

RAJESH KUMAR RAI

Curriculum Vitae

Senior Research Scientist

Society for Health and Demographic Surveillance

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EDUCATION

- 2021 (expected) Doctor of Philosophy (PhD), Economics
Department of Economics, University of Göttingen, Göttingen, Germany
Committee members: Prof. Sebastian Vollmer (primary advisor), Prof. Holger Strulik, Prof. Stephan Klasen
- 2011 Master of Public Health (MPH)
Braun School of Public Health and Community Medicine-Hadassah
The Hebrew University of Jerusalem, Israel
- 2008 Master of Philosophy (MPhil), Population Studies
International Institute for Population Sciences, Mumbai, India
- 2005 Master of Arts (MA), Geography
University of Allahabad, Allahabad, India
- 2003 Bachelor of Arts (BA), Geography, and Medieval / Modern History
University of Allahabad, Allahabad, India

METHODOLOGICAL TRAINING

- 2019 Bernard Lown Scholar Program in Cardiovascular Diseases: summer course - GHP 213: Global Cardiovascular Disease Prevention – Methods, Study Designs and Case Studies. Harvard T H Chan School of Public Health, Harvard University, USA.
- 2015 Executive Education: Evaluating Social Programs. Abdul Latif Jameel Poverty Action Lab (J-PAL) / CLEAR, South Asia at Institute for Financial Management and Research (IFMR), India.
- 2015 Protecting Human Research Participants Web-based Training. The National Institutes of Health (NIH), Office of Extramural Research, USA. Certification Number: 1789051.
- 2014 Global Health Research Summer School: Urban Health. Université Laval, Canada.
- 2014 Sustainable Global Food Systems: Food Policy for Developing Countries. Tata-Cornell Institute for Agriculture and Nutrition, USA and Tata Institute of Social Sciences, India.

- 2010 Multilevel and Spatial Modeling for Health Research. Indian Institute of Public Health-Hyderabad / Public Health Foundation of India, India.
- 2009 Quantitative Research Methods for Medical and Health Professionals. Indian Institute of Public Health- Gandhinagar / Public Health Foundation of India, India.

EMPLOYMENT / APPOINTMENT

- From Jan 2015 to present *Senior Research Scientist*
Society for Health and Demographic Surveillance, Suri, India
- From Jul 2018 to present *Bernard Lown Scholar Program in Cardiovascular Diseases* (non-faculty academic appointment), Harvard T H Chan School of Public Health, Harvard University, USA
- From Aug 2014 to Nov 2014 *Public Policy Scholar*
The Hindu Centre for Politics and Public Policy , Chennai, India
- From Oct 2013 to July 2014 *Senior Research Associate*
Tata Institute of Social Sciences, Mumbai, India
- From Dec 2011 to Sept 2013 *Research Associate*
Tata Institute of Social Sciences, Mumbai, India
- From Jan 2009 to Aug 2010 *Research Officer*
International Institute for Population Sciences , Mumbai, India

AREAS OF RESEARCH INTEREST

Reproductive, Maternal, Newborn, and Child Health (RMNCH), Non-communicable Diseases (NCDs)

SCHOLARSHIP/ FELLOWSHIP/ AWARD

- 2019 Winner of “120 Under 40: The New Generation of Family Planning Leaders”. Bill & Melinda Gates Institute for Population and Reproductive Health, Johns Hopkins Bloomberg school of Public Health, Baltimore, USA.
- 2019 Travel award recipient, Universität Hohenheim, Stuttgart, Germany.
- 2019 Lown Scholarship, Department of Global Health and Population, Harvard T H Chan School of Public Health, Harvard University, USA.
- 2018 Short term scholarship, University of Göttingen, Germany.
- 2016 Travel award recipient, Federal Ministry of Science, Research, and Economy (bmwfw), Austria and The Association of School of Public Health in the European Region.
- 2016 Travel award recipient, the William and Flora Hewlett Foundation, the Bill & Melinda Gates Foundation, and the Population Association of America Fund.

- 2016 Travel award recipient, Department of Global Health and Population, Harvard T H Chan School of Public Health, Harvard University, USA.
- 2016 Travel award recipient, the Bill & Melinda Gates Institute for Population and Reproductive Health at the Johns Hopkins Bloomberg School of Public Health and BkkbN, Indonesia.
- 2015 Travel award recipient, the Human Sciences Research Council.
- 2014 Scholarship recipient, The Hindu Centre for Politics and Public Policy.
- 2014 Travel award recipient, the Canadian Institutes of Health Research and the Réseau de Recherche en Santé des Populations du Québec.
- 2014 Travel award recipient, the Eminence, Bangladesh and Partners for World Health.
- 2013 Travel award recipient, the International Union for the Scientific Study of Population.
- 2013 Travel award recipient, the William and Flora Hewlett Foundation, the Bill & Melinda Gates Foundation, and the Population Association of America Fund.
- 2013 Travel award recipient, the Maternal Health Task Force.
- 2011 Travel award recipient, the New York Academy of Medicine.
- 2010 Scholarship recipient, The Hebrew University and the Hadassah Medical Organization.
- 2010 Travel award recipient, the Maternal Health Task Force.
- 2010 Young Scientist Best Research Paper Award, Indian Association for Social Science and Health.
- 2008 UNICEF (United Nations Children's Fund) fellowship.

