# *Dr Anita Kar, PhD*


**Designation and Contact**

Director
Birth Defects Research Foundation, Pune411020, India
www.birthdefectsindia.com
dranitakar@gmail.com
WhatsApp/Phone +91 9172959236

Visiting Faculty, Formerly, Professor and Director
School of Health Sciences
Savitribai Phule Pune University
Pune 411 007, India.

Member, WHO Technical Working Group Burden of Birth Defects
Member, WHO Expert Group for formulation of guidelines
for newborn screening, diagnosis and management of birth defects


## A. RESEARCH

With a background in genetics and public health, my research focuses on birth defects (congenital disorders),examining their epidemiology and public health implications. The research has focused on the epidemiology and consequences, with the goal of understanding the elements of a situationally appropriate, equitable, and sustainable model of care for birth defects in low and low-middle income settings. Our research has examined the magnitude of disorders. We have conducted systematic reviews and meta-analyses to estimate the birth prevalence of congenital anomalies in India, the magnitude of neural tube defects and the prevalence of beta-thalassemia carriers in India. Our cohort study identified that the 2.3% birth prevalence of congenital anomalies was not dissimilar from that reported globally. We have used modelled estimated from the Global Burden of Disease data to report an increase in the proportion of child mortality attributable to birth defects. Our research has discussed birth defects surveillance and reporting systems in India. We have developed a checklist to minimize bias in the design and reporting of studies reporting the birth prevalence of congenital anomalies in India. Our past and current research examines the potential of the Rashtriya Bal Swasthya Karyakram as a sustainable model for providing birth defects screening, diagnosis and management for congenital disorders and disabilities in India. We have examined maternal health issues related to birth defects, reporting preconception risk factors, prevalence of folate insufficiency, and women's knowledge about birth defects. We have recently reported the history of thalidomide in India. Our earlier work focused on the epidemiology and social consequences of a prevalent genetic disorder, hemophilia. In addition to quantitative and qualitative methods, we have utilized molecular techniques in our studies.

**Research areas/keywords**

- Birth defects / congenital disorders/ epidemiology / public health policy/ maternal and child health
- childhood disability / disability and public health
- Public health/ Global health / Health systems/ health service research /disease surveillance


