Pre-Dentistry Internship Program

JOELLE MAKDESSI

UNIVERSITY OF OTTAWA

SUMMER 2025 ALUMNI

Internship Reflection: Redefining Dentistry Through Global Insight

As a Health Sciences student born and raised in Canada, I was always aware of the structural advantages of our healthcare system. Universal healthcare, preventive care and routine dental visits were all part of the fabric of my life growing up. However, I never truly appreciated the scale of global health disparities until I participated in the International Medical Aid (IMA) internship in Mombasa, Kenya. During my two-week placement in the dental unit at the Coast General Teaching and Referral Hospital (CGTRH), along with outreach education at local schools, I witnessed first-hand the resilience of providers, the creativity demanded by resource scarcity and the tragic consequences of systemic inequities. This experience deeply altered my understanding of healthcare and solidified my long-term commitment to becoming a dentist who not only treats patients, but advocates for access, education and equity.

Clinical Exposure in the Dental Unit

My placement at CGTRH's dental unit was an intense immersion into a high-demand, low-resource clinical setting. Under the supervision of local dental professionals, I observed procedures that I had previously only read about, and in some cases, never imagined performing without the basic tools I had always taken for granted. The dental unit was constantly overwhelmed with patients, most of whom came in with severe, irreversible oral conditions due to lack of early treatment.

One of the most eye-opening aspects was the frequency of extractions. Unlike in Canada, where cavities are treated with fillings and root canals are routinely performed to preserve natural teeth, extractions were the default intervention in Kenya. The concept of restorative dentistry was, in many cases, financially and practically out of reach for the average patient (IMA, 2025a). I witnessed multiple cases of impacted wisdom teeth removal, with patients often enduring prolonged discomfort and swelling before seeking care. One case involved horizontally impacted molars causing nerve compression and jaw swelling. Due to space constraints and tissue overgrowth, the extractions were highly invasive, and the patient left with instructions for limited follow-up, partly due to the understaffed unit and partly because many patients lacked the means to return.

A particularly memorable case involved a man who fell from a roof, suffering a complex craniofacial injury. The diagnosis revealed bilateral Le Fort III fractures, mandibular fractures, orbital wall injuries and a fractured nasal septum. In Canada, he would have immediately been managed by a trauma team including maxillofacial surgeons, radiologists and anesthesiologists. In Mombasa, the patient had to wait for a CT scan due to limited access and cost and ultimately underwent mandibular-maxillary

fixation (MMF), a technique that wires the jaws shut to heal fractures. While effective, the treatment posed challenges to feeding, breathing and hygiene, and highlighted the difficult choices faced by both patients and clinicians (IMA, 2025a).

I also observed alveoloplasties, surgical procedures where the alveolar bone is reshaped in preparation for dentures. Most patients had lost all or most of their teeth, not due to age, but because they couldn't access care early on. Many had never been educated on proper brushing or flossing, and their diets, often high in starch and low in calcium, exacerbated the problem. The more time I spent with patients, the more I realized how dentistry intersects with nutrition, education and economic policy (IMA, 2025c).

Preventive Education at Schools

Alongside clinical work, one of the most transformative parts of the internship was participating in hygiene education sessions at Shimo La Tewa Primary School and Makande Girls' Secondary School. At the primary school, we led informal sessions using demonstration props to show children how to brush their teeth and the importance of oral hygiene. The children were excited, curious and surprisingly unaware. Many had never owned their own toothbrush or used toothpaste. Some were visibly shy about their dental conditions, stained teeth, loose teeth, or visible decay (IMA, 2025c).

At the girls' school, we led a comprehensive health session focused on women's menstruation. The environment was more structured and the questions we received were thoughtful and candid. It was clear that there was a hunger for health information, but a lack of structured avenues to receive it. These sessions highlighted the urgent need for early preventive education (IMA, 2025c). By the time many of these children become adults, the damage to their teeth is often beyond repair, leading to infections, poor self-esteem and preventable complications.

What struck me was how much of the problem could be prevented with minimal intervention: education, access to toothbrushes, fluoridated toothpaste and routine screenings. It inspired me to consider incorporating school-based education and outreach into my future dental practice. Prevention must begin in childhood and we must meet people where they are.

Comparison of Healthcare Systems (Canada and Kenya)

The disparities between Kenyan and Canadian healthcare systems were stark. In Canada, we benefit from a publicly funded model where essential medical and hospital services are covered. In contrast, Kenya's system is fragmented, with a mix of public and private services. While the public sector is more affordable, it is also severely underfunded (IMA, 2025a). As IMA's orientation materials

explained, over 50% of hospital admissions in Kenya are due to non-communicable diseases (NCDs), yet funding disproportionately favors emergency and tertiary care (IMA, 2025b). In rural or low-income areas, even basic medical supplies may be missing.

The National Health Insurance Fund (NHIF) in Kenya is theoretically universal but practically limited. A large portion of the population works in the informal sector and cannot afford the monthly premiums (IMA, 2025a), even though they are only a few U.S. dollars. As a result, many Kenyans rely on out-of-pocket spending, delaying care until absolutely necessary. The result is a population that often only seeks care at crisis points, rather than through preventive visits.