PUBLICATION

Research

- Singh PK, Singh L, Kumar C, Dubey R, **Rai RK**, Singh S. Examining public health interventions to improve maternal nutrition during pregnancy: a nationally representative study of Iron Folic Acid consumption and food supplementation in India. *Public Health Nutrition*. 2020; (*accepted for publication*).
- Sudfeld CR, **Rai RK**, Barik A, Valadez JJ, Fawzi WW. Population-level effective coverage of adolescent weekly iron folic acid supplementation is low in rural West Bengal, India. *Public Health Nutrition*. 2020; (*accepted for publication*).
- Darling AM, Fawzi WW, Barik A, Chowdhury A, **Rai RK**. Double burden of malnutrition among adolescents in rural West Bengal, India. *Nutrition*. 2020; <https://doi.org/10.1016/j.nut.2020.110809>.

- Rai RK**, Kumar C, Singh PK, Singh L, Barik A, Chowdhury A. Incidence of prehypertension and hypertension in rural India, 2012-2018: a sex-stratified population-based prospective cohort study. *American Journal of Hypertension*. 2020; <http://dx.doi.org/10.1093/ajh/hpaa034> PMID: 32149333.
- Rai RK**, Sudfeld CR, Barik A, Fawzi WW, Chowdhury A. Socio-demographic determinants of preterm birth and small-for-gestational age in rural West Bengal, India. *Journal of Tropical Pediatrics*. 2019; 65(6): 537-546. PMID: 30753693.
- Singh L, Goel R, **Rai RK**, Singh PK. Socioeconomic inequality in functional deficiencies and chronic diseases among older Indian adults: a sex-stratified cross-sectional decomposition Analysis. *BMJ Open*. 2019; 9(2): e022787. PMID: 30819699.
- Rai RK**, Jaacks LM, Bromage S, Barik A, Fawzi WW, Chowdhury A. Prospective cohort study of overweight and obesity among rural Indian adults: socio-demographic predictors of prevalence, incidence, and remission. *BMJ Open*. 2018; 8(8): e021363. PMID: 30166296.
- Rai RK**, Fawzi WW, Bromage S, Barik A, Chowdhury A. Underweight among rural Indian adults: burden, and predictors of incidence and recovery. *Public Health Nutrition*. 2018; 21(4):669-678. PMID: 29122038.
- Barik A, Das K, Chowdhury A, **Rai RK**. Metabolic syndrome among rural Indian adults. *Clinical Nutrition ESPEN*. 2018; 23: 129-135. PMID: 29460788.
- Gorain A, Barik A, Chowdhury A, **Rai RK**. Preference in place of delivery among rural Indian women. *PLoS One*. 2017; 12(12): e0190117. PMID: 29287096.
- Sekher M, Parasuraman S, Pritchard B, Kumar SS, **Rai RK**. Empowering people to power the Public Distribution System: a process mapping analysis of six Indian states. *Economic & Political Weekly*. 2017; 52 (51): 97-107. ISSN (Online) - 2349-8846.
- Barik A, Sarkhel S, Basu S, Chowdhury A, **Rai RK**. Probable psychiatric disorder in a rural community of West Bengal, India. *Social Psychiatry and Psychiatric Epidemiology*. 2017; 52 (12): 1495-1500. PMID: 29022074.
- Rai RK**. Do the sex composition of living children and the desire for additional children affect future intention to use contraception in Ethiopia? *Journal of Biosocial Science*. 2017; 49 (6): 757-772. PMID: 28069079.
- Rai RK**, Singh L, Singh PK. Is maternal body mass index associated with neonatal mortality? a pooled analysis of nationally representative data from nine Asian countries. *Nutrition*. 2017; 41: 68-72. PMID: 28760430.
- Barik A, Shah R, Spillahari A, Murthy VL, Ambale-Venkatesh B, **Rai RK**, Das K, Santra A, Hembram JR, Bhattacharya D, Freedman J, Lima J, Das R, Bhattacharyya P, Das S, Chowdhury A. Hepatic steatosis is associated with cardiometabolic risk in a rural Indian population: a prospective cohort study. *International Journal of Cardiology*. 2016; 225:161-166. PMID: 27723535.
- Lytton ME, Collin RW, **Rai RK**. Ambient air pollution from urban transport in India. *Economic & Political Weekly*. 2016; 51 (41): 46-53. ISSN (Online) - 2349-8846.
- Kumar C, Singh PK, Singh L, **Rai RK**. Socioeconomic disparities in coverage of full immunization among children of adolescent mothers in India, 1990-2006: a repeated cross-sectional analysis. *BMJ Open*. 2016; 6(8): e009768. PMID: 27519918.

