



Centre for Research in Wellbeing and Happiness (CRWBH)

Quarterly Newsletter

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Research



Centenarians and Near-Centenarians in India

For All We Know?

Sunil Rajpal, Shreya Ronanki, William Joe, Rockli Kim, SV Subramanian

Centenarians and Near-Centenarians in India: For All We Know?

This study was an attempt at profiling centenarians and near-centenarians in India, utilizing data from the Longitudinal Ageing Study in India (2017–18) (LASI). Our findings revealed centenarians (and near-centenarians) as predominantly widowed, residing in rural areas, and possessing at least a secondary level of education. Remarkably, these centenarians were found to be in good health, characterized by lower rates of chronic ailments, and elevated subjective wellbeing. As the World Health Organization heralds 2021–2030 as the Decade for Healthy Aging, India, poised to house the world's largest centenarian population, stands at a pivotal juncture. Timely research and policy action are imperative to achieve these global commitments.

Expanding Horizons: The use of AYUSH System of Medicine in India

This study explores the utilization of AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy) systems of medicine in India, leveraging data from the 2022–2023 National Sample Survey (NSS). The findings reveal that nearly half of the population utilizes AYUSH, with Ayurveda being the most prominent. The report highlights demographic and socioeconomic factors influencing AYUSH usage, including higher utilization among urban residents, elderly populations, and pregnant women. The study highlights the potential of AYUSH in complementing conventional medicine, especially in managing chronic diseases, and calls for increased integration and regulation within India's healthcare system.

Expanding Horizons: The use of AYUSH System of Medicine in India

Udaya Shankar Mishra, Sunil Rajpal and William Joe



"I wonder if we should share what we have learned: that we must hold our medical knowledge lightly and with humility, with confidence rather than certainty, and that we need constantly to be asking questions of our preferred epistemological theories."

- James May, Michael Baum & Susan Bewley

Introduction

Medicine is a revered discipline and a sacred vocation. Human civilizations always had rich engagement with alternative cures and practices that boost health and longevity. However, with evolving scientific benchmarks, much of the traditional and indigenous knowledge is lost or is endangered. As summarized by Karl R. Popper, the scientific status of a theory (including medicine) is its falsifiability, or refutability, or testability. Modern medicine that evolved alongside such epistemic principles of empiricism quickly established its effectiveness and dominance. Epistemic biases such as testimonial and hermeneutical injustice have further undermined the relevance of traditional systems. These biases are now challenged across various disciplines. Appreciating perspectives on medical pluralism has further rejuvenated global interest in traditional medicine. The Traditional Medicine Strategy of the World Health Organization takes cognizance of this dynamism across countries. The strategy calls for: a) harnessing the potential contribution of traditional medicine to health, wellness and people-centred health care, and b) fostering its appropriate integration, regulation, and supervision.

India is an important stakeholder championing the cause of traditional medicine. These engagements are government-led and is apparent from milestones such as establishment of Department of Indian Systems of Medicine and Homoeopathy in 1995 to its recognition as a full-fledged Ministry of Ayush in 2014. Worldwide celebration of International Day of Yoga (June 21) is a testimony of increasing global recognition. The AYUSH sector in India comprises of more than 750 thousand registered practitioners spread across seven systems namely: ayurveda, yoga, naturopathy, unani, siddha, sowa rigpa (amchi) and homoeopathy. Among these, Ayurveda – translated as the study of life – has a dominant presence. The integration of AYUSH systems in mainstream health sector initiatives such as National Health Mission and Ayushman Arogya Mandirs is seen instrumental to achieve the vision of universal health coverage in India. Such unprecedented policy momentum is likely to positively contribute toward the use of traditional systems of medicine in India. We use the first exclusive nationally representative Sample Survey on AYUSH (2022-23) to present the salient features in utilization of AYUSH care in India.

