Pre-Medicine Internship Program

Alexandra Bengstonn

H-FARM INTERNATIONAL SCHOOL

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From Observation to Purpose: What I Learned During My Pre-Medicine Internship in Mombasa, Kenya

Bright, sterile lights shined over my eyes as voices moved with calm urgency through the emergency and casualty department. I could hear the faint beeping of monitors, the rustle of gloves and muffled groans of patients. Patients flowed in, some walking, others carried, yet the medical staff moved smoothly, through the chaos. It is my first week at Coast General Teaching and Referral Hospital (CGRTH), and despite attending orientation just a day earlier, I was overwhelmed. This wasn't just a hospital, it was a high-pressure system driven by resilience, improvisation, and determination.

The other interns already looked like they belonged, trailing behind doctors, scribbling notes, asking questions. As this was my first type of hospital exposure and sort of internship, I stood quietly, but still in the middle with the other interns, observing, absorbing everything, unsure of what to say or do next. My heart raced, not because of what was happening around me, but because I didn't want to miss anything.

Even in the uncertainty of how my time here in Mombasa would go, there was one thing I knew with complete clarity, that I wanted to learn. I wanted to earn my place in this environment, to contribute, to ask questions of my own, and to slowly become someone who could walk into this space with both confidence and care.

About CGRTH

CGRTH is the largest public hospital in Kenya's coastal region and the second largest in the country. As a level 5 facility, it serves as the main referral center for more than four million people across various Kenyan counties. Despite CGTRH's vital role, the hospital faces some systemic challenges, ranging from staff shortages to limited equipment and overcrowded wards. My internship at Coast General Teaching & Referral Hospital has exposed me to the extraordinary resilience of healthcare workers in resource limited settings. This experience not only has influenced my understanding of what global healthcare inequality is but has also reshaped my goals and values as a future healthcare professional.

Resource-Limited and Resource-Rich Healthcare Systems

The difference lies mainly in the availability of funding, equipment, infrastructure, and personnel which directly affect the quality, accessibility and eventually outcomes of care. Examples of resource

rich healthcare systems would be Sweden, Germany, Japan, some areas in the USA and UAE. To characterize this, they would have advanced medical technology, sufficient funding from the government or private insurance. Well trained and specialized staff with lower patient to doctor ratios.

Comprehensive infrastructure like clean facilities, labs, emergency transport and reliable electricity/ water. Widespread access to preventative care and screening programs, efficient digital systems for health records and strong regulatory systems to ensure safety and ethical standards. The benefits of resource rich healthcare systems lead to early diagnosis and treatment, lower infant/ maternal mortality rates, longer life expectancy and greater capacity for medical research.

Examples of resource-limited healthcare systems are Kenya, Bangladesh, Haiti etc. Characteristics would be limited medical equipment, underfunded public hospitals, high patient to doctor ratios (understaffed), weak infrastructure, minimal preventative care or public health education. You will also see a lot of paper-based systems, making patient tracking difficult and other barriers to access like cost, distance or cultural factors. The consequences of this could lead to delayed or missed diagnoses, higher rates of preventable deaths, burnout and stress among healthcare workers and inequity in healthcare access (rural vs. urban areas).

Kenya's Current Healthcare Situation

Kenya's healthcare system is complex, shaped by both progress and persistent challenges, it is divided into three main sectors: the public health care sector, which includes facilities like Coast General Teaching & Referral Hospital, the commercial private sector, and faith based organizations, often funded by religious groups. While the public sector provides specialized care and is officially backed up by the government, it suffers from underfunding, resource shortages and workforce strain. As a result, the private sector has grown to account for nearly 47% of all healthcare facilities in the country, even serving patients from the poorest income quartile, especially when children are sick. This number is often driven by accessibility, as private clinics are typically located in more urban areas, making them easier to reach than some public hospitals. Many senior doctors split their time between public hospitals and private practices due to overwhelming demand. This situation is partly the result of systemic issues in medical education, attending medical school is expensive and many who train abroad do not return to practice in Kenya. In addition, Kenya invests more into curative services than in preventative healthcare, leading to delayed diagnoses and higher patient loads in emergency departments like the one I interned in. This experience made it clear to me that improving healthcare in Kenya is about strengthening human resources, supporting primary care systems and investing in prevention and public health literacy.

