Sorif Hossain

Current Position and Contact Information

Sep 2024 - Present
PhD Candidate in Biostatistics
Department of Mathematics and Statistics, University of Calgary, Canada.
Department of Community Health Science, University of Calgary, Canada.
CGPA: 3.86 out of 4.00
Email: sorif.hossain@ucalgary.ca

Education

April 2018 - May 2019
MSc in Applied Statistics
Institute of Statistical Research and Training (ISRT)
University of Dhaka, Bangladesh.
CGPA: 4.00 out of 4.00

Feb 2014 - Feb 2018
BSc (Hons) in Applied Statistics
Institute of Statistical Research and Training (ISRT)
University of Dhaka, Bangladesh.
CGPA: 3.87 out of 4.00

July 2010 - July 2012
Higher Secondary Certificate (HSC)
Faridgonj Bangabandhu Degree College
Comilla, Bangladesh.
GPA: 5.00 out of 5.00

May 2008 - May 2010
Secondary School Certificate (SSC)
Khajuria High School
Comilla, Bangladesh.
GPA: 5.00 out of 5.00

Work Experience

Fall 2024 - Present
Teaching Assistantship
Department of Mathematics and Statistics, University of Calgary.
Course taught: MTH-275, STAT-205, STAT-217, DATA 305, DATA 603, SCIE 301.

May 2025 - Present
Research Assistantship
Department of Mathematics and Statistics, University of Calgary.
Responsibilities: Simulating infectious disease data under various alarm functions using a population-level SIR model and fitting these models to real-world datasets such as COVID-19. Responsibilities include developing research proposals, writing and refining code, attending bi-weekly meetings, and presenting results.

Jan 2022 - Present
Lecturer
Department of Statistics
Noakhali Science and Technology University, Bangladesh.
Courses taught: Statistical Inference, Operation Research, Economics, Epidemiology, Linear Programming, Simulation and Modelling, and Regression and Modelling.

Mar 2021 - Dec 2021 **Data Scientist**
Insightin Technology Bangladesh Limited.
Responsibilities: Data analysis, time series modelling, R and Python coding, and developing health insurance prediction models.

Oct 2020 - Jan 2021 **Senior Research Assistant (Data Analyst and Statistician)**
BRAC James P. Grant School of Public Health.
Responsibility: Proposal writing, conducting data cleaning, establishing sampling design, summarizing and carrying out data analysis

Apr 2020 - July 2020 **Officer (Research and Knowledge Management)**
Disaster Management Watch.
Responsibility: Preparing research proposals and expressions of interest, conducting surveys as a team member, writing research and other reports, report writing, conducting seminar and study workshops, maintaining field data, records, and other information in the archive.

May 2019 - July 2019 **Data Analyst**
MOMODa FOUNDATION.
Responsibility: Initiating and implementing research activities, preparing correspondence, documents, and presentation materials for research projects, implementing quantitative analysis, maintaining effective liaison with donors and partner agencies, working with survey CTO (data collection tools) for questionnaire development, data cleaning.

Dec 2018 - Feb 2019 **Statistician**
Eusuf & Associates.
Responsibility: Data cleaning, data analysis, developing documentation, and report writing.

Refereeing

2020 - Present **Reviewer**
I served as a referee for different public health journals including BMC Public Health, BMJ Open, Scientific Reports, PLOS ONE, Journal of Health and Nutrition, Frontiers in Nutrition, Food Science and Nutrition, Frontiers in Public Health, Cogent Public Health, Humanities and Social Sciences Communications, Iranian Journal of Psychiatry and Behavioral Sciences and Journal of Population and Social Studies. Mostly I have worked on different publishers including Springer, Elsevier, Cambridge University Press, Springer Nature, Nature and so on.