Data and Methods

The 79th round of the National Sample Survey on AYUSH (June 2022 - July 23) uses stratified multi-stage sampling to recruit a nationally representative sample of 752,477 households (and 333,104 individuals). The survey elicits information on various medical services utilized by household members, including prenatal, postnatal, inpatient, and outpatient care. The questionnaire also assessed household familiarity with AYUSH systems, including the use of medicinal plants. We integrate data from both inpatient and outpatient patients to analyse the average AYUSH spending across demographic and socioeconomic categories viz. age, gender, education, monthly per capita consumption expenditure (MPCE), social group, and place of residence. Use of AYUSH and associated costs for various illnesses and medical conditions are also presented.

Table 1: Use of AYUSH system, India (2022-23)

Systems	Rural	Urban	All
Ayurveda	40.5	45.5	41.9
Yoga	1.0	3.4	1.6
Naturopathy	1.9	1.7	1.8
Unani	0.5	0.9	0.6
Siddha	0.8	2.3	1.2
Sowa Rigpa	0.0	0.0	0.0
Homeopathy	5.6	5.2	5.5
AYUSH	46.3	52.9	48.1

Small-area Variation in Child Under-vaccination in India: A Multilevel Analysis of Cross-sectional Data from 36 States and Union Territories, 707 Districts, and 22,349 Small-area Clusters

India has made significant progress in child immunization, yet subnational inequities persist, hindering key programmatic goals. This study uses data from the 2019–2021 National Family Health Survey to examine local variations in child vaccination, focusing on zero-dose children, incomplete immunization, and vulnerability to measles and polio. Employing four-level random effects logistic regression, the study analyzes state, district, and cluster-level variations, revealing that clusters account for the majority of vaccination disparities. The findings show higher under-vaccination and within-district disparities in north-eastern states and Uttar Pradesh. Despite high national coverage, pockets of low coverage persist, necessitating targeted interventions at the sub-district level to improve immunization outcomes.

Articles

Small-area variation in child under-vaccination in India: a multilevel analysis of cross-sectional data from 36 states and Union Territories, 707 districts, and 22,349 small-area clusters

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Summary

Background India has made exceptional advances in child immunisation, but subnational inequities in vaccination coverage impede attainment of key programmatic goals. Our study provides an up-to-date national portrait of local variations in child vaccination using a comprehensive set of indicators relevant to routine immunisation.

Methods Indicators representing unvaccinated (zero-dose) children, incomplete basic immunisation, and vulnerability to measles and polio, were constructed from India's 2019–2021 National Family Health Survey. We used four-level random effects logistic regression models to partition the total outcome variation over state, district and cluster levels, and produce precision-weighted estimates of prevalence across clusters. District-level prevalence and within-district variation using standard deviation measures were derived for each outcome. Boxplots graphically summarised the distribution of precision-weighted mean cluster prevalence by state.

Findings The analysis included 87,622 children aged 12–36 months. Clusters accounted for 67.6% (var: 1.36; SE: 0.127) of the variation among zero-dose children, and more than 50% for all indicators. Districts with a higher prevalence of under-vaccination tended to have higher within-district heterogeneity, interpretable as greater within-district child vaccination inequities. For vaccines administered in the first year of life, the northeastern states and Uttar Pradesh had the highest median under-vaccination. Despite India's high aggregate vaccine coverage, the distribution of small-area (cluster) mean prevalence highlighted pockets of low coverage in most states, suggesting ongoing vulnerability to measles and polio.

Interpretation Achieving India's vaccination goals requires a strategic shift towards identification and targeting of low-immunity clusters at the sub-district level.