- Barik A, Mazumdar S, Chowdhury A, **Rai RK**. Physiological and behavioural risk factors of Type 2 Diabetes Mellitus in rural India. *BMJ Open Diabetes Research & Care*. 2016; 4(1): e000255. PMID: 27547420.
- Barik A, **Rai RK**, Chowdhury A. Tobacco use and self-reported morbidity among rural Indian adults. *Primary Health Care Research & Development*. 2016; 17(5): 514-523. PMID: 27098281.
- Rai RK**, Singh PK, Kumar C. Is the use of maternal healthcare among prospective mothers higher in households that have experienced maternal death? Evidence from India. *Health Policy & Planning*. 2016; 31(7): 844-852. PMID: 26864163.
- Barik A, **Rai RK**, Gorain A, Majumdar S, Chowdhury A. Socio-economic disparities in tobacco consumption in rural India: evidence from a Health and Demographic Surveillance System. *Perspectives in Public Health*. 2016; 136 (5): 278-287. PMID: 26475772.
- Barik A, **Rai RK**, Chowdhury A. Alcohol use-related problems among a rural Indian population of West Bengal: an application of the Alcohol Use Disorders Identification Test (AUDIT). *Alcohol & Alcoholism*. 2016; 51 (2): 215-223. PMID: 26294678.
- Rai RK**. Utilization of maternal health care services by Muslim women in India, Bangladesh, and Pakistan, 2005-2007. *Journal of Public Health* (Springer). 2015; 23(1):37-48 ISSN 0943-1853 (Print); 1613-2238 (Online).
- Rai RK**. Factors Associated with nutritional status among adult women in urban India, 1998-2006. *Asia-Pacific Journal of Public Health*. 2015; 27(2): NP1241–NP1252. PMID: 22743858.
- Rai RK**. Future intention of contraceptive use among Comorian women, 2012. *Journal of Public Health* (Springer). 2015; 23(5): 289-296. ISSN 0943-1853 (Print); 1613-2238 (Online).
- Rai RK**, Singh PK, Singh L, Kumar C. Individual characteristics and use of maternal and child health services by adolescent mothers in Niger. *Maternal & Child Health Journal*. 2014; 18(3): 592-603. PMID: 23737107.
- Singh PK, Kumar C, **Rai RK**, Singh L. Factors associated with maternal healthcare service utilization in nine high focus states in India: a multilevel analysis based on 14385 communities in 292 districts. *Health Policy & Planning*. 2014; 29(5): 242-259. PMID: 23783832.
- Singh PK, **Rai RK**, Kumar C. Equity in maternal, newborn, and child health care coverage in India. *Global Health Action*. 2013; 6: 22217. PMID: 24119659.
- Kumar C, **Rai RK**, Singh PK. Reducing infant (0-11 months) and child (0-4 years) mortality in India: a disposition from the Sample Registration System. *Journal of Public Health* (Springer). 2013; 21(6): 575-582. ISSN 0943-1853 (Print); 1613-2238 (Online).
- Kumar C, **Rai RK**, Singh PK, Singh L. Socioeconomic disparities in maternity care among Indian adolescents, 1990-2006. *PLoS One*. 2013; 8(7): e69094. PMID: 23894412.
- Singh L, Arokiasamy P, Singh PK, **Rai RK**. Determinants of gender differences in self-rated health among older population: evidence from India. *SAGE Open*. April-June 2013; 3(2): 2158244013487914. ISSN: 2158-2440 (Online).

- Rai RK**, Unisa S. Dynamics of contraceptive use in India: apprehension versus future intention among non-users and traditional method users. *Sexual & Reproductive Healthcare*. 2013; 4(2): 65-72. PMID: 23663924.
- Rai RK**, Singh PK, Kumar C, Singh L. Factors associated with the utilization of maternal health care services among adolescent women in Malawi. *Home Health Care Services Quarterly*. 2013; 32(2):106-125. PMID: 23679661.
- Kumar C, Singh PK, **Rai RK**. Coverage gap in maternal and child health services in India: assessing trends and regional deprivation during 1992-2006. *Journal of Public Health* (Oxford). 2013; 35(4): 598-606. PMID: 23359666.
- Kumar C, Singh PK, **Rai RK**, Singh L. Early neonatal mortality in India, 1990-2006. *Journal of Community Health*. 2013; 38(1):120-130 PMID: 22797909. Erratum to: Early neonatal mortality in India, 1990-2006. *Journal of Community Health*. 2013; 38(1):131-132. PMID: 23179389.
- Singh PK, Singh L, Kumar C, **Rai RK**. Correlates of maternal healthcare service utilisation among adolescent women in Mali: analysis of a nationally representative cross-sectional survey, 2006. *Journal of Public Health* (Springer). 2013; 21(1): 15-27. ISSN 0943-1853 (Print); 1613-2238 (Online).
- Rai RK**, Kumar C, Singh PK. District level coverage gap in maternal, newborn and child health care services in India. *Journal of Epidemiology & Global Health*. 2012; 2(4): 221-224. PMID: 23856504.
- Singh PK, **Rai RK**, Singh L. Examining the effect of household wealth and migration status on safe delivery care in urban India. *PLoS One*. 2012; 7(9): e44901. PMID: 22970324.
- Rai RK**, Singh PK, Singh L. Utilization of maternal health care services among married adolescent women: insights from the Nigeria Demographic and Health Survey, 2008. *Women's Health Issues*. 2012; 22(4): e407-e414. PMID: 22749200.
- Kumar C, Singh PK, **Rai RK**. Under-five mortality in high focus states in India: a district level geospatial analysis. *PLoS One*. 2012; 7(5): e37515. PMID: 22629412.
- Singh PK, **Rai RK**, Alagarajan M, Singh L. Determinants of maternity care services utilization among married adolescents in rural India. *PLoS One*. 2012; 7(2): e31666. PMID: 22355386.
- Singh L, **Rai RK**, Singh PK. Assessing the utilization of maternal and child health care among married adolescent women: evidence from India. *Journal of Biosocial Science* 2012; 44(1): 1-26. PMID: 21933465.
- Singh PK, Alagarajan M, **Rai RK**, Singh L. Does education lead to contraceptive use? a study of sexually experienced unmarried men in India. *Research on Humanities & Social Sciences*. 2011; 1(4): 23-32. ISSN 2224-5766 (print); 2225-0484 (online).
- Rai RK**, Unisa S. Living arrangement and health status of widows in India. pp. 229-245 in *Population, Gender and Health in India - Methods, Processes and Policies*, (edited) James KS, Pandey A, Bansod DW, Subaiya L. New Delhi: Academic Foundation; 2009. ISBN - 978-81-7188-809-2.

