Association for Socially Applicable Research ASARAGO ANNUAL REPORT (2021-2022)

Hello and welcome to ASAR's second official annual report!

ASAR was informally formed in February 2018 but was legally registered as a section 8 non-profit company under the Government of India on October 31st, 2020.

The past year has been exciting with a growing family of members, newer research projects, and exciting new collaborations. Read on to know more!

The growing ASAR family and changing ASAR structure

ASAR started this year with around 30 members and today has grown to 60 total volunteers (including members and interns). In the past year, we restructured the organization into teams for better management. The management team consisted of our co-founders (Siddhesh Zadey, Sweta Dubey, and Surabhi Dharmadhikari), and 3 different heads for internal management for the year (Aatmika Nair, Jatin Terde, and Swasti Despande). We also designated a social media and public relations team which was kicked off by Ashmeet Sachdev and Avanti Andhale and is currently managed by Preeyati Chopra. Recruitment of new members took place through a preliminary form on the website, followed by an interview with the management team.

Each ASAR project had a separate working group on Whatsapp/ Telegram and a common group where the ASAR family could interact with each other. It is with the grit and dedication of our interns and members that we are still standing and hope to keep fighting to help solve the social problems in India. ASAR was blessed to have the help of **Asha Rathor**, our CS who helped us navigate the legal aspects of running a company. We would also like to thank our CA, **Mr Yugendra Nagpure** who helped us navigate the financial aspects of managing a non-profit organization.



Our Research

With newer members with varied educational qualifications, ASAR's work has now expanded to include efficacy, economics, and ethics of using movement-restrictive measures to curb the spread of the COVID-19 pandemic; volumes, rates, need, and access to surgery in India; and creating health workforce measurement models and frameworks for India. We have continued and further expanded our work in the health sector to creating high-resolution nationwide estimates for India's national surgical planning, creating and validating a comprehensive geo locations database of public and private healthcare facilities, and building an Indian Data Library (IDaLi) for Health. IDaLi is a single-point access platform that aggregates health systems and outcomes from a multitude of sources and makes it readily accessible for researchers and policymakers for analyses. We have initiated new collaborations with Lancet Citizens' Commission - 'Reimagining India's Health System' and the Pune Institute of Computer Technology. ASAR's research has been published in impactful and prestigious outlets like The Lancet, The British Medical Journal Global Health, Human Resources for Health, Lancet Global Health, and International Journal Of Community Medicine And Public Health among others. We have published evidence-based advocacy op-eds in popular media outlets like The Quint, Think Global Health and BMJ Opinion. We have started a new initiative under the Blogs Team "ASAR Data Story" which is data-driven evidence-based writing for the general population.



Journal Articles:

- Ethics-driven policy framework for implementation of movement restrictions in pandemics (<u>Link</u>)
- 2. Workforce problems at rural public health centres in India: a WISN retrospective analysis and national-level modelling study (Link)
- Do health policies address the availability, accessibility, acceptability, and quality of human resources for health? Analysis over three decades of the National Health Policy of India (<u>Link</u>)
- 4. India's path towards better mental health in a pandemic (Link)
- 5. India's problem of data and deaths (Link)
- Measuring timely geographical access to surgical care in India: a geospatial modelling study (<u>Link</u>)
- 7. Analyzing Surgical Volumes, Rates, and Need in Rural India (Link)

Evidence-based Op-Eds:

- 1. 133 Attacks in a Year: How India Is Failing Its Health Workers (Link)
- Unnoticed, Misunderstood, and Unaddressed: Why gender equity in global mental health matters (<u>Link</u>)
- 3. Suicide and Indian Housewives (Link)
- 4. Solving systemic violence against healthcare workers in India (Link)



Abstracts selected for presentations on social issues in eminent conferences:

CUGH (28 March - 01 April 2022)