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Keywords: Equity; Health inequalities; Immunization programs; Child health; Developing countries; India/epidemiology; Vaccination/statistics & numerical data; Vaccination coverage/statistics & numerical data

Introduction

Endorsed by the World Health Assembly in 2021, Immunization Agenda 2030 (IA2030) is the global

immunisation strategy to “leave no one behind” companion to the UN 2030 Agenda for Sustainable Development. To ensure that everyone, everywhere, at every

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India Wellbeing Dashboard

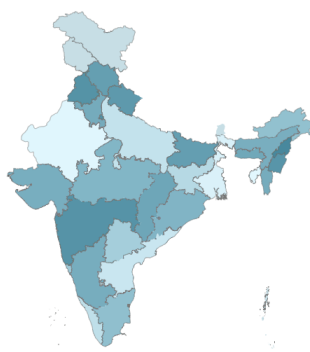
Select Indicator

- ☐ Search
- ☐ Desire Fulfilment
 - ☐ Excellent Life Conditions
 - ☐ Felt Afraid
 - ☐ Felt Depressed
 - ☐ Gratitude Feeling
 - ☒ Happiness
 - ☐ Hopeful
 - ☐ Ideal Life

States

- ☐ Search
- ☐ Andaman & Nicobar Islands
 - ☐ Andhra Pradesh
 - ☐ Arunachal Pradesh
 - ☐ Assam
 - ☐ Bihar
 - ☐ Chandigarh
 - ☐ Chhattisgarh
 - ☐ Dadra & Nagar Haveli

State Atlas



Felt happy in the past week coded as "Yes" (1: Often or Always) or "No" (0: Rarely or Never)



Happiness

National Prevalence (%)

52.85

Top 5 Performing States

Chandigarh (73.11%)
Nagaland (69.58%)
Dadra & Nagar Haveli (67.04%)
Delhi (66.53%)
Punjab (65.81%)

Bottom 5 Performing States

Tripura (31.22%)
Rajasthan (31.64%)
West Bengal (33.10%)
Andhra Pradesh (36.73%)
Uttar Pradesh (38.16%)

India Wellbeing Dashboard – In Progress

Utilizing data from the Longitudinal Ageing Study in India (2017–18) (LASI), the India Wellbeing Dashboard tracks over 23 subjective wellbeing indicators, including life satisfaction, self-rated health, and loneliness, among others. It provides state-wise and national estimates, highlighting variations across age, sex, caste, education, income, and rural-urban areas. Designed for researchers and policymakers, the dashboard offers interactive tools and detailed reports to explore correlations and derive actionable insights.

Engagements and Collaborations

Inaugural Event

Date – 1st October 2024

Venue – FLAME University, Pune, India

The Centre for Research in Wellbeing and Happiness (CRWBH) was successfully launched at FLAME University, on the occasion of UN International Day of Older Persons. The inaugural event featured esteemed speakers who shared insights on enhancing societal wellbeing.



Mr. Vallabh Bhanshali

Co-founder of ENAM Group and Member of the Governing Body at FLAME University, stressed the necessity of prioritizing citizens' wellbeing as a cornerstone of national prosperity. Mr. Bhanshali called for increased focus on mental health and discussed the true impact of urban migration on individual's wellbeing and happiness. He proposed a comprehensive growth strategy that integrates economic advancement with measures to boost life satisfaction, ensuring development translates into a prosperous and contented society.



Ms. Sujata Saunik

Chief Secretary of Maharashtra, underscored the importance of government initiatives in improving wellbeing. She highlighted key schemes such as Ayushman Bharat and PM Poshan Shakti Nirman, which provide health insurance and nutritious meals to vulnerable populations. Addressing the rise in mental health issues post-COVID-19, Ms. Saunik introduced the Samvaad helpline and advocated for wellness centers to support psychological and social wellbeing. She called for sustained efforts to reduce healthcare stigmas and implement comprehensive strategies that prioritize the happiness and wellbeing of all citizens in the post-pandemic era.



Professor Dishan Kamdar

Vice Chancellor of FLAME University, emphasized the importance of developing inclusive metrics that evaluate life satisfaction alongside economic growth. Aligning with CRWBH's mission, he highlighted the need to bridge the gap between economic success and collective happiness. Professor Kamdar advocated for a holistic welfare framework to guide policy formulation, ensuring that prosperity benefits all citizens and fosters a thriving, equitable society.



