My strong foundation in statistics, combined with over four years of professional experience in health-related programs, has not only sharpened my analytical skills but also fueled my passion for solving complex health-relevant phenomena through data-driven research. Pursuing a PhD in Health Psychology is the next essential step in expanding my expertise and preparing for an independent researcher as a faculty member. The Health Psychology program at Virginia Commonwealth University aligns perfectly with my goals of deepening my health knowledge, contributing to innovative research, and advancing the field of public health. In the short term, I aim to master in Health Psychology to address vital health related concerns, while in the long term, I aspire to lead a research lab that advances in Statistics/Machine Learning/Deep Learning/Artificial Intelligent through different application related to 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 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 health science. This sparked the beginning of my health research journey, which included various projects and fieldwork, starting with data collection for a health research project. These fields have equipped me with the tools to analyze complex health related data and derive actionable conclusions to improve health outcomes. To enhance my skills, I pursued a double major in Computer Science and Engineering, gaining 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 application 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, WASH, Health System Support & Health Post for Forcibly Displaced Myanmar Nationals and Host Community Population,' aims to improve healthcare access in Cox’s Bazar, Bangladesh. This role has expanded my understanding of the complex health challenges faced by marginalized populations during humanitarian crises and sharpened my skills in research, data analysis, and program implementation.

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 work primarily focuses on community health, maternal and child health, and environmental health. I have done a research publication on an early childhood development (ECD) status using ECD Index in Bangladesh which employed bivariable analysis and logistic regression models. Our study determined that ECD status is improving through factors such as early childhood education programme, accessibility to children’s books, level of household mothers’ education and family income. These findings can be used to improve health approaches regarding ECD programs. 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 have a significant effect on the knowledge level of the respondents when analyzed using a logistic regression. We believe such awareness enhancement should go hand in hand with education and counseling provision as well as enhancing media outlets access particularly in the rural setting.

I have presented my research at several conferences, including the 2020 World One Health Congress, serve as an editorial board member and reviewer for multiple journals. Moreover, I teach and mentor students in data analysis and research methodologies, particularly using SPSS 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 research projects, which solidified my desire to pursue a career in academia.

Given my academic and professional aspirations, I believe the PhD in Health Psychology at Virginia Commonwealth University is an ideal choice. It encompasses behavioral sciences training as well as health psychology training dealing with topics such as human behavior, childhood, social systems, and health issues in their psychological perspective, which are all very important learning topics for me. As part of this program, I will develop these skills invaluable for research, by working with faculty on projects, publishing in peer-review journals, and presenting at conferences. The department’s emphasis on improving concepts, teaching techniques, and practical training will enable me to pursue academic or healthcare institution’s career successfully.

The chance to collaborate with esteemed faculty such as Professor Dr. Eric Benotsch, whose work on "Psychological Distress Mediates the Relationship Between HIV-Related Stigma and Prescription Opioid Misuse Among Chinese People Living with HIV" has reinforced my belief that Virginia Commonwealth University is the best place for my PhD degree. Dr. Benotsch's research focuses on substance use and HIV prevention. His recent projects explore opioid misuse in young adults and the links between discrimination, mental health, and substance use in sexual and gender minority adults. These topics align with my research interests, and I'm eager to contribute passionately to his lab. In addition, I became particularly drawn to Dr. Cecelia Valrie’s work on "Protective factors for adverse childhood experiences: Scoping review and evidence gap map" also seems to offer exciting doctoral training opportunities that resonate with my prior experience and research focuses on improving the health and well-being of at-risk youth and young adults, particularly those with chronic illness.

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