Courses Studied

Elements of Applied Statistics | Elements of Probability | Applied Multivariate Techniques | Calculus | Sampling Distributions | Probability Distributions and Simulations | Generalized Linear Models | Applied Bayesian Statistics | Modelling Time Series Data | Industrial Statistics and Operation Research | Environmental and Spatial Statistics | Analysis of Longitudinal Data | Clinical Trial | Basic Algebra and Linear Algebra | Principles of Economics | Statistical Inference | Introduction to Demography | Design and Analysis of Factorial Experiments | Advanced Sampling Techniques | Applied Regression Analysis | Econometric Methods | Stochastic Process| Epidemiology | Social Statistics and Social Development | Research Planning Monitoring and Evaluation | Lifetime Data Analysis | Actuarial Statistics | Computational Statistics | Machine Learning.

Programming Skills

PYTHON, SQL, MINITAB, SPSS, MATLAB, STATA, R.

Research Publications

1 **Sorif Hossain**, Raaj Kishore Biswas & Md. Amir Hossain (2020)."Body mass index of women in Bangladesh: Comparing Multiple Linear Regression and Quantile Regression". **Journal of Biosocial Science, 53(2), 247-265**

2 **Sorif Hossain**, Promit Barua Chowdhury, Raaj Kishore Biswas & Md. Amir Hossain (2020). "Malnutrition status of children under 5 years in Bangladesh: A sociodemographic assessment". **Children and Youth Services Review, 117, 105291**

3 Promit Barua Chowdhury, **Sorif Hossain**, & Raaj Kishore Biswas (2020)."A combination of Covid-19 and Dengue fever in Bangladesh: Preparedness of Bangladesh". **Journal of Global Health, 10(2), 020314**

4 Sabina Yeasmin, Rajon Banik, **Sorif Hossain**, Nazmul Hossain, Raju Mahumud, Nahid Salma, and Md Moyazzem Hossain (2020)."Impact of COVID-19 Pandemic on the Mental Health of Children in Bangladesh: A Cross-Sectional Study". **Children and Youth Services Review, 117, 105277**

5 Jahar Bhowmik, Raaj Kishore Biswas, & **Sorif Hossain** (2021)."Child marriage and adolescent motherhood: A nationwide vulnerability for women in Bangladesh". **International Journal of Environmental Research and Public Health, 18(8), 4030**

6 **Sorif Hossain**, Md. Mazharul Islam, & Md. Asraful Islam Khokon (2021)."On Prevention of Diarrheal Diseases: Assessing the Factors of Effective Handwashing Facility (EHF) in Bangladesh". **Journal of Population and Social Studies, 30, 103-115**

7 Sultan Mahmud, **Sorif Hossain**, Abdul Muyeed, Md Mynul Islam, & Md. Mohsin (2021)."The Global Prevalence of Depression, Anxiety, Stress, and, Insomnia and Its Changes Among Health Professionals During Covid-19 Pandemic: A Rapid Systematic Review and Meta-Analysis". **Heliyon, 7(7), e07393**

8 **Sorif Hossain**, Md. Mohsan Khudri, & Rajon Banik (2022)."Regional education and wealth-related inequalities in malnutrition among women in Bangladesh". **Public Health Nutrition, 25(6), 1639-1657**

9 Sultan Mahmud, **Sorif Hossain**, Abdul Muyeed, Md Mynul Islam, & Md. Mohsin (2022)."The acceptance of COVID-19 vaccine at early stage of development and approval: A global systematic review and meta-analysis, **Heliyon, 8(9), e10728**

10 Md. Jamal Hossain, Foyez Ahmmed, Md. Robin Khan, Parisa Tamannur Rashid, **Sorif Hossain**, Md. Oliullah Rafi, Md. Rabiul Islam, Md. Sazzadul Bari, Md. Mokelsur Rahman Sarker, Saikat Mitra, & Talha Bin Emran (2022)."Impact of prolonged COVID-19 lockdown on body mass index (BMI), eating habits, and physical activity of university students in Bangladesh", **Frontiers in Nutrition, 9, 873105**