- Singh PK, **Rai RK**, Singh S, Singh L. Rising caesarean births - a growing concern. *Economic & Political Weekly*. 2018; 53(26-17): 22-24. ISSN (Online) - 2349-8846.
- Rai RK**, Fawzi WW, Barik A, Chowdhury A. The burden of iron-deficiency anaemia among women in India: how have iron and folic acid interventions fared? *WHO South-East Asia Journal of Public Health*. 2018; 7(1): 18-23. PMID: 29582845.
- Barik A, **Rai RK**. Catch them young: grooming a new generation of physicians in India. *Journal of Public Health (Springer)*. 2017; 25(5): 461-463. ISSN 0943-1853 (Print); 1613-2238 (Online).
- Rai RK**. Decline in contraceptive use in India: a call for action. *Sexual & Reproductive Healthcare*. 2017; 14: 13-16. PMID: 29195629.
- Rai RK**, Tulchinsky TH. India's pathetic public health situation. *Economic & Political Weekly*. 2017; 52(44): 4. ISSN (Online) - 2349-8846. [Letter]
- Rai RK**, Tulchinsky TH. India badly needs public health education. *Economic & Political Weekly*. 2017; 52(27): 37-39. ISSN (Online) - 2349-8846.
- Rai RK**, Luo J, Tulchinsky TH. Vitamin K supplementation to prevent hemorrhagic morbidity and mortality of newborns in India and China. *World Journal of Pediatrics*. 2017; 13(1): 15-19. PMID: 27878777.
- Kumar S, **Rai RK**. Role of India's *Anganwadi* centre in securing food and nutrition for mothers and children. *Journal of Agriculture & Food Information*. 2015; 16 (2): 174-182. ISSN 1049-6505 (Print), 1540-4722 (Online).
- Rai RK**, Singh PK. No incentive for postnatal care in IGMSY. *Perspectives in Public Health*. 2015; 135 (2): 73-74. PMID: 25759317.
- Rai RK**, Kumar S, Sekher M, Pritchard B, Rammohan A. A life-cycle approach to food and nutrition security in India. *Public Health Nutrition*. 2015; 18(5): 944-949. PMID: 24866692.
- Rai RK**, Tulchinsky TH. Addressing the sluggish progress in reducing maternal mortality in India. *Asia-Pacific Journal of Public Health*. 2015; 27(2): NP1161-NP1169. PMID: 22308538.
- Rai RK**. Tracking women and children in a continuum of Reproductive, Maternal, Newborn, and Child Healthcare (RMNCH) in India. *Journal of Epidemiology & Global Health*. 2014; 4(3): 239-243. PMID: 25107660.
- Singh PK, **Rai RK**, Alagarajan M. Addressing maternal and child health in post-conflict Afghanistan: the way forward. *WHO Eastern Mediterranean Health Journal*. 2013; 19(9): 826-832. PMID: 24313047.
- Rai RK**, Singh PK, Kumar C, Parasuraman S. Teenage childbearing- a growing public health concern in need of urgent policy and program action. *Journal of Public Health (Springer)*. 2013; 21(4): 379-384. ISSN 0943-1853 (Print); 1613-2238 (Online).

Rai RK, Singh PK. *Janani Suraksha Yojana*, the conditional cash transfer scheme to reduce maternal mortality in India - a need for reassessment. *WHO South-East Asia Journal of Public Health*. 2012; 1(4): 362-368. PMID: 28615601.

Rai RK, Ramadhan AA, Tulchinsky TH. Prioritizing maternal and child health in independent South Sudan. *Maternal & Child Health Journal*. 2012; 16(6): 1139-1142. PMID: 21959924.

Global Burden of Disease (GBD) Research

Haagsma JA et al. (**Rai RK**). Burden of injury along the development spectrum: associations between the Socio-demographic Index and disability-adjusted life year estimates from the Global Burden of Disease Study 2017. *Injury Prevention*. 2020; doi: <http://dx.doi.org/10.1136/injuryprev-2019-043296> PMID: 31915273

Local Burden of Disease Child Growth Failure Collaborators (**Rai RK**). Mapping child growth failure across low- and middle-income countries. *Nature*. 2020; 577(7789): 231-234. PMID: 31915393

GBD 2017 Diarrhoeal Disease Collaborators (**Rai RK**). Quantifying risks and interventions that have affected the burden of diarrhoea among children younger than 5 years: an analysis of the Global Burden of Disease Study 2017. *The Lancet Infectious Diseases*. 2020; 20(1):37-59. PMID: 31678029

GBD 2017 Lower Respiratory Infections Collaborators (**Rai RK**). Quantifying risks and interventions that have affected the burden of lower respiratory infections among children younger than 5 years: an analysis for the Global Burden of Disease Study 2017. *The Lancet Infectious Diseases*. 2020; 20(1):60-79. PMID: 31678026

GBD 2017 Child and Adolescent Health Collaborators (**Rai RK**). Diseases, injuries, and risk factors in child and adolescent health, 1990 to 2017: findings from the Global Burden of Diseases, Injuries, and Risk Factors 2017 study. *JAMA Pediatrics*. 2019; 173(6):e190337. PMID: 31034019.

