# JITHIN SAM VARGHESE

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August 2022

#### PROFESSIONAL EXPERIENCE

Postdoctoral Fellow, Global Diabetes Research Center

05/2022 -

Hubert Department of Global Health, Emory University, Atlanta

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

## RESEARCH INTERESTS

Chronic disease epidemiology. Electronic medical records. Wearable sensor integration. Phenotypes of diabetes.

## **GRANTS & FUNDING**

National Institutes of Diabetes and Digestive and Kidney Diseases (NIDDK)

08/2022 - 07/2023

Racial and ethnic differences in PASC-associated T2DM incidence in a retrospective cohort using the OneFlorida+ Data Trust: Potential association between COVID-19 infection and new-onset T2DM using causal inference methods for electronic health records. (PI: Chakkalakal; Role: Co-Investigator)

#### Bill & Melinda Gates Foundation

Child Development and Adult Social and Human Capital: COHORTS: Harmonization of survey data over the life course for six birth cohorts. (PI: Stein; Role: Data Manager/Doctoral Student)

Interdisciplinary Cyber Physical Systems Division, DST, 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)

BIRAC, DBT, India 06/2017 – 12/2017

**Knit Anemia Phase 1**: Identifying local dietary & nutrient-level risk factors for anemia in non-pregnant, non-lactating women. (PI: Kurpad; Role: Lead Analyst)

Varghese, J.S. Page 1 of 5

Tata Trusts 01/2017 - 04/2017

**Nutritional Status and Fortification Simulation Dashboard**: Data harmonization for national health and nutrition surveys, and prototype development of analytics products. (PI: Kurpad; Role: Team Lead)

## PEER-REVIEWED PUBLICATIONS

- 1. **Jithin Sam Varghese**, Ranjit Mohan Anjana, Ranjit Unnikrishnan, Boris Kovatchev, David Rodbard, David C Klonoff, Viswanathan Mohan. Association of a novel index of glycemic control with complications in South Asians with type 2 diabetes: an analysis of continuous glucose monitoring data. *Diabetes Technol Ther*. 2022; Accepted.
- 2. 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
- 3. 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
- 4. Cesar G Victora, Fernando P. Hartwig, Luis P. Vidaletti, Reynaldo Martorell, Clive Osmond, Linda Richter, Aryeh D Stein, Aluisio JD Barros, Linda Adair, Fernando C Barros, Santosh K Bharghava, 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
- 5. 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; <a href="https://doi.org/10.1016/j.ssmph.2021.100976">https://doi.org/10.1016/j.ssmph.2021.100976</a>
- 6. 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
- 7. **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; <a href="https://doi.org/10.1016/j.ssmph.2021.100852">https://doi.org/10.1016/j.ssmph.2021.100852</a>
- 8. **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; <a href="https://doi.org/10.1016/j.ssmph.2021.100880">https://doi.org/10.1016/j.ssmph.2021.100880</a>;
- 9. **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; <a href="https://doi.org/10.1186/s12874-021-01263-4">https://doi.org/10.1186/s12874-021-01263-4</a>
- 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; <a href="https://doi.org/10.1089/dia.2020.0672">https://doi.org/10.1089/dia.2020.0672</a>

Varghese, J.S. Page 2 of 5

- 11. **Jithin Sam Varghese**, Aryeh 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
- 12. Adam Hanif, Rachel Shah, Jiong Yan, **Jithin Sam Varghese**, Shivani A. Patel, Blaine E. Cribbs et.al. Strength of Association between Pentosan Polysulfate and a Novel Maculopathy. *Ophthalmology*. Oct 2019;126(10):1464-1466; <a href="https://doi.org/10.1016/j.ophtha.2019.04.024">https://doi.org/10.1016/j.ophtha.2019.04.024</a>
- 13. **Jithin Sam Varghese**, Sumathi Swaminathan, Anura V Kurpad, Tinku Thomas. Demand and supply factors of ironfolic 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
- 14. **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
- 15. 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; <a href="https://doi.org/10.1093/jn/nxz009">https://doi.org/10.1093/jn/nxz009</a>

#### PAPERS UNDER REVIEW

- 1. **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
- 2. **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
- 3. **Jithin Sam Varghese**. Factors associated with non-participation in anthropometric and biomarker measurements in India: an analysis of National Family Health Survey 2015-16
- 4. **Jithin Sam Varghese**, Tinku Thomas, Jeswin Baby, Solveig Cunningham, Shivani A Patel. Changes in unhealthy weight across India: correlates of underweight and overweight in 36 states between 2015 and 2020
- 5. **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
- 6. **Jithin Sam Varghese**, KM Venkat Narayan. Ethnic differences in clustering-based classification of adult-onset diabetes mellitus: A systematic narrative review
- 7. **Jithin Sam Varghese**, Melissa A. Chapnick, John A. Maluccio, Aryeh D. Stein. Exposure to economic shocks in 'the first 1000 days' and anthropometric faltering: An analysis of serial cross-sectional data from India