- 1. Systemic Violence against Healthcare Workers in India: Situational Analysis & Review of Legislations
- 2. Measuring Availability, Accessibility, Acceptability, and Quality of Human Resources for Health in India from 1981 to 2011
- Did Better Health Systems Respond Better Early on in COVID-19 Pandemic?: A Cross-country Ecological Association Analysis
- 4. Creating a Geodatabase of Surgical Facilities in India
- Analyzing Rural-Urban Disparities in Geographic Healthcare Access Coverage across 256 Territories
- Blood Banks in India: A Retrospective Cross-sectional Analysis of Blood Volumes, Safety, and Regulation
- 7. Catastrophic and Impoverishing expenditures due to Surgical care in India: Retrospective Analysis of Nationally Representative Survey
- Inequalities in Global Healthcare Access Coverage. Econometric Analysis of Geospatial Estimates of 256 Territories
- Factors Associated with Population-level Geographic Healthcare Access Coverage: Global Ecological Analysis of 191 Countries Script
- Prioritization of Surgical Care in National Policies of India: A Quantitative Document Analysis, CUGH (28 March -01 April 2022)
- Timely Access to Healthcare in India: Travel Time Analysis for 52,478 Primary and Community Healthcare Centers
- 12. Attention towards Sex and Gender-Based Differences and Disparities in Mental Health Needs: Policy Analysis of 109 Countries



- Surgical Rates and Need in Rural India: Retrospective Analysis of 666 Districts and 36 States and Union Territories
- 14. Assessing Health Equity under Pradhan Mantri Jan Arogya Yojana (PMJAY) in India
- 15. Geodatabase Synthesis of 9496 COVID-19 Treatment Centers in India Building the Indian Data Library (IDLI)
- 16. Phase-wise Impact Analysis of the Indian National Lockdown against COVID-19 outcomes
- Population-level Surgical Incidence in India: Analysis of Nationally-representative Survey of 113,823 Households
- Scaling up Human Resources for Health in Rural India to achieve health-related SDGs: Projections for 2030
- 19. Correlations of Rural-Urban Differences in Geographical Health Care Access Coverage and other Access Measures: An Ecological Study of 128 Countries
- 20. Measuring Population with Timely Geographical Access to Surgical Care in India
- 21. Indexing Access to Surgical Care in Rural India: Multi-methods Modeling and Construction of a Novel Index
- 22. Synthesizing a Geodatabase of Surgical Care Facilities in India
- 23. Strengthening Rabies Elimination Program In India Analysis of Current Scenario and Future Prospects

<u>GSSA 2022 Symposium Global Surgery: Lessons from Pediatric Surgery</u> <u>Conference (March 2022)</u>

1. Measuring under-5 surgical rates in India: A retrospective analysis of a national survey



ASAR's evidence-based blogs on social issues:

- 1. Aphasia: Tracing through the mysteries of a language disorder (Link)
- 2. Is Patriarchy bad for men? (Link)
- 3. Breastfeeding: Excerpts from experts and mothers (Link)
- 4. ASAR Talk: COVID-19 from Hospitals to Health System (Link)
- 5. GENDER EQUALITY AT HOME: Findings from a Facebook Survey (Link)
- 6. India's Rural Deaths: A Problem Unnoticed- An ASAR Data Story (Link)
- 7. Crimes Against Women in India- An ASAR Data Story (Link)



ASAR Talks

On Sundays at 9 pm, ASAR invites experts from the social research sector to talk about their work. The talks are free, open to the general public, and a wonderful forum to inspire and give direction to our young social researchers.

In the past year, some of the free talks we arranged were as follows:

 Aditya Mate, PhD student at Harvard, studying Computer Science. He graduated with a B.Tech and M.Tech (dual degree) from the Indian Institute of Technology, Bombay (IIT Bombay).

Topic: RMAB in TB

- Dr Hampus Holmer is a physician-researcher with a PhD in Global Health from Lund University. He has been part of India's Vaccine Maitree initiative as well. Topic: Global vaccine access
- Dr Richa Sharma, Research Scientist at Centre for Environmental Health (Public Health Foundation of India).
 Topic: Climate Change and Health
- Dr Sanjay Oak, Chairman of Maharashtra's COVID-19 task force Topic: COVID Task Force
- Arthi Kozhumam, a research assistant for the Global Emergency Medicine Innovation and Implementation (GEMINI) Lab at Duke's Department of Surgery and Duke Global Health Institute.

Topic: Delphi Group

6. **Anshul Sharma**, co-founder of Redwing Labs. Redwing labs are building a drone-based logistical system to democratize the on-demand delivery of healthcare products across geographies.