GBD 2017 Diet Collaborators (**Rai RK**). Health effects of dietary risks in 195 countries, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2019; 393(10184): 1958-1972. PMID: 30954305.

GBD 2017 Typhoid and Paratyphoid Collaborators (**Rai RK**). The global burden of typhoid and paratyphoid fevers: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet Infectious Diseases*. 2019; 19(4): 369-381. PMID: 30792131.

Mohsen Naghavi, on behalf of the Global Burden of Disease Self-Harm Collaborators (**Rai RK**). Global, regional, and national burden of suicide mortality 1990 to 2016: systematic analysis for the Global Burden of Disease Study 2016. *BMJ*. 2019; 364:i94. PMID: 31339847.

GBD 2017 Influenza Collaborators (**Rai RK**). Mortality, morbidity, and hospitalisations due to influenza lower respiratory tract infections, 2017: an analysis for the Global Burden of Disease Study 2017. *The Lancet Respiratory Medicine*. 2019; 7(1):69-89. PMID: 30553848.

GBD 2016 Traumatic Brain Injury and Spinal Cord Injury Collaborators (**Rai RK**). Global, regional, and national burden of traumatic brain injury and spinal cord injury, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet Neurology*.

2019; 18(1):56-87. PMID: 30497965.

- The GBD 2016 Lifetime Risk of Stroke Collaborators (**Rai RK**). Global, regional and country-specific lifetime risks of stroke, 1990 and 2016. *NEJM*. 2018; 379 (25):2429-2437. PMID: 30575491.
- GBD 2016 Lower Respiratory Infections Collaborators (**Rai RK**). Estimates of the global, regional, and national morbidity, mortality, and aetiologies of lower respiratory infections in 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet Infectious Diseases*. 2018; 18(11): 1191-1210. PMID: 30243584.
- GBD 2016 Diarrhoeal Disease Collaborators (**Rai RK**). Estimates of the global, regional, and national morbidity, mortality, and aetiologies of diarrhoea in 195 countries: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet Infectious Diseases*. 2018; 18(11): 1211-1228. PMID: 30243583.
- GBD Tuberculosis Collaborators (**Rai RK**). Global, regional, and national burden of tuberculosis, 1990–2016: results from the Global Burden of Diseases, Injuries, and Risk Factors 2016 Study. *The Lancet Infectious Diseases*. 2018; 18(12): 1329-1349. PMID: 30507459.
- GBD 2017 Mortality Collaborators (**Rai RK**). Global, regional, and national age-sex-specific mortality and life expectancy, 1950–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018; 392 (10159): 1684-1735. PMID: 30496102.
- GBD 2017 Causes of Death Collaborators (**Rai RK**). Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018; 392 (10159): 1736-1788. PMID: 30496103.
- GBD 2017 Disease and Injury Incidence and Prevalence Collaborators (**Rai RK**). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018; 392 (10159): 1789-1858. PMID: 30496104.
- GBD 2017 DALYs and HALE Collaborators (**Rai RK**). Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018; 392 (10159): 1859-1922. PMID: 30415748.
- GBD 2017 Risk Factor Collaborators (**Rai RK**). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018; 392 (10159): 1923-1994. PMID: 30496105.
- GBD 2017 Population and Fertility Collaborators (**Rai RK**). Population and fertility by age and sex for 195 countries and territories, 1950–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018; 392 (10159): 1995-2051. PMID: 30496106.
- GBD 2017 SDG Collaborators (**Rai RK**). Measuring progress from 1990 to 2017 and projecting attainment to 2030 of the health-related Sustainable Development Goals for 195 countries and territories: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 2018; 392 (10159): 2091-2138. PMID: 30496107.

- GBD 2016 Alcohol Collaborators (**Rai RK**) Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*. 2018; 392(10152): 1015–35. PMID: 30146330.
- The Global Burden of Disease 2016 Injury Collaborators (**Rai RK**). Global mortality from firearms, 1990–2016. *JAMA*. 2018; 320(8):792–814. PMID: 30167700.
- GBD 2016 Healthcare Access and Quality Collaborators (**Rai RK**). Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016. *The Lancet*. 2018; 391(10136): 2236–2271. PMID: 29893224.
- GBD 2015 Eastern Mediterranean Region Diabetes and CKD Collaborators (**Rai RK**). Diabetes mellitus and chronic kidney disease in the Eastern Mediterranean Region: findings from the 2015 Global Burden of Disease study. *International Journal of Public Health*. 2018; 63(Suppl 1):177–186. PMID: 28776240.
- GBD 2015 Eastern Mediterranean Region Transportation Injuries Collaborators (**Rai RK**). Transport injuries and deaths in the Eastern Mediterranean Region: findings from the Global Burden of Disease 2015 Study. *International Journal of Public Health*. 2018; 63(Suppl 1):187–198. PMID: 28776255.
- GBD 2015 Eastern Mediterranean Region Intentional Injuries Collaborators (**Rai RK**). Intentional injuries in the Eastern Mediterranean Region, 1990–2015: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):39–46. PMID: 28776251.
- GBD 2015 Eastern Mediterranean Region Cardiovascular Disease Collaborators (**Rai RK**). Burden of cardiovascular diseases in the Eastern Mediterranean Region, 1990–2015: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):137–149. PMID: 28776245.
- GBD 2015 Eastern Mediterranean Region Collaborators (**Rai RK**). Danger ahead: the burden of diseases, injuries, and risk factors in the Eastern Mediterranean Region, 1990–2015. *International Journal of Public Health*. 2018; 63(Suppl 1):11–23. PMID: 28776238.
- GBD 2015 Eastern Mediterranean Region Vision Loss Collaborators (**Rai RK**). Burden of vision loss in the Eastern Mediterranean region, 1990–2015: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):199–210. PMID: 28776242.
- GBD 2015 Eastern Mediterranean Region Adolescent Health Collaborators (**Rai RK**). Adolescent health in the Eastern Mediterranean Region: findings from the global burden of disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):79–96. PMID: 28776253.
- GBD 2015 Eastern Mediterranean Region Diarrhea Collaborators (**Rai RK**). Burden of diarrhea in the Eastern Mediterranean Region, 1990–2015: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):109–121. PMID: 28776239.
- GBD 2015 Eastern Mediterranean Region Mental Health Collaborators (**Rai RK**). The burden of mental disorders in the Eastern Mediterranean region, 1990–2015: findings from the global burden of disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl

1):25-37. PMID: 28776247.

GBD 2015 Eastern Mediterranean Region Maternal Mortality Collaborators (**Rai RK**). Maternal mortality and morbidity burden in the Eastern Mediterranean Region: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):47-61. PMID: 28776252.

GBD 2015 Eastern Mediterranean Region HIV/AIDS Collaborators (**Rai RK**). Trends in HIV/AIDS morbidity and mortality in Eastern Mediterranean countries, 1990–2015: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):123-136. PMID: 28776249.

GBD 2015 Eastern Mediterranean Region Cancer Collaborators (**Rai RK**). Burden of cancer in the Eastern Mediterranean Region, 2005–2015: findings from the Global Burden of Disease 2015 Study. *International Journal of Public Health*. 2018; 63 (Suppl 1):151-164. PMID: 28776254.

GBD 2015 Eastern Mediterranean Region Neonatal, Infant, and under-5 Mortality Collaborators (**Rai RK**). Neonatal, infant, and under-5 mortality and morbidity burden in the Eastern Mediterranean region: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):63-77. PMID: 28776242.

GBD 2015 Eastern Mediterranean Region LRI Collaborators (**Rai RK**). Burden of lower respiratory infections in the Eastern Mediterranean Region between 1990 and 2015: findings from the Global Burden of Disease 2015 study. *International Journal of Public Health*. 2018; 63(Suppl 1):97-108. PMID: 28776246.

Global Burden of Cardiovascular Diseases Collaboration (**Rai RK**). The burden of cardiovascular diseases among US states, 1990–2016. *JAMA Cardiology*. 2018; 3(5): 375-389. PMID: 29641820.

Global Burden of Disease Health Financing Collaborator Network (**Rai RK**). Trends in future health financing and coverage: future health spending and universal health coverage in 188 countries, 2016–40. *The Lancet*. 2018; 391(10132): 1783–1798. PMID: 29678341.

Global Burden of Disease Health Financing Collaborator Network (**Rai RK**). Spending on health and HIV/AIDS: domestic health spending and development assistance in 188 countries, 1995–2015. *The Lancet*. 2018; 391(10132): 1799–1829. PMID: 29678342.

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GBD 2015 LRI collaborators (**Rai RK**). Estimates of the global, regional, and national morbidity, mortality, and aetiologies of lower respiratory tract infections in 195 countries: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet Infectious Diseases*. 2017; 17(11):1133-1161. PMID: 28843578.

GBD 2015 Neurological Disorders Collaborator Group (**Rai RK**). Global, regional, and national burden of neurological disorders during 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet Neurology*. 2017; 16(11): 877–897. PMID: 28931491.

GBD 2016 SDG Collaborators (**Rai RK**). Measuring progress and projecting attainment on the basis of past trends of the health-related Sustainable Development Goals in 188 countries:

