


April 2025

PERSONAL STATEMENT

I am an engineer and chronic disease epidemiologist working towards the integration of precision medicine, disease surveillance, and data solutions for improving public health. My experience spans cardiometabolic health, maternal and child health, micronutrient deficiencies, mental health, and cognition. I use structured data sources (electronic health records, sensors, cohort studies, surveys) to identify new ways of closing care gaps for vulnerable populations through epidemiological research projects. My current research focuses on *actionable precision medicine for public health*. All my research is done in collaboration with clinicians and social scientists, using traditional statistical models (longitudinal analysis, latent variable models), causal inference (observational, graphical), and machine learning approaches (supervised and unsupervised methods).

 Reproducible Research: <https://github.com/jvargh7>

PROFESSIONAL EXPERIENCE

Assistant Professor, Rollins School of Public Health

Hubert Department of Global Health & Emory Global Diabetes Research Center, Atlanta 09/2024 –

Co-Director, EGDCR Diabetes Translational Accelerator

Emory Global Diabetes Research Center, Atlanta 12/2023 –

Assistant Research Professor, Rollins School of Public Health (*Non-Tenure Track*)

Hubert Department of Global Health & Emory Global Diabetes Research Center, Atlanta 08/2023 – 09/2024

Postdoctoral Fellow, Emory Global Diabetes Research Center

Hubert Department of Global Health, Emory University, Atlanta 05/2022 – 07/2023

Graduate Research Assistant, COVID-19 Health Equity Dashboard

Hubert Department of Global Health, Emory University, Atlanta 06/2021 – 09/2021

Research Analyst, Division of Nutrition

St. John's Research Institute, Bengaluru, India 09/2015 – 06/2018

Junior Consultant, Forecasting – Marketing Analytics

IMS Health GTO, Bengaluru, India 07/2014 – 08/2015

EDUCATION

Laney Graduate School, Emory University (Atlanta, USA)

Ph.D. in Nutrition and Health Sciences 09/2018 – 04/2022

Title: The association of wealth over the life course with health and disease in adulthood: An analysis of six birth cohorts from five low- and middle-income countries

Indian Institute of Technology Madras (Chennai, India)

B.Tech. and M.Tech. in Biotechnology 08/2009 – 06/2014

AWARDS & HONORS

Sandra A. Daugherty Award for Cardiovascular Epidemiology Nominee (*Best Abstract*)

American Heart Association 2025

Early Career Award in Primary Care (<i>Best Abstract</i>) American Diabetes Association	2024
Outstanding Scholarly Research Award in the Natural Sciences (<i>Best PhD Dissertation</i>) Laney Graduate School, Emory University	2022
Best Presentation Bangalore Boston Nutrition Collaborative (BBNC)	2016
IMS Client Delight Award IMS Health	2015
48th Indian Pharmaceutical Congress Prize (<i>Best Master's Thesis</i>) IIT Madras	2014

PUBLICATIONS

Student/Trainee

2025

1. Sally S. Ong, **Jithin Sam Varghese**. Commentary: Closing gaps in diabetic retinopathy screening in India using a deep learning system. 2025. *JAMA Network Open*. <https://doi.org/10.1001/jamanetworkopen.2025.0991>
Article: Brant 2025 *JAMA Network Open*
2. Zhongyu Li[#], Mohammed K. Ali, **Jithin Sam Varghese**. Commentary: Leveraging historical patient data to identify undiagnosed diabetes and prediabetes in routine care. 2025. *Diabetes Care* (*In Press*).
Article: Bowen 2025 *Diabetes Care*.
3. Namitha Mary Varghese[#], **Jithin Sam Varghese**. Depressive Symptoms Are Not Longitudinally Associated with Joint Glycemic, Blood Pressure, and Cholesterol Control Among Middle-Aged and Older Adults with Diabetes in USA. *Annals of Behavioral Medicine*. 2025. <https://doi.org/10.1093/abm/kaaf015>.

