My strong foundation in statistics, combined with over four years of professional experience in health interventions, has sharpened my analytical skills and fueled my passion for solving complex health-relevant phenomena through data-driven research. Pursuing a PhD in Health Promotion Sciences program is the next essential step in expanding my expertise and preparing for an independent researcher as a faculty member. This program at the Department of Allied Health Sciences at the University of Connecticut aligns perfectly with my goals of deepening my Public Health knowledge, contributing to innovative health research, and enhancing public health promotion through effective policy-making. In the short term, I aim to master public health to address vital health issues. In contrast, in the long term, I aspire to lead a research lab that advances in Statistical methods through different applications related to Public Health, trains future researchers, and fosters a collaborative research environment. This ambition is driven by the mentorship I have received and my commitment to continual learning in Health Promotion Sciences studies.

During my undergraduate studies, I became fascinated by various subfields of statistics, including Data Mining, Biostatistics and Epidemiology, Time Series Analysis, and Statistical Inference. In particular, I found the Biostatistics and Epidemiology course particularly engaging due to its insightful applications and course projects, which sparked my strong interest in Public Health. This sparked the beginning of my health research journey, which included various projects and fieldwork, beginning with data collection for a health research project and progressing through multiple projects and publications. These fields have equipped me with the tools to analyze complex health-related data and derive actionable conclusions to improve health outcomes. To strengthen my skills, I pursued a double major in Computer Science and Engineering. Through my double major, I gained proficiency in statistical programming languages and data analysis such as SAS, Stata, R, and Python. This interdisciplinary training has enhanced my ability to address pressing health issues through rigorous, data-driven approaches. It has prepared me to utilize various applications related to health tools and programming languages for conducting experimental health research, incorporating advanced statistical applications through big data, deep learning, and machine learning techniques to apply and resolve emerging health-related issues.

To gain real-world experience, I began working with the Joint Rohingya Response Program in 2021, focusing on health projects as a Data Management and Reporting Officer. A recent initiative I led, 'Community Health, Water Sanitation and Hygiene (WASH), Health System Support & Health Post for Forcibly Displaced Myanmar Nationals and Host Community Population,' aims to improve healthcare access, emphasize surveillance methodologies in data collection, and reporting processes, and suggest policies to different stakeholders in Cox’s Bazar, Bangladesh. This role has expanded my understanding of the complex health challenges marginalized populations face during humanitarian crises and sharpened my research, data analysis, and program implementation skills.

My research career has been distinguished by publications in prestigious journals and successful projects funded by the Government of Bangladesh and University Grants. As a research assistant, I contributed to these projects at every stage, from developing research proposals to submitting reports, including supervising data collection, analyzing data, and writing the final reports. Most of those projects focused on socio-economic issues, such as the Vicious Cycle of Poverty, Social Safety Nets Program, and Food Security. My research primarily focuses on community health, maternal and child health, and environmental health. From several publications, research on early childhood development (ECD) status using the ECD Index in Bangladesh employed bivariable analysis and logistic regression models. Our study determined that ECD status is improving through factors such as early childhood education programs, accessibility to children’s books, household mothers’ education level, and family income. Furthermore, I researched about married women’s knowledge and attitudes towards HIV/AIDs in Bangladesh. The study showed that age, division, mass media access, and economic status significantly affect the respondents' knowledge level when analyzed using a logistic regression. I have presented my research at several conferences, including the 2020 World One Health Congress, serving as an editorial board member and reviewer for multiple journals. Moreover, I am teaching and mentoring students in data analysis and research methodologies, particularly using SPSS, Stata, and R. Reviewing other papers has inspired me with the innovative thinking of various authors and motivated me to explore new methods in health research. I also found great joy in mentoring students on their data analysis and research projects, which solidified my desire to pursue an academic career.

Given my academic and professional goals, I believe the PhD in Health Promotion Sciences program at the Department of Allied Health Sciences at the University of Connecticut, is my best choice. The program prepares students for leadership roles in research, teaching, consulting, and policy development, with a focus on behavioral health, disease prevention, and health promotion. Through interdisciplinary training and mentorship, the program equips graduates to lead in academia, health organizations, healthcare systems, and private industry. I am confident that this program will prepare me for roles in higher education, health agency management, and research across various sectors. I’ve heard that the program’s multidisciplinary faculty will provide me with a range of theories, methods, and tools to address complex public health challenges. Additionally, the program will help me develop solutions and improve public health policies, enhancing my ability to drive better health outcomes. This opportunity aligns with my interests and experience, and will further deepen my knowledge in this field.

I am excited about the opportunity to collaborate with esteemed faculty like Dr. Caitlin Caspi, her extensive contributions to the food policy, food insecurity, food environments, and diet-related health disparities field greatly captivated me. I am eager to contribute my skills and knowledge to his ongoing projects while pursuing my academic aspirations. After reviewing Dr. Caspi's research profile, I was particularly drawn to her work on "Experiences with receipt of pandemic-related nutrition-specific and general relief measures among low-wage worker households with children." This research aligns closely with my prior experience working with pandemic-related data, where I explored various nutrition and social determinants, making it an exciting opportunity for doctoral training. I am also interested in joining Dr. Waring’s research lab, as her work focuses on health promotion among perinatal individuals and mothers, with a particular emphasis on how social media can be utilized for health promotion. I believe this would be a fantastic opportunity for me to collaborate with her. In addition, Dr. McSorley’s research and its potential impact on the community have inspired me to pursue my PhD under her mentorship.

With a strong background in statistics, hands-on experience in research, data analysis, program implementation, and a dedication to advancing public health research, I am confident that I will be able to make meaningful contributions to both the academic and public health communities. After earning my PhD, I aim to work in academia, leading a research lab focused on advancing public health research to address global health challenges. I look forward to engaging with the vibrant academic community at the University of Connecticut and contributing to research that addresses Health Promotion Sciences issues worldwide.