- an analysis from the Global Burden of Disease Study 2016. *The Lancet*. 2017; 390 (10100): 1423–1459. PMID: 28916366.
- GBD 2016 Mortality collaborators (**Rai RK**). Global, regional, and national under-5 mortality, adult mortality, age-specific mortality, and life expectancy, 1970–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*. 2017; 390 (10100): 1084–1150. PMID: 28919115.
- GBD 2016 Causes of Death Collaborators (**Rai RK**). Global, regional, and national age-sex specific mortality for 264 causes of death, 1980–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*. 2017; 390 (10100): 1151–1210. PMID: 28919116.
- GBD 2016 Disease and Injury Incidence and Prevalence Collaborators (**Rai RK**). Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*. 2017; 390 (10100): 1211–1259. PMID: 28919117.
- GBD 2016 DALYs and HALE Collaborators (**Rai RK**). Global, regional, and national disability-adjusted life-years (DALYs) for 333 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*. 2017; 390 (10100): 1260-1344. PMID: 28919118.
- GBD 2016 Risk Factors Collaborators (**Rai RK**). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*. 2017; 390 (10100): 1345–1422. PMID: 28919119.
- GBD 2015 Chronic Respiratory Disease Collaborators (**Rai RK**). Global, regional, and national deaths, prevalence, disability-adjusted life years, and years lived with disability for chronic obstructive pulmonary disease and asthma, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet Respiratory Medicine*. 2017; 5(9):691-706. PMID: 28822787.
- GBD Diarrhoeal Diseases Collaborators (**Rai RK**). Estimates of global, regional, and national morbidity, mortality, and aetiologies of diarrhoeal diseases: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet Infectious Diseases*. 2017; 17(9):909-948 PMID: 28579426.
- Moradi-Lakeh M et al. (**Rai RK**). Burden of musculoskeletal disorders in the Eastern Mediterranean Region, 1990–2013: Findings from the Global Burden of Disease Study 2013. *Annals of the Rheumatic Diseases*. 2017; 76(8):1365-1373. PMID: 28209629.
- GBD 2015 Healthcare Access and Quality Collaborators (**Rai RK**). Healthcare Access and Quality Index based on mortality from causes amenable to personal health care in 195 countries and territories, 1990–2015: a novel analysis from the Global Burden of Disease Study 2015. *The Lancet*. 2017; 390(10091): 231-266. PMID: 28528753.
- The GBD 2015 Obesity Collaboration (**Rai RK**). Health effects of overweight and obesity in 195 countries over 25 Years. *NEJM*. 2017; 37(1): 13-27. PMID: 28604169.
- Roth GA et al. (**Rai RK**). Global, regional, and national burden of cardiovascular diseases for 10 causes, 1990 to 2015. *Journal of the American College of Cardiology*. 2017; 70(1): 1-25. PMID: 28527533.

- Global Burden of Disease Child and Adolescent Health Collaboration (**Rai RK**). Child and adolescent health from 1990 to 2015: findings from the Global Burden of Diseases, Injuries, and Risk Factors 2015 Study. *JAMA Pediatrics*. 2017; 171(6): 573-592. PMID: 28384795.
- Global Burden of Disease Health Financing Collaborator Network (**Rai RK**). Evolution and patterns of global health financing 1995–2014: development assistance for health, and government, prepaid private, and out-of-pocket health spending in 184 countries. *The Lancet*. 2017; 389 (10083): 1981–2004. PMID: 28433256.
- Global Burden of Disease Health Financing Collaborator Network (**Rai RK**). Future and potential spending on health 2015–40: development assistance for health, and government, prepaid private, and out-of-pocket health spending in 184 countries. *The Lancet*. 2017; 389(10083): 2005–2030; Erratum in: *Lancet*. 2017; 389(10083):1980. PMID: 28433260.
- GBD 2015 Tobacco collaborators (**Rai RK**). Smoking prevalence and attributable disease burden in 195 countries and territories, 1990–2015: a systematic analysis from the Global Burden of Disease Study 2015. *The Lancet*. 2017; 389(10082): 1885-1906. PMID: 28390697.
- Forouzanfar MH et al. (**Rai RK**) Global burden of hypertension and systolic blood pressure of at least 110 to 115 mm Hg, 1990-2015. *JAMA*. 2017; 317(2):165-182, Erratum in: *JAMA*. 2017; 317(6):648. PMID: 28097354.
- Moradi-Lakeh M et al. (**Rai RK**). High fasting plasma glucose, diabetes mellitus and its risk factors in the Eastern Mediterranean Region, 1990-2013: findings from the Global burden of Disease study 2013. *Diabetes Care*. 2017; 40(1):22-29. PMID: 27797926.
- Khalil I et al. (**Rai RK**). Burden of diarrhea in the Eastern Mediterranean region, 1990-2013: Findings from the Global Burden of Disease study 2013. *The American Journal of Tropical Medicine and Hygiene*. 2016; 95(6): 1319–1329. PMID: 27928080.
- GBD 2015 SDG Collaborators (**Rai RK**). Measuring the health-related Sustainable Development Goals in 188 countries: A baseline analysis from the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388 (10053): 1813–1850. PMID: 27665228.
- GBD 2015 Maternal Mortality Collaborators (**Rai RK**). Global, regional, and national levels of maternal mortality, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388 (10053): 1775–1812. PMID: 27733286.
- GBD 2015 Child Mortality Collaborators (**Rai RK**). Global, regional, national, and selected subnational levels of stillbirths, neonatal, infant, and under-5 mortality, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388 (10053): 1725–1774. PMID: 27733285.
- GBD 2015 Risk Factors Collaborators (**Rai RK**). Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388 (10053): 1659–1724. PMID: 27733284.
- GBD 2015 DALYs and HALE Collaborators (**Rai RK**). Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388 (10053): 1603–1658. PMID: 27733283.

GBD 2015 Disease and Injury Incidence and Prevalence Collaborators (**Rai RK**). Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388 (10053): 1545–1601. PMID: 27733282.

GBD 2015 Mortality and Causes of Death Collaborators (**Rai RK**). Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015. *The Lancet*. 2016; 388 (10053): 1459–1544. PMID: 27733281.

Mokdad AH et al. (**Rai RK**). Health in times of uncertainty in the eastern Mediterranean region, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet Global Health*. 2016; 4(10):e704-e713. PMID: 27568068.

GBD 2015 HIV Collaborators (**Rai RK**). Estimates of global, regional, and national incidence, prevalence, and mortality of HIV, 1980–2015: the Global Burden of Disease Study 2015. *The Lancet HIV*. 2016; 3(8): e361-e387. PMID: 27470028.