2024

4. Jiali Guo[#], Samuel C.O. Opara[#], Sophia A. Hussen, **Jithin Sam Varghese**. Prevalence, Monitoring, Treatment and Control of Type 2 Diabetes by Race and Sexual Orientation Among Males with HIV. *AIDS Patient Care and STDs*. 2024. <https://doi.org/10.1089/apc.2024.0193>.
5. **Jithin Sam Varghese**, Yi Guo, Mohammed K. Ali, William T. Donahoo, Rosette J. Chakkalal. Body mass index changes and their association with SARS-CoV-2 infection: a real-world analysis. *International Journal of Obesity*. 2024. <https://doi.org/10.1038/s41366-024-01628-x>.
6. Vithanage Wickramasinghe, Shabina Ariff, Shane Norris, Ina Santos, Rebecca Kuriyan, Lukhanyo Nyati, **Jithin Sam Varghese**, Alexia Murphy-Alford, Nishani Lucas, Caroline Costa, Kiran Ahuja Sisitha Jayasinghe, Anura Kurpad, Andrew Hills. Anthropometric prediction models of body composition in 3 to 24-month old infants: a multicenter international study. *European Journal of Clinical Nutrition*. 2024. <https://doi.org/10.1038/s41430-024-01501-0>.
7. **Jithin Sam Varghese**, Mohammed K. Ali, Yi Guo, William T. Donahoo, Rosette J. Chakkalal. Risk of new-onset diabetes before and during the COVID-19 pandemic: a real-world cohort study. *Journal of General Internal Medicine*. 2024. <https://doi.org/10.1007/s11606-024-09035-8>.
8. **Jithin Sam Varghese**, Vishnu Ravi Kumar, Jackson Bartelt[#], Andrew M Hendrick, Francisco J. Pasquel. The Role of Urban Residence, Race and Ethnicity, and Glycemic Control in Receiving Standards of Care and Progression to Vision Threatening Diabetic Retinopathy. *Diabetes Care*. 2024. <https://doi.org/10.2337/dci24-0024>.

9. Namitha Mary Varghese[#], **Jithin Sam Varghese**. Sex Differences in Association of Joint Glycemic, Blood Pressure and Lipid Control and Two-year Risk of Falls among Older Adults with Diabetes. *Journal of Diabetes and Its Complications*. 2024. <https://doi.org/10.1016/j.jdiacomp.2024.108815>.
10. **Jithin Sam Varghese**, Emily Peterson, Mohammed K. Ali, Nikhil Tandon. Advancing Diabetes Surveillance Ecosystems: A Case Study of India. *The Lancet Diabetes & Endocrinology*. 2024. [https://doi.org/10.1016/S2213-8587\(24\)00124-4](https://doi.org/10.1016/S2213-8587(24)00124-4).
11. **Jithin Sam Varghese**, Arpita Ghosh, Aryeh D. Stein, KM Venkat Narayan, Shivani A. Patel. The association of hypertension among married Indian couples: a nationally representative study. *Scientific Reports*. 2024. <https://doi.org/10.1038/s41598-024-61169-1>
12. Rodrigo M Carillo Larco, Wilmer Cristobal Guzman-Vilca, **Jithin Sam Varghese**, Francisco J Pasquel, Roberta Caixeta, Carmen Antini, Antonio Bernabe-Ortiz. Compliance with eye and foot preventive care in people with self-reported diabetes in Latin America and the Caribbean: Pooled, cross-sectional analysis of nine national surveys. *Primary Care Diabetes*. 2024. <https://doi.org/10.1016/j.pcd.2024.03.001>

