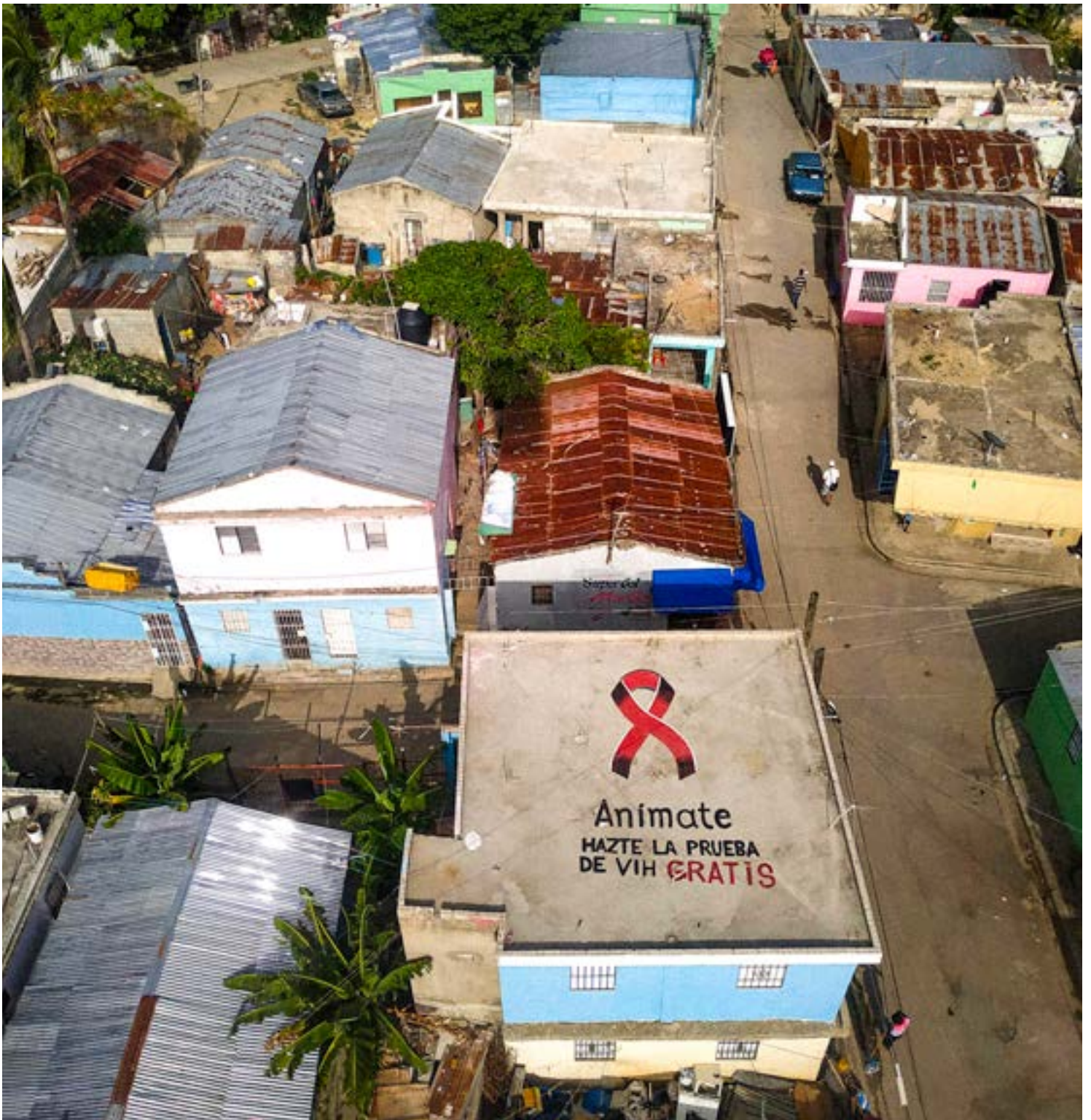


Journal of the Global Health Academy



Majid Sadigh, MD
GLOBAL HEALTH ACADEMY



Journal of the Global Health Academy

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Section Editor; Shrey Patel

University of Vermont Larner College of Medicine, Class of 2026

Critical Inquiry

by Shrey Patel

Anti-colonialism in global health has moved to the forefront of our conversations about ethical, constructive, and collaborative efforts in the field. It is not only a feature of current dialogues but a main focus. In this column, we will examine topics in anti-colonial global health through the lenses of critical theory, literature, and scholarly thought.

