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Dr. Pankaj Arora Director –National Health Authority Govt. of India Leveraging Insurance and Innovative Financing for Non-Communicable Diseases: The Indian Experience (AB PMJAY)



Global and Regional NCD Burden



- 71% of global deaths due to NCDs (WHO 2018)
- Asia-Pacific: 70% deaths due to NCDs, rising by 2030
- India: 63% deaths due to NCDs
- Economic cost globally: \$47 trillion by 2030
- India: \$237 billion in 2018 → Double by 2030
- Direct/indirect costs drive catastrophic health spending; High Out of Pocket Expenditure



Burden of NCDs in India



• Prevalence (2):

Diabetes: 101 million people.

Hypertension: 315 million people.

Generalized Obesity: 254 million people.

• Cancer: 3.2 million people (5 year)

Disability-Adjusted Life Years (DALYs):

NCDs account for ~58% of total DALYs in India

Premature Mortality:

• 23% risk of dying from NCDs between 30–70 years

Economic Impact:

 Overall high out-of-pocket (OOP) expenses (39.4% of THE) persist despite health financing reforms



India's Response



1. National Program for Prevention and Control of Non-Communicable Diseases (NP-NCD)

• Early detection, screening, and chronic disease management.

2. Ayushman Arogya Mandir (AAM)

150,000+ centers offering comprehensive primary health care

3. Pradhan Matri Jan Arogya Yojana (PM-JAY)

4. Digital Health Initiatives:

- Ayushman Bharat Digital Mission (ABDM) building a unified digital health ecosystem
- Telemedicine improving specialist access (e-Sanjeevani)

5. Multisectoral Action:

Tobacco, alcohol, and unhealthy diet control policies



India's Response - AB PM-JAY



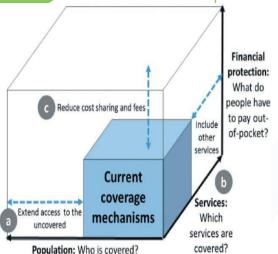
Launched in 2018 for providing financial support against catastrophic healthcare expenditure during episodes of hospital admissions as recommended by the National Health Policy 2017

To meet Sustainable Development Goals (SDGs) and its underlining commitment, which is to "leave no one behind" and as a steeping stone towards UHC

To provide for the unmet healthcare needs of the poor and vulnerable population

Started with covering 550 million poor and vulnerable population now expanded to others (including 60 million elderly and others)

- Reducing out-of-pocket expenditure on healthcare services
- Preventing poor and vulnerable from jumping into poverty trap



Ayushman Bharat PM-JAY

Health cover of Rs.5 Lakh (Rs 0.5 Million) per family per year

Covers secondary and tertiary healthcare needs

NCDs are a major focus area

Completely paperless and cashless services

No cap on family size, age or gender

Pre-existing conditions are covered from day one

Benefits can be availed at 30,000+ empaneled hospital across India Implemented in Trust, Insurance and Mixed mode

AB PM-JAY covers secondary and tertiary care through several packages (1961 plus add on) spread over 27 specialities.



Overview of Health Benefit Packages (HBP 1.0 to HBP 2022)



HBP 1.0 Specialities:25

- General Surgery
- ENT
- Ophthalmology
- OBG
- Orthopaedics
- Polytrauma
- Cardiology
- Neuro Surgery

- Interventional radiology
- Surgical Oncology
- Organ and tissue transplant (HBP 2.1)
- Plastic & reconstructive surgery
- Oral and Maxillofacial Surgery
- Cardio-thoracic & Vascular surgery
- Burns Management
- Paediatric surgery
- Urology

HBP 2022 Specialities:27

- General Medicine
- Infectious Diseases (HBP 2.0)
- Paediatric medical management
- Neo-natal
- Medical Oncology
- Radiation Oncology
- Emergency
- Mental Disorders
- Palliative care (HBP 2022)

Unspecified surgical packages with cap amount of upto Rs 1,00,000.

