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A monthly update of socio-economic developments in India by the IHDS research community.

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IHDS DATA COMMUNITY RESULTS

# Effects of Zero-dose Vaccination Status in Early Childhood and Level of Community Socio-Economic Development on Learning Attainment in Pre-Adolescence in India: A Population-based Cohort Study

By Mira Johri, Edmond SW Ng, Alyssa Sharkey, Delphine Bosson-Rieutort, Georges K. Kone, and S.V. Subramanian



Endorsed by the World Health Assembly in 2020, Immunization Agenda 2030 is a new global strategy that aims to reach "zero-dose" children -- those who fail to receive any basic vaccines (represented by non-receipt of the first dose of diphtheria-tetanus-pertussis (DTP1) vaccine) -- with the goal of enhancing child survival, and contributing to children's ability to thrive. While the survival benefits of immunisation are well established, empirical evidence on developmental outcomes for zero-dose children is scant. To inform zero-dose policy, this paper analysed data from the India Human Development Survey (IHDS) panel dataset to characterise the relationship between zero-dose vaccination status in early childhood and learning attainment in preadolescence, a critical child development milestone. The authors hypothesised that vulnerability would be highest for zero-dose children living in contexts of grave deprivation; therefore, the analysis considered whether the level of community socio-economic development moderated observed relationships.

Analyses revealed that zero-dose vaccination status was associated with poor learning outcomes at ages 8 to 11 years for some, but not all, children, and that risk was differentiated by the level of community socio-economic development. Findings from multiple analyses confirmed that zero-dose children living in contexts of very low socio-economic development are at elevated risk of poor learning attainment in pre-adolescence. These results have important implications for policy and practice. They highlight important opportunities for new policy initiatives that unite the zero-dose strategy and the early childhood development and learning agendas encapsulated in Sustainable Development Goal 4.1: "By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes". Moreover, they suggest that a multi-sectoral intervention strategy focusing on zero-dose children in high-needs geographies could contribute to transformative change, enabling children from systematically marginalised households and communities to survive, thrive, and realise their full potential.



## Full Article Here

Mira Johri is Professor in the Department of Health Management, Evaluation and Policy at the School of Public Health, University of Montreal; Principal Scientist at the University of Montreal Hospital Research Centre, and currently a visiting researcher at Gavi, the Vaccine Alliance. Her research seeks to better understand the social and structural determinants of global child health and to identify innovative approaches to address key challenges limiting children's potential. Her research focuses especially on equitable access to childhood vaccines globally and in India, where she has been conducting field research since 2012. She has a Bachelor of Arts in Economics and Philosophy from McGill University; a Master of Public Health from Yale School of Public Health, Yale University; and a PhD in Ethics and Philosophy from McGill University.

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Alyssa Sharkey is a Lecturer on Global Health in the School of Policy and International Affairs at Princeton University. She has spent most of her career working with UNICEF as a health specialist as well as for various academic, research, and non-profit settings both internationally and in the United States. She has a Master of Health Science and a PhD from the Johns Hopkins Bloomberg School of Public Health, and a Master of Science in Medicine from the University of Cape Town in South Africa.

**Delphine Bosson-Rieutort** is an Assistant Professor in the Department of Health Management, Evaluation and Policy at the School of Public Health, University of Montreal, where her research programme aims to facilitate efficient use of Quebec medico-administrative data, in order to contribute to the understanding of healthcare systems and to develop decision-making tools. She specialises in the development of innovative methods and algorithms for the analysis of health databases. Through her research projects, she seeks to optimise the use of different types of databases (epidemiological, toxicological, clinical and medico-administrative) in order to highlight relevant statistical signals. She has a Master's degree in Environment-Health and a PhD in Models, Methods and Algorithms for Health and Biology.

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**S.V. Subramanian** is Professor of Population Health and Geography and Faculty Chair of the Center for Geographic Analysis at Harvard University. He is the Principal Investigator of the Geographic Insights Lab based at the Harvard Center for Population and Development Studies. He is also a Steering Committee member of the Institute for Quantitative Social Sciences. He was the Founding Director of Graduate Studies for the inter-disciplinary PhD programme in Population Health Sciences at Harvard. He received his under- and post-graduate training at the University of Delhi and completed his PhD in Geography at the University of Portsmouth. He has published over 800 articles, book chapters, and books in the broad field of population health and well-being and in applied multi-level statistical methods.