2023

13. **Jithin Sam Varghese***, Nikhil Srinivasapura Venkateshmurthy*, Nikkil Sudharsanan, Jeemon Panniyamakal, Shivani A. Patel, Harsha Thirumurthy, Ambuj Roy, Nikhil Tandon, K.M. Venkat Narayan, Dorairaj Prabhakaran, Mohammed K. Ali. Hypertension diagnosis, treatment, and control in India. *JAMA Network Open*. 2023. <https://doi.org/10.1001/jamanetworkopen.2023.39098>. * Equal contributions. Click [here](#) for interactive dashboard that displays state- and district-level care cascades.
14. **Jithin Sam Varghese***, Peiyi Lu*, Daesung Choi, Lindsay Kobayashi, Mohammed K. Ali, Shivani Patel, Chihua Li. Spousal concordance of hypertension among middle-aged and older heterosexual couples around the world: evidence from studies of aging in the USA, England, China, and India. *Journal of the American Heart Association*. 2023. <https://doi.org/10.1161/JAHA.123.030765>. * Equal contributions. Altmetric Score > 1000 (*Top 1% of articles by public attention*). Featured by [American Heart Association](#), [National Heart, Lung and Blood Institute](#), [Today show](#), [CNN.com](#), [Fox 32 Chicago](#), [Detroit Local 4](#) etc.
15. **Jithin Sam Varghese**, Rodrigo M. Carillo Larco, K.M. Venkat Narayan. *Correspondence*: Achieving replicable subphenotypes of adult-onset diabetes. *The Lancet Diabetes & Endocrinology*. [https://doi.org/10.1016/S2213-8587\(23\)00195-X](https://doi.org/10.1016/S2213-8587(23)00195-X)
Article: Stefan and Schulze 2023 *The Lancet Diabetes & Endocrinology*
16. **Jithin Sam Varghese**, Ranjit Mohan Anjana, Pascal Geldsetzer, Nikkil Sudharsanan, Jennifer Manne-Goehler, Harsha Thirumurthy, Soura Bhattacharyya, K.M. Venkat Narayan, Viswanathan Mohan, Nikhil Tandon, Mohammed K. Ali. National estimates of the adult diabetes care continuum in India, 2019-2021. *JAMA Internal Medicine*. 2023. <https://doi.org/10.1001/jamainternmed.2023.3070>
Click [here](#) for interactive dashboard that displays state- and district-level care cascades.
17. Anna Paul, Nalini Sarah Newbigging, Audrin Lenin, S Mahasampath Gowri, **Jithin Sam Varghese**, Arun Jose Nell, Kundavaram Paul Prabhakar Abhilash, Ramya Iyadurai, George M Varghese; Role of clinical parameters and neutrophil gelatinase-associated lipocalin (NGAL) as predictors of bacterial sepsis in patients presenting to the Emergency Department with fever. *Indian J Crit Care Med*. Mar 2023;27(3):176-182. <https://doi.org/10.5005/jp-journals-10071-24419>
18. K.M. Venkat Narayan, **Jithin Sam Varghese**, Yara S. Beyh, Soura Bhattacharyya, Shweta Khandelwal, Gokul S. Krishnan, Karen R. Siegel, Tinku Thomas, Anura V. Kurpad. A strategic framework for defeating diabetes in India: A 21st century agenda. *Journal of Indian Institute of Science*. 2023; <https://doi.org/10.1007/s41745-022-00354-5>

2022

19. **Jithin Sam Varghese**, Rachel Waford Hall, Linda S Adair, Shivani A Patel, Reynaldo Martorell, Delia Belleza, Maria F Kroker-Lobos, Nanette R Lee, Lukhanyo Nyati, Manuel Ramirez-Zea, Linda M Richter, Aryeh D. Stein. Subjective social status is associated with happiness but not weight status or psychological distress: an analysis of three prospective birth cohorts from low- and middle-income countries. *Wellbeing, Space & Society*. 2022. 3: 100115; <https://doi.org/10.1016/j.wss.2022.100115>.

