DOI: 10.25259/IJMR 1693 2025

## Research Correspondence

## Functionality of Ayushman Arogya Mandirs for hypertension & diabetes care in nine districts of India

Sir,

Primary healthcare ensures accessible, affordable, and equitable services for all, supporting prevention, early detection, and continuity of care. India is committed to achieving universal health coverage through strengthening primary healthcare. As part of this effort, the Ayushman Arogya Mandirs (AAMs), formerly known as Health and Wellness Centres (HWCs), are established to deliver comprehensive primary healthcare (CPHC). All existing primary health centres (PHCs) and sub-health centres (SHCs) are being transformed into AAMs; as of now, about 178 thousand facilities have been transformed<sup>1</sup>.

In India, the burden of non-communicable diseases (NCDs) is increasing due to population development and, thereby, epidemiological transition. It is estimated that 63 per cent of all deaths in India are due to NCDs, of which 28 per cent are attributed to cardiovascular diseases (CVDs)<sup>2,3</sup>. Hypertension and diabetes are major risk factors for CVDs, and about 28.5 per cent and 9.3 per cent of the adult Indian population are affected by these two conditions<sup>3</sup>, respectively. Hence, NCD care has been included as one of the 12 CPHC services, and as part of this, population screening and opportunistic screening are conducted at all AAMs. Additionally, at the SHC-AAM level itself, treatment is initiated through teleconsultation. Dispensing medicines through HWC teams is maintained to improve compliance, and referrals are made if required.

This write-up provides a scientific and rationalebased assessment of the service delivery strength of SHC-AAMs to deliver care for hypertension and diabetes. The Indian Council of Medical Research (ICMR) publishes data on the functioning of health facilities in the country from time to time and identifies the key gaps and opportunities to strengthen service delivery. The current paper presents the findings based on data collected during the second half of 2024. It reports the functionality of SHC-AAMs for the care of hypertension and diabetes in nine districts of India.

The data for this paper were drawn from the facility surveys conducted in nine districts including a municipal corporation spread across eight States and a Union Territory. These districts are Alluri Sitharama Raju (Andhra Pradesh), Ambala (Haryana), Chamarajanagar (Karnataka), Dadra and Nagar Haveli (Dadra and Nagar Haveli and Daman and Diu), Jagatsinghpur (Odisha), and Pimpri-Chinchwad Municipal Corporation (Maharashtra), Salumbar (Rajasthan), Tehri (Uttarakhand) and Wayanad (Kerala). For this survey, 561 SHC-AAMs were selected, and the checklist was developed based on the guidelines of the Indian Public Health Standards-20224. The Institutional Ethics Committees of the institutes that carried out the study at nine sites approved the study protocol. The purpose of the study was explained to the AAM team, and informed consent was taken from all the participants.

About 94 per cent of SHC-AAMs were headed by Community Health Officers or Mid-Level Health Providers (Table). The diagnostics for hypertension and diabetes were available in 85 and 83.8 per cent of SHC-AAMs, respectively. Similarly, the essential drugs for hypertension and diabetes were available in 78 per cent of SHC-AAMs.

The study reports a substantial improvement in the capacity and functionality of SHC-AAMs in terms of human resources, availability of diagnostics, and essential drugs for hypertension and diabetes. Studies conducted before the launch of Ayushman Bharat (before 2018) reported financial constraints, higher reliance on private facilities for hypertension and diabetes care, as well as a limited role for public sector facilities due to the lack of diagnostics and frequent stockouts of medicines at primary healthcare facilities<sup>5</sup>. With the launch of Ayushman Bharat, this situation has been improving<sup>6-8</sup>. The populations

**Table.** Functionality of Sub-Health Centre-*Ayushman Arogya Mandirs* (SHC-AAMs) for hypertension and diabetes care in nine districts of India\*

Variable	n (%)
Total number of SHC-AAMs surveyed	561
Availability of community health officer/mid-level health provider	528 (94.1)
Availability of diagnostics Blood pressure apparatus Glucometer	477 (85) 470 (83.8)
Availability of at least two essential hypertension drugs	439 (78.3)
Availability of at least two essential diabetes drugs	440 (78.4)

\*Districts covered: Alluri Sitharama Raju (Andhra Pradesh), Ambala (Haryana), Chamarajanagar (Karnataka), Dadra and Nagar Haveli (Dadra and Nagar Haveli and Daman and Diu), Jagatsinghpur (Odisha), Pimpri-Chinchwad Municipal Corporation (Maharashtra), Salumbar (Rajasthan), Tehri (Uttarakhand), Wayanad (Kerala)

served by AAMs demonstrated improved management of hypertension and diabetes within the public health system, with approximately 70 per cent of individuals initiated on treatment at these facilities<sup>6</sup>. AAMs also reported robust retention along the continuum of care, supported by the adequate availability (greater than 80%) of antihypertensives and oral hypoglycaemic drugs<sup>7,8</sup>. These results show a significant improvement in service delivery compared to earlier health subcentres, which had limited diagnostic services, irregular availability of medicines, and low treatment coverage. The present study reports that AAMs are functional for diagnosis, treatment initiation, and continuity of care for hypertension and diabetes. The situation highlights the expanded services for NCDs at primary healthcare facilities. The study's limitations include the possibility of reporting bias during the facility surveys; however, care was taken to obtain information from appropriate healthcare providers, stock checks were made, and repeat visits were conducted to ensure the reliability of the information.

