### Ridhima Sodhi

Health Economist | Data Science and Policy Professional ex- New York University, Carnegie Mellon University, Delhi School of Economics

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WHO #Supplier: 52281

#### **Education**

- MS Public Policy & Management, Carnegie Mellon University, H. John Heinz III College, United States, Dec 2016
- MA Economics; Delhi School of Economics, India, July 2012
- BA Economics (Honors), Delhi University, India, July 2008

### Methods

- Econometric Analysis
- Impact Evaluation
- Cost Benefit Analysis
- Qualitative Analysis
- Propensity Modeling
- Survival Analysis
- Survey Methods

### Tools

- R- Studio & Python
- STATA
- SAS & SQL
- GAMS (General Algebraic Modeling Language)

Health policy professional with 11+ years of experience across programmatic disease management, impact evaluation, social protection, health financing, and innovations. Experienced instructor - data science, quantitative economic methods, and data visualization

### **WORK EXPERIENCE**

### **Consultant, Clinton Health Access Initiative, India**

Jul 2020 - present

Last updated: June 2023

Website | LinkedIn

Lead the research and data-analytics work streams for Tuberculosis programs; strategic thought partner for the infectious disease programs. Work themes:

- **Research**: Leading multiple studies focusing on patient & provider engagement in urban/rural settings; examples:
  - Evaluated impact of free drugs on patient management & outcomes (BMC, 2023)
  - Evaluated incidence & risk of ADRs across differentiated patient profiles
  - Ongoing studies in the areas of Active Case Finding and Latent TB management "Manuscript" section at the end details some of the ongoing studies
- Monitoring & Evaluation/Data Science: Designed an automated M&E platform for <u>Project JEET</u> (Joint Effort for Elimination of TB); Supported the conceptualization and design for a war-room (data-driven analytical solution) at the Central TB Division (CTD), Ministry of Health & Family Welfare, India
- **Grant Management:** Led the grant-writing and co-creation process for TIFA (Tuberculosis Implementation Framework Agreement), a USAID grant awarded to CHAI
- Project/Stakeholder Management: Lead/support activities with partner institutions such as BMGF, ISB, the Imperial College, and the Government of India. Presently leading an evaluation exercise of Project JEET, in collaboration with ISB

## **Health Financing & Data Expert, P4H Network, WHO HQ**Nov 2021 - Oct 2022

Supported the network in advancing into a data-driven approach for progress towards UHC

- Data Science Initiatives: Led the design and development of a data-intensive web
  dashboard, focusing on universal health financing; particularly focusing on catastrophic
  health expenditure and unmet needs
- Partnerships/ Project/Stakeholder Management:
  - Co-led new partnerships (e.g., with <u>AHPSR</u>, Seoul National University, <u>R4D</u>
     USAID) for strengthening health policy & systems research (HPSR) as part of the <u>Health Systems Strengthening Accelerator (HSSA)</u>
  - Supported collaborative partnerships (e.g., <u>OpenIMIS</u>, <u>GIZ</u>, <u>Swiss Tropical and Public Health Institute</u>, <u>Collectivity</u>, <u>BlueSquare</u>) for driving digital health interventions, pandemic preparedness, strategic purchasing, and public financial management
- **Grant Management**: Led the proposal, grant-writing and the co-creation process for a <u>USAID grant awarded</u> to the Network for assessing domestic financing opportunities
- *Knowledge Dissemination*: Led policy dialogues with partners through technical briefs & panel discussions

### **Consultant, International Trading Economics**

Feb 2020 – Apr 2020

Simulated the effect of multiple trade-agreement scenarios to inform an ongoing FTA (free trade agreement) negotiation. Piloted a semi-automated system for simulating trade agreement scenarios using nonlinear methods in R Studio (originally in GAMS)

### Research Fellow, McKinsey India

Apr 2019- Jun 2020

Built a 60+ country econometric model to understand the effects of advances in technology (AI & IoT) on employment within the Future of Work (FoW) stream