#### MANUSCRIPTS IN PROGRESS

- 1. **Jithin Sam Varghese**, Shivani A. Patel, Linda S Adair, Rachel Waford Hall, Reynaldo Martorell, COHORTS Collaborators, Aryeh D. Stein. Schooling and wealth mobility over the life course in relation to health and human capital in adulthood: an analysis of four birth cohorts from low- and middle-income countries
- 2. Manuel Ramirez-Zea, **Jithin Sam Varghese**, Siran He, Maria F Kroker-Lobos, Reynaldo Martorell, Aryeh D. Stein. Association of physical activity and fitness with cardio-metabolic health among middle-age Guatemalan adults
- 3. **Jithin Sam Varghese**, Aryeh D Stein, Shivani A. Patel. Concordance of diabetes and hypertension among workingage heterosexual married couples in India: an analysis of nationally representative data

Varghese, J.S. Page 3 of 5

- 4. **Jithin Sam Varghese**, Samhita Kumar, Aniruddha Deshpande. Does school enrollment protect adolescents against depression and suicidal thoughts in India's poorest states?
- V. Pujitha Wickramasinghe, Shabina Ariff, Shane Norris, Ina Santos, Rebecca Kuriyan, Lukhanyo Nyati, Jithin Sam Varghese, Alexia J Murphy-Alford, Nishani Lucas, Caroline Costa, Andrew P Hills, IAEA Body Composition Infant Reference Study Group. Anthropometry based indicators of body composition in children: birth to 24-month multicenter study
- 6. **Jithin Sam Varghese,** Mohammed K. Ali. The diabetes care cascade in 2019-21: a nationally representative study of 1.9 million adults in India

## **PRESENTATIONS**

- 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**, Shivani A. Patel. Does Spouse's Diabetes Status Impact the Diabetes Care Cascade? A National Study of Couples in India (*Accepted* for Poster presentation at Diabetes 2022, New Orleans, LA)
- 3. **Jithin Sam Varghese**, Shivani A. Patel. Concordance of diabetes and hypertension among married couples in India: an analysis of nationally representative data (Oral presentation at Society for Epidemiological Research conference 2022, Chicago, IL)
- 4. **Jithin Sam Varghese**. An Ecological Analysis of Food Expenditure Patterns During Periods of Economic Recovery and Economic Shock in India (*Accepted* for Poster presentation at Nutrition 2022, Online
- 5. Jithin Sam Varghese. An overview of cohort studies (CAPHER-India workshop 2022 in New Delhi, India)
- 6. Jeswin Baby, **Jithin Sam Varghese**, Shruthi Cyriac, KM Venkat Narayan, Anura V Kurpad, Tinku Thomas, Shivani A. Patel. Contextual and Compositional Risk Factors of Overweight and Obesity in India over Two Decades: An Analysis of National Demographic and Health Surveys (Poster at Nutrition 2020 in Seattle, WA)
- 7. Roshni Vakilna, Vanisha Nambiar, **Jithin Sam Varghese**. Comprehensive intervention improves linear growth and weight status in children under five years of age in Surat city: Results from a cluster randomized trial (Poster at Nutrition 2020 in Seattle, WA)
- 8. Tinku Thomas, **Jithin Sam Varghese**, Sumathi Swaminathan, Nivya George, Santu Ghosh, Anura V Kurpad. Regional variations in women's anemia prevalence in India: the role of cereals (Poster at Nutrition 2018 in Boston, MA)
- 9. **Jithin Sam Varghese**, Rutuja Chhajed, Sumathi Swaminathan, Tinku Thomas, Vinod Kamat, Anura V Kurpad. Development of a dashboard simulating India's nutrition scenario and potential of fortification interventions (Poster at Nutrition 2018 in Boston, MA)

### **AWARDS & HONORS**

Outstanding Scholarly Research Award in the Natural Sciences Laney Graduate School, Emory University	2022
Best Presentation Bangalore Boston Nutrition Collaborative (BBNC)	2016
IMS Client Delight Award IMS Health	2015
<b>48</b> <sup>th</sup> Indian Pharmaceutical Congress Prize for Best Project IIT Madras	2014

Varghese, J.S. Page 4 of 5

# TEACHING EXPERIENCE

<b>Teaching Assistant,</b> Rollins School of Public Health, Emory University <i>GH 523 – Quantitative Data Analysis</i> Lecture and lab course with 20 students	Fall 2019
Guest Lecturer, Rollins School of Public Health, Emory University  NHS 581 – Human Nutrition II  Part of core curriculum for Nutrition and Health Sciences PhD students	Spring 2020, 2021
Session Lead, Laney Graduate School, Emory University  JPE 600 – Jones Programme in Ethics JPE Ambassador  SERVICE	Summer 2020, 2021
Student member, Emory International Council (2020-2021)	01/2021 - 05/2021
Co-Chair, Mentorship Committee, Nutrition and Health Sciences students club	09/2019 - 05/2020
Institute Secretary, International and Alumni Relations at IIT Madras	04/2013 - 03/2014
PROFESSIONAL ACTIVITIES & MEMBERSHIP	

Reviewer for Journal of Nutrition, Public Health Nutrition, Journal of DoHAD, SSM Population Health, PLoS ONE, Diabetic Medicine, Annals of Epidemiology

Member of American Society of Nutrition, Society for Epidemiological Research, American Heart Association

# **SOFTWARE**

Advanced: R, Shiny; Working knowledge: SAS, VBA, Python, PsychoPy

Github: https://github.com/jvargh7

Varghese, J.S. Page 5 of 5