The terminology used in discussions of colonialism and anti-colonialism calls to be identified and defined before further inquiry can be undertaken. What do we mean when we aim to “decolonize” global health? Is there any such thing as “post”-colonial theory? Some scholars emphasize the fact that the reins of “decolonization” must remain in the hands of those who are colonized; thus, it becomes the responsibility of institutions to take a critical, introspective approach when discussing the “decolonizing” of global health. They argue that it is not the institutions’ role to lead the fight but instead to position themselves in active opposition to colonialism, racism, imperialism, and beyond.

Anti-colonial global health is a positionality that seeks to dismantle social, political, and economic colonialism in its historical and modern contexts to create more just global health systems. Though progress is always being made, it remains important to acknowledge that colonialism is not a thing of the past. Instead, modern colonialism is ingrained in health systems and even belief systems around the world. An editorial in *The Lancet Global Health* writes: “global health as a knowledge system remains marred by (neo)colonialism, which instills and maintains worrisome asymmetries of power. Global health solutions all too often fall foul of overmedicalization: the tendency to focus exclusively on biomedical solutions to control individual risk factors without tackling deep-rooted social determinants of health through political and social actions.” “Neocolonialism” is a term coined by Ghana’s first president, Kwame Nkrumah, to refer to the extraction of resources, power, and funds from states that have declared their independence from colonial ruling

powers. The stark presence of neocolonialism in global health today speaks to the significance of understanding the history of medicine and healthcare around the globe while analyzing existing structures and systems.

In 2023, the World Health Organization developed a three-part agenda for the global north’s approach to “decolonizing global health.” They emphasize the importance of structural inequalities and power asymmetries, the ways in which certain actors dominate structures and systems of global health, and the impacts of wealth extraction and exploitation on the health sector. They write that “Overcoming these challenges calls for a political and economic anticolonialism as well as social decolonization aimed at ensuring greater national, racial, cultural, and knowledge diversity within the structures of global health.” It is the work of those interested in global health to design practices, systems, and relationships with these aims in mind.

There is much within the paradigm of global health as it stands today that must be interrogated. Some of the questions that we must ask ourselves may be uncomfortable, especially for those in the field who have been educated within colonial structures. This column will seek to sit with that discomfort and draw clarity from it as we find ways to move forward together.

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What good is the warmth
of summer, without the cold
of winter to give
it sweetness.

–John Steinbeck



The Voice of Ugandan Students

Section Editor; Joshua Matisko

Medical student at MakCHS, Uganda

Bridging the Gap: Addressing the State of Geriatric Care in Uganda

by Joshua Matisko

Introduction

The world is witnessing an unprecedented demographic shift: the number of elderly persons is growing faster than any other age group. Globally, the population of those aged 60 and above is projected to surge from 962 million in 2017 to nearly 2.1 billion by 2050, with profound implications for healthcare systems worldwide (WHO EMRO | World Health Day 2012). In Africa, historically characterized by a younger demographic, the proportion of elderly persons is expected to rise from 4.5% of the population in 2030 to nearly 10% by 2050 (Ageing in the Twenty-First Century).

Uganda exemplifies this trend, with the elderly population growing from 1.43 million in 2014 (4.1% of the population) to 2.304 million in 2024 (5.01%). By 2030, this figure is projected to exceed 10.5 million (Uganda Bureau of Statistics, 2024). As the elderly population grows, so do their healthcare needs. Aging is often accompanied by physiological decline, increased vulnerability to chronic and infectious diseases, and altered medication responses. These factors make geriatric care a vital component of any robust healthcare system. Yet, in Uganda, this demographic shift has outpaced the healthcare system's ability to adapt. The country faces critical gaps in training, infrastructure, and policies, jeopardizing the health and well-being of its elderly population.