Professor M.A. Venkataramanan

Pro Vice Chancellor of FLAME University, highlighted the Centre's commitment to a global vision rooted in Indian values. He underscored the significance of CRWBH's establishment in enhancing wellbeing both nationally and internationally. Drawing inspiration from innovative wellbeing models in the U.S. and Europe, Professor Venkataramanan called for adapting these insights to benefit India. He envisioned a future where health and wellbeing are prioritized, fostering a more fulfilled and resilient society through interdisciplinary research and culturally relevant solutions.



Professor S.V. Subramanian

Professor, Harvard University, suggested integrating both objective and subjective health indicators under the common umbrella of wellbeing. In his keynote address, "From Quantity of Life to Quality of Life," he explored the implications of increased life expectancy on quality of life. Professor Subramanian discussed the possibilities of reevaluating retirement norms by eliminating age-based retirement to improve mental and emotional health, maintaining social connections, and providing purpose for the elderly. He emphasized the need for policies that combine lifespan extension with quality of life improvements, fostering a holistic approach to health and wellbeing.



Professor S. Irudaya Rajan

Director, International Institute of Migration and Development, emphasized the economic potential of India's growing elderly population through the "silver economy." Pervasive issues such as loneliness, inadequate care, and emotional neglect hinder seniors from fully enjoying their later years. The "feminization of aging" and "rural aging" trends highlight that elderly women in rural areas, especially widows, face limited access to social and medical services. Professor Rajan called for stricter laws to protect the elderly and urged the inclusion of elderly issues in the Sustainable Development Goals (SDGs).

Inaugural Plenary Session: Measurement of Wellbeing – Reflections and Possibilities



Chaired by Professor Udaya Shankar Mishra from the International Institute for Population Sciences, the session featured Dr. Sunil Rajpal (Assistant Professor, FLAME University), panelists Prof. Aparna Shankar (Professor, FLAME University), Dr. Yugank Goyal (Associate Professor, FLAME University), Dr. Tulika Tripathi (Associate Professor, Central University of Gujarat), and Dr. William Joe (Assistant Professor, Institute of Economic Growth).

Professor Mishra chaired the session, and iterated the intricacies related to statistical anchoring of the wellbeing measurements and its relevance in the Indian context. Dr. Rajpal highlighted the challenges of measuring subjective wellbeing, emphasizing the impact of socioeconomic factors like family background and geographic location. Panelists stressed the importance of cultural context and interdisciplinary methods, incorporating insights from linguistics and mythology. The discussion examined the effects of consumerism and choice on happiness, questioning whether more autonomy always leads to greater wellbeing. Dr. Tulika Tripathi and Dr. William Joe advocated for integrating both objective and subjective measures to gain a holistic understanding of quality of life. The session concluded with a call for clear benchmarks and a comprehensive framework based on "Being, Belonging, and Becoming" to ensure wellbeing assessments are thorough and contextually relevant.

Distinguished Lecture – Dr. Sachin Nandha

Director, International Centre for Sustainability, London


Date – 25th November 2024


Venue – FLAME University, Pune, India

Dr. Sachin Nandha's distinguished talk, "India as the Phoenix: Rise Like a Phoenix," explored India's historical resilience and its journey from decline during the Mughal and colonial eras to its post-independence struggles. Emphasizing the need for authentic Indian identity, the talk highlighted key challenges such as social and gender inequality, caste divisions, and sustainability imperatives. Dr. Nandha emphasized the importance of renewable energy, environmental responsibility, education reform, inclusive capitalism, and ethical use of technology in shaping a sustainable and inclusive future for India, rooted in its cultural values and modern innovation.