20. **Jithin Sam Varghese**, Clive Osmond, Aryeh D. Stein. Conditional wealth to estimate association of wealth mobility with health and human capital in low- and middle-income country cohorts. *BMC Med Res Methodol.* 2022;22(1); <https://doi.org/10.1186/s12874-022-01757-9>
21. **Jithin Sam Varghese**, KM Venkat Narayan. Ethnic differences between Asians and non-Asians in clustering-based classification of adult-onset diabetes mellitus: A systematic narrative review. *Prim Care Diabetes.* Sep 22 2022; <https://doi.org/10.1016/j.pcd.2022.09.007>.
Click [here](#) for interactive dashboard that displays between study and between ethnicity variability in clusters.
22. **Jithin Sam Varghese**, Aashish Gupta, Rukshan Mehta, Aryeh D. Stein, Shivani A. Patel. Changes in child undernutrition and overweight in India from 2006 to 2021: an ecological analysis of 36 states. *Global Health Science & Practice.* September 2022; <https://doi.org/10.9745/GHSP-D-21-00569>
23. Monica Mazariegos, **Jithin Sam Varghese**, Maria F Kroker-Lobos, Ann M DiGirolamo, Manuel Ramirez-Zea, Usha Ramakrishnan, Aryeh D. Stein. Age at childbirth and change in BMI across the life-course: evidence from the INCAP Longitudinal Study. *BMC Pregnancy Childbirth.* Feb 24 2022;22(1):151; <https://doi.org/10.1186/s12884-022-04485-6>
24. Ann DiGirolamo, **Jithin Sam Varghese**, Maria F Kroker Lobos, Monica Mazariegos, Manuel Ramirez-Zea, Reynaldo Martorell, Aryeh D. Stein. Protein-energy Supplementation in Early-life Decreases the Odds of Mental Distress in Later Adulthood in Guatemala. *J Nutr.* Apr 1 2022;152(4):1159-1167; <https://doi.org/10.1093/jn/nxac005>
Editor's choice article for [April 2022](#)
25. Cesar G Victora, Fernando P. Hartwig, Luis P. Vdaletti, Reynaldo Martorell, Clive Osmond, Linda Richter, Aryeh D Stein, Aluisio JD Barros, Linda Adair, Fernando C Barros, Santosh K Bhargava, Bernardo L Horta, Maria F. Kroker-Lobos, Nanette R Lee, Ana Maria B Menezes, Joseph Murray, Shane Norris, Harshpal S Sachdev, Alan Stein, **Jithin Sam Varghese**, Zulfiqar Bhutta, Robert E Black. Effects of early-life poverty on health and human capital in children and adolescents: analyses of national surveys and birth cohort studies in LMICs. *The Lancet.* 2022;399(10336); [https://doi.org/10.1016/S0140-6736\(21\)02716-1](https://doi.org/10.1016/S0140-6736(21)02716-1)

2021

26. **Jithin Sam Varghese**, Linda S. Adair, Shivani A. Patel, Sonny Agustin Bechayda, Santosh K. Bhargava, Delia B. Carba, Bernardo L. Horta, Natalia P. Lima, Reynaldo Martorell, Ana M.B. Menezes, Shane A. Norris, Linda M. Richter, Manuel Ramirez-Zea, Harshpal Singh Sachdev, Fernando C. Wehrmeister, Aryeh D. Stein, for the COHORTS group. Changes in asset-based wealth across the life course in birth cohorts from five low- and middle-income countries. *SSM Popul Health.* Dec 2021;16:100976; <https://doi.org/10.1016/j.ssmph.2021.100976>
27. Jeswin Baby, **Jithin Sam Varghese**, Shruthi Cyriac, KM Venkat Narayan, Anura V Kurpad, Tinku Thomas, Shivani A. Patel. Contribution of economic and nutritional context to overweight/obesity dynamics in Indian women from 1998 to 2016: a multilevel analysis of national survey data. *BMJ Open.* Dec 9 2021;11(12):e050598; <https://doi.org/10.1136/bmjopen-2021-050598>
28. **Jithin Sam Varghese**, Shivani A. Patel, Reynaldo Martorell, Manuel Ramirez-Zea, Aryeh D. Stein; Relative and absolute wealth mobility since birth in relation to health and human capital in middle adulthood: An analysis of a Guatemalan birth cohort. *SSM Popul Health.* Sep 2021;15:100852; <https://doi.org/10.1016/j.ssmph.2021.100852>
29. **Jithin Sam Varghese**, Rachel Waford Hall, Ann DiGirolamo, Reynaldo Martorell, Manuel Ramirez-Zea, Aryeh D. Stein. Socioeconomic position over the life-course and subjective social status in relation to nutritional status and mental health among Guatemalan adults. *SSM Popul Health.* Sep 2021;15:100880; <https://doi.org/10.1016/j.ssmph.2021.100880>
30. **Jithin Sam Varghese**, John Maluccio, Solveig A. Cunningham, Manuel Ramirez-Zea, Aryeh D. Stein. Development of a temporally harmonized asset index: evidence from across 50 years of follow up of a birth cohort in Guatemala. *BMC Med Res Methodol.* Apr 26 2021;21(1):85; <https://doi.org/10.1186/s12874-021-01263-4>
31. **Jithin Sam Varghese**, Joyce C. Ho, Ranjit Mohan Anjana, Shivani A. Patel, S Jebarani, Viswanathan Baskar, KM Venkat Narayan, V. Mohan. Profiles of Intraday Glucose in Type 2 Diabetes and Their Association with Complications: An Analysis of Continuous Glucose Monitoring Data. *Diabetes Technol Ther.* Aug 2021;23(8):555-564; <https://doi.org/10.1089/dia.2020.0672>