**ORCID ID :** 0000-0003-1336-4244


**PUBLICATIONS**

1. Radhakrishnan B and Kar A A Birth Defects Toolkit for public health students and community health practitioners in India ***BVMJ*** (accepted for publication)
2. Kar A. Birth defects reporting and surveillance in India: a narrative review. ***J Community Genet.*** 2024 Dec 9. doi: 10.1007/s12687-024-00760-5. Epub ahead of print. PMID: 39652147.
3. Dharmarajan, S., Bhide, P., & Kar, A. (2024). Sources of bias in studies reporting birth prevalence of congenital anomalies: a scoping review and reporting checklist. ***Journal of Public Health***, fdae299.
4. Kar A (2024) Concerns re trial conduct. Comment on Pattisapu et al. Folic acid fortified iodized salt and serum folate levels in reproductive aged women of rural India A Non-randomized controlled trial. ***JAMA Netw Open***. 2024;7(3):e241777. doi:10.1001/jamanetworkopen.2024.1777
5. Dharmarajan, S, & Kar, A. (2023). Prevalence of beta thalassemia carriers in India: a systematic review and meta-analysis. ***Journal of Community Genetics***, *14*(6), 527-541.
6. Kar A (2024) Response to Nanjunda et. Trends in selected birth defects among parents from below poverty line population in Karnataka during 2010-2020 ***Ind J Public Health*** 68(1):145-146
7. Kar, A., Dhamdhere, D., & Medhekar, A. (2023). "Fruits of our past karma": a qualitative study on knowledge and attitudes about congenital anomalies among women in Pune district, India. ***Journal of Community Genetics***, 3; 1-10.
8.Wimmelbücker L and Kar A.(2022) History of thalidomide in India. ***Medical History*** 67(3),228-246
9. Kar, A., Yajnik, C. S., Doke, P. P., Bhide, P., Chutke, A., Radhakrishnan, B., & Phadnis, S. (2022). Mandatory food fortification with folic acid. ***The Lancet Global Health***, *10*(10), e1390.
10.Kar, Anita et al. Correspondence. A healthy future for children and adolescents ***The Lancet*** 400 (10358) 1099
11.Furtado, K. M., & Kar, A. (2022). Private Sector Engagement for Infectious Disease Surveillance in Mixed Health Systems: Lessons from a Model Dengue Reporting Network in India. ***Journal of Health Management***, 09720634221091011. https://journals.sagepub.com/eprint/MB6ZACZBNZVDQIXA2XFR/full
12. Kar, Anita Time to reimagine India's health system ***The Lancet*** (2021); 397 (10293): 2466
13.Dharmarajan S, Kar A Undiagnosed haemoglobinopathies among pregnant women attending antenatal care clinics in Pune, India ***J Community Genet*** (2021). https://doi.org/10.1007/s12687-021-00505-8)
14.Kar A. Rooting for Roona: Predicament of addressing birth defects and childhood disabilities in India. ***Indian J Med Ethics***. 2020 Oct-Dec; 5(4) NS: 346-7. DOI:10.20529/IJME.2020.116.
15. Ujagare D and Kar A (2021) Birth Defect Mortality in India 1990-2017: Estimates from the Global Burden of Disease Data. ***Journal of Community Genetics*** 12, 81-90
16. India State-Level Disease Burden Initiative Child Mortality Collaborators. Subnational mapping of under-5 and neonatal mortality trends in India: the Global Burden of Disease Study 2000-17. ***Lancet***. 2020;395(10237):1640-1658. doi:10.1016/S0140-6736(20)30471-2
17. India State-Level Disease Burden Initiative and CGF Collaborators. Mapping variations in child stunting, wasting and underweight within the states of India : the Global Burden of Disease Study 200-17. ***E Clinical Medicine*** (2020), https://doi.org/10.1016/j.eclinm.2020.100317
18.Kar A, Radhakrishnan B, Girase T, Ujagare D, Patil A. Community based screening and early intervention for birth defects and developmental disabilities: Lessons from the RBSK programme in India ***Disability, CBR & Inclusive Development*** 31(1) 30-46
19. Zimmerman, M. S., Smith, A. G. C., Sable, C. A., Echko, M. M., Wilner, L. B., Olsen, H. E., ... & Castro, F. (2020). Global, regional, and national burden of congenital heart disease, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. The ***Lancet Child & Adolescent Health***. Published online January 21, 2020 https://doi.org/10.1016/S2352-4642(19)30402-X