And a separate package for above Rs. 1,00,000 upto Rs. 5,00,000 (HBP 2022)



Specialties & NCD Packages in AB PM-JAY



Covers NCD diagnostics, treatment and surgery through evidence-based Health Benefit Packages

- Cardiology & Cardiothoracic Surgery
- Medical, Radiation and Surgical Oncology
- Nephrology/Urology/Organ transplant (dialysis, transplants)
- General Medicine/Surgery/Ophthalmology (Diabetes complications)
- Paliative care
- Surgical management
- Follow-up packages for CVDs integrated into HBPs

NCD-related claims contribute to a significant share of total claims



Impact

PM-JAY has contributed in —

- Improving health access
- Increased utilization of health care services
- Financial protection
- Reducing inequalities



Impact of health benefit package policy interventions on service utilisation under government-funded health insurance in Punjab, India: analysis of Ayushman Bharat Pradhan Mantri Jan Aroqya Yojana (PM-JAY)

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Background The design of health benefits package (HBP), and its associated payment and pricing system, is central to the performance of government-funded health insurance programmes. We evaluated the impact of revision in HBP within India's Pradhan Mantri Jan Arogya Yojana (PM-JAY) on provider behaviour, manifesting in terms of utilisation

Methods We analysed the data on 1.35 million hospitalisation claims submitted by all the 886 (222 government and 664 private) empanelled hospitals in state of Punjab, from August 2019 to December 2022, to assess the change in utilisation from HBP 1.0 to HBP 2.0. The packages were stratified based on the nature of revision introduced in HBP 2.0, i.e., change in nomenclature, construct, price, or a combination of these. Data from National Health System Cost Database on cost of each of the packages was used to determine the cost-price differential for each package during HBP 1.0 and 2.0 respectively. A dose-response relationship was also evaluated, based on the multiplicity of revision type undertaken, or based on extent of price correction done. Change in the number of monthly claims, and the number of monthly claims per package was computed for each package category using an appropriate seasonal autoregressive integrated moving average (SARIMA) time series model.









Asia 2024;28: 100462

Original research

BMJ Global Health Public health insurance coverage in India before and after PM-JAY: repeated cross-sectional analysis of nationally representative survey data

> Sanjay K Mohanty 0, Ashish Kumar Upadhyay 0, Suraj Maiti 0, Radhe Shyam Mishra, Fabrice Kämpfen, Jürgen Maurer, Owen O'Donnell 05

To cite: Mohanty SK. Upadhyay AK, Maiti S, et al. Public health insurance and after PM-JAY: repeated urvey data. BMJ Glob Health 2023:8:e012725. doi:10.1136/

➤ Additional supplemental To view, please visit the journal 1136/bmigh-2023-012725i.

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Introduction The provision of non-contributory public health insurance (NPHI) to marginalised populations is a critical step along the path to universal health coverage. We aimed to assess the extent to which Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (PM-JAY)-potentially, the world's largest NPHI programme—has succeeded in raising health insurance coverage of the poorest two-fifths of the population of India

Methods We used nationally representative data from the National Family Health Survey on 633 699 and 601 509 households in 2015-2016 (pre-PM-JAY) and 2019-2021 (mostly, post PM-JAY), respectively. We stratified by urban/rural and estimated NPHI

coverage nationally, and by state, district and socioeconomic categories. We decomposed coverage variance between states, districts, and households and measured socioeconomic inequality in coverage. For Uttar Pradesh, we tested whether coverage increased most in districts where PM-JAY had been implemented before the second survey and whether coverage increased most for targeted poorer households in these districts

Results We estimated that NPHI coverage increased by 11.7 percentage points (pp) (95% CI 11.0% to 12.4%) and 8.0 pp (95% Cl 7.3% to 8.7%) in rural and urban India, respectively. In rural areas, coverage increased most for targeted households and pro-rich

WHAT IS ALREADY KNOWN ON THIS TOPIC

highly unequal. It increased with income, educational attainment and higher occupational status and varied widely across states and communities.

Rashtriya Swasthya Birna Yojana (RSBY)-a centrally funded non-contributory public health insurance (NPHI) scheme-had limited success in covering households below the poverty line and providing fi nancial protection.

Small scale studies found PM-JAY-an ambitiou replacement of RSBY that aims to cover the poorest 40% of the population-to be ineffective in increase ing coverage during early implementation.

WHAT THIS STUDY ADDS This is the first study to use data that were represen

tative at national, state and district levels to estimate NPHI coverage in India by state, district and socioeconomic characteristics before and after Avushma Bharat-Pradhan Mantri Jan Arogya Yolana (PM-JAY). Over the study period, NPHI accounted for most of the increase in health insurance coverage.