11 **Sorif Hossain**, Md Moyazzem Hossain, Sabina Yeasmin, Md. Shabbir Hossain Bhuiyea, Promit Barua Chowdhury, & Md Tareq Ferdous Khan (2022)."Assessing the determinants of age at first marriage of women in rural and urban areas of Bangladesh with socio-demographic factors using Multiple Linear Regression (MLR) and Quantile Regression (QR) approaches", **Journal of Population and Social Studies, 30, 602-624**

12 **Sorif Hossain**, Promit Barua Chowdhury, Md. Mohsin, & Raaj Kishore Biswas (2024)."Addictive behavior and mental health of adolescents aged 11–17 years in Bangladesh in 2014: A cross-sectional study", **Health science reports, 7(7), e2231**.

13 Mohammad Omar Faruk, Sadia Sultana, Mahmuda Al Neyma, & **Sorif Hossain** (2023)."Socioeconomic, Demographic, and Nutritional Factors Associated with Cesarean Deliveries among Childbearing Women in Bangladesh", **Journal of Medicine Surgery and Public Health, 1, 100001**.

14 Sultan Mahmud, Md Mohsin, Abdul Muyeed, Md Mynul Islam, **Sorif Hossain**, & Ariful

Islam. “Prevalence of HIV and Syphilis and their Co-Infection among Men Having Sex with Men in Asia: A Systematic Review and Meta-analysis (2023)” **Heliyon, 9(3)**

15 **Sorif Hossain**, Md. Momin Islam, Abid Hasan Rownak, Promit Barua Chowdhury, Imtiaj ahmed, Kamruzzaman Tushar, Bazlur Rashid & Kabirul Bashar."Association of climate factors with Dengue incidence in Dhaka City, Bangladesh: A Count Regression Approach (2023)" **Heliyon, 9(5)**.

16 Raaj Kishore Biswas, Srizan Chowdhury, **Sorif Hossain**, & Promit Barua Chowdhury (2024). "Hypertension, diabetes, and hyperchloremia in Bangladesh: Evaluating role of physical activity from STEPS 2018 survey", **Health Science Reports, 7(7), e2243.**

17 **Sorif Hossain**, Papri Tahmina Akter, Md. Momin Islam, Promit Barua Chowdhury, Md. Mohsin, & Md Mohsan Khudri."Contraceptive uses among married women in Bangladesh: a systematic review and meta-analyses (2024)." **Journal of Health, Population and Nutrition, 43(1), 10**.

18 Md Mohsan Khudri, Promit Barua Chowdhury, **Sorif Hossain** & Karar Zunaid Hasan (2024)."Explaining the role of socioeconomic, healthcare access and infrastructural shifts in nutritional transition among women in Bangladesh between 2004 and 2018" **Public Health, 236, 268-273.**

19 **Sorif Hossain**, Mohammad Kamrul Hasan, Mohammad Omar Faruk, Nelufa Aktar, Riyadh Hossain, Kabir Hossain (2024). "Machine learning approach for predicting cardiovascular disease in Bangladesh: evidence from a cross-sectional study in 2023", **BMC Cardiovascular Disorders, 24(1), 214.**

20 Md Tauhedul Islam, ASM Maksud Kamal, Md Momin Islam, **Sorif Hossain** (2024). "Impact of climate change on dengue incidence in Singapore: time-series seasonal analysis", **International Journal of Environmental Health Research, 1-11.**

21 Tonmoy Alam Shuvo, Asma-Ul Hosna, Kabir Hossain, **Sorif Hossain** (2024). "Prevalence of stroke in Bangladesh: a systematic review and meta-analysis", **Journal of Stroke and Cerebrovascular Diseases, 108017.**

22 **Sorif Hossain**, Md Abid Hasan, Mohammad Omar Faruk, Muhammad Abdus Salam (2024). "Association between the salinity level with miscarriage and unintended pregnancy in Bangladesh: Impact of salinity level on miscarriage and unintended pregnancy in Bangladesh", **Heliyon, 10(1).**