Progress and Promise in the Public Sector

Despite the structural challenges faced by Kenya's healthcare system, my time at CGTRH also revealed significant improvements within the public sector that often go unrecognized by the general public. Example of this is the National Health Insurance Fund (NHIF), which has expanded coverage for millions of Kenyans, including access to essential treatments for cancer, diabetes, hypertension, maternity care, and kidney failure. Coast General itself is an example of how public hospitals are evolving. It is currently the only public hospital in the region with an interventional catheterization lab, a modern 15 bed ICU, and advanced radiology services, which enable it to manage complex cases that smaller private clinics cannot. During an IMA lecture, we even discussed instances of misdiagnosis in some low-tier private practices, a reminder that private care does not always guarantee better outcomes. It is a privilege that I get to see this change happen in front of me and see more accessible, system level improvements in healthcare delivery.

Disease Burden in Kenya

Kenya's healthcare system is heavily impacted by three major domains of disease burden. These include: communicable diseases, non-communicable diseases (NCDs) and injuries and violence. These health issues play a role on both public health institutions and the economy.

Communicable diseases remain a leading cause of diseases and death in Kenya. According to national outpatient morbidity data, the five most common conditions seen in outpatient visits are: malaria, respiratory infections, skin diseases, diarrheal diseases and accidents. Additionally, HIV/AIDS, referred to as retroviral disease in Kenya, continues to be one of the country's deadliest health concerns. According to the WHO Country Health Profile (2012), HIV accounts for approximately 15% of all deaths in Kenya. It is responsible for 29% of annual adult deaths, 20% of maternal mortality, and 15% of child mortality under the age of five. The socio-economic consequences of this epidemic are significant, leading to a 4.1% reduction in per capita output.

In Mombasa County, where I completed my internship, HIV remains a critical issue, contributing to 3.6% of the national HIV burden, ranking seventh among all counties. Surprisingly, women in Mombasa are disproportionately affected, with a prevalence rate of 10.7%, compared to 4.6% in men. This gender disparity highlights deeper issues related to care and awareness, especially among underserved communities.

At the same time, non-communicable diseases (NCDs) are becoming an increasingly alarming concern. NCDs now account for over 50% of total hospital admissions in Kenya. Common NCDs include cardiovascular diseases, cancers, diabetes, obesity and chronic obstructive pulmonary diseases (COPD). This rise shows an epidemiological transition, where lifestyle related illnesses are rising in parallel with persistent communicable diseases. The burden of NCDs is worsened by limited resources for early detection and long term management, especially in rural or economically challenged regions.

Injuries and violence also contribute significantly to hospital admissions and deaths. Based on the IMA slides, assault related injuries account for 42% of trauma related hospital cases, while road traffic accidents represent another 28%. These statistics reflect bigger health concerns that are related to safety, infrastructure and social stability.

One often overlooked aspect of Kenya's disease burden is the rising prevalence of mental health disorders. During one of the lectures I attended, 1 in 4 Kenyans is likely to suffer from a mental disorder at some point in their life. However, tragically, five out of six of those individuals will not receive any form of treatment. This treatment gap is due to a combination of factors, including stigma, affordable mental health service and many people avoid seeking help due to social taboos.

Behind the Calm: What I Saw at CGRTH

During my internship at CGRTH, I rotated through Emergency and Casualty (ER) and Internal Medicine. I also had the opportunity to shadow during night shifts, which exposed me to a wide variety of urgent cases. Rather than one defining moment, what I learned came in the form of many small but powerful experiences, like pieces of a puzzle that slowly revealed a bigger picture.

In the ER, I learned how to interpret patient vitals on monitors and understand what deviations might indicate, with the support of doctors and nurses who took the time to explain their thinking. Alongside other interns, I asked questions at appropriate times about patient history, diagnoses and treatment plans. While I sometimes did not fully know what the information they told me meant, I scribbled it down into my journal with the goal to research about it later. One case that stood out was a patient in septic shock, caused by severe infections in both legs. Through this case, I learned about the different types of shock, cardiogenic, hypovolemic and distributive and how septic shock falls under the distributive category.