# Capacity/Data Science Training

Audience examples include employees at major international think-tanks (e.g., USDA), state governments (e.g., New York, Illinois), government bodies (e.g., US Census Bureau, India's NITI Aayog), and mission-driven organizations like the William J Clinton Foundation

## **Associate Research Scientist, New York University**

May 2017- Dec 2018

Provided support to various research activities, teaching, and government sponsored projects in urban healthcare, social welfare, and disruptive innovation. Work themes included:

- **Research**: Analyzed the links between federal funding, network structures, and the role of gender. <u>Authored a paper</u> evaluating the role of research funding on innovation
- Consulting: Managed projects for US government (<u>USPTO</u>, <u>White House</u>); academic partners (<u>IRIS</u>, <u>University of Michigan</u>). Provided support to <u>New York Healthcare</u>
  <u>Department</u>, New York <u>Mayor's office</u> and state governments
- Teaching & Education:
- Coleridge Initiative, Executive Education Program (Python): Founding member
- Graduate Teaching: Developed and taught certain sections of the newly curated Applied Data Analytics for Public Policy course for Masters' level students studying policy at NYU

## Research Assistant, Palladium, Washington D.C.

Jun 2016 - Aug 2016

Conducted research for the Health Policy Plus (HP+) project and provided support to various Health Financing activities

Assistant Manager, Credit & Fraud Risk; Barclays (India)
Assistant Manager, Analytics & Research; IBM (India)

Feb 2013 - Jul 2015 May 2012 - Jan 2013

## **Long Term Collaborations | Intermittent Work & Advisory**

### Consultant, Treemouse, India

Jan 2021 - present

Strategic thought partner for quantitative analysis undertaken by the design firm. Recent full-scale projects include leading a nation-wide (10 states) quantitative study for social protection

### **Advisor, Infinite Sum Modeling**

Jan 2021 - present

Provide support to ongoing research projects, along with development of training programs in econometric analysis, food security, healthcare & trade

## Manuscripts (embedded links)

- Impact of free drugs on patient management and treatment outcomes, a quasi-experimental study using propensity choice modeling, 2023 (BMC Infectious Diseases, 2023); *Ridhima Sodhi, Mike Penkunas, Arnab Pal*
- Global Spending on Family Planning and Reproductive Health, 2018 (Journal, Center for International Relations and Politics, Institute of Politics and Strategy, Carnegie Mellon University); *Ridhima Sodhi*
- Money for Something: The Links between Research Funding and Innovation (IZA, 2018); *Britta Glennon, Julia Lane, Ridhima Sodhi*
- Smart Street Sweeping in the City of Pittsburgh, PA (Panel Paper, APPAM, Washington DC, 2017); Ridhima Sodhi, Justin Cole, Mark Egge, and Wei Zhang
- (*Research support*) Family Planning in the Context of Latin America's Universal Health Coverage Agenda (Global Health: Science & Practice)
- (*Research support*) Can differentiated care models solve the crisis in HIV treatment financing? Analysis of prospects for 38 countries in sub-Saharan Africa (Global Health: Science & Practice)

# **Working Papers** (selected papers available on request)

- Impact of digital adherence technologies (DATs) on treatment outcomes among TB patients, a quasi-experimental study using propensity choice modeling
- Adverse effects: A mixed-methods study across 7 Indian cities among TB patients; Ridhima Sodhi, et al
- Impact of counseling guides in improving ADR management among TB patients: A mixed-methods study across 7 Indian cities among TB patients; Ridhima Sodhi, et al
- Operational priorities for engaging with India's private healthcare sector for the control of tuberculosis; a modeling study; Ricks S, Singh A, Sodhi R, Pal A and Arinaminpathy N
- Piloting Interactive Voice Response System (IVRS) based communication with TB patients to improve bank account seeding for Direct Benefit Transfers (DBT) in Uttar Pradesh & Bihar, India