

SALONI PATIL, MPH, BDS

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EDUCATION

Master of Public Health, Epidemiology and Biostatistics

Sept 2024- May 2026

Boston University School of Public Health, Boston, MA | GPA: 3.70

Bachelor of Dental Surgery (BDS)

Aug 2018- Dec 2023

S.M.B.T. Dental College and Hospital, Maharashtra University of Health Sciences, India | GPA: 3.72

PROFESSIONAL EXPERIENCE

Graduate Research Associate | TB Household Contact Screening Study

Nov 2025 to May 2026

Boston University School of Public Health | Supervisors: Dr. Meredith Brooks, Dr. Aryn Malik

- Designed the complete analytic framework for a retrospective secondary analysis of programmatic TB contact-investigation data from the IRD Global Zero TB Initiative, linking two datasets into a final analytic cohort of 4,430 index patients and 19,668 household contacts across Karachi and Peshawar, Pakistan (2018 to 2021).
- Crafted a pre-specified epidemiologic analysis plan, variable definitions, and recoding logic, and compiled a comprehensive data dictionary covering more than 30 variables across both datasets.
- Executed a fully reproducible SAS PROC GLIMMIX pipeline, including data cleaning, missing-data handling, backward elimination with a priori variable retention, and sensitivity analyses restricted to bacteriologically confirmed index patients.
- Identified contact vulnerability, young age, nutritional risk, weight loss, prior TB history, and comorbidity as the primary drivers of TB disease risk, with no index-patient characteristics retaining independent association after adjustment.
- Produced four publication-ready results tables and all manuscript sections as first author, culminating in an abstract accepted for oral presentation at The Union World Conference on Lung Health 2026 from 2,993 submissions.

Student Manager | BU Dining Hall

Sept 2025 to May 2026

Boston University, Boston, MA

- Supervised student staff scheduling and shift coordination at a BU dining facility, serving as the primary point of contact for staff and students while also working directly as a server.

Student Office Assistant | BU Student Housing, Hyatt Regency Cambridge

Sept 2024 to May 2025

Boston University, Boston, MA

- Managed daily distribution of room keys and supplies for student housing residents, acting as liaison between students and the housing manager on daily operational issues.

Medical Officer

Feb 2024 to May 2024

Health Assure Pvt. Ltd., Mumbai, India

- Secured verbal informed consent and administered more than 500 structured telephone and video medical interviews, gathering detailed medical histories to support underwriting risk assessment.
- Captured findings in real time across EMR and Excel-based systems, maintaining audit-ready documentation and relaying data accurately to interdisciplinary team members downstream in the pipeline.

- Achieved a 98 percent “good” call rating across a three-month audit period, with minimal discrepancies flagged in post-call review.
- Translated complex medical terminology into patient-friendly language whenever applicants had difficulty understanding, sustaining clear communication under strict confidentiality requirements.

Dental Intern (Clinical Training)

Dec 2020 to Dec 2023

Nair Hospital Dental College and Hospital / S.M.B.T. Dental College and Hospital, Mumbai, India

- Led recruitment and enrollment for an oral tobacco-cessation program, personally accounting for approximately 80 to 85 percent of departmental enrollment across more than 700 direct patient encounters, and guided each participant through structured informed-consent discussions covering study objectives and the right to withdraw.
- Delivered ongoing 1:1 tobacco-cessation counseling using motivational interviewing and individualized behavior-change strategies, and tracked nicotine-withdrawal symptoms during follow-up visits, reporting clinically relevant findings to supervising faculty.
- Applied positive behavior strategies and age-appropriate de-escalation techniques to provide direct 1:1 pediatric dental care, building therapeutic rapport with anxious patients through invasive procedures.
- Examined patients and recorded structured case histories during Oral Medicine, Diagnosis, and Radiology rotations, including identifying oral manifestations of systemic and autoimmune conditions such as lichen planus and lupus-related lesions.
- Completed more than 700 total patient encounters across oral surgery, endodontics, and prosthodontics, and coordinated community dental camps that supplied screening, health education, and referral coordination to more than 100 individuals per event across underserved Maharashtra communities.