23 Soanjoy Dey, Mohammad Salim Zahangir, Mohammad Omar Faruk, **Sorif Hossain**, Md Rasel Hossain "Prevalence and Determinants of Malnutrition Among Women of Reproductive Age in Bangladesh", **Journal of Medicine, Surgery, and Public Health, 2, 100096**

24 **Sorif Hossain**, Tonmoy Alam Shuvo, Nahid Mia (2024). "Factors associated with underweight and overweight prevalence among children in Bangladesh" **Journal of Medicine, Surgery, and Public Health, 3, 100110.**

Recent Presentations

Aug 2026	Behavioural Change in Epidemic Modelling, Mcgill University
May 2026	Behavioural Change in Epidemic Modelling, Mcmaster University
Dec 2024	Determinants of Suicidal Ideation and Attempts Among Thai Adolescents: A Mixed-Effects Modeling Approach, University of Calgary
Nov 2021	Missing Continuous Outcomes in Stepped Wedge Cluster Randomised Trials, Current Developments in Cluster Randomised Trials and Stepped Wedge Designs, the Queen Mary University of London, UK.
July 2019	Missing Continuous Outcomes in Stepped Wedge Cluster Randomised Trials, 40th Annual Conference of the International Society for Clinical Biostatistics, the University of Leuven, Belgium.

May 2019 Missing Continuous Outcomes in Stepped Wedge Cluster Randomised Trials, ISRT, University of Dhaka, Bangladesh.

June 2017 Factors Affecting Body Mass Index of Reproductive Age Group Women: Classical and Quantile Regression Estimators, ISRT, University of Dhaka, Bangladesh.

Awards and Scholarships

2026 Biostatistics, Statistics and Actuarial Science Graduate Scholarship, University of Calgary, Canada.

2025 Open Doctoral FGS, University of Calgary, Canada.

2025 Alberta Innovates Graduate Student Scholarships, University of Calgary, Canada.

2024 Eyes High Doctoral Scholarships, University of Calgary, Canada.

2024 Alberta Graduate Excellence Scholarships (AGES), University of Calgary, Canada.

2019 National Science & Technology (NST) Fellowship, **MSc Thesis**, Ministry of Science and Technology, Bangladesh Government.

2019 Kazi Motahar Hossain Foundation Award, Institute of Statistical Research & Training (ISRT), University of Dhaka.

2018 Deans Award, Institute of Statistical Research & Training (ISRT), University of Dhaka.

2017 Amar Ekushey Hall Merit Scholarship Award, University of Dhaka.

2012 Ambia-Younus Foundation Award, Faridgonj Bangabandhu Degree College.

2010 Ambia-Younus Foundation Award, Khajuria High School.

Extracurricular Activity

2014 - Present **Advisor**
BADHON (University Students Blood Donation Group in Bangladesh).
I am now working as an advisor at BADHON where I give advice to members to collect blood for patients in Bangladesh, particularly for poor people who could not able to buy blood for themselves or their families.

2026 - Present **Vice President (External)**
Graduate University of Calgary Mathematics & Statistics Society (GUMS)

2026 - Present **Fundraising Committee Member**
Canadian Statistics Student Conference (CSSC) 2027

2026 - Present **Member**
Statistical Society of Canada (SSC)

2025 - Present **Student DC Member**
International Society For Clinical Biostatistics (ISCB)

Academic Referees

1. **Dr. Rob Deardon, Professor**
   Faculty of Veterinary Medicine, University of Calgary, Canada
   Department of Mathematics and Statistics, University of Calgary, Canada
   Department of Community Health Sciences, University of Calgary, Canada
   Email: rob.deardon@ucalgary.ca

2. **Dr. Gyanendra Pokharel, Associate Professor**

Department of Statistics, University of Winnipeg, Canada.
Email: g.pokharel@uwinnipeg.ca

3. **Dr. Anower Hossain, Assistant Professor**
Warwick Medical School, University of Warwick, UK.
Email: a.hossain@warwick.ac.uk