Research Projects





**Reducing Neonatal, Infant and Child Mortality;
Malnutrition and Morbidity in Vulnerable Urban Slums
of Kolkata**

An Impact Evaluation
October – November 2024

**Reducing Neonatal, Infant and Child
Mortality; Malnutrition and Morbidity
in Vulnerable Urban Slums of Kolkata
– An Impact Evaluation – **Completed****

Funding organization
 Child in Need Institute, Kolkata, India

Dr. Sunil Rajpal, Director, CRWBH, FLAME University

In collaboration with the Child in Need Institute (CINI), this project addresses maternal and child health in Kolkata slums. It targets high-risk pregnancies, inadequate antenatal care, and malnutrition over two years. Key interventions include early pregnancy registration, high-risk pregnancy management, nutrition counseling, and promoting institutional deliveries. The centre is working on the project's impact evaluation which shows significant improvements in antenatal care, breastfeeding practices, and nutritional health, guiding future health initiatives in urban slum settings.

Returns on Investments from Primary Healthcare in India – Ongoing

Funding organization: Health Systems Transformation Platform, New Delhi, India

Dr. Abhishek Kumar, CRWBH, FLAME University

Primary healthcare is the cornerstone of a strong health system. It is crucial for preventive care, early detection, and managing common ailments. Investments in primary healthcare is essential for achieving Universal Health Coverage (UHC) and the Sustainable Development Goals (SDGs). Despite progress in this area, India continues to face a dual burden of communicable and non-communicable diseases, underscoring the need to strengthen primary care services. Against this background, this study aims to quantify the health and economic benefits derived from primary healthcare investments and to inform strategic decisions for future investments.

Wellbeing Implications of Banning Certain Antimicrobial Drug Uses for Growth Promotion and Disease Prevention in Livestock and Poultry – Experimental Economics – Ongoing

Dr. Anubrata Deka and Prof. Vishal Choudhury, CRWBH, FLAME University

This study utilizes experimental economics to examine the societal impact of banning antimicrobial drugs in livestock and poultry for growth promotion and disease prevention. The World Health Organization has highlighted antimicrobial resistance (AMR) as a significant global health threat, largely driven by the extensive use of antibiotics in humans and animals. By analyzing consumer behavior and perceived wellbeing, this research aims to understand the causal effects of such bans. It provides insights into how reduced antibiotic use influences public health and economic decisions, helping policymakers evaluate the broader implications of implementing stricter regulations on antimicrobial usage in the food industry.

India Wellbeing Insights

CRWBH Team

India Wellbeing Insights is an upcoming project that provides a comprehensive analysis of subjective wellbeing (SWB) across India, a relatively new focus for the country. Utilizing data from the Longitudinal Ageing Study in India (2017-18) (LASI), this project presents over 23 key subjective wellbeing (SWB) indicators, including life satisfaction, self-rated health, and loneliness. Beyond the India Wellbeing Dashboard, which offers an interactive view of these indicators, the project encompasses the State Wellbeing Profile and the India Wellbeing Report, delivering in-depth state-wise and national analyses. This initiative aims to deepen the understanding of SWB in India by examining variations across demographic and socioeconomic factors, such as age, gender, caste, education, and rural-urban distinctions, marking a significant step in wellbeing research in the country.

From Board of Advisors

The centre must develop original, ground-level approaches to accurately measure the true impact of our initiatives, with a key focus on subjective wellbeing to drive significant breakthroughs.

Shri Vallabh Bhanshali, Co-founder ENAM Group and Member, Governing Body, FLAME University

The centre could develop a comprehensive happiness index tailored to different age groups, providing valuable insights for policy and practice, similar to Bhutan's successful integration of such an index.

Ms. Sujata Saunik, Chief Secretary, Government of Maharashtra

Strategic development of ideas, inspired by successful models and rooted in Indian philosophy, will enable us to contribute a unique development framework that balances confidence with global acceptability.

Prof. Dishan Kamdar, Vice Chancellor, FLAME University

Creating an individual-level wellness dashboard that incorporates spirituality and physical activity can provide actionable insights and immediate support to those in need.