RESEARCH EXPERIENCE

Independent Researcher | mRNA Tuberculosis Vaccine Scoping Review

July 2026 to present

Boston University School of Public Health | Collaborators: Dr. Meredith Brooks

- Developing a scoping review protocol for mRNA-based tuberculosis vaccine candidates using a PCC (Population, Concept, Context) framework, with a verified literature base of 32 sources assembled to date.
- Established the review's central evidence gap, the absence of empirical immunogenicity data among people living with HIV (PLHIV), which will anchor the discussion and future research recommendations once the review is conducted.
- Preparing OSF preregistration; targeting review conduct, completion, and manuscript submission by September 2026.

Research Analyst | Sex as an Effect Modifier in Acupuncture for Chronic Headache

Jan 2026 to May 2026

Integrative Learning Experience, Boston University School of Public Health

- Analyzed a multi-site pragmatic RCT (N=401; complete case N=301) to examine whether biological sex modifies the effect of acupuncture on clinically meaningful headache improvement (≥ 35 percent reduction), applying intention-to-treat principles.
- Verified three sequential logistic regression models across SAS (PROC GLIMMIX, PROC LOGISTIC, delta-method ESTIMATE statements) and Python, returning sex-stratified odds ratios of 2.40 (female) and 4.01 (male) with a non-significant interaction (Wald $p=0.471$).
- Generated publication-ready statistical tables, Methods and Results sections, and a predicted-probability figure, cross-checked across SAS and Python outputs.

Vaccine Policy Analyst | West Nile Virus Clinical Development Plan

Team Project, Boston University School of Public Health

Sep 2025 to Dec 2025

- Advanced a recombinant West Nile Virus vaccine candidate from Target Product Profile through Phase I to IIb clinical trial design, covering regulatory strategy, immunogenicity endpoints, dosing and adjuvant comparison, and LMIC introduction pathways.
- Composed an independent WHO/SAGE-style policy memo evaluating correlates of protection for rWNV-E and recommending an accelerated development pathway, presented to faculty serving as a WHO/SAGE advisory panel.

Research Analyst | Seasonal Depression and Student Wellbeing

Mixed-Methods Study, Boston University School of Public Health

Sept 2025 to Dec 2025

- Facilitated a mixed-methods study examining seasonal affective symptoms among graduate students (N=102), pairing PHQ-2 screening with qualitative focus groups and NVivo thematic coding.
- Reported significant mental health service gaps through a co-authored manuscript-style report and a live academic presentation, with recommendations subsequently considered for campus mental health planning.

Statistical Analyst | Periodontal Disease and Gastric Cancer Risk

Systematic Review and Cohort Design, Boston University School of Public Health

Jan 2025 to May 2025

- Appraised 7 peer-reviewed studies on the association between periodontal disease and gastric cancer following PRISMA guidelines, applying the GRADE framework to assess evidence certainty and exposure misclassification.
- Uncovered elevated gastric cancer risk among men under 65 with periodontal disease, converting findings into a structured academic manuscript.
- Formulated a companion 30-year retrospective cohort study protocol incorporating Cox proportional hazards regression, sex and age stratification, propensity score adjustment, and directed acyclic graphs to address residual confounding.

Policy Analyst | Equity and Access in Medical Education

Boston University School of Public Health

Sept 2024 to Dec 2024

- Diagnosed structural equity gaps in India's medical education reservation system using adaptive leadership theory and five equity frameworks, and proposed a three-part policy reform spanning governance, financial-need assessment, and holistic admissions.

MANUSCRIPTS

Patil S, Hussain H, Malik AA, Brooks MB. "Who Develops Tuberculosis? Evidence from a Large Real-World Household Contact Investigation in Pakistan." Manuscript in preparation; targeting submission September 2026.

PRESENTATIONS

Patil S, Hussain H, Malik AA, Brooks MB. "Who Develops Tuberculosis? Evidence from a Large Real-World Household Contact Investigation in Pakistan." The Union World Conference on Lung Health 2026. Abstract accepted for oral presentation, selected from 2,993 submissions.