Another meaningful case was observing a nasogastric tube insertion for a heart failure patient, who was later transferred to the ICU (by me). This case not only taught me the procedure of an insertion but also how it feels to get emotionally attached to the patients. This particular patient hadn't wanted to wear his

oxygen mask and had to be readjusted or put back on (often by me with doctors consent). I must have adjusted it at least five different times, each time gently asking if he was in pain or uncomfortable, trying to find a way to ease his distress. Yet every time we had found a solution, he would still take it off. Maybe it was out of stubbornness, or perhaps fear, confusion or fatigue. It was a small yet intimate exchange that repeated throughout the day, and in those moments, I started to feel a deep sense of responsibility. I wasn't just observing anymore, I was caring.

Later that day, I had asked the doctor about his treatment plan and he had responded that he was close to a cardiac arrest as he was presenting with agonal breathing. I had tried to mentally prepare myself for what could happen. I'd seen pain and chaos during my time in the ER, but this felt different, more personal. And yet, cardiac arrest never came and we moved him to the ICU. As I was about to walk away from the ICU, I remember looking at him one last time and quietly hoping that he would make it. That day, I learned not just how to care for a patient, but how to care about one. And that, I think, is one of the most difficult, and beautiful lessons in medicine.

The emergency department was often at full capacity, and I saw patients suffering from severe head injuries, road traffic accidents and trauma related bleeding. One particularly eye-opening adaptation was seeing staff use a medical glove as a tourniquet, a reminder of how healthcare professionals creatively adapt to limited resources.

In the internal medicine rotation, I had the privilege of following Dr. Faruk to the outpatient clinic, where we encountered a case of hypothyroidism. The patient had painful, swollen lymph nodes, and Dr Faruk generously walked us through the symptoms and causes of hypo/hyperthyroidism, and diabetes, helping us make connections between physical symptoms and internal cellular processes. I asked whether he found it difficult to diagnose and treat patients without the same resources in different countries. He explained that in such settings, the lack of advanced technology sharpens one's observational skills and improves greater care in physical examination. His teaching allowed me to analyze patients more holistically and strengthened my clinical reasoning skills.

That day, our group discussed diabetes management, including different types of insulin (rapid-acting, slow-acting, intermediate etc). When I had mentioned insulin pumps, a common treatment where I come from, I was told that such technology would be considered a luxury in Mombasa. In that moment, I truly understood the disparities between healthcare systems. It struck me deeply that many lives could be improved or saved, yet access and affordability remain major barriers in places like Kenya.

Community Outreach: Smiles that Stay with Me

Another deeply meaningful aspect of this internship was participating in the community outreach programs, which will forever hold a special place in my heart. I was fortunate enough to take part in four different initiatives: a hand and dental hygiene clinic, a woman's health hygiene clinic, a mobile medical clinic and a visit to a school for children with mental disabilities.

Each outreach experience taught me something unique, but they all left me with the same outcome: a genuine, lasting smile. It was impossible not to feel joy in the presence of the children we met, from their infectious laughter, radiant smiles and warm, welcoming energy made every interaction unforgettable.

At first, I believed we were going there to teach the kids something. But in the end, it was they who taught me. They reminded me of something so simple, yet so often forgotten in our busy lives, to smile more. Not just for others, but for myself and for the people I care about. To celebrate life, no matter how small an act of doing or an accomplishment may seem.

It was a powerful reminder of the emotional connection between joy, kindness, and health, and how much impact a moment of shared humanity can truly have.

Carrying Kenya Forward

At the end of this journey, I feel a renewed sense of purpose, a deep, clear reminder of why I want to become a doctor. Before this experience, my mind was often clouded by thoughts of status, prestige and financial stability. But through my time at Coast General Teaching & Referral Hospital and International Medical Aid, I've come to realize that the true core of medicine lies in the desire to help others. I had forgotten this essential and important desire, and this internship reignited that motivation in me. I couldn't have asked for a better outcome, as this is a drive I know I will carry with me through the hard times ahead and remind me of my "why" when I finally reach the milestone of becoming a doctor.

But who says I have to wait until then to start making a difference? I've learned that helping others doesn't always mean performing surgeries or diagnosing illnesses. Until I earn that title, I can still show up with kindness, humility and gratitude, whether its picking up someones jacket, smiling at a stranger or simply listening to someone who needs to be heard. These small acts matter and they reflect the kind of doctor and more importantly the kind of person I aspire to be.