Geographical and socioeconomic inequalities NPHI coverage parrowed.

In Uttar Pradesh, we estimated that PM-JAY could plausibly account for one-third to two-fifths of the increase in NPHI coverage

HOW THIS STUDY MIGHT AFFECT RESEARCH



Impact



- The introduction of PM-JAY led to a 90% increase in timely initiation of cancer treatment among enrolled patients, demonstrating a significant positive impact on reducing treatment delays.
- Significant reduction in OOPE was seen for cancer care under AB PM-JAY
- Average OOPE for cancer patients significantly reduced by in empanelled hospitals
- Financial protection was particularly improved for the poorest quintiles

Access to timely cancer treatment initiation in India: extent, determinants and trends



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Summary

Background Treatment delays are significantly associated with advanced stage, poor response to treatment, increased mortality risk, poor health outcomes, increased healthcare expenditures among cancer patients. However, factors associated with these delays have not yet been robustly evaluated. In order to bridge this gap, we determined the delayed time to treatment initiation (TTI) among cancer patients in India, ascertained its determinants, and assessed the trends of delayed TTI.

The Lancet Regional Health - Southeast Asia 2025;32: 100514

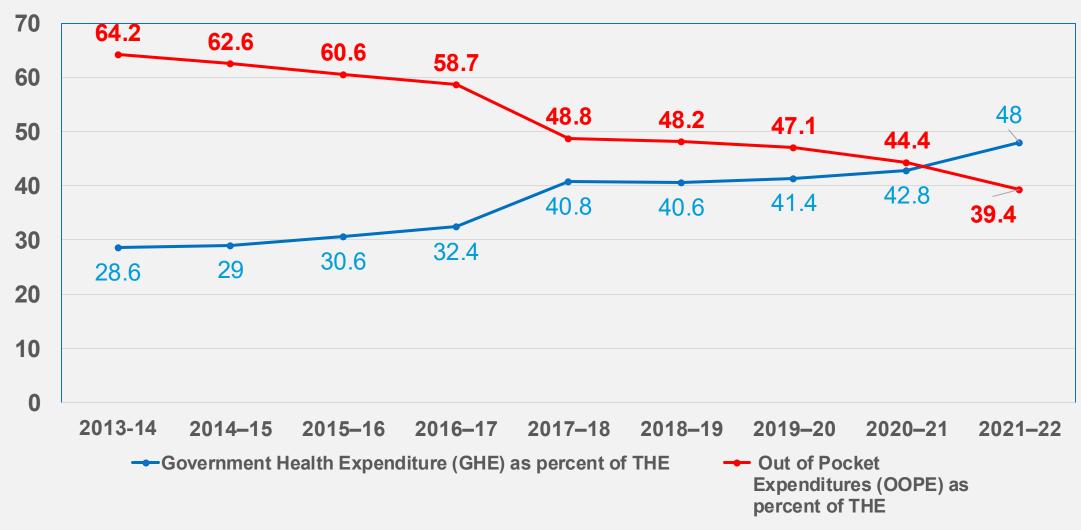
Published Online 18 December 2024 https://doi.org/10. 1016/j.lansea.2024.

Methods We analysed data collected from 6695 cancer patients seeking outpatient/daycare treatment, recruited at purposively selected seven healthcare facilities across six states of India. Data on socio-demographic and clinical



Health Expenditure





Source: National Health Accounts 2020-21



Challenges



- AB PM-JAY is inpatient-focused, while NCDs need long-term OPD care too
- Duplication with vertical NCD programs (as operating in silos)
- Lack of Continuum of Care (Disjointed referral system and lack of follow ups)
- Low Screening rates (<1%) for many cancers
- Poor awareness
- Regional disparities and socio-economic barriers
- Poor health-seeking behavior
- Poor adoption of Digital health initiatives (ABDM)



What Works & What Must Change – Integrating Vertical NCD Programs with Financing



What has worked

- Strong political and financial commitment to UHC and NCD agenda.
- PM-JAY platform enables integration of secondary/tertiary NCD care.
- Digital claims and data analytics (via NAFU/SAFU) improve transparency and feedback loops.
- Emerging state-level innovations (e.g., Incentives, bundled payments).
- Convergence of Schemes

What need to be done

- Vertical fragmentation of NP-NCD and PM-JAY limits care continuity and needs to be addressed.
- Awareness about the schemeContinuum of care rather Integrated care (in both directions) - early detection and upward referral and follow ups after treatment
- Extensive capacity building exercise esp. at primary healthcare level
- Expand PM-JAY to include select outpatient services for NCDs
- Increase adoption of ABDM
- Increased private sector engagement
- Financing reforms



Government Vision



Universal Access: Expand coverage and financial protection for NCDs through Ayushman Bharat PM-JAY.

