

# NADIA KOYRATTY, PhD, MSc, BSc

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Passionate global health epidemiologist with 10 years of academic, industry and field experiences in high-, low-, and middle-income countries. Proven expertise in population health research and quantitative data analysis. Enjoys learning and working on various topics in health. Noted as a quick learner, especially in statistical software. Currently improving skills in data visualization and qualitative research methods.

Selected skills: data analytics, epidemiologic methods, survey design, psychometrics, 8 languages  
Attributes: Lived, studied, and worked in 8 countries/ 3 continents | Active learner | Travel flexible

## SKILLS & EXPERTISE

**SOFTWARE AND REPOSITORIES:** Stata, R, SAS, Mplus, SPSS, Nvivo, ArcGIS, Canva, Research Rabbit, Connected Papers, Covidence, EndNote, Mendeley, Zotero, OneNote, Microsoft Office, Adobe illustrator, Open Scientific Framework (OSF), DesignSafe-CI

**STATISTICAL MODELLING:** Regressions [linear, logistic, ordinal, multinomial, quantile], factor analysis, principal component analysis, multiple correspondence analysis, survival analysis, mixed-effects analysis, longitudinal analysis, time-series, etc.

**LANGUAGES:** Mauritian Creole: Master | English: Master | French: Master | Italian: Independent | Urdu: Independent | Hindi: Conversational | Arabic: Basic | Spanish: Basic

**STUDY DESIGN:** Community-based trials, Case-control studies, Cohort studies, Cross sectional studies, Randomized controlled trials, Ecological studies

**SURVEY AND QUESTIONNAIRE DESIGN:** Qualtrics, SurveyMonkey, GoogleDocs, KoboToolbox

**WRITING AND REPORTING:** Manuscripts, Journal Publications, Reviews, Report briefs, Grants, PowerPoints, Posters, Blogs, Newsletters, Social media posts, Video clips

**OTHER:** Project management, Organization, Oral communication

## EDUCATION

**2021 TO 2022**

**POSTDOCTORAL RESEARCH ASSOCIATE**

UNIVERSITY OF MARYLAND BALTIMORE COUNTY, USA

NEW MEXICO STATE UNIVERSITY, USA

Main project: Development and Validation of a Disaster Food Security Framework and Scale.

**2016 TO 2021**

**PHD EPIDEMIOLOGY**, UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK, USA

Dissertation: Food Insecurity, Water Insecurity, Child Growth and Minimum Infant Dietary Diversity.

**2013 TO 2015**

**MSc SUSTAINABLE MANAGEMENT OF FOOD QUALITY**, ERASMUS MUNDUS EUROPEAN MASTER

UNIVERSITE DE MONTPELLIER, FRANCE [SPECIALIZATION: NUTRITION]

UNIVERSITA DEGLI STUDI DELLA BASILICATA, ITALY [SPECIALIZATION: AGRICULTURE]

Dissertation: A Systematic Review of the Cardiometabolic Health Effects of Pseudocereals.

**2008 TO 2011**

**BSc (HONS) FOOD SCIENCE AND TECHNOLOGY**, UNIVERSITY OF MAURITIUS, MAURITIUS

Dissertation: Food Additive Control: Knowledge, Attitudes and Practices of Consumers and Food Manufacturers.

## **PROFESSIONAL & RESEARCH EXPERIENCES**

### **OCT 2022 TO PRESENT**

**ASSOCIATE RESEARCH FELLOW**, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE, DC

- Project management for nutrition interventions in LMICs
- Engaging international stakeholders involved in development activities in LMICs
- Nutritional data analysis/ dietary assessments

### **SEP 2021 TO SEP 2022**

**POSTDOCTORAL RESEARCH ASSOCIATE**, UNIVERSITY OF MARYLAND BALTIMORE COUNTY, MD

- Co-PI for “Validating the Disaster Food Security Scale for Rural Populations (DFSS-Rural)” funded by the Natural Hazards Center of the University of Colorado Boulder.
- Spearheaded the development of a disaster food security scale using large US household-level multi-state data with a food system approach and the social-environmental determinants of health concept [Tufts University and USDA ERS funded]
- Designed and launched an in-depth interview guide for qualitative research across the US to explore the residents’ food experiences during COVID-19, hurricane Irene, hurricane Florence and the Moore tornadoes.
- Performed unstructured interviews with victims of natural disasters and public health emergencies using strong interpersonal and communication skills.
- Coded and reported qualitative data for advancing food insecurity and nutrition research projects.
- Delivered support and expertise in compilation and standardization of state-level datasets from the ‘National Food Access and COVID Research Team’ (NFACT) into singular files to streamline analyses for critical research questions.
- Key contributor in grant writing and submission, particularly on food systems and disaster projects.
- Avid user of the DesignSafe-CI online repository to store and manage datasets, codebooks, and reports.
- Day-to-day leverage of epidemiologic, statistical and data analysis expertise towards successful progression of various projects across research groups within food security, nutrition, health, and behavior.