2019

32. **Jithin Sam Varghese**, Aryeh D. Stein. Malnutrition among women and children in India: limited evidence of clustering of underweight, anemia, overweight, and stunting within individuals and households at both state and district levels. *Am J Clin Nutr.* Apr 1 2019;109(4):1207-1215; <https://doi.org/10.1093/ajcn/nqy374>
33. Adam Hanif, Rachel Shah, Jiong Yan, **Jithin Sam Varghese**, Shivani A. Patel, Blaine E. Cribbs, Ghazala O'Keefe, Andrew M. Hendrick, Jessica G. Shantha, Baker Hubbard III, Purnima S. Patel, Prethy Rao, Steven Yeh, Nieraj Jain. Strength of Association between Pentosan Polysulfate and a Novel Maculopathy. *Ophthalmology.* Oct 2019;126(10):1464-1466; <https://doi.org/10.1016/j.ophtha.2019.04.024>
34. **Jithin Sam Varghese**, Sumathi Swaminathan, Anura V Kurpad, Tinku Thomas. Demand and supply factors of iron-folic acid supplementation and its association with anaemia in North Indian pregnant women. *PLoS One.* 2019;14(1):e0210634.; <https://doi.org/10.1371/journal.pone.0210634>
35. **Jithin Sam Varghese**, Tinku Thomas, Anura V Kurpad. Evaluation of haemoglobin cut-off for mild anaemia in Asians - analysis of multiple rounds of two national nutrition surveys. *Indian J Med Res.* Oct 2019;150(4):385-389; https://doi.org/10.4103/ijmr.IJMR_334_18
36. Sumathi Swaminathan, Santu Ghosh, **Jithin Sam Varghese**, Harshpal S Sachdev, Anura V Kurpad, Tinku Thomas. Dietary Iron Intake and Anemia Are Weakly Associated, Limiting Effective Iron Fortification Strategies in India. *J Nutr.* May 1 2019;149(5):831-839; <https://doi.org/10.1093/jn/nxz009>

2018

37. Sanjukta Rao, Tinku Thomas, Sumathi Swaminathan, **Jithin Sam Varghese**, Anura V Kurpad, Ankita Mondal, Bharati Kulkarni, Harshpal Singh Sachdev, Umesh Kapil. Current Practice of Iron doses for Treatment of Iron Deficiency Anaemia – A Review. *Indian J Commun Health.* Apr 25 2018; 30 (1 Supp): 31-38; <https://doi.org/10.47203/IJCH.2018.v30i01SUPP.005>
38. Ankita Mondal, Tinku Thomas, Sumathi Swaminathan, Sanjukta Rao, **Jithin Sam Varghese**, Bharati Kulkarni, Harshpal Singh Sachdev, Umesh Kapil, Anura V Kurpad. Guidelines for Iron supplementation for Prophylaxis of Anaemia in a National Programme – A Review. *Indian J Commun Health.* Apr 2 2018; 30 (1 Supp): 9-30; <https://doi.org/10.47203/IJCH.2018.v30i01SUPP.004>