The Challenges of Geriatric Care in Uganda

1. Inadequate Training Among Healthcare Workers

Healthcare workers in Uganda often lack the knowledge and skills necessary to manage the unique health issues of elderly patients. Studies reveal that many fail to adhere to evidence-based practices due to insufficient exposure to geriatric medicine during training (Orit,

Daniel, et al., 2013). This knowledge gap affects not only clinical outcomes but also the quality of patient interactions, as health workers struggle to address the complexities of aging-related conditions.

2. Absence of a Standardized Geriatric Curriculum

Unlike developed countries, where geriatric care is a cornerstone of medical education, Uganda has yet to integrate geriatric medicine into its training curricula. This omission results in healthcare professionals entering the workforce unprepared to handle the multifaceted challenges of caring for elderly patients (Dacey et al.).

3. Persistent Negative Attitudes Toward Elderly Care

Negative perceptions of elderly care among healthcare workers further exacerbate the challenges. Research highlights that many providers view geriatric care as less prestigious or rewarding compared to other specialties (Topaz & Doron, 2013). These attitudes discourage interest in the field and limit the quality of care delivered to elderly patients.

4. Healthcare System Strain

The rising number of elderly persons places immense pressure on Uganda's already overstretched healthcare infrastructure. Elderly patients are frequent users of healthcare services, with an estimated 11.4 hospital visits per year, compared to younger populations (Franchi, Carlotta, et al., 2013). This increased demand strains resources, staff, and facilities, leading to longer wait times and inadequate care.

5. Limited Research and Advocacy

There is a noticeable lack of research on the specific needs and challenges faced by Uganda's elderly population. This gap hinders the development of informed policies and limits advocacy efforts to improve geriatric care. Without data-driven insights, it is difficult to secure the funding and political will necessary to address these issues.

Bridging the Gaps in Geriatric Care

To address these challenges, Uganda must adopt a multi-pronged approach:

1. Incorporate Geriatric Care into Medical Curricula

Medical schools should include geriatric medicine as a core component of their programs. Training should emphasize the physiological, psychological, and social aspects of aging, equipping healthcare workers with the skills necessary to provide comprehensive care.

2. Strengthen Continuous Professional Development

Existing healthcare providers must undergo targeted training to bridge knowledge gaps. Workshops, certifications, and mentorship programs focused on geriatric care can enhance their competence and confidence in managing elderly patients.

3. Combat Negative Attitudes Through Sensitization

Cultural and professional sensitization programs can help shift negative perceptions of elderly care. Highlighting the rewarding aspects of geriatric medicine and showcasing successful role models in the field can encourage more healthcare workers to specialize in this area.

4. Invest in Geriatric-Friendly Infrastructure

Uganda's healthcare facilities must be adapted to meet the needs of elderly patients. This includes creating geriatric units, ensuring accessibility, and investing in community-based healthcare programs that bring services closer to elderly populations.

5. Prioritize Policy and Advocacy

The government and stakeholders must develop policies that prioritize geriatric care. These policies should be informed by localized research and include

provisions for funding, workforce development, and infrastructure improvement. Advocacy efforts should also focus on raising public awareness about the importance of geriatric health.

6. Expand Research on Aging and Geriatric Care

Uganda needs robust research initiatives to understand the specific challenges faced by its elderly population. These studies should explore the social determinants of health, patterns of disease prevalence, and effective interventions, providing the evidence base needed to inform policy and practice.

Conclusion

Uganda is at a crossroads in addressing the health needs of its aging population. The rapid growth of the elderly demographic presents both challenges and opportunities. By addressing gaps in training, infrastructure, and policy, Uganda can create a healthcare system that not only meets the needs of its elderly population but also sets a standard for geriatric care in the region. The time to act is now—before the challenges of aging overwhelm an already strained healthcare system.