This structure is reflected in comparative global data as well. According to the World Health Organization (2012), Kenya's per capita health expenditure is less than 1% of that in high-income countries. The data shows that in 2016, Kenya's total health expenditure was 4.5% of its GDP, with public spending on health accounting for only about 36% of that total, while out-of-pocket spending made up a significant 28% (WHO, 2012). With limited insurance coverage and overwhelmed public facilities, patients are often forced to choose between financial hardship and timely care.

Cultural Competence and Cross-Cultural Learning

Living and working in Mombasa taught me lessons that extended far beyond clinical knowledge. As outlined in IMA's cultural framework, Kenya is a highly community-oriented society with strong tribal and religious identities. Mombasa, in particular, has a predominantly Muslim population and gender sensitivity in healthcare is essential (IMA, 2025c). In some cases, women preferred female clinicians; in others, family members were required to be present. Understanding these dynamics was essential to gaining patients' trust and being respectful in clinical settings.

Language was another key factor. While English is an official language, many patients, especially in rural or older populations, felt more comfortable speaking Swahili. I made an effort to learn basic phrases like "Asante" (thank you), "Karibu" (welcome), and "Habari" (how are you), and patients often responded warmly to these attempts. It reminded me that cultural humility and effort go a long way in building rapport (IMA, 2025c). I now see language learning as a professional obligation, especially if I hope to serve multicultural populations in Canada or abroad.

Another deeply moving aspect of the culture was the sense of community. Patients did not come alone, they were accompanied by neighbors, friends, or fellow church members. I saw community members sharing food with one another in the waiting room, praying together, and offering comfort during procedures. In one instance, a man who had no family was cared for by strangers from his village who

brought him to the hospital and stayed by his side. This collective spirit was something I hope to emulate both in my future practice and personal life (IMA, 2025d).

Ethical Challenges and Resourcefulness

A recurring theme throughout the internship was the ethical complexity of working in a low-resource setting. Providers often had to choose between what was medically ideal and what was realistically possible. In Canada, we are taught to aim for gold-standard care. In Kenya, gold-standard care is rarely feasible. Instead, clinicians must weigh the cost of each procedure, medication, or diagnostic test against the patient's ability to pay and the broader hospital demand (IMA, 2025a).

For instance, there were times when CT scans were postponed because the machines were shared between departments or operating at limited hours. In the dental unit, anesthesia supplies were carefully rationed. I learned to appreciate the ingenuity of local providers who, despite these limitations, delivered care with precision, compassion, and creativity. They were not only clinicians but problem-solvers, advocates, and negotiators (IMA, 2025a).

While the orientation emphasized the importance of patient consent and dignity, in practice I sometimes observed procedures being conducted with minimal explanation due to time constraints or understaffing. This highlighted the gap between intention and reality in overburdened public healthcare settings and made me appreciate how systemic limitations can affect patient-centered care (IMA, 2025c).

Shaping My Future in Dentistry and Global Health

This experience has fundamentally changed my outlook on healthcare and my role as a future provider. I no longer view dentistry as a narrow specialty focused only on teeth, I see it as a field that intersects with education, policy, community development and global health.

I now have three clear goals moving forward. First, to incorporate global service into my career. Whether through short-term dental missions or long-term public health initiatives, I want to continue serving in under-resourced communities both locally and abroad. Second, to focus on preventive oral health education. Inspired by our school outreach in Kenya, I hope to create community partnerships to bring oral hygiene education to youth, newcomers, and marginalized groups in Ottawa. Third, to advocate for healthcare equity. I want to use my voice to address disparities in oral healthcare access, whether it's through policy change or research.

In conclusion, this internship experience with International Medical Aid in Kenya profoundly shaped my personal and professional development. It challenged me intellectually, emotionally and ethically.

It reminded me of why I chose this path in the first place, not just to learn how to fix teeth, but to understand people, to advocate for justice, and to make healthcare more compassionate and accessible for everyone. Through clinical exposure, cultural immersion and community outreach, I gained a deeper sense of purpose. I left Kenya with greater clinical insight, a new lens for viewing global health, a stronger commitment to advocacy, and a deep gratitude for the resilience of both the providers and patients I encountered. I now know that wherever I go in the future, I will carry the lessons of Kenya with me and let them guide the kind of dentist and person I strive to become.

REFERENCES

1. IMA. (2025). Current state of healthcare in Kenya. International Medical Aid.
2. IMA. (2025). Disease burden in Kenya. International Medical Aid.
3. IMA. (2025). Healthcare internship orientation. International Medical Aid.
4. IMA. (2025). The history of pre and post-colonial Kenya. International Medical Aid.
5. World Health Organization. (2012). Kenya: WHO statistical profile. https://apps.who.int/nha/database/DocumentationCentre/GetFile/57490061/fr
6. Google Drive with all IMA Lectures: https://drive.google.com/drive/folders/118_mqNOLcQYFeWjgfaVfuCV-hKgFrEb_

INTERNATIONAL MEDICAL AID
Reimagining Healthcare

GET IN TOUCH

Schedule a Zoom Call

Online Scheduling

EMAIL

admissions@medicalaid.org

ADRESS

1629 K Street NW Suite 300

Washington, DC 20006