INVITED TALKS

1. **Jithin Sam Varghese**. Regression analysis for epidemiology (Quantitative Methods Webinar Series – July 2022 at DSI-NRF Center of Excellence in Human Development, Johannesburg, South Africa)
2. **Jithin Sam Varghese**. An overview of cohort studies (CAPHER-India workshop 2022 in New Delhi, India)

PROFESSIONAL ACTIVITIES & MEMBERSHIP

Editorial Board Member for *Journal of Diabetes Science & Technology*

Reviewer for *Journal of Nutrition, Public Health Nutrition, Journal of DoHAD, SSM Population Health, PLoS ONE, Diabetic Medicine, Annals of Epidemiology, Diabetes Technology & Therapeutics, Frontiers in Public Health, BMC Public Health, International Journal of Epidemiology, Annals of Internal Medicine, PLoS Global Health, American Journal of Hypertension, JAMA Network Open, Diabetes Care, Diabetes & Metabolism, American Journal of Clinical Nutrition.*

GRANTS & FUNDING

National Institutes of Health (P30DK111024 Pilot Award)

07/2024 – 06/2025

Type 2 Diabetes Management in Patients Prescribed Second-Generation Antipsychotics: A Real-World Cohort Study: This project uses data from Epic Cosmos Research Platform to study achievement of glycemic, blood pressure and lipid control, and monitoring of complications among newly diagnosed adults with type 2 diabetes prescribed second generation antipsychotics. (PI: Varghese)

National Institutes of Health (3R01DK120814-05S1)

08/2022 – 07/2023

Diabetes Risk after COVID-19 in Racial and Ethnic Minority Communities: Potential association between COVID-19 infection and new-onset T2DM using causal inference methods for electronic health records. (PI: Chakkalakal; Role: Co-Investigator)

Department of Science and Technology, India

10/2017 – 08/2018

EpidaViz: Developing obesity, diabetes and hypertension centered data products from private and public data sources. (PI: Mony; Role: Co-Investigator)

TRAINEES

Doctor of Philosophy

Ruwanthi Ekanayake (GHD; *Rotation*)

SP 2024 –

Zhongyu Li (NHS; *Rotation, Dissertation Chair*)

SP 2024 –

Felix Teufel (GHD, *Rotation*)

SU 2024 – SP 2025

Thomas Hsiao (Biostatistics; *Graduate Research Assistant*)

SP 2024 – SP 2025

Erica Kocher (NHS; *Graduate Research Assistant*)

SP 2024 – SP 2025

Tigest Mekonnen (GHD, *Committee Member*)

FA 2024 –

Kamini Doraivelu (GHD, *Committee Member*)

SP 2025 –

Master of Public Health

Melissa Irek (HPM)

FA 2024-SP 2025

Srividya Vempati (EPI)

SP 2023

Adithi Shyam (GLEPI)

SP 2024

Bachelor of Arts/Bachelor of Science

Aamna Soniwala (Human Health; *HLTH 399R, HLTH 499R, Thesis Chair*)

FA 2022 – SP 2025

Sophia Kim (Biology; *BIOL 499R*)

SP 2023 – SP 2025

Krishna Om Sanaka (Biology and Anthropology; *ANT 397*)

SP 2024 – SP 2025

Jack MacQuillan (Biomedical Engineering)

SP 2024

Caroline Chizak (Human Health)

SP 2025 –

Daniel Hua (Biology)

SP 2025 –

TEACHING EXPERIENCE

Teaching Assistant, Rollins School of Public Health, Emory University

GH 523 – Quantitative Data Analysis

Fall 2019

SERVICE

Faculty Representative, Coalition for Access to NCD Medicines and Products

04/2024 –

Student Member, Emory International Council (2020-2021), Emory University

01/2021 – 05/2021

Co-Chair, Mentorship Committee, Nutrition and Health Sciences students, Emory University

09/2019 – 05/2020

Institute Secretary, International and Alumni Relations, IIT Madras

04/2013 – 03/2014