In conclusion, the findings of the present study, conducted in 561 AAMs from nine districts across India, demonstrate effective functionality of AAMs for providing comprehensive care for hypertension and diabetes. Continuing this progression, with quality checks, will lead to the strengthening of *Ayushman Bharat* initiatives, which are essential to achieve the goal of universal health coverage in India.

*Financial support & sponsorship*: The study received financial support from the Indian Council of Medical Research, New Delhi and Bill and Melinda Gates Foundation in the form of two National Health Research Priority projects (Reference Numbers: NHRP-2024-0000054 and NHRP-2024-0000055).

Conflicts of Interest: None.

Use of Artificial Intelligence (AI)-Assisted Technology for manuscript preparation: The authors confirm that there was no use of AI-assisted technology for assisting in the writing of the manuscript and no images were manipulated using AI.

Shrey Desai<sup>1,†</sup>, Veetilakath Jithesh<sup>2,†</sup>, Beena Joshi<sup>3,†</sup>, Yadlapalli S. Kusuma<sup>4,†</sup>, Alpana Mishra<sup>6,†</sup>, Vedha Ponnappan<sup>7,†</sup>, Shankar Prinja<sup>8,†</sup>, Tanya Seshadri<sup>9,†</sup>, Rajesh Singh<sup>10,†</sup> & Bontha V. Babu<sup>5,\*</sup>

<sup>1</sup>Society for Education, Welfare and Action-Rural, Jhagadia, Gujarat, <sup>2</sup>State Health Systems Resource Centre, Thiruvananthapuram, Kerala, <sup>3</sup>ICMR-National Institute for Research in Reproductive and Child Health, Mumbai, Maharashtra, <sup>4</sup>Centre for Community Medicine, All India Institute of Medical Sciences, <sup>5</sup>Indian Council of Medical Research, New Delhi, <sup>6</sup>Department of Community Medicine, Kalinga Institute of Medical Sciences, Bhubaneswar, Odisha, <sup>7</sup>Centre for Healthcare, Indian Institute of Management, Udaipur, Rajasthan, 8Department of Community Medicine, Postgraduate Institute of Medical Education and Research, Chandigarh, <sup>9</sup>Institute of Public Health, Bengaluru & <sup>10</sup>Garhwal Community Development & Welfare Society, Tehri-Garhwal, Uttarakhand, India

\*For correspondence: e-mail: babubontha@gmail.com

†Equal contribution

Received July 2, 2025; Accepted July 4, 2025; Ahead of print July 19, 2025; Published September 16, 2025

## References

- 1. Ministry of Health and Family Welfare, Government of India. *Ayushman Arogya Mandir*. Available from: https://aam.mohfw.gov.in/, accessed on June 15, 2025.
- 2. World Health Organization. Institutional Repository for Information Sharing. *Noncommunicable diseases country profiles 2018*. Available from: https://iris.who.int/handle/10665/274512, accessed on June 12, 2025.

- ICMR-National centre for disease information and research (ICMR-NCDIR). Ministry of Health Family Welfare, Government of India. National noncommunicable disease monitoring survey (NNMS) 2017-18. Available from: https:// www.ncdirindia.org/nnms/, accessed on June 12, 2025.
- National Health Mission. Ministry of Health Family Welfare, Government of India. Indian public health standards: Health and wellness centre-sub health centre. Vol. IV. 2022.
  Available from: https://nhm.gov.in/images/pdf/guidelines/iphs/iphs-revised-guidlines-2022/04-SHC\_HWC\_UHWC\_IPHS\_Guidelines-2022.pdf, accesses on June 12, 2025.
- Elias MA, Pati MK, Aivalli P, Srinath B, Munegowda C, Shroff ZC, et al. Preparedness for delivering non-communicable disease services in primary care: Access to medicines for diabetes and hypertension in a district in south India. BMJ Glob Health 2018; 2: e000519.
- Garg S, Tripathi N, Bebarta KK, Sinha N, Tiwari A. Effectiveness of the health and wellness centers in improving identification and primary care of non-communicable diseases in Chhattisgarh State of India. *J Family Med Prim Care* 2024; 13: 2092-8.
- 7. Chavan TA, Kaviprawin M, Sakthivel M, Kishore N, Jogewar P, Gill SS, *et al.* India hypertension control initiative: Decentralization of hypertension care to health wellness centres in Punjab and Maharashtra, India, 2018-2022. *BMC Health Serv Res* 2024; 24: 884.
- Panda SK, Panda D, Behera RR, Panda SC, Munda A, Sahu PR. Assessment of functioning of health and wellness centers of Western Odisha: A cross-sectional study. *Cureus* 2023; 15: e37665.