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What Should I Have Expected to Learn in a Global Health Experience?

by Dr. Hossein Akbarialiabad, MD MSc HMBA

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This is dedicated to the enormous number of smiles from infants, children, men, and women that energized and resuscitated me during my most personally dire situations. It is important to note that this story was set during the brutal battle African countries faced with COVID-19. At that time, Western countries were administering their third and fourth doses of the vaccine, while the percentage of those receiving two doses in Africa was around 7%, and in Uganda, only 2%. We also saw the emergence of new SARS-CoV-2 variants, including Delta and Omicron. Let me clarify that testing for COVID-19 was minimal, and there were no free tests or waivers for those who couldn't afford them.

Due to the lack of a public insurance system and low income, the families of our patients sometimes had to choose between the death of a family member or the likely starvation of others for weeks or months. It was a revolution inside me to realize that this was the real world, not the fancy tertiary healthcare systems with good cost coverage. A personal tragedy occurred on my birthday. On that day, we had to amputate the leg of a young woman above the knee. She had a motorcycle-pedestrian accident and came to the ER immediately. Three days later, wet gangrene developed because she could not afford Doppler sonography or angiography. Imagine what happens to a young woman with an amputated leg in developing countries. I found myself whispering, "Hossein, step out of your egocentric zone and see the bigger world," all the time in the surgical theater.

- I learned to be "humble" when dealing with patients and staff. They continuously did all they could to alleviate the burdens they faced daily, and I rarely saw them complain about their conditions. Imagine dealing with complicated patients and their families with bare hands.

- I learned "commitment." They helped each other and had the opportunity to leave the country forever, but many of them stayed or returned to help, despite meager pay. What also struck me was their lack of "desensitization" to patients' suffering. Despite problems like the absence of ECG machines and even thermometers in the emergency ward, they remained engaged and empathetic with each patient.



- The patients' financial constraints affected almost every case. In Mulago, families and supporters had to buy most of the medical supplies themselves. Yet healthcare workers continued to help them, showing a kind of "active activism." One afternoon, in the casualty hall, a patient with a traumatic brain injury and bleeding ears had no supporters present. An



intern asked another intern to take money from his own pocket and buy tranexamic acid for the patient. I had done similar things several times, but this moment stood out, as I knew the interns were struggling with their financial problems, including tuition and living expenses.

- Respect was another important lesson. I rarely saw toxic "senior-junior" relationships. There was some hierarchy, but it wasn't harsh. I remember several occasions when I politely disagreed with a treatment plan or diagnosis, and senior attendings accepted my input and even changed the course of action. In some places, this would have been considered a "crime" if a second-year resident disagreed with a third-year resident or, worse, a professor!



The hidden cost of misdiagnosis: My mother's journey through gastric cancer

by Hamidah Babirye Nsereko, PhD.

Procurement and Supply Chain Expert, Uganda

Misdiagnosis is a silent crisis in Uganda's healthcare system, often leading to delayed treatment and unnecessary suffering. My family's journey through my mother's battle with gastric cancer highlights the urgent need for improved diagnostic practices.

My mother was diagnosed with stage three gastric cancer, but this diagnosis came after a long and painful journey. For months, she experienced severe discomfort and was repeatedly misdiagnosed with conditions such as ulcers, uterine infections, other infections, and brucella. Despite numerous hospital visits and blood tests, the true nature of her illness remained undetected. The turning point came when my siblings and I decided to seek a specialist in gastroenterology. An endoscopy revealed tumors in her stomach, and a subsequent biopsy confirmed it was cancer. This revelation came too late, as the cancer had already progressed to an advanced stage.

Misdiagnosis not only delayed my mother's treatment but also subjected her to unnecessary medication and hospitalization. I am speaking out about this because our experience is not unique. Many patients in Uganda face similar challenges, leading to preventable complications and reduced quality of life. Studies show that the incidence of cancer in Uganda has been rising, increasing from 27,410 new cases in 2012 to 35,968 in 2022. These statistics highlight the growing burden of cancer in Uganda and the need for enhanced cancer prevention, screening, and treatment programs. Our experience underscores that many more cases remain undiagnosed, and people eventually die unknowingly from the disease. I have learned a lot from this experience that I wish to share:

We chose to advocate for ourselves and our loved ones. Once symptoms persisted despite treatment, we continued to seek answers.