TECHNICAL SKILLS

Statistical methods: Mixed-effects logistic regression, multivariable modeling, modified Poisson regression, effect modification and interaction testing, ITT analysis, survival analysis, sensitivity and missing-data analysis, cohort study design, secondary claims/survey data analysis

Software: SAS Studio (PROC GLIMMIX, PROC LOGISTIC, PROC GENMOD), R (dplyr, ggplot2, tidyverse), Python, NVivo, REDCap, KoboToolbox, EMR systems, Excel (PivotTables, dashboards), Power BI

Research methods: RCTs, retrospective and prospective cohort studies, real-world and EHR data, systematic and scoping review (PRISMA, PRISMA-ScR, PCC framework), mixed-methods design, qualitative thematic analysis, focus group facilitation, DHS and MEPS data analysis, study protocol design

Clinical skills: Structured patient interviewing, informed consent, motivational interviewing, EMR documentation, community health outreach, patient recruitment and engagement, cross-cultural communication

Writing and dissemination: First-author manuscript drafting, abstract writing, WHO/SAGE-style policy briefs, stakeholder reports, codebook and analysis plan development, data dictionary authorship

CERTIFICATIONS

- CITI Program: Human Subjects Research, Biomedical Track
- HIPAA Privacy and Security Training, Boston University
- Race in Clinical Research, Boston University School of Public Health (January 2025)
- ICH-GCP (Good Clinical Practice), in progress

LEADERSHIP AND SERVICE

Social Media Manager | Period Project, BUSPH

Boston University School of Public Health

Nov 2024 to May 2026

- Orchestrated a digital content strategy promoting menstrual equity and reproductive health access, growing audience engagement by 40 percent over three months through multi-platform Canva campaigns.

Social Media Coordinator | Student Senate, BUSPH

Boston University School of Public Health

Jan 2025 to May 2025

- Created Canva content for 5+ Student Senate events and supported outreach strategy, reaching more than 300 BUSPH students across platforms.

Scientific Committee Member | Nonathon Conference, Nair Dental College

Nair Hospital Dental College, Mumbai, India

Dec 2022-Dec 2023

- Organized the presentation track for a 3-day scientific convention, scheduling sessions for more than 100 student presenters.

Cultural Representative | S.M.B.T. Dental College and Hospital

S.M.B.T. Dental College and Hospital, Sangamner, India

Aug 2021- Sept 2022

- Directed student cultural programming as head of the art committee, including Oral Hygiene Week and a mask-distribution campaign for orphan students during the COVID-19 pandemic.

Class Representative | S.M.B.T. Dental College and Hospital

S.M.B.T. Dental College and Hospital

Aug 2018 to 2020

- Represented a class of approximately 100 students as the primary point of contact with faculty, handling attendance and class-event logistics.

VOLUNTEER EXPERIENCE

Volunteer | American Cancer Society, Making Strides Against Breast Cancer

Boston, MA

Oct 2024

- Supported event operations for a local Making Strides Against Breast Cancer walk, contributing to breast cancer awareness and fundraising efforts in the Boston community.

Dental Health Awareness and Screening Program | Ashram School, Palghar District

Palghar, Maharashtra, India

Dec 5 to 6, 2023

- Conducted oral health screenings and delivered health education at a tribal-area Ashram school over a two-day outreach program in Palghar district.

Dental Camp Volunteer | Rotary Club of Bombay Seacoast

Wada, Maharashtra, India

Dec 3, 2023

- Provided oral health screening and preventive care at a single-day community dental camp organized by the Rotary Club of Bombay Seacoast.

National Service Scheme (NSS) Volunteer | Oral Health Camp, Vellhale Village

Vellhale, Maharashtra, India

Oct 2019 – Nov 2021

- Performed oral health screenings for schoolchildren at an NSS-organized community camp, and assisted with special NSS events and programs more broadly across the academic year.