20. India State-level Disease Burden Initiative Malnutrition Collaborators The burden of child and maternal malnutrition and trends in its indicators in the states of India: the Global Burden of Disease Study 1990–217 ***Lancet Child Adolescent Health*** (2019) Published Online September 18, 2019 https://doi.org/10.1016/S2352-4642(19)30273
21. Bhide P and Kar A (2018) Prevalence and determinants of folate deficiency among urban Indian women in the periconception period ***Eur J Clin Nutr*** (DOI: 10.1038/s41430-018-0255-2)
22.Bhide P and Kar A (2018) : A national estimate of the birth prevalence of congenital anomalies in India: systematic review and meta-analysis ***BMC Pediatrics*** 18:175 https://doi.org/10.1186/s12887-018-1149-020.
23. Dandona, Lalit et al. (2017) Nations within a nation: variations in epidemiological transition across the states of India, 1990–2016 in the Global Burden of Disease Study ***Lancet***, Volume 390 , Issue 10111 , 2437 – 2460
24. Bhide P, Gund P and Kar A (2016) :Prevalence of Congenital Anomalies in an Indian Maternal Cohort: Healthcare, Prevention, and Surveillance Implications ***PLoS ONE*** 11(11): e0166408. doi:10.1371/journal.pone.0166408
25. Gund P, Bhide P, Kar A. (2016) Prevalence of Periconception Risk Factors for Adverse Pregnancy Outcomes in a Cohort of Urban Indian Women: Implications for Preconception Health Education. ***J Women's Health Care***. 2016;5: 296. doi:10.4172/2167-0420.1000296 .
26. Phadnis S and Kar A (2015) The impact of a haemophilia education intervention on the knowledge and health related quality of life of parents of Indian children with haemophilia ***Haemophilia***. doi:10.1111/hae.13070
27. Kar A (2015) Birth defects in India : Magnitude, public health impact and prevention.***JKIMSU*** 3(2) : 7-16 .
28. Kar A, Phadnis S, Dharmarajan S, Nakade J. (2014) :Epidemiology and social costs of haemophilia in India. ***Ind.J.Medical Res***. 140, 19-31.
29.Nakade J, Potnis-Lele M, Kar A. (2013) Impact of genetic counselling? The potential utility of haemophilia surveillance data in developing countries. ***Haemophilia*** Aug 28. doi:10.1111/hae.12255. [Epub ahead of print]
30. Bhide, P., Sagoo, G. S., Moorthie, S., Burton, H. and Kar, A. (2013), Systematic review of birth prevalence of neural tube defects in India. ***Birth Defects Research*** Part A:Clinical and Molecular Teratology, 97: 437–443. doi: 10.1002/bdra.23153
31. Dharmarajan S,Phadnis S and Kar A (2013) Out of pocket and catastrophic expenditure on haemophilia by Indian families and its policy implications for bleeding disorders in developing countries ***Haemophilia***, 20,382-387.
32. Kar A (2012) Correspondence. Making hemophilia a reality ***Lancet*** 2012; 38 :216-217
33. Kar A (2011) Preventing birth defects in India ***EPW*** XLVI No 48,21
34.Dharmarajan S, Gund P, , Mahabaleshwarker S, Lohade S, Lalwani A and A Kar (2011): Treatment decisions and usage of clotting factor concentrate by a cohort of Indian haemophilia patients ***Haemophilia***, 18,e27-29
35. Kar A (2010) Factors influencing haemophilia prevalence estimates from the volunteer supervised Indian registry at Maharashtra ***Haemophilia*** 16, 952–954
36. Kar, A, Mirkazermi R, Singh P, Potnis-Lele M, Lohade S, Lalwani A and Shah A S Disability in Indian patients with haemophilia ***Haemophilia*** (2007), 13, 398–404
37. Potnis-Lele M and Kar A (2006) Prenatal diagnosis of hemophilia A ***J. Genetics Screening and Health*** : 1 25-32
38. Kar A and Potnis Lele M (2004) Haemophilia data collection in developing countries: example of the haemophilia database of Maharashtra. ***Haemophilia***; 10:301-304.
39.Kar,A and Potnis-Lele,M (2003): Impact of family history on family size in patients attending a hemophilia clinic in Pune, India ***Int J Epid*** 32: 316-320.
40. Potnis-Lele,M and Kar,A (2001): Descriptive epidemiology of hemophilia in Maharashtra, India ***Hemophilia*** 7 :561-567
41. Jha MK, Rao SJ, Sarode AY, Saha B, Kar A, Pal JK. A Leishmania donovani dominant-negative mutant for eIF2α kinase LdeK1 elicits host-protective immune response. ***Parasite Immunol.*** 2020 Jan;42(1):e12678. doi: 10.1111/pim.12678. Epub 2019 Nov 6. PMID: 31610026.
42. Rao S J, Shukla E, Bhatia V, Lohiya B, Gaikwad SM, Kar A and Pal J K. The Leishmania donovani IMPACT-like protein possesses non-specific nuclease activity. ***Int J Biol Macro.*** 119, 2018, 962-973

