

# Reviving cardiovascular prevention and rehabilitation: what can we learn from China?

Xiaoping Meng <sup>1</sup>, Linqi Xu <sup>2,\*</sup>, and Dayi Hu<sup>3</sup>

<sup>1</sup>Cardiac Rehabilitation Center, Department of Cardiovascular Medicine, Affiliated Hospital of Changchun University of Chinese Medicine, Changchun, China; <sup>2</sup>Universiteit Hasselt, Hasselt, Limburg, Belgium; and <sup>3</sup>Peking University People's Hospital, Peking, China

Received 24 September 2025; accepted 25 September 2025; online publish-ahead-of-print 17 April 2026



Professor Xiaoping Meng is the Chair of the Professional Committee of Cardiovascular Prevention and Rehabilitation of the Chinese Rehabilitation Medical Association.

In recent decades, cardiovascular disease has emerged as a leading cause of mortality in China.<sup>1</sup> To address this growing threat, the Professional Committee of Cardiovascular Prevention and Rehabilitation of the Chinese Association of Rehabilitation Medicine has played a central role in advancing prevention strategies, standardizing rehabilitation practices, and promoting health-centred care. Founded in 1991 by Professor Jiangsheng Liu, revitalized by Professor Dayi Hu, and currently chaired by Professor Xiaoping Meng, the Committee continues to shape national cardiovascular health policy and clinical practice through innovation, training, and cross-disciplinary collaboration.

## From disease treatment to health-centred care

The Committee's core mission is to shift the national healthcare paradigm from reactive disease treatment to proactive, health-centred chronic disease management. This approach integrates prevention, rehabilitation, and education, prioritizing long-term patient outcomes. Key initiatives have centred around developing national expert consensus documents, such as the Chinese Expert Consensus on Cardiac Rehabilitation and Secondary Prevention in patients with Coronary

Artery Disease, and the Chinese Expert Consensus on Cardiac Rehabilitation for patients with atrial fibrillation. In addition to this, over 500 hospitals have established cardiac rehabilitation centres, and the 'Five Prescriptions' model—covering medication, exercise, nutrition, psychological support, and smoking/alcohol cessation—has been widely adopted, emphasizing holistic, multi-disciplinary care.

Furthermore, nationwide initiatives like the 'Stent Life Club' and 'AFib Life Club' have aimed to enhance patient awareness, engagement, and long-term adherence to treatment protocols. The establishment of platforms such as the China Cardiopulmonary Prevention and Rehabilitation Cloud Platform, along with a national registry database, has supported clinical research and policy development through data-driven insights.

## A decade of progress: milestones since 2012

In the past 13 years, the Committee has achieved significant strides in transforming cardiac rehabilitation across China. Professor Dayi Hu has proposed the '5+1' model, which combines the five core prescriptions with Enhanced External Counterpulsation (EECP), provided a structured framework for national adoption. This model played a pivotal role in transforming traditional cardiology departments into '2.0 cardiac centres,' which are now fully equipped with the necessary infrastructure, staff, and services tailored to cardiopulmonary rehabilitation.

Additionally, the Committee has cultivated a sustainable pipeline of healthcare professionals specializing in chronic disease prevention and rehabilitation, including postgraduate-trained professionals. A nationwide academic ecosystem has also emerged, evidenced by the creation of 198 Stent Life Clubs and an annual national conference, where both professionals and patients participate in the unique 'Cardio Night.' Moreover, the establishment of the 'Huangpu Military Academy' of cardiopulmonary rehabilitation has trained nearly 300 graduates who now play critical roles in their respective institutions.

The reintroduction and popularization of EECP as an auxiliary therapy in cardiopulmonary rehabilitation has not only driven domestic innovation but also attracted foreign investment in medical device

\* Corresponding author. Email: [linqi.xu@uhasselt.be](mailto:linqi.xu@uhasselt.be)

© The Author(s) 2026. Published by Oxford University Press on behalf of the European Society of Cardiology. All rights reserved. For commercial re-use, please contact [reprints@oup.com](mailto:reprints@oup.com) for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site—for further information please contact [journals.permissions@oup.com](mailto:journals.permissions@oup.com).

development. The establishment of nationwide certification systems for rehabilitation centres and training institutions aligns with the vision of Healthy China 2030.

## Current priorities: bridging gaps and broadening impact

The Committee's current strategic focus includes five key pillars: grassroots popularization, innovative science communication, academic leadership, guideline implementation, and international integration. Efforts in 2024–2025 include national tours and free consultations to bring the 'Five Prescriptions' model to underserved regions, along with the launch of the 'First National Popular Science Short Video Competition' aimed at enhancing public understanding through digital platforms.

