Dr. Tanvir Ahmed
Research Associate,
Climate Change, Environment and Health Hub,
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Educational Information

Degree (Concentration)	Institution	Result	Year
1. Master's in Applied Statistics and Data Science	Jahangirnagar University, Dhaka	**Enrolled**	**2024-2025**
2. Master's in Public Health (Major in Epidemiology)	North South University, Dhaka	CGPA: 3.93	2022-2024
3. Bachelor of Dental Surgery (BDS)	Sir Salimullah Medical College, Mitford, Dhaka	Class: First Marks: 78%	2017-2022
4. Higher Secondary Certificate (Science)	Notre Dame College, Dhaka	GPA 5.00	2013-2015

Research Interests

Experimental Studies, Clinical Trials, Implementation Research, Environmental Health & Citizen Science, Biostatistics, Machine Learning Algorithms, Neural Network and Deep Learning in Health Research.

Experiences

1. Research Associate, BRAC James P Grant School of Public Health (April'25 - Continuing)
- **Quantitative Associate** - Establishing Health Surveillance System in Saline- & Drought-prone Areas in Bangladesh
- **Qualitative Associate** - Developing Air Pollution-Health Adaptation Plan
- **Focal Person** - Developing Heat-Health Adaptation Plan
- **Proposal Development Assistant –**
  - Study on the Contribution of the Community Paramedic (CP) Programme to Bangladesh's Primary Health Care System. (ToR: 722, Swisscontact Bangladesh)
  - Implementation of climate migrant and climate health vulnerability assessment. (RFP No: BPD/2025/RFP-831, BRAC)
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2. Guest Research Officer, NSU Global Health Institute, North South University (October' 24 – April' 25)
Projects:
- **Research Coordinator** - Situation Analysis of Mental Health Status and Needs of Gender Diverse Population in Bangladesh
- **Field Coordinator** - Community-Health-Systems Strengthening Activity (CHSS): Project Monitoring & Evaluation
- **Proposal Development Lead –**
  - Evaluation of a Sustainable Heavy Menstrual Bleeding Management Intervention using Frontline Training (SHIFT-HMB) in Low Resource Settings.

3. Jr. Data Engineer, Northern Arizona University (Remote) (September' 2024 – April' 2025)
Projects:
- **Proposal Writer** - Optimizing Biodiversity Conservation and Aboveground Biomass Monitoring through Citizen Scientists of India, Bangladesh and Thailand (NASA's FINESST Grant 2025).
- **Quantitative Analyst** -
  - Differences in Ecological Anxiety and Hope with Sustainability practice and Norms among Undergraduate Students in the Midwest and Southwest U.S.
  - Development and Validation of Open Access Traffic App with ADOT Station for Pollution Estimation.
  - Developing Machine Learning Algorithm for Prediction of On Road Traffic Volume and Carbon Emission.

4. Clinical Research Assistant, Diabetic Association of Bangladesh, BIRDEM (January'24 – September'24)
Projects:
- **Research Assistant** - A Randomized Controlled, Single Blinded Trial of an Adapted Behavioral Activation Intervention (DiaDeM) for People with Depression and Diabetes in South Asia
- **Trainer** - The GiveWell Project – A follow up of Perinatal Care Project

5. Research Assistant, Center for Injury Prevention and Research Bangladesh (October'23 – December'23)
Projects:
- Baseline Assessment of Mental Health Services in Bangladesh

6. Field Coordinator cum Biomarker Data Collector, Dhaka Ahsania Mission (July'23 – Sepetember'23)
Project:
- World Health Survey+ (WHS+) 2022

7. Intern Doctor, Sir Salimullah Medical College & Mitford Hospital (July'22, July'23)

Teaching Engagement

1. **Teaching Fellow –** Quantitative Research Methodology, MPH, BRAC JPGSPH **[Cohort 21]**
2. **Instructor –** "R Essentials for Data Analytics", Short/Online Workshops **[Session-based]**
3. **Senior Lecturer –** Higher Math, Biology and Chemistry, HSC, Udvash Academic Care **[2018 - 2022]**
4. **Lecturer –** Math, Higher Math and Chemistry, SSC, Udvash Academic Care **[2015 - 2017]**
5. **Private Tutor –** Biology and Chemistry (HSC), Math, Higher Math and Chemistry (SSC) **[2014 - Present]**

Projects Involved

1. Determinants of Early Help-Seeking Behavior for Mental Distress Among Women in Bangladesh: A Bootstrapped Logistic Regression Analysis of Nationally Representative Survey Data) – Lead Author (Under Review in PLOS Mental Health, **Manuscript Number: PMEN-D-25-00281, DOI:** 10.1371/journal.pmen.0000420))

2. Dietary Practices, Minimum Dietary Diversity & It's Disparity Between Rural and Urban Women In Nepal – A Secondary Analysis Of Demographic And Household Survey (2022), Nepal. – Lead Author (Under Review in BMJ Nutrition Prevention and Health, **Manuscript ID: nphealth-2025-005694**)

3. End-of-Life Care and Decision Making for Elderly Patients in Bangladesh: A study on choices and challenges – Co-Author (Under Review in BMC Palliative Care, **Submission ID: 673fa28b-0a89-4d6c-b34a-fd4c0fcbc1d4**)

4. Epidemiology of under-5 children with pneumonia visiting IMCI corners of selected healthcare facilities in Bangladesh: A Cross-Sectional Survey.