43. Eliza Dutta, Anita Kar (2016) A case–control study identifying the characteristics of patients providing incorrect contact information at registration for DOTS in Pune, India, ***Ind J Tub.*** 63(1) 51-54
44. Furtado KM,Kar A. (2014) Health resources in a 200 000 urban Indian population argues the need for a policy on private sector health services. ***Indian J Community Med***; 39:98-102 .
45. Mirkazemi R and Anita Kar , (2013):Socio-economic determinants of helmet- wearing behaviour in Pune city, India, ***International Journal of Injury Control and Safety Promotion*** http://dx.doi.org/10.1080/17457300.2013.838271
46. Mirkazemi R and A Kar (2013) A Population-Based Study on Road Traffic Injuries in Pune City, India ***Traffic Injury Prevention***, DOI: 10.1080/15389588.2013.8268004
47. Mirkazemi R and A Kar (2012) Population based approach to study unintentional injury occurrence in Pune city, India ***International Journal of Injury Control and Safety Promotion*** DOI:10.1080/17457300.2012.745577
48. Doke P P and A. Kar (2011) A fatal case of Trypanosoma lewesi in Maharashtra, India ***Ann.Trop.Med.and Public Health*** Volume 4 Issue 2 :91-95
49. Mirkazemi R and A Kar (2009) Self- reported unsafe behavior amongst households from different socioeconomic strata in Pune City ***Ind J Comm Med***. 34 (4) 301-305
50. Kar A (2007). Correspondence. Eradication versus control for poliomyelitis ***Lancet*** 2007; 370:131-132
51. Modi-Parekh K, Inamdar V, Jog A and Kar Anita (2006) A comparative study of the Diagnosis of Pulmonary Tuberculosis using conventional tools and Polymerase Chain Reaction ***Ind J Tub*** 53 (2) 69-76
52. Dey-Guha-I and Kar ,A (2001): Butyrate response of the strain In(1)BM2(reinverted) Of Drosophila ***Ind.J.Exptl.Biol***, 39,243-248
53. Lele M and A Kar (2000): Home management of diarrhoea by women of a slum comunity in Pune city Ind. ***J. Prev.Soc.Med.*** 31,3-4
54. Kar ,A, Kulkarni-Shukla S., Dey-Guha-I and J K Pal (2000) : Temperature induced alteration in the structure of the male X chromosome of the strain In(1)BM2(reinverted) of Drosophila. ***Genet.Res***. 76,11-17
55. Shukla S., Guha I. and A Kar : (1999) Perturbation of sex determination after mutagenesis of the 16A region of the strain In(1)BM2(reinverted) of Drosophila ***Dros.Inf.Ser***. 82, 73-74
56. Naik, A.H. and Kar, A.(1997) : An autosomal dominant muscular dystrophy; Case report ***J.Clin.Genet. Tribal Res***.3 50-57
57. Kar, A. and Pal, J.K. : (1995) An X-linked region in the strain In(1)BM2(reinverted) of Drosophila that controls the structure of the male X chromosome and perturbs sex determination. ***J.Genet***., 74, 47-59.
58. Kar,A. and Pal, J.K. (1993) : An X–linked mutation in the strain In(1)BM2(reinverted) Of Drosophila melanogaster that controls the compaction Of the male X chromosome ***Dros.Inf. Ser.***72, 123-124.
59. Kar, A. and Mukherjee, A.S. (1993) : Induction and characterization of premature chromosome condensation in Drosophila synkaryons and implications to dosage compensation. ***Ind.J.Exp. Biol.***31, 210-214.
60. Kar, A. and Mukherjee, A.S. (1986) : Role of cell density and cell shape in polyethylene glycol induced cell hybridization. ***Ind.J.Exp.Biol.*** 24, 551-556.
61. Duttagupta A., Kar A. and Duttaroy, A (1984) : A deficiency minute mutation that acts as an enhancer of position effect vareigation. ***Dros.Inf.Ser.*** 60, 93-94.