Service Integration: Bridge primary care (NP-NCD Program, Ayushman Arogya Mandir) and secondary/tertiary care (PM-JAY) for full care continuum.

Strategic Purchasing: Use of Health Benefit Packages to prioritize high-burden, cost-effective NCD services. Broaden scope / rationalization of HBPs too based on the experience.

Standardized Protocols: Implement STGs, quality audits, and clinical checklists within PM-JAY to ensure effective NCD care.



Government Vision



Private Sector Role: Engage private providers through empanelment, especially in underserved regions.

Digital and Data Use: Leverage ABDM and AB PM-JAY claims data for real-time monitoring and policy design.

Targeted Outreach: Tailor coverage expansion and IEC to high-risk populations (elderly, low-income, rural, tribal and other marginalized/vulnerable groups).

Global Alignment: Contribute to SDG 3.4 - one-third reduction in premature NCD mortality by 2030.



Summary



- NCDs are a major burden and economic threat for any country
- AB PM-JAY offers a strong platform for inpatient NCD care
- Although challenges remain in integration and continuity of care, it's a positive move towards a better future and a step towards achieving UHC
- Policy shifts for comprehensive NCD management needs to be there
- Convergence needs to supplement AB PM-JAY for comprehensive response at national level



References



- 1. Noncommunicable diseases India 2018 country profile (https://cdn.who.int/media/docs/default-source/country-profiles/ncds/ind_en.pdf?sfvrsn=518c5b18_35&download=true)
- 2. ICMR-INDIAB-17 study (https://www.thelancet.com/journals/landia/article/PIIS2213-8587(23)00119-5/fulltext)
- 3. (Diseases Burden and epidemiological transition status at the national and sub-national level in India: a contemporary perspective | Discover Public Health)
- 4. National Health Accounts Estimates 2020-21: (NHA 2021-22.pdf)
- 5. Status of cancer screening in India: (Gopika MG, Prabhu PR, Thulaseedharan JV. Status of cancer screening in India: An alarm signal from the National Family Health Survey (NFHS-5). J Family Med Prim Care. 2022 Nov;11(11):7303-7307. doi: 10.4103/jfmpc_jfmpc_1140_22. Epub 2022 Dec 16. PMID: 36992989; PMCID: PMC10041275.)
- 6. Socio-economic disparities and risk factors of NCDs (6. Socioeconomic disparities.pdf)
- 7. National Program for Prevention and Control of Non-Communicable Diseases (https://mohfw.gov.in/sites/default/files/NP-NCD%20Operational%20Guidelines.pdf)
- 8. https://aam.mohfw.gov.in/
- 9. https://nha.gov.in/PM-JAY
- 10. https://abdm.gov.in/
- 11. https://abdm.gov.in/abdm-components
- 12. https://pmjay.gov.in/standard_treatment_guidelines
- 13. Vishnu P. Sriee & G. R. Maiya (2021) JFMPC Article (2021) Full Text
- 14. Jonathan Gruber et al. (2022) NHA Policy Brief (Feb 2022) PDF
- 15. Suraj Maiti et al. (2023) BMJ Global Health (2023) Full Text
- 16. S. K. Sinha et al. (2023) APJCC Article (2023) Full Text
- 17. B. H. Marazi & M. I. Pandit (2024) JIMPH Article (2024) Full Text
- 18. Uzma Padder & Mujasam Rasool (2024) <u>IJCRT Article (2024) PDF</u>
- 19. Pritam Halder et al. (2025) Reduction in treatment delays for cancer care
- 20. Prinja S et al. 2024 https://www.thelancet.com/journals/lansea/article/PIIS2772-3682(24)00112-4/fulltext
- 21. 356-india-fact-sheet.pdf

Thank You

