

The Spirit of Life Charitable Foundation Scholarship for International Studies

Penn State College of Medicine Global Health Center Medical Student Program Report

Program/ Project Title: Global Health Scholars Program in Macha, Zambia

Student Name and Contact Information:

Sundip Singh, Year 1 Global Health Scholar

Ssingh26@pennstatehealth.psu.edu

Project Location: Macha, Zambia

Project Timetable: June 21 – July 19, 2025

Summary of Experience – Macha, Zambia

During my time at Macha Mission Hospital in Zambia, I rotated through several areas including the male ward, female ward, pediatric ward, maternity ward, outpatient department, operating room, and eye clinic. I also participated in community-based initiatives such as the women's shelter, local schools, after-school programs, and a hospital needs assessment survey. My responsibilities included observing patient care, assisting with basic assessments, explaining and distributing surveys, and engaging with healthcare staff to better understand how care is delivered in a rural, resource-limited setting.



In addition to my hospital-based rotations, I joined a village trip as part of the hospital's mobile clinic. We traveled to a rural community to check children's weights and heights, administer vaccinations, and measure blood pressures for expectant mothers. This visit reinforced how crucial it is to bring healthcare directly to communities that may have difficulty traveling to the hospital. For many families, these mobile clinics are their only point of contact with the healthcare system for months at a time. Seeing the emphasis on prevention—through immunizations, maternal blood pressure monitoring, and early identification of malnutrition—

helped me understand the long-term value of consistent outreach in improving community health.

The experience was immersive and eye-opening. I saw firsthand the adaptability required of providers who often perform multiple roles—like the eye clinical officer who not only performed cataract surgeries but also administered anesthesia and sterilized equipment between cases. One moment that stood out to me was shadowing the CRNA in the OR. As someone interested in anesthesia, I had the opportunity to watch anesthesia care provided for different surgeries, including witnessing a spinal tap for the first time. Another unforgettable moment was seeing the delivery of a baby—a privilege that reminded me of the profound significance of being present at life's most pivotal moments. I also learned how preventive measures like cervical cerclage are especially important in Zambia, where patients may travel long distances and have limited access to regular prenatal care.

This trip also taught me the importance of being a holistic doctor—one who practices cultural humility, recognizes where patients are coming from, and meets them from their standpoint. Observing open wards where patients shared space challenged my assumption that privacy is a universal value in healthcare. Here, care is provided in a community context, and patients often draw strength from the presence of others. I also saw the ripple effects of resource limitations on patient outcomes, particularly for chronic diseases like diabetes. Patients often present late in the disease course, when complications like severe infections make amputation the only option. These moments reinforced for me that medicine is not just about treating illness—it's about prevention, education, and building systems that make long-term health possible.



Beyond the technical skills and medical knowledge I gained, this experience deepened my desire to work in underserved areas, both in the U.S. and abroad. I left Macha with a strong interest in volunteering or working as a physician in countries where resources and staffing are limited. I saw the extraordinary impact that dedicated clinicians can have in these settings, not only through clinical care but also by helping develop systems, mentor staff, and advocate for better access to essential resources. The challenges are substantial, but so are the rewards of seeing tangible improvements in patient care and community health.

My advice to future students is to approach this experience with humility and curiosity. Learn some basic Tonga phrases like Mwabuka buti? (Hello, how are you?) and Kwasi buti? (Good evening, how are you?)—these small gestures create an immediate connection and show respect for the culture. Be prepared for differences in privacy norms, communication styles, and available resources. Understand that travel is often by foot or bicycle, markets may have limited goods, and diets are shaped by what's available. Be willing to step outside your comfort zone and approach situations with curiosity rather than judgment. Take the time to speak with healthcare workers across different roles—nurses, midwives, technicians, and administrators—as each has valuable insights into the hospital's strengths and challenges.

Before returning in my 4th year, I plan to expand my medical vocabulary in Tonga, especially medical phrases that will improve communication with patients. I also want to broaden my medical knowledge and deepen my understanding of why certain procedures are preferred in this setting, given the available resources. Our team is currently conducting a needs assessment research study at the hospital, gathering feedback from healthcare workers on potential improvements. We hope to present this information to hospital administration and support the implementation of some changes before our return, so that we can build on these advancements in the future.

The strengths of this experience included the opportunity to observe a wide range of clinical cases and procedures across multiple wards, gain insight into public health and community initiatives like the mobile clinic, and strengthen my cultural humility. Weaknesses included occasional language barriers that limited my ability to connect directly with patients and a wish that I had asked more operational questions to better understand the hospital's management and resource allocation.

Ultimately, this experience has reinforced my commitment to becoming a physician who is attentive not only to a patient's immediate medical needs but also to the social and environmental determinants of health. It has shaped my vision of my career as one that integrates clinical care, public health, and systems improvement. The lessons I learned in Macha—about adaptability, prevention, and the value of meeting patients where they are—will guide me in future work.