### **MAY 2020 TO PRESENT**

**RESEARCH ASSISTANT (VOLUNTEER)**, DISASTER RESEARCH LAB, MD

UNIVERSITY OF MARYLAND BALTIMORE COUNTY [PREVIOUSLY D’YOUVILLE COLLEGE, BUFFALO NY]

- Continued provision of quantitative and subject matter expertise in research questions related to public health.
- Led complex data management processes for the large-scale “Risk Perception, Information Seeking, and Protective Action During COVID-19” (RAPID) Study streamlining 10K+ observations across 12 time points and multiple US states.
- Developed and prepared variables, codebooks, data reports and presentations highlighting issues in food systems.

### **JUL 2018 TO DEC 2021**

**CONSULTANT (VOLUNTEER)**, ZVITAMBO INSTITUTE FOR MATERNAL AND CHILD HEALTH RESEARCH, ZIMBABWE

- Provided expertise for the “Development of holistic metrics for food and water insecurity and school-age child function for nutrition-sensitive programmes” funded by ANH Academy through the IMMANA grants.
- Instrumental in the development of a survey questionnaire for the ‘Child Health, Agriculture, and Integrated Nutrition (CHAIN)’ randomized trial in rural Zimbabwe.
- Provided expertise to develop and design a nutrition and agriculture program community-based randomized trial aimed at closing the nutrient gap among infants and young children in Zimbabwe.
- Led and provided guidance for all analyses of preliminary data related to food and water security assessments.

### **AUG 2016 TO AUG 2021**

**RESEARCH & PROJECT ASSISTANT**, UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK, NY

- Provided technical assistance and analyzed data related to air pollution in China and cardiovascular diseases.
- Headed data cleaning, variable creation, and health outcome analyses with the ‘Sanitation, Hygiene, and Infant Nutrition Efficacy (SHINE)’ community-based trial which consisted of longitudinal data with 5K+ observations for each of 5 time points. All planned analyses and methods are deposited in the Open Science Framework repository.
- Performed complex mother-infant dyad analysis for health outcomes using mycotoxin metabolite data detected in the ‘Sanitation, Hygiene, and Infant Nutrition Efficacy (SHINE)’ participants.
- Developed departmental newsletter for the academic year 2021 using Canva.
- Designed and submitted a grant to the Innovative Methods and Metrics for Agriculture and Nutrition Actions funding mechanism (IMMANA) to look at health outcomes within the water-energy-food nexus using a systems approach. [Reviewed in final application round, but not funded].

- Compiled progress reports of research grants funded by the National Institutes of Health (NIH) and the Bill and Melinda Gates Foundation (BMGF).
- Led systematic reviews on dietary exposures to pesticides among the general, non-occupationally exposed population worldwide.
- Led online training on systematic reviews to scientists of the Environmental Protection Bureau from the New York State Office of the Attorney General.
- Guest lectured undergraduate classes in Nutritional Epidemiology and Global Health.
- Acted as teaching assistant for students at graduate level for epidemiology methods courses.

#### **APR 2015 TO AUG 2016**

##### **JUNIOR NUTRITION SCIENTIST, NESTLE RESEARCH CENTRE, SWITZERLAND**

- Co-directed assessments to highlight the prevalence of dietary added-sugar intake among children and toddlers in China, Mexico and US using the respective National Health and Nutrition Examination Surveys (NHANES).
- Utilized the Cochrane approach to conduct and synthesize 20+ systematic reviews to evaluate the nutritive value of specific food commodities e.g., cereals, beans, salt, sugar, etc.
- Provided scientific expertise for updating nutritional and quality recommendations of food products.
- Key contributor to processed food product reformulation strategies aiming to reducing added sugars and salt.