In the future, I want to apply what I have learned and witnessed in Kenya. Seeing doctors improvise with limited equipment has taught me that it is important to use sharp observation and creativity to

serve patients with what is available. This type of adaptability and mindset is something that I want to bring forward, whether I am in a well-equipped hospital or a resource limited setting. The outreach programs reminded me of the power of prevention, education and community engagement. Moving forward, I want to integrate public health into my career, advocating for preventative care and empowering patients to take ownership of their well-being. Kenya showed me that real change starts with you, not necessarily in the hospital but in schools, neighborhoods and communities. Additionally, this experience has sharpened my cultural awareness, something that will help me connect with patients from diverse backgrounds. Healthcare is universal, but sometimes barriers like culture and language can greatly impact the care they receive. My goal moving forward is to deepen my understanding of how cultural perspectives shape health behaviours so that I can build stronger trust and provide more effective care for my patients, wherever I practice in the world.

I didn't know what to expect on my first day at the hospital, just like I don't know exactly what lies ahead in my future. But I now walk into each day with the same excitement and drive I felt back then. Ready to learn, ready to grow, and ready to help. No matter how small the action, my time in Mombasa taught me that compassion and presence are some of the greatest tools a person can carry, in medicine and in life.

This experience has also shaped my understanding of what makes a truly great doctor, Yes, clinical skills and medical knowledge are important , but just as essential are empathy, courage, independence, resilience and the ability to collaborate and connect with others. I learned the value of teamwork, the importance of cultural understanding in healthcare and the critical role of preventative care, especially in the context of under-resourced settings.

What truly made this journey unforgettable were the people. The healthcare workers at CGRTH, the IMA staff, and my fellow interns who inspired me daily with their dedication, curiosity and shared passion for medicine. I walk away from this experience with lifelong memories, new friendships and a stronger belief in myself and the path I've chosen.

Ultimately, this internship didn't just expose me to the realities of healthcare, it confirmed my passion for it. Every moment, whether observing a nasogastric tube insertion, adjusting a patient's oxygen mask, or educating children on hygiene , helped me see that medicine is more than a science, it's about service, resilience and connection. I now understand more deeply what it means to care for someone physically and emotionally, and it excites me to think that one day, I'll have the skills to make even greater impact. This experience didn't just shape my understanding of healthcare, it became the journey of finding my why. And now that I have found it, I will carry it with me through every challenge, every opportunity and every step toward becoming the doctor I aspire to be.

References

1. Kenya Community Health Strategy 2020-2025. (n.d.). https://chwcentral.org/wp-content/uploads/2021/07/Kenya_Nat'l_Community_Health_Strategy_2020-2025.pdf
2. Mohamoud, G., & Mash, R. (2022, May 18). The quality of primary care performance in private sector facilities in Nairobi, Kenya: A cross-sectional descriptive survey - BMC Primary Care. BioMed Central. https://bmcprimcare.biomedcentral.com/articles/10.1186/s12875-022-01700-3
3. Social Health Authority · Sha. Social Health Authority · SHA. (n.d.). https://www.nhif.or.ke/
4. Who. (n.d.-b). https://www.afro.who.int/sites/default/files/2023-08/Kenya.pdf
5. World Health Organization. (n.d.). Non communicable diseases. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases
6. Edemekong, P. F. (2022, October 24). Epidemiology of Prevention of Communicable diseases. StatPearls [Internet]. https://www.ncbi.nlm.nih.gov/books/NBK470303/
7. Agonal breathing: Gasping, respiration, sound & what to do. Agonal Breathing: Gasping, Respiration, Sound & What to Do. (n.d.). https://www.avive.life/blog/agonal-breathing-everything-you-need-to-know#agonal-breathing-definition
8. IMA provided lectures used:
9. International Medical Aid. "Disease Burden in Kenya" (31 pages) Innfile:///Users/alexandra.bengtsson/Downloads/Disease%20Burden%20in%20Kenya%20-%20International%20Medical%20Aid.pdf
10. International Medical Aid. "The current state of healthcare in Kenya" (44 pages) file:///Users/alexandra.bengtsson/Downloads/Current%20State%20of%20Healthcare%20in%20Kenya%20-%20International%20Medical%20Aid.pdf

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