease among younger populations, Dr. Bang noted that the need for data to help with informing detection and treatment is especially important. “More studies are needed to capture the difference in prevalence rates,” he said.



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POTENTIAL SOLUTIONS

HEALTH AWARENESS PROGRAMS

- Health awareness programs, whether government run or coupled with existing programs run by nongovernmental agencies, are potential solutions for prevention, early detection and treatment of cardiovascular diseases and related risk factors. Dr. K. Madan Gopal, senior consultant of NITI Aayog, cited a government-launched program called Pradhan Mantri Jan Arogya Yojana that is designed to help with out-of-pocket expenditures for patients with poor socioeconomic conditions. The government is also working on increasing the number of health and wellness centers in rural areas to help expand access to “preventive, promotive and curative” services and efforts like the “Fit India” campaign are designed to encourage lifestyle changes.

ACC programs such as the **NCD Academy** and **CardioSmart** can also play important supporting roles in reaching both primary care and community health care workers, as well as patients, with necessary education and tools. Access the NCD Academy at [ACC.org/NCDAcademy](https://www.acc.org/NCDAcademy). Learn more about CardioSmart at [CardioSmart.org](https://www.cardiosmart.org).

SCREENING

- Roundtable participants noted that large medical device companies, the pharmaceutical sector and even the armed forces all have the infrastructure for screening, thus outsourcing this aspect could help with improving prevention and treatment efforts. Colonel A. K. Ghosh, HOD Cardiology, Armed Forces Medical College, relate that being closer to the population and regular checkups have helped with cardiovascular disease prevention and treatment among army personnel and their families and this model can be taken up to a larger population to ensure the same.
- Additionally, Dr. Neeta Rao, senior health lead for USAID, noted an opportunity to focus on prevention, promotion and screening of cardiovascular diseases as part of existing USAID projects across India in association with government primary health programs.

She added that this type of collaboration could also help address challenges associated with reaching some of the remotest geographic areas with the best diagnostic tools, capturing data, and ensuring that behavior change is sustainable.



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GAME-CHANGING SOLUTIONS TO CVD MANAGEMENT

New innovations ranging from telemedicine to digital devices that allow for remote monitoring and screening are potential game-changers for managing cardiovascular disease and improving heart health throughout India. “The role that technology needs to play in health care is to make it easier, cheaper, and better to access,” said Dr. Nikhil Hegde, executive vice president of W Health Ventures.

Sidharth Srinivasan, CEO of Lupin Digital Health, highlighted the ability of new technologies to directly connect patients with their care providers and cited research currently underway to use data and artificial intelligence (AI) to predict cardiovascular disease risk and hopefully catch cardiovascular disease before it starts or progresses further. Arnab Basumalik, director of government affairs and Asia Pacific head of clinical affairs for Edwards Lifesciences, echoed support for innovation and AI-based solutions that can predict disease in patients and improve intervention.

Dr. Ami Bhatt, ACC’s chief innovation officer, stressed the ability of telemedicine to ensure better responsive care and improve patient trust in the health care system. Use of clinical data registries through programs like ACC’s Global Quality Solutions can also help with tracking, benchmarking and improving patient care and outcomes throughout the country.

Policy changes and public/private partnerships also offer game-changing solutions. Vibhav Garg, director of health economics and government affairs for the India HUB and ASEAN at Boston Scientific, noted opportunities for industry and government to partner on programs that make treatment and technology accessible and affordable to all. The private sector can also play a significant role, according to Rohit Sar, an associate with Lightrock, who provided an example of digital-first solutions that can reach more geographically remote patients with information on fitness, nutrition, medication adherence, diagnostics and consultation.

On the policy front, Dr. Rajendra Pratap Gupta, founder of Health Parliament, called on partners to come together around the 2017 National Health Policy document, which elaborates on everything from preemptive care to community-based monitoring.

“Policies are in place. However, all the partners need to come together and proactively work towards making a change,” he said.



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The ACC and its partners look forward to continuing to work with stakeholders throughout India and around the world to move from discussion to action, with the goal of transforming cardiovascular care and improving heart health for all.



For more on ACC's global efforts, visit:
[ACC.org/GlobalHub](https://www.acc.org/GlobalHub)

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The ACC thanks APCO Worldwide for their support of the Roundtable and thanks all the participants for their thoughtful insights and discussion:

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