**Books**

62. Kar Anita Ed Birth Defects in India : Epidemiology and public health implications. Springer, Singapore;2021.

**Chapters in Books & Conference proceedings**

63. Kar, A. (2021). Birth Defects: A Public Health Approach. In *Birth Defects in India* (pp. 3-29). Springer, Singapore.
64. Kar, A. (2021). Some Common Birth Defects. In *Birth Defects in India* (pp. 31-74). Springer, Singapore.
65. Kar, A. (2021). Thalidomide: Understanding the Responsibilities of a Birth Defects Service. In *Birth Defects in India* (pp. 75-93). Springer, Singapore.

66. Kar, A., & Ujagare, D. (2021). Magnitude of Congenital Anomalies in India. *Birth Defects in India*, 143-167.
67.Kar, A., Bhide, P., & Gund, P. (2021). Preventing Congenital Anomalies Through Existing Maternal and Child Health Services in India. In *Birth Defects in India* (pp. 211-234). Springer, Singapore.
68. Kar, A. (2021). Medical, Rehabilitation and Social Welfare Services for Children with Birth Defects and Developmental Disabilities in India. In *Birth Defects in India* (pp. 275-296). Springer, Singapore.
69. Kar, A. (2021). Birth Defects Stigma. In *Birth Defects in India* (pp. 317-333). Springer, Singapore.
70. Sznajder K et al. Fostering Dialogues in Global Health Education: A Graduate and Undergraduate Approach In M. S. Winchester et al. (eds.), Global Health Collaboration, Springer Briefs in Public Health, https://doi.org/10.1007/978-3-319-77685-9_3
71. Kar A (2015) Birth Defects : An emerging public health issue in the field of child health in India. In Public Health and Development in India . Ed SB Nimse and MK Agarwal. Northern Book Centre, New Delhi.
72. Krickberg K, Kar A and Chakraborty A K (2005) Epidemiology in Developing countries :The example India. Ed Ahrens W and Pigeot I : Handbook of Epidemiology, Springer Verlag
73. Pal, J.K. and Kar, A. : (1999) Translational regulation of gene expression during early embryonic development (Invited review, in "Recent trends in Developmental Biology Research").
74. Potnis M, JoshiA, Kar (1997) : Drinking water quality and management of diarrhoeal diseases in a slum community in Pune city. In Social problems and development issues of slum women, ed. R.Tribhuwan, pp 63-69.
75. Kar, A. (1996) : Indian Science at the crossroads : the relevance of community based research in health. Proceedings Young Scientists Meeting, of the Indian Science Congress, 3rd to 7th January, 1996.
76. Rao N.N., Kar A., Roberts M.F., Yashpe J. and Torriani-Gorini A. (1994) : Phosphate, phosphorylated metabolites and the Pho regulon of Escheria coli. In Phosphate in Microorganisms, Cellular and Molecular Biology. Ed. A.Torianni-Gorini, E.Yagil and S.Silver. ASM Press, Washington DC.
77. Kar Pal A, Rao N.N. and Toriani A. (1990) Nucleotides inducing alkaline phosphatase in Pi-repressed E.coli cells. Cold Spring Harbour Symposium on Molecular genetics of bacteria and phages, Proceedings, August 1990, 94-96.

## RESEARCH GRANTS AS PRINCIPAL INVESTIGATOR

**Year Title/ Funding agency**

2019-2023 The role of a nurse in a LMIC and global perspectives to health care provision: a practical introduction to the Indian health care system INA-2019/10048
2015-17 Indo-Norwegian Cooperation Programme 2014 "Developing needs based on-site and distance education courses in public health in India and Norway". F.No.58-5/2014(IC)
2012-17 Translational research in the health of women and children (UGC-UPE project No 262/B2)
2010-2013 Use of a geographical information system to study tuberculosis epidemiology and the factors affecting case detection in a population in Pune district, Maharashtra ISRO (contract grant)
2007-2008 Burden and risk factors for orthopedic injuries in Pune city Office of the WHO Bone and Joint Decade (contract grant)
2005 – 2010 University Grants Commission Innovative Programme in Health Sciences No. F.14-62/2004/(Inno.ASIST)
2006-2007 A study of the Integrated Disease Surveillance Project University of Pune, UPE scheme (contract grant)
2000-2003 Genetic etiology of haemophilia A University Grants Commission
2006-2009 SERC Project, Department of Science and Technology, Gov of India
2000-2003 SERC Project SP/SO/D-1/00, Department of Science and Technology, Gov of India
1995-1999 SERC Project SP/SO/D-38/95 Department of Science and Technology, Gov of India
1993-1995 Young Scientist Project SR/OY/GB- 14/93,Department of Science and Technology, Gov of India

