

# RUPSHIKHA SEN, MHS

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Advanced degree candidate with experience in epidemiology and outcomes research

## EDUCATION

**Johns Hopkins Bloomberg School of Public Health** (*Delta Omega Alpha, Center Scholar, Master's Scholarship*) Baltimore, MD  
Master of Science, Epidemiology May 2024

Key Coursework: Epidemiology, Biostatistics, Drug Development, Clinical Trials Management, U.S. Healthcare System, Health Economics  
Honors: Master's Tuition Scholarship, Center Scholar (Center for Drug Effectiveness Research), Doctoral grade in Comprehensive Exams  
Certificates: Public health economics, Pharmacoepidemiology & Drug Safety, Clinical Trials

**Rajiv Gandhi University of Health Sciences**

Karnataka, India

Bachelor of Dental Surgery

Nov 2019

Honors: Best outgoing student - All-rounder, University top 10 – Pharmacology & Oral and Maxillofacial Surgery

## SKILLS

Data Analysis and Software:	RStudio, Python, STATA, QGIS, GitHub, Microsoft Office Suite & Teams
Claims Databases and EHR:	Optum, IQVIA PharMetrics, Flatiron CGDB and EHR, Epic EHR
Skills (Business & leadership):	Project and Clinical management, FDA regulatory laws, Clinical trial protocols
Skills (Research and Epidemiology):	Multivariate Regression models, Propensity Score Methods, Causal Inference, Study Design, Registry design, Observational Real World Data analysis, Literature reviews
Relevant Projects:	FDA submission for vaccine, Registry Design for vaccine, Clinical Trial Protocol

## EXPERIENCE

**AstraZeneca, Health Economics and Outcomes Research Intern (Oncology)** | Gaithersburg, MD Jun 2024-Aug 2024

- Support the Lung Oncology team in conducting observational research (analysis of healthcare claims data and medical records, survey research) and development of cost-effectiveness and budget impact studies.
- Leveraging claims databases (Optum, IQVIA PharMetrics Plus, Flatiron CGDB and EHR) for evidence generation related to treatment patterns, testing patterns & prescription trends for US medical affairs and regulatory requirements.
- Develop epidemiological models to inform evidence base for approval by the FDA.
- Engage with internal and external experts and data resources to execute strategies and strengthen decision-making.

**Implementation Science Research Group, Johns Hopkins University, Research Associate** | Baltimore, MD Dec 2022-Present

- Systematic review of existing literature in HIV implementation outcomes to determine disparities in global research.
- Extraction of data for evidence synthesis supporting our hypothesis of lack of standardized outcomes definitions.
- Evaluate challenges of measuring pre-defined implementation outcomes and identification of sources of bias and error.

**Department of Epidemiology, Johns Hopkins University, Research Associate** | Baltimore, MD Dec 2022-Present

- Designed and implemented retrospective cohort study methods to use collated data for longitudinal analysis
- Analyzed real-world EHR data in RStudio for a target population of 1.2 million+ HIV infected individuals for long COVID
- Study design planning including appropriate use of epidemiological & regression methods for time-varying analysis

**Johns Hopkins Graduate Consulting Club, Consultant (Director)** | Baltimore, MD Oct 2023-Dec 2023

- Conducting a comprehensive analysis encompassing both quantitative and qualitative factors to evaluate feasibility, estimate target population, and determine subgroups for reach; navigating limitations and regulatory barriers
- Evaluated FDA approval pathways such as 510k, expedited and LDT pathways
- Identified key therapeutic areas and strategized feasible timeline to collect economic benefit data for reimbursement

**Indegene Ltd., Drug Safety Physician (Pfizer BNT162b2 vaccine)** | Bengaluru, India Apr 2021-Aug 2022

- Optimized drug report safety systems (Oracle ARGUS software) facilitating 3-fold increase in safety data turnover rate
- Evaluated adverse event reports to provide causality assessment for drug safety signal studies including serious events
- Collaborated with international stakeholders to ensure rigorous scientific data and adherence to regulatory authority guidelines (FDA, MHRA-UK, EMA and PMDA)

## PROFICIENCIES

**CERTIFICATES:** a) Pharmacoepidemiology and Drug Safety b) Clinical trials c) Public Health Economics

**MEMBERSHIPS:** JH Graduate Consulting Club, Student chapter for International Society of Pharmacoepidemiology