# Who Eats Last? Intra-household Gender Inequality in Food Allocation among Children in Educationally Backward Areas of India

By Dipanwita Ghatak, Soham Sahoo, Sudipa Sarkar, and Varun Sharma



The practice of women eating after men is a common gender-inequitable food allocation mechanism among adults in Indian households and has been associated with poor health and nutritional outcomes for women. Nationally representative data from the India Human Development Survey (IHDS), 2011– 12, showed that among adults, the practice of women eating after men was prevalent in around 26 per cent of the households in India. Analysis based on the IHDS data also shows that the female disadvantage in health-related outcomes like height and weight is significantly magnified in households where men eat first as compared to other households. However, empirical evidence on whether a similar practice of girls eating after boys is prevalent among children is scarce. Using primary data from a household survey conducted in educationally backward areas of four Indian States, this paper provides new evidence of this practice among children. Almost 28 per cent of the sample households follow the mealtime custom of girls eating after boys. Scheduled Tribes and households with higher incomes are less likely to follow this practice. Other relevant factors include children's relative ages by sex and an interplay between family size and children's sex composition. These findings suggest an intersectionality between gender and other dimensions of inequality, namely social identity and economic class.





**Dipanwita Ghatak** is a PhD student at the University of Essex. Her research focuses on employment and family formation decisions of women, particularly ethnic minority women in the UK. She has an MSc from Indira Gandhi Institute of Development Research in Mumbai, and was previously a Research Associate at the Centre for Public Policy at Indian Institute of Management (IIM) Bangalore.

Soham Sahoo is an Assistant Professor at the Centre for Public Policy, Indian Institute of Management (IIM) Bangalore. He is currently also a Visiting Fellow at International Inequalities Institute – London School of Economics and Political Science, and a Research Fellow at the Institute of Labor Economics (IZA), Bonn. His research interest is broadly in development economics, with a focus on education, labour, and political economy. Before joining IIM Bangalore, he worked as a Postdoctoral Researcher in the Department of Economics, University of Goettingen, Germany. He has also held visiting positions at the Centre for Modern Indian Studies, University of Goettingen, and Institute for Employment Research, University of Warwick. He holds a PhD in Quantitative Economics from Indian Statistical Institute, Delhi.

Sudipa Sarkar is an Assistant Professor of Economics at National Law School of India University (NLSIU), Bangalore, and an Honorary Associate Professor at Institute for Employment Research, University of Warwick. Her research interests are in the fields of labour and development economics, with a particular focus on future of work, skills and education, decent work, and social inequality. Before joining NLSIU, Sudipa worked as a Research Fellow and later, as an Assistant Professor at the Institute for Employment Research, University of Warwick, UK, for nearly five years. She has also been a Marie Jahoda Visiting Fellow at University of Sussex, UK and a Fellow at Global Labour Organisation. She has an MA in Economics from Rabindra Bharati University, Kolkata, and a PhD from the Department of Applied Economics, University of Salamanca, Spain.

Varun Sharma is a seasoned professional in the field of social development and research. He has worked in the fields of public health and social development for more than 12 years. He has prior experience working with academic institutions such as Tata Institute of Social Sciences, Mumbai, and Institute of Health Management Research, Bangalore. He has managed various research and impact evaluation projects in the past, and has published many research articles in international peer-reviewed journals. He holds a doctorate in Economics and post-doc in Public Health.

### **Recent publications from IHDS users:**

Bag, S., S. Seth, and B. Basak. 2023. "Heterogeneous Effect of the Indian
Affirmative Action: The Role of Caste Certificates", *Working Paper No.*339, Centre for Development Economics, Delhi School of Economics. Link.

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Singh, M. and C.S. Bahinipati. 2023. "Urban Households Investment Behaviour Towards Home Appliances in India: Do Gender and Neighbourhood Effect Matter?", *Environment and Urbanization ASIA*, 14(2):285-298. Link.

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### ABOUT IHDS

The India Human Development Survey (IHDS) is a nationally representative, multi-topic survey of 41,554 households in 1503 villages and 971 urban neighborhoods across India. The first round of interviews was completed in 2004-05; data are publicly available through ICPSR. A second round of IHDS re-interviewed most of these households in 2011-12 (N=42,152) and data for the same can be found again through ICPSR. IHDS 3 is currently in the field.

IHDS 3 has been jointly organized by researchers from the University of Maryland, the National Council of Applied Economic Research (NCAER), Indiana University and the University of Michigan. Funding for the second round of this survey is provided by the National Institutes of Health, grants RO1HD041455 and R01HD061048. Additional funding is provided by The Ford Foundation, IDRC and DFID.

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