#### **JUL 2012 TO AUG 2013**

##### **MEDICAL SALES REPRESENTATIVE, BOEHRINGER-INGELHEIM PHARMACEUTICALS, MAURITIUS**

- Led country-wide sales operations and strategy development for various pharmaceutical products in Mauritius.
- Designed in-depth market studies on competitor products and aggregated relevant scientific literature with a strong focus on the effect of certain drugs across different populations.
- Orchestrated seminars, conferences, and promotional activities for medical doctors and local pharmacists.

## **CERTIFICATES & PROFESSIONAL DEVELOPMENT**

- |  |      |
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| • Data Mining Methods in the Health Sciences   | 2022 |
| • Introduction to Time Series Analysis and Forecasting in R (Udemy)                    | 2022 |
| • Causal Mediation Analysis (Statistical Horizons)                                     | 2022 |
| • Designing Effective Online Surveys (Statistical Horizons)                            | 2022 |
| • Longitudinal Data Analysis Using Structural Equation Modeling (Statistical Horizons) | 2022 |
| • Data Science: Visualization (HarvardX School of Public Health)                       | 2022 |
| • Psychometrics (Statistical Horizons)   | 2021 |
| • Applied Sensitivity Analyses in Epidemiology (University of Michigan)                | 2021 |
| • Global Innovation Challenge (University at Buffalo)                                  | 2019 |
| • Certified Peer Reviewer (Elsevier/ American College of Epidemiology)                 | 2020 |
| • Data Science: R Basics (HarvardX School of Public Health)                            | 2020 |
| • Global Health Innovation Challenge (University at Buffalo)                           | 2020 |
| • Food Equity Ideas Lab Workshop (University at Buffalo)                               | 2017 |
| • Health and Safety in Laboratory (Université de Sherbrooke, Canada)                   | 2015 |
| • Health and Society (HarvardX School of Public Health)                                | 2014 |
| • Public Health in Numbers (HarvardX School of Public Health)                          | 2013 |
| • SADC Academic Symposium on cardiovascular diseases (Botswana)                        | 2013 |
| • Medical Representative Training Programme (South Africa)                             | 2012 |

## **AWARDS & HONORS**

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|--|------|
| • Natural Hazards Engineering Research Infrastructure (NHERI) RAPID Equipment Training Workshop Travel Award: University of Washington, Seattle                  | 2022 |
| • Nominee Saxon Graham Dissertation Award: University at Buffalo   | 2021 |
| • Food and Nutrition Section Fellow (Program Planning): American Public Health Association (APHA)  | 2021 |
| • Holger Schunemann Best Student Research Award: University at Buffalo   | 2021 |
| • National Science Foundation (NSF) Travel Award: Natural Hazards Engineering Research Infrastructure (NHERI) Summer Institute, University of Texas, San Antonio | 2021 |

- University at Buffalo Graduate Student Employees Union (GSEU) and New York Governor's Office of Employee Relations (GOER) Professional Development Award (not taken due to COVID) 2020
- Mark Diamond Graduate Research Fund Award: University at Buffalo 2020
- Catalyzing Advocacy in Science and Engineering (CASE) Workshop: American Association for the Advancement of Science (AAAS) (COVID cancelled) 2020
- Graduate Student Ambassador: University at Buffalo, School of Public Health & Health Professions 2020
- Saxon Graham Research Award: University at Buffalo 2019
- Community for Global Health Equity Award: University at Buffalo 2019
- Art Goshin Office of Global Health Initiative Award: University at Buffalo 2018
- Robert O'Shea Student Travel Award: University at Buffalo 2017
- Solstice Award for Scientific Excellence: Nestlé Research Centre, Switzerland 2016
- European Union Erasmus Mundus Scholarship for a 2-year multi-MSc Degree (EDAMUS) 2013

## **AFFILIATIONS & SERVICE**

- Journal of Cancer Epidemiology, Biomarkers and Prevention (Reviewer) 2022
- Journal of Breast Cancer: Basic and Clinical Research (Reviewer) 2022
- International Society of Global Health (ISoGH) 2021-present
- International Epidemiological Association (IEA) 2021-present
- Annals of Public Health (Editorial Board) 2021-Present
- Annals of Epidemiology (Reviewer) 2021-present
- British Medical Journal (BMJ) Open (Reviewer) 2021-present
- Interdisciplinary Association for Population Health Science (IAPHS) 2020-present
- American Public Health Association (APHA; Program Planning Committee) 2020-present
- 500 Women Scientists (Media coordinator - Buffalo Pod) 2020-2021
- American College of Epidemiology (ACE) 2017-present
- American Society for Nutrition (ASN) 2016-present
- Society for Epidemiologic Research (SER) 2016-present