RESEARCH PROJECTS

Project title: Functional assessment of active and secretory IgA targeted and non-targeted bacterial groups in severe acute malnutrition (SAM)

Funding: International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), India

Role: Co-Principal Investigator

Total budget: ₹ 22,43,000

Project Period: 2020

Project title: Demand and supply side barrier of iron and folic acid consumption: a mixed method cross-sectional Study

Funding: Department of Health and Family Welfare, Government of West Bengal, India

Role: Principal Investigator

Total budget: ₹ 45,56,650

Project Period: 2019-2020

EDITORIAL BOARD MEMBER

BMC Public Health: Associate Editor of Global Health

Public Health Reviews

AD HOC REVIEWING

Lancet Global Health, International Journal of Epidemiology, Bulletin of the World Health Organization, Social Science and Medicine, Health Policy and Planning, Public Health Nutrition, Public Health, Journal of Health Population and Nutrition, PLoS One, International Health, Asian Population Studies, Maternal and Child Nutrition, BMC Medicine, Journal of Public Health (Springer), SAGE Open, BMC Women's Health, BMC Public Health, BMC Pregnancy and Childbirth, BMC Health Services Research, Global Health Action, Peer J, Indian Pediatrics, Pathogens and Global Health, Alcohol and Alcoholism, BMJ Open, Public Health Reviews, Substance Use and Misuse, Health Care for Women International, Journal of Population Ageing, European Journal of Pediatrics, WHO South-East Asia Journal of Public Health, BMJ Global Health, SSM-Population Health, Journal of Asian Public Policy, Obesity Reviews

GRANT PROPOSAL REVIEWER

Energy - Health - Natural Disasters: Leading Integrated Research for Agenda 2030 in Africa (LIRA 2030) - International Council for Science (ICSU) in collaboration with the Network of African Science Academies (NASAC) and the International Social Science Council (ISSC).

INVITED CONFERENCE/SEMINAR PARTICIPATION

- 2019 4th International Congress Hidden Hunger, February 27-March 01, Universität Hohenheim, Stuttgart, Germany.
- 2018 International Conference on Family Planning. November 12-15, Kigali, Rwanda (*Abstract Reviewer*).
- 2018 Symposium: Advancing Global Nutrition for Adolescent and Family Health: Innovations in Research and Training. February 16-17, Dubai, UAE.
- 2017 11th World Congress on Adolescent Health, October 27-29, New Delhi, India.
- 2016 Sixth National Convention of Right to Food Campaign, September 23-25, Ranchi, India.
- 2016 Open Medical Institute Seminar on Migrant and Minority Health. Salzburg Stiftung of the American Austrian Foundation, April 3-9, Salzburg, Austria.
- 2016 Annual Meeting of Population Association of America (PAA). March 31- April 2, Washington D.C, USA.
- 2016 International Conference on Family Planning. January 25-28, Nusa Dua, Indonesia (*Presenter, and Abstract Reviewer*).
- 2015 World Social Science Forum. September 13-16, Durban, South Africa.
- 2015 *Session Organizer & Co-chair*, Population, Agriculture, Economics, and Nutrition Security, 2015 Annual Meeting of Population Association of America (PAA), April 30 – May 2, San Diego, California, USA.
- 2015 *Session Organizer & Co-chair*, Population, Agriculture, and Food Security, 2015 Annual Meeting of Population Association of America (PAA), April 30 – May 2, San Diego, California, USA.
- 2015 Annual Meeting of Population Association of America (PAA). April 30 –May 2, San Diego, California, USA.
- 2014 2nd Global Conference on Community Health, March 19-22, Dhaka, Republic of Bangladesh.
- 2013 27th International Population Conference, International Union for the Scientific Study of Population (IUSSP), August 26-31, Busan, Republic of Korea.
- 2013 Annual Meeting of Population Association of America (PAA). April 11-13, New Orleans, Louisiana, USA.

- 2013 Global Maternal Health Conference. January 15 – 17, Arusha, Tanzania.
- 2011 10th International Conference on Urban Health. November 1 – 5, Belo Horizonte, Brazil.
- 2010 Global Maternal Health Conference. August 30 – September 1. New Delhi. India.
- 2010 Seventh National Conference of Indian Association for Social Science and Health, 5 – 7 March, Varanasi, Uttar Pradesh, India.

COLLABORATOR

- 2015- till date Global Burden of Disease Collaborator Network, Institute for Health Metrics and Evaluation (IHME), University of Washington, Seattle, USA.

PROFESSIONAL ENGAGEMENT

Member of the Center for Health Trends and Forecasts, IHME, Seattle, USA
Member of International Union for the Scientific Study of Population (IUSSP), Paris, France.
Member of Population Association of America (PAA), Maryland, USA.
Member of Asian Population Association (APA), Bangkok, Thailand.
Life member of Indian Association for the Study of Population (IASP), India.
Life Member of Indian Association for Social Science and Health (IASSH), India.

COMPUTER PROGRAMMING SKILLS

Programming experience in Stata, SPSS, MLwiN
Data analysis experience in ArcGIS, GeoDa

ADDITIONAL INFORMATION

Countries visited (academic): Israel, Brazil, Tanzania, USA, Republic of Korea, Bangladesh, Canada, Ghana, South Africa, Indonesia, Austria, UAE, Germany

Language proficiency: English (fluent), Hindi (fluent), Bengali fluent), Bhojpuri (native)