## DOCTORAL RESEARCH SUPERVISION

| | |
|---|---|
| Doctoral candidates supervised | 21 |
| As co-guide | 3 |
| Master's dissertations | Over 100 since 1995 |

## B. TEACHING

---

### TEACHING GRANTS

- Coordinator, University Grants Commission, University with Potential for Excellence Phase II and III holistic area "Translation research in health of women and children" (2012-2018).
- Principal Investigator Indo-Norwegian Cooperation Programme 2014 "Developing needs based on-site and distance education courses in public health in India and Norway". F.No.58-5/2014(IC) dated 26.12.2014
- Global health and disability over a life span -project. Funded: UTFORSK program, Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education Project Co-investigator
- The role of a nurse in a LMIC and global perspectives to health care provision: a practical introduction to the Indian health care system INA-2019/10048 Project co-investigator

### TEACHING CONTRIBUTIONS

• Obtained funding and Coordinator of the first University Grants Commission supported Master of Public Health programme (University Grants Commission Innovative Programme No. F.14-62/2004/(Inno.ASIST) 2004-2009.This funding was instrumental in supporting the development of the MPH course of the School. This was the first UGC supported MPH in India).
• Development of syllabi of the MPH course with a focus on practical learning especially for students from multi-disciplinary backgrounds. This includes establishing public health field collaboration at Kamshet, Pune district, Maharashtra
• Development of appropriate partnerships and linkages with state governments and NGOs and with other Schools and Universities offering MPH teaching programmes.
• Global health field training : Development of programme for students from Norway and USA on Public Health in India
• Setting up of biosafety laboratory, ethics committee for Savitribai Phule Pune University

### COURSES TAUGHT

Introduction to Public Health
Field study of public health programmes
Infectious diseases and Disease Control Programmes
Research Methodology
Epidemiology
Human molecular genetics

### GLOBAL HEALTH (online)

Health and health system in India
Field study of public health in India (onsite)
Disability and global health

### WORKSHOPS

Birth defects, childhood disability and public health

### PUBLIC HEALTH CURRICULUM DEVELOPMENT

Resource person in curriculum development Workshops of
• ICMR School of Public Health, at NIE Chennai, July 2006
• Public Health Foundation of India, New Delhi, 2007
• Tata Institute of Social Sciences, Mumbai, 2007
• Manipal University, Manipal
• Indian Institute of Health Management Research Jaipur
• International Institute of Population Studies, Mumbai

**VISITING FACULTY / ACADEMIC BOARDS**
• Currently, School of Health Sciences, Savitribai Phule Pune University
• Visiting Faculty, Tata Institute of Social Sciences, Mumbai, for the Introduction to Public Health Course
• Visiting faculty at the Maharashtra University of Health Sciences, for the Medical Genetics course
• Visiting faculty to the Human genetics courses,Departments of Biotechnology, Zoology, Botany University of Pune
• Faculty on Genetic Underwriting as a part of Health Care Management course of the National Insurance Academy, Pune
• Member Academic Council and Board of Studies, International Institute of Population Studies, Mumbai
• Member, Research and Recognition Committee, D Y Patil Medical College,Pune