Topic: Drone-based delivery of vaccines



- 7. Charlie Rafkin is a third-year economics PhD student at MIT, with interests in public, behavioural, and labour economics.
 Topic: Intergenerational mobility in India
- 8. **Prof. Narendra Shah**, a seasoned professor at the Centre for Technology Alternatives for Rural Areas (CTARA) of IIT-Bombay since 1991 with a PhD in Process Engineering at UTC-France.

Topic: Agriculture, food, Livelihoods and Nutrition- How can NGOs catalyse/complement government actions?

 Onkar Sadekar graduated in June-2021 from IISER-Pune. He is interested in problems of social, cultural, and political significance. Hazard Map was his first venture into these kinds of problems.

Topic: Hazard Map for Infectious Disease Breakouts

- 10. Dr Yogesh Kalkonde, is a public health doctor, researcher, advocate and also neurologist. He is an India Alliance fellow in public health.Topic: Universal Health Coverage in India
- 11. Aditya Nair, Assistant Professor, Department of Mechanical Engineering at the University of Nevada, Reno. His research interests are in the areas of computational fluid dynamics, unsteady aerodynamics, data science and control theory focused on modelling and control of high-dimensional fluid flow physics. Topic: Artificial Intelligence

12. **Paolo Brunori,** Assistant Professor, London School of Economics Topic: Inequality of Opportunity (IOP)

- Joao Vissoci, Assistant Professor, Duke Global Health Institute Topic: Data Science for Health Policies in LMICs
- 14. **Diwakar Kulkarni**, Former director and principal scientist, ICAR-National Institute of high-security animal diseases.

Topic: Emerging and re-emerging viral zoonoses

15. ASAR SABHA (Insecurity Insight)



- 16. COVID-19 Lockdown Panel: Volunteers and members at ASAR working on COVID-19-related projects came together for a panel and discussed the pandemic situation in the country.
- Christina Willie, Director of Insecurity Insight and Rohini Haar, Research Fellow at UC Berkeley

Topic: Violence against healthcare workers

- Itamar Megiddo, Associate Professor, University of Strathclyde Topic: IndiaSim and its applications
- 19. Dr Veena Sriram, Dr Vikash Keshri, Dr Sriram is an Assistant Professor with a joint appointment in the School of Public Policy and Global Affairs (SPPGA) and the School of Population and Public Health (SPPH) at the University of British Columbia. Dr Keshri is Senior Research Fellow at the George Institute for Global Health. Topic: The impact of colonial-era policies on HRH regulations in India
- 20. Dr Anoop Rao is a Clinical Assistant Professor in the Department of Pediatrics -Neonatal and Developmental Medicine at Stanford University School of Medicine and is affiliated with Lucile Packard Children's Hospital Topic: Indian NeoDesign Network, low-cost medical device development & its large-scale adoption
- 21. Dr Milind Watve, ex-IISER Pune professor in biology, a researcher in quantitative biology, ecology & evolution and wildlife conservation.Topic: Using Scientific Questioning for Social Problem Solving
- 22. **Dr Nachiket Mor** is an economist focusing on Health Systems Design. He is a Commissioner at the Lancet Citizens' Commission for Reimagining India's Health System and was the Director of the Bill and Melinda Gates Foundation, in India. Topic: Sustainable and value-based private healthcare in India



Voice of Warriors (VoW) (ASAR Blogs)

In light of the COVID-19 pandemic, ASAR wanted to bring to the forefront the challenges faced by frontline workers during the pandemic. Given that we are primarily a research-focused organization, this might seem a digression. But we believe that the frontline experiences and original contemplations of these experiences are valuable evidence that could be harnessed to change our health system. We published a series of seven blogs with experiences from medical students to surgeons to psychiatrists, in both Marathi and English. You can read them <u>here</u>.