5. Health Literacy Among Rural Bangladeshi Population On First Aid Measure And Prevention Of Snakebite.

6. Assessment Of Knowledge And Practice Regrading Diabetes And Diabetic Eye Disease Among Type II Diabetic Patients

7. Knowledge, Attitude And Practice (KAP) Regarding Dental Prophylaxis And Perceived Barriers Of Routine Dental Visits Among Young And Middle-Aged Adults In Dhaka City

Responsibilities:
   I. Conceptualization of Study
   II. Proposal Guideline and Analysis Plan Development
   III. Instrument and Module Development
   IV. Data Analysis and Journal-based Tabulation, Formatting
   V. Manuscript Writing, Cross Checking, Proof Reading, Submission

Hard Skills

1. **R Programming:** Advance
2. **Stata & SPSS:** Moderate
3. **QGis:** Moderate
4. **ODK Scripting (Kobo/Survey CTO):** Moderate
5. **Rayyan AI:** Advance
6. **Microsoft Excel, Powerpoint, Word:** Advance
7. **NVivo:** Moderate
8. **Power BI:** Advance

Expert At

✓ **Generalized Linear Modelling (**Linear Model, Logistic Model, Poisson/Negative Binomial Model, Hierarchical Mixed Effect Model, Quantile Regression, Elastic Net Regression)

✓ **Analysis of Experimental Design** (Censored Regression, ITE, ATE, CATE, DID, PSM, Counterfactual Model, ITS, Repeated Measures T-Test/Anova)

✓ **Survival Analysis** (Survival Curve, Hazard Rate, Kaplan Meier Analysis, Weibull Regression, Cox Proportional Hazard Regression)

✓ **Complex Survey Analysis** (Multi-staged stratified clustered Analysis, Weighted Regression, Bootstrapping)

✓ **Time Series Analysis and Forecasting** (ARIMA. Prophet Regression, GAM, Interrupted Time Series)

✓ **Geospatial Analysis** (Moran's I, Getis Ord Gi*, Krigging Interpolation, Hotspot Analysis, Geospatial Visualization, GIS Mapping, Distance Matrix and Autocorrelation)

Training and Workshops

Training/Workshop	Duration
1. Use of Geographic Information System (GIS) in Urban Health Research	01 week
2. Analysis of Experimental Design in Health and Climate Research	04 days over a month
3. Survival Analysis: Concept, Methods and Application	04 days over a month
4. SEARS Facilitated – Implementation Research	12 days over 3 months
5. WHO's Standard Operating Procedures (SOPs) in Emergencies	12 days over 3 Months
6. Basics of Clinical Trial Management	24 days over 6 months
7. R for Clinical Research	24 days over 3 months
8. Clinical Reporting using {gt}	03 days over a month
9. Package Workshop {tidyverse}, {tidymodel}, {ggplot2}, {survey}, {meta}, {survival}	07 days over 2 months
10. Skill Development on journal Reporting: Rayyan, PRISMA and STROBE	04 days over a month
11. Workshop on WHS+ Project: Biomarker and CAPI	09 days over 2 weeks
12. Numerous Capacity Building Trainings arranged by Employers	

Soft Skills

Hardworking, Punctuality, Perseverance, Leadership, Interpersonal Skills

Hobbies

Learning New Things, Travelling, Hiking, Sightseeing, Cycling, Capturing Photos, Wandering

References

#1 Dr. Azaz Bin Sharif
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North South University
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#2 Dr. Farzana Misha
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Climate Change, Environment and Health Hub (CCEH)
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About Myself --

I am a research professional with a foundational degree in Applied Statistics, Epidemiology & Dentistry. My academic background, along with practical research experience, has enabled me with a unique perspective at the intersection of healthcare and data analysis. I am particularly interested in exploring the potential of data science to address complex challenges within the intersection of interdisciplinary health research field through new Machine Learning Algorithms, Neural Networks and Deep Learning.

I hereby state that all the information noted above is accurate and authentic. I take the full responsibility for the correctness of the information.

Sincerely

Find more about my works at my LinkedIn profile: Dr. Tanvir Ahmed
More about the Projects I am involved with: Involved Projects (GDrive)
My Presentation on Personal Portfolio: Tanvir's Portfolio

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Dr. Tanvir Ahmed