## C. ACADEMIC ADMINISTRATION

---

**ACADEMIC AND SCIENTIFIC COMMITTEES (selected, past and current):**

**National/International/State Committee/Expert group**
Member WHO Technical Working Group on Burden of Birth Defects (current)
Member WHO expert group for formulation of guidelines on for newborn screening, diagnosis and management of birth defects (current)
Research Advisory Committee Krishna Vishwa Vidyapeeth (current)
Member, Project Review Monitoring Committee, NITVAR, Pune (current)
Member, World Health Organization Expert group on development of strategic guidelines for prevention of birth defects in Southeast Asian Region Countries (2014)
Member, Department of Biotechnology, BIRAP Task Force member, 2011-13
Member, Department of Biotechnology, Human Genetics Expert Group 2017
University Grants Commission, Expert Major and Minor projects from 2014- 16

**University Committees :**
• Chairman, Board of Studies in Health Sciences, 2010--2014
• Member, Board of Studies from 2000 -2021
• Member, BOS, Basic Medical Sciences (Univ. of Pune)
• Member, Research and Recognition Committee in Health Sciences
• Member Board of Studies, Hospitality Management 2014-2016
• Member of many Local Enquiry Committees of the University of Pune

**Ethics and Biosafety :**
Chairperson, Institutional Committee, Stem Cell Research, D Y Patil Medical College
Member, Ethics Committee, Maharashtra State Health Systems Resource Centre
IBSC member, three pharmaceutical companies
Secretary, Ethics Committee University of Pune (till 2018)
Member Ethics Committee, National AIDS Research Institute, Pune (2000-2006)
Member, Ethics Committee Healis Sekhsaria Institute of Public Health, Mumbai (till 2016)
Member, Institutional Biosafety Committee, University of Pune 2000 to 2014

**Gender :**
• Former Member, Committee on Rights of Women, University of Pune
• Former member, Committee for establishment of guidelines for Sexual Harassment in the University

**Other**
· Selection committee member for JRFs and TAs
· Examiner for M.Sc., M.Phil. and Ph.D. thesis of various Universities
· Resource person for UGC Refresher Courses of various Universities

· Referee for Research projects submitted to CSIR, DBT and DST
· Referee of research papers for various scientific journals.

## D. EDUCATION, EMPLOYMENT, HONORS, PROFESSIONAL MEMBERSHIP

---

**EDUCATION**

1983 M.Sc. University of Calcutta
1989 Ph.D (Cytogenetics), University of Calcutta

**ACADEMIC/ EMPLOYMENT**

2015- July 2018 Director, School of Health Sciences,
1994 – 2018 Lecturer/ Reader / Associate Professor / Professor, Interdisciplinary School of Health Sciences, Savitribai Phule Pune University
1991-94 CSIR, Post-doctoral Research Associate, University of Pune, Department of Zoology-Biotechnology
1987-91 Post-doctoral Fellow, Department of Biology, Massachusetts Institute of Technology, USA
1987 Visiting Scientist, Institute Jacques Monod, Paris, France

**ACADEMIC/ RESEARCH AWARDS/FELLOWSHIPS/ORATIONS**

• Jubilee Merit Prize, University of Calcutta,1979
• Gold Medallist, University of Calcutta, 1982
• National Merit Scholarship, Government of India , 1980-1982
• Young Scientists Project Award, Department of Science and Technology, Govt. of India 1995
• Best Presentation Award, South-East Asia Congress of the International Epidemiological Association, 2002
• Pyarelal Memorial Award of the Indian Association of Preventive and Social Medicine, 2005
• B C Garg Memorial Award, Indian Tuberculosis Association 2006
• Dozor Fellow, Ben Gurion University of the Ngev, Israel 2009
• British Council Staff exchange fellowship 2012
• Banoo Coyajii Memorial Oration of the Indian Public Health Association Maharashtra Chapter, Mahatma Gandhi Medical College, Wardha 2013
• Silver Jubilee Oration, Karad Institute of Medical Sciences Deemed University, Kard, Maharashtra. 2014
• Invited speaker, Global Health Day Norwegian University of Science and Technology, Trondheim Norway
- Invited plenary speaker International Conference on Birth Defects and Developmental Disabilities, 22-26 February, Sri Lanka.