Shri Kris Gopalakrishnan, Chairman, Axilor Ventures, Co-founder Infosys, President, ISF

India's understanding of wellbeing should integrate Indian Knowledge Systems, emphasizing harmony with nature and the interconnectedness of individual and community wellbeing.

Dr. Rajiv Kumar, Chair, Pahle India Foundation, Former Vice-Chairman, NITI Aayog of India

Redefining India's economic model from consumption-driven prosperity to one that prioritizes security, wellbeing, and happiness is essential for sustainable growth.

Prof. S.V. Subramanian, Professor, Harvard University

Wellbeing indicators should capture individuals' active expressions through the Being, Belonging, and Becoming framework, ensuring comprehensive and contextually relevant assessments.

Prof. Udaya Shankar Mishra, Professor, International Institute for Population Sciences

Implementing wellness programs in colleges can significantly enhance our understanding of nutrition and non-communicable diseases, fostering healthier future generations.

Dr. William Joe, Assistant Professor, Institute of Economic Growth

Achieving conceptual clarity in defining wellbeing is crucial. We must focus on what truly matters for our community, understanding wellbeing within its cultural context.

Prof. Aparna Shankar, Professor, FLAME University

Developing wellbeing indicators tailored to the Indian context by critiquing and adapting existing global metrics will ensure they align with our cultural and socio-economic realities.

Dr. Santosh Kudtarkar, Associate Professor, FLAME University

Engaging with the government to identify policy-relevant research ensures our ideas are impactful and aligned with immediate and long-term policy needs.

Dr. Yugank Goyal, Associate Professor, FLAME University

Our objectives include exploring the anatomy of wellbeing and bridging the gaps between subjective and objective measures, ensuring our interventions effectively enhance the quality of life for all Indians.

Dr. Sunil Rajpal, Centre Director, CRWBH

What's Next?

Research Projects

- ◇ District-Level Patterns of Alcohol and Tobacco Consumption in India: Evidence from the National Family Health Survey, 2016–21.
- ◇ Exploring the Relationship Between Subjective Wellbeing and Macroeconomic Progress: Insights from India.
- ◇ Understanding Subjective Wellbeing using Objective Characteristics: Empirical Evidence from the Longitudinal Aging Study in India, 2017–19.
- ◇ The Case for Subjective Wellbeing in India (Opinion Piece)
- ◇ Equity Implications of Health Insurance Reimbursements in India: An Empirical Analysis of National Sample Survey, 2017–18.

Upcoming Events

1. Plenary Session at the 12th Annual Conference of Indian Health Economics and Policy Association (IHEPA)

Date – 22nd January 2025

Venue – India International Centre, Delhi

Title – A Review of Wellbeing Measurements: Reflections, Challenges, and Possibilities for India

Chair: Dr. Rajiv Kumar (Chairman, Pahle India Foundation, Delhi)

Co-chair: Prof. Mudit Kapoor (ISI, New Delhi) (TBC)

Discussants: Prof. T.V. Sekher (IIPS, Mumbai), Prof. US Mishra (IIPS, Mumbai), Prof. Achin Chakraborty (IDS, Kolkata), and Dr. Sunil Rajpal (Director, CRWBH)

2. Distinguished Lecture Series – Dr. Mrinmoyi Kulkarni (Professor, Indian Institute of Technology (IIT), Mumbai)

Date – 6th February 2025

Venue – FLAME University, Pune

Title – Social Determinants of Health

Abstract – India appears to be in the middle of a transition in terms of disease burden from communicable to non-communicable diseases. The increasing burden of heart disease and diabetes brings lifestyle factors and health behaviors into sharper focus, given their influence on the incidence and course of these chronic diseases. Health behaviors are known to be influenced by both social structural variables as well as individual psychological variables. Health outcomes in terms of chronic conditions, perceived health and aging will be discussed, with the goal of planning more effective interventions to prevent and manage health conditions.



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