- 1. COVID-19 A Surgeon's Perspective by Dr Hemant Jawale (Link)
- 2. कोविड १९ एका डॉक्टरची सामाजिक जबाबदारी (COVID19 The Social responsibility of a Doctor) by Dr. Nikhil Wasnik (Link)
- 3. COVID-19: Death vs Survival by Dr Pankaj Goyal (Link)
- 4. जेव्हा एक डॉक्टर कोविड पॉसिटीव्ह होतो (When a doctor is COVID positive) by Dr Mahesh Narad (<u>Link</u>)
- 5. Treatment on Wheels by Heema Solanki (Link)
- 6. Last day of duty at a COVID care centre A diary entry by Aleesha Joykutty (Link)
- 7. The COVID Mortuary by Dr Vidit Panchal (Link)
- 8. The fellowship of COVID-19 and Mental Health Disorders by Dr Sagar Bhalke (Link)



ASAR's Journal Clubs

Journal clubs (JCs) is a venture meant to help our members and interns to be better equipped in understanding and thus, conducting research. Coordinated by one of our enthusiastic interns: **Shirish Rao**, ASAR members are provided with a platform to learn through regular reading, discussion, and critical evaluation of papers published in peer-reviewed journals. Papers for the JC are either chosen by the presenters or given to them by the management team, such that they fulfil a Specific Learning Objective (SLO).

This year, we conducted two JCs:

 Presenter: Tanmay Jadhav
 Paper: A spatial database of health facilities managed by the public health sector in sub-Saharan Africa
 SLO: Understanding how to create geospatial databases

2. Presenter: Padmavathy Krishna Kumar

Paper: Accelerometer derived sleep onset timing and cardiovascular disease incidence: A UK Biobank cohort study

SLO: Correlating sleep patterns and quality can help understand how it impacts CVD incidence and prevalence.



ASAR Workshops

ASAR Workshops is a new venture meant to help our members and interns to be better equipped in understanding and thus, conducting research. Coordinated by our interns, ASAR members are provided with a platform to learn through the discussion on different aspects of research skill development. Topics for the Workshop are either chosen by the presenters or given to them by the management team.

This year, we conducted one workshop:

- Speaker: Siddhesh Zadey Topic: Research writing 101
- Speaker: Siddhesh Zadey
 Topic: How to use R Software



Our Collaborations

In November 2021, ASAR became an official knowledge partner for the <u>Lancet Citizens'</u> <u>Commission - 'Reimagining India's Health System'</u>. In the past year, we have continued our collaborations from the year 2020-21 and also collaborated for our varied research projects with the researchers from the <u>Centre for Environmental Health</u> (Centre of Excellence of Public Health Foundation of India), and <u>Redwing Labs</u>. We also continued our work in collaboration with researchers at the Department of Surgery at <u>Duke University School of</u> <u>Medicine</u>, <u>Duke Global Health Institute</u>, <u>University of California Berkeley</u>, <u>Insecurity</u> <u>Insights</u>, and the <u>National Institute of Ayurveda</u>, among others. We have continued our advocacy-focused collaborations with the student organizations like the Rotaract Club of Caduceus and the Asian Medical Students' Association (AMSA). We also initiated a collaboration with the Pune Institute of Computer Technology for our project 'IndoHealMap.'



Other Activities

ASAR was thrilled to have been featured in <u>The Hitavada* 'Rural areas lack proper healthcare</u> <u>facilities: Study</u>'. Here, we were given a platform to speak about ASAR's unique vision and work. This year, we were also featured on the platform'<u>YourStory</u>'. We were also featured in the <u>MIT Solve</u> which is a marketplace for social impact innovation with a mission to drive innovation to solve world challenges. for our 'IndoHealMap' project.

We are also proud to have conducted 3 "ASAR Sabhas/ Townhall Meets" in the past year where our members interacted with each other and spoke about their work. These meetings were the brewing pot for most of ASAR's awesome ideas!



Looking Ahead

We are off to a kick-ass beginning but there is still a long road ahead. We envision building a culture of evidence-based problem-solving in Indian policy-making. We aspire to inspire and train young researchers to contribute to building the requisite evidence for social problem-solving in India. In the coming year, we will shift a little bit of our focus towards acquiring funding to help us keep our research activities afloat. We will also be searching for avenues to help convey our research findings to bureaucrats and policymakers. And of course, we will keep taking on newer research projects that our members and followers think are the need of the hour. If you think you can help us in this regard, please do reach out and we shall be grateful.

Thank you for reading! With love, Team ASAR <u>asarforindia@gmail.com</u> asarforindia.org