**PAST AND CURRENT INTERNATIONAL COLLABORATIONS AND ACTIVITIES**

1. NTNU-SPPU project Global Health and Disability (UTFORSK project, Coordinator Prof Marianne Hedlund)
2. NORD University-SPPU project Intern Abroad programme
3. Visiting Fellow, Public Health Genomics Foundation, Cambridge, UK
4. Dozer Fellow, Ben Gurion University of the Ngev, Israel 2009
5. Affiliate member, International Clearinghouse for Birth Defects Surveillance and Research

**MEMBERSHIP PROFESSIONAL SOCIETIES**

1. Affiliate Member, International Clearinghouse for Birth Defects Surveillance and Research
2. Life member, Epidemiological Foundation of India
3. Life Member, Indian Public Health Association
4. Life Member, Indian Society of Developmental Biologists
5. Life Member, Indian Cell Biology Society

## E. BIRTH DEFECTS RESEARCH FOUNDATION

---

The Centre is a research NGO, established in August 2018, dedicated towards research and advocacy on birth defects and childhood disability. The objective of the NGO is to increase the visibility of these conditions, and advocate for research to offer a low cost model for detection, surveillance, prevention, medical care, rehabilitation, caregiver empowerment, community sensitization and other components of a birth defect service. The NGO is supported in its academic tradition by student volunteers, and research through Master's, PhD and independently funded projects.

**Research**

1. **Ongoing research : The RBSK programme : A narrative review** : This review is based on a systematic review of the literature on the RBSK programme, followed by a qualitative synthesis of the findings in order to identify the key impact of the service for birth defects.
2. **Barriers and facilitators to care for four selected birth defects** : This qualitative study explored the factors that impede or facilitate access to services at the DEIC for four birth defects, congenital heart defects, orofacial clefts, clubfoot and Down syndrome.

3. **Community prevalence of birth defects and disabilities**
(Radhakrishnan B, Chatta V and Kar A Public health interventions for a birth defects service for low and middle-income countries: Implications from a community study in India, ms under review)

4. **Advocacy : Development of a Birth Defects and Childhood Disability Toolkit :** A set of quick-read posters that emphasize the public health issues related to birth defects
(Radhakrishnan B and Kar A Development of a Birth Defects Toolkit for public health students and community health practitioners, ms accepted for publication)

5. **Knowledge about birth defects among urban and rural women (completed)** This qualitative research aimed at understanding local language use, women's understanding of causes and prevention of birth defects, with the aim of developing communication material and informing policy on prevention of birth defects. Published

   Kar, A., Dhamdhere, D., & Medhekar, A. (2023). "Fruits of our past karma": a qualitative study on knowledge and attitudes about congenital anomalies among women in Pune district, India. ***Journal of Community Genetics***, 3; 1-10.

   A poster entitled "Women's knowledge on congenital malformations and care for children with disabilities: A qualitative study from Pune district, India" was awarded the first place in Students Scientific Session at the EUROlinkCAT EUROPEAN CONFERENCE "Health and education outcomes of children across Europe with congenital malformations" April 7-8, 2022 Online Conference

6. **Thalidomide in India** : In collaboration with Prof Dr. Ludger Wimmelbücker, Charity University, Berlin, this research undertook a review of the early history of thalidomide in India, and its current availability.

   Wimmelbücker L and Kar A.(2022) History of thalidomide in India. ***Medical History*** 67(3),228-246

7. **Ethical issues : Congenital disorders for ethics committees** (ms. and report under preparation) This document is to sensitize ethics committees and researchers on ethical issues in research with children with disabilities and complex medical conditions, genetic testing and prenatal tests.

8. **Utilization of district based services under the RBSK programme** (completed) Published in

   Kar A, Radhakrishnan B, Girase T, Ujagare D, Patil A. Community based screening and early intervention for birth defects and developmental disabilities: Lessons from the RBSK programme in India ***Disability, CBR & Inclusive Development*** 31(1) 30-46

9. (Book) **Birth Defects in India : Epidemiology and Public Health Implications** ( Springer, Singapore) https://www.springer.com/gp/book/9789811615535