We did not hesitate to ask for further tests or consult a specialist, especially when the current diagnosis seemed unclear or the treatment ineffective. Consulting a specialist allowed us to pursue advanced diagnostics, such as endoscopies, MRIs, and CT scans, which revealed conditions that standard tests had missed.

Throughout this journey, we educated ourselves deeply about the symptoms of various cancers and other serious conditions. We kept asking questions and listened attentively every time we took our mother to the hospital. Being informed helped us stay abreast of her condition and anticipate challenges before they arose.

We were fortunate to have a strong support network of family, friends, and healthcare professionals who helped us navigate the emotional and practical challenges of a serious diagnosis.

My mother is still with us, two years from the time of her diagnosis. Her story is a testament to the critical need for accurate and timely diagnoses. By addressing the challenges of misdiagnosis, we can ensure that our loved ones receive the care they deserve and improve health outcomes across Uganda.

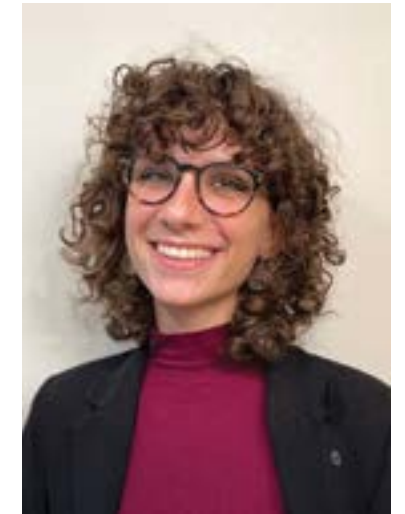
Women's Health Education

Section Editor; Sarah Cordisco, RN

Staff Nurse at the University of Vermont

Effects of Fetal Monitoring on Birth Outcomes

by Sarah Cordisco, RN



According to the World Health Organization, premature birth, birth complications such as birth asphyxia and trauma, neonatal infections, and congenital anomalies are the leading causes of neonatal deaths globally. In 2022, there were 6,500 newborn deaths recorded every day, amounting to 47% of all child deaths under the age of 5. Those who die within the first 28 days of birth typically suffer from conditions or diseases associated with a lack of quality care at birth or skilled care and treatment immediately after birth or within the first few days of life (Newborn Mortality, 2024). Most of these deaths occur in LMICs. Many people and practitioners believe that these outcomes result from a lack of fetal heart rate monitoring during labor, which is not always true. Electronic fetal heart rate monitoring (EFM) has become widely used and relied on over the last 40 years to improve perinatal outcomes (Kebede et al., 2024). The research on the impact of EFM on the mode of delivery and outcomes in low-risk pregnancies is controversial.

Continuous EFM is the consistent and ongoing monitoring of fluctuations in the fetal heart rate (FHR) in response to maternal contractions and has become the standard of practice since about the 1970s (Kebede et al., 2024). It is designed to detect early fetal hypoxia, thus decreasing neonatal morbidity and mortality compared with intermittent auscultation. Intermittent auscultation, or IA, is listening to the FHR before, during, and after a contraction every 5 to 30 minutes depending on the stage of labor. While cEFM is important for preventing neonatal seizures and fetal asphyxia, it has a high false-positive rate (Kebede et al., 2024). This leads to more medical interventions and operative deliveries. While cEFM is appropriate for high-risk labors, its widespread use has increased medical interventions and operative deliveries without improving infant outcomes. According to a retrospective investigation over 20 years, there was

a 14% increase in primary cesarean deliveries and a 25% increase in instrumental vaginal births associated with EFM (Kebede et al., 2024).