Workshops and conferences, such as the eighth Great Wall Cardiovascular Disease Prevention and Rehabilitation Conference in Changchun, are expanding practitioner knowledge and patient involvement. The Committee is also co-chairing the Asian Cardiac Rehabilitation Forum, strengthening ties across Asia for mutual learning and advancement, and has established partnerships with organizations in the US and Japan. Efforts to build connections with European institutions are planned for 2025.

## Vision 2035: long-term goals for national health

Looking forward, the Committee's 10-year roadmap is centred around expanding access, strengthening systems, and embracing digital transformation. Key goals include focusing on lipid management, particularly addressing the diagnosis and treatment of dyslipidemia in patient communities. The 'Five Prescriptions' model will be extended into primary care and geriatric settings, especially in rural areas, to reach broader populations.

The Committee also plans to leverage both traditional and digital media strategies to improve health literacy and encourage personal responsibility for health. Furthermore, advancements in smart medicine and digital health are expected to enhance patient–provider interactions, with the goal of improving follow-up care and overall efficiency through telemedicine and digital tools.

As Professor Dayi Hu, former Chair and a pioneer in the field, famously remarked: 'In lifestyle medicine, we must do addition. In medication and surgery, we must do subtraction.' This philosophy underscores the Committee's commitment to long-term, preventive strategies that support individual well-being and healthcare sustainability.

## Challenges on the path ahead

Despite tremendous progress, significant challenges remain in the expansion of cardiac rehabilitation across China. A major issue is low adherence to Phase II rehabilitation, as many patients fail to follow through with outpatient rehabilitation programmes. This is often due to a lack of physician referrals, transportation issues, low awareness among the elderly, and limited insurance coverage. Furthermore, regional hospitals frequently lack the trained staff, infrastructure, and incentive mechanisms to sustain cardiac rehabilitation programmes.

Another challenge is the limited career development opportunities within the field, which deters healthcare workers from pursuing specialization in rehabilitation, particularly in non-urban areas.

## East meets West: differing disease profiles and strategies

The cardiovascular disease landscape in China presents unique challenges compared to Western nations. For example, haemorrhagic stroke is more prevalent in China, whereas ischaemic heart disease dominates in Europe.<sup>2,3</sup> In addition, China faces a high prevalence of hypertension (~23%), but with a low treatment and control rate (~16%).<sup>4</sup> Smoking remains a major public health concern, particularly with male smoking rates hovering around 50%, while European countries have enacted stricter tobacco control policies.<sup>5</sup> Moreover, the use of statins, which is more common in Europe, reflects different public health priorities and regulatory landscapes between the two regions.<sup>6</sup>

## Conclusion: what can we learn from China?

China's approach shows that successful cardiovascular prevention and rehabilitation requires more than medical treatment—it needs long-term vision, strong infrastructure, and tailored public engagement. Key lessons include the value of structured, multi-disciplinary care, integration of digital tools, and patient education.

Most importantly, **each region must address its own dominant risk factors**—whether that's smoking, hypertension, or lack of access to rehab—and build solutions that fit local needs.

## Author contributions

Writing—Original Draft (Chinese): Xiaoping Meng; Translation: Linqi Xu; Writing—Review & Editing: Xiaoping Meng, Linqi Xu; Project Administration: Linqi Xu.

**Conflict of interest:** The authors declare no conflict of interest.

## References

1. The Writing Committee of the Report on Cardiovascular Health and Diseases in China. Report on Cardiovascular Health and Diseases in China 2021: An Updated Summary. *Biomedical and Environmental Sciences* 2022;**35**:573–603.
2. Wang W, Jiang B, Sun H, Ru X, Sun D, Wang L, et al. Stroke in China: epidemiology, prevention, and management. *Lancet Neurol* 2017;**16**:670–682.
3. GBD 2019 Stroke Collaborators. Global, regional, and national burden of stroke and its risk factors, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet Neurol* 2021;**20**:795–820.
4. Wang X, Zhou HH, Chen Z, Zhang LF, Zheng CY, Tian Y, et al. Current status of hypertension prevalence, treatment and control rate among young and middle-aged population in China. *Zhonghua Xin Xue Guan Bing Za Zhi* 2022;**50**:1169–1176.
5. He Huijing, Pan Li, Cui Ze, Sun Jixin, Yu Chengdong, Cao Yajing, et al. Smoking Prevalence, Patterns, and Cessation Among Adults in Hebei Province, Central China: Implications From China National Health Survey (CNHS). *The Lancet* 2020;**8**:117.
6. Walley T, Folino-Gallo P, Schwabe U, Ganse EV, EuroMedStat group. Variations and increase in use of statins across Europe: data from administrative databases. *BMJ* 2004;**328**:385–386.