In low-resource settings, fetal monitoring is often done with a Doppler or a fetoscope due to the high cost of electronic monitoring systems. While EFM allows providers to determine fetal asphyxia and potentially prevent cerebral palsy and other lasting issues, it is not necessarily recommended in LMICs where life-saving resources may be scarce (Valderrama et al., 2020). EFM also requires training to assess beat-to-beat fluctuations and identify decelerations and their meanings. In areas that rely on traditional birth attendants, as opposed to skilled practitioners, this would not be a plausible practice. These machines also require upkeep that Dopplers and fetoscopes do not, furthering the barriers low-resource areas already face.

EFM should not be the standard of practice for many women, especially those who are low-risk. However, fetal monitoring and education on fetal monitoring should be implemented to improve fetal outcomes without putting

mothers at risk for interventions and operative deliveries. The WHO recommends IA for laboring, healthy women. With this, though, there needs to be optimal auscultation of the FHR to accurately determine the risk of fetal hypoxia and potentially poor outcomes. IA should be done every 30 minutes in the first stage of labor, every 15 minutes in active labor, and every 5 minutes in the second stage of labor (the pushing phase). While even this level of monitoring can be difficult for facilities experiencing high patient levels, it is important to work with these communities to address the barriers to FHR monitoring.

One of the largest barriers LMICs face to monitoring FHR is the patient-to-staff ratio. In order to have safe births for both mother and child, structural barriers need to be addressed. While there is a gap between international recommendations and what is actually possible in low-resource areas, there needs to be a larger push to implement and educate on the use of Dopplers and other methods of FHR monitoring. Overall, more research needs to be done to assess how to implement FHR monitoring during labor. A root-cause analysis should be done at the local level to determine the needs of specific communities and facilities and the barriers they face to implementing recommendations.

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To analyze the effectiveness of the National Wastewater Surveillance System (NWSS) discussed in the previous piece, we can examine specific communities with larger utilization while identifying whether or not the data helped inform public health decision-making. There have been multiple studies focusing on the implementation and impact of early, wide-scale systems in certain U.S. cities. Two case studies have been identified: Houston and Seattle (Figure 1), where different surveillance methods were implemented, each facing unique challenges but enjoying varying levels of success as well.



Figure 1

Houston, Texas, is one example of a particularly strong wastewater surveillance system that helped inform public health decision-making during the pandemic. To evaluate effectiveness, we will examine three published manuscripts related to the development and use of the system as well as its impact on interventions. A group of researchers from the University of Washington also conducted an extensive study on wastewater tracking in Seattle, Washington, which had a system early in the pandemic but faced difficulty with specific intra-city tracking due to climate issues impacting wastewater treatment. These two case studies can be used to evaluate the success of the NWSS and wastewater tracking for COVID-19 in general. Another manuscript was examined to explore the ethical implications of wastewater surveillance and how it should influence future policymaking.

Main Findings

Examining the case studies through the key sources establishes four main conclusions related to (1) coverage, (2) matching trends, (3) decision-making, and (4) health outcomes. In Houston, the wastewater surveillance system covers 2.3 million people across an area of 580 square miles. Thirty-nine different treatment plants were

Global Local

Section Editor; Ritesh Vidhun

Wastewater Surveillance in Viral Detection for Public Health Decision-Making in the U.S.: Case Study

by Ritesh Vidhun



sampled weekly and tested at Rice University. One of the biggest findings early in the pandemic was that the trends in wastewater were generally in line with other metrics. It demonstrated its independent nature and potential to forecast surges in the virus, which is extremely useful for public health decision-making (Hopkins et al., 2023b). The Houston Health Department (HHD) effectively used the data to adjust interventions through weekly meetings, identifying zip codes with changes in risk levels and determining whether to increase or reduce preventative measures.

In locations with potential outbreaks, HHD initiated “strike teams” composed of public health workers, health providers, and other community leaders to determine appropriate interventions. For instance, if there was a surge in a school population, the strike team would include officials from the Department of Education and the local school leadership. Potential changes in activity included site visits, calls, emails, distributing materials, door-to-door canvassing, workshops, classes, and more. The data also helped officials decide which regions should be prioritized for greater in-person testing centers and vaccine clinics (Hopkins et al., 2023a). This occurred frequently throughout the three large waves of COVID-19 between 2020 and 2022, where interventions were altered based on the trends observed in wastewater.

Despite the numerous interventions that the surveillance system assisted with, researchers have been unable to associate any direct correlation with better health outcomes and greater wastewater tracking. However, physicians reported that wastewater data quickly became the most reliable indicator for predicting trends,

as they identified viral loads preceding hospitalizations by two weeks, ED visits by four days, and positivity rates by six days (Hopkins et al., 2023a). This is critical during an outbreak because it allows health centers to prepare for surges and allocate sufficient resources, ensuring that the need for care is met while additional complications can be avoided. Although there is no clear correlation between greater wastewater surveillance for COVID-19 and reduced health consequences, there is evidence for its early indication, and if providers utilize this information effectively, it most certainly can contribute to better outcomes. Houston is an example of an overall strong wastewater surveillance system that covered the entire area and helped public health officials make decisions that benefited the community.

In the manuscript by Saingam et al., focusing on Seattle and intra-city tracking, the researchers aimed to evaluate surveillance of smaller populations for more effective public health intervention. They examined six different regions in the city from March to October of 2021 and collected wastewater from manholes and a pump station, covering anywhere from 2,580 to 35,902 individuals. The first main finding was in line with greater Houston, where trends in wastewater predated other COVID-19 metrics by similar timelines. However, the authors determined that precipitation led to diluted samples across the different sites compared to days without rain. Overall, the samples showed lower concentrations of the viral indicators and lower sensitivity. In other words, higher viral loads were required to detect SARS-CoV-2 in wastewater when it rained. This is problematic as it could lead to communities being prioritized less despite transmitting the virus, preventing public health officials from intervening

effectively. The researchers noted that the differences were not statistically significant, likely due to other confounders associated with measuring disease across different regions (Saingam et al., 2023). Nonetheless, it is an important consideration when evaluating whether or not to expand the NWSS.

Discussion and Evaluation

The key sources provide important insights into the strengths and weaknesses of wastewater surveillance and the NWSS. When the project was first rolled out in 2020, sites were selected based on the prioritization of their respective health departments. Places like Houston and Seattle, which already had the infrastructure and testing in place, were some of the first to enroll. Those who participated received federal funding to support their infection control strategies (Adams et al., 2024). As the number of locations grew exponentially, the advantages became apparent. Public health officials across the nation were able to pinpoint areas in their communities where more SARS-CoV-2 was present and consequently where the risk for outbreaks was higher. They could then change policies to reduce the risk of spread and the likelihood of infection, hospitalization, and death—as seen in Houston. Communities that could not access in-person testing frequently were still being monitored, and if a surge appeared to be developing, procedures could be put in place to reduce risk.

Another strength of wastewater surveillance is associated with cost. Researchers in Japan conducted a cost-benefit analysis of wastewater monitoring for COVID-19 during the 2020 Summer Olympics, published by the CDC. They determined that initial screening was much more cost-effective via wastewater compared to antigen or PCR testing. The costs of regular wastewater surveillance were also justifiable due to the population it covered during periods of low virus transmission. When prevalence grew, the authors noted that in-person testing was more effective as individuals could isolate and prevent spread better than a population-based approach (Yoo et al., 2023). Wastewater data typically covers thousands of people, making intervention challenging during a surge. Along with the points mentioned previously, the economic lens contributes to the importance of wastewater surveillance as an additional tool for public health decision-making.

Ethical Considerations

Wastewater surveillance for COVID-19 has immense benefits for public health and great potential for reducing the burden of a future pandemic. However, as with any



new program or technology, there are important ethical implications that must be discussed. Currently, data collected cannot be traced to an individual household, maintaining a basic level of privacy and not violating the Fourth Amendment of the Constitution, which protects citizens from unreasonable searches and seizures by the government. But if the data becomes more individualized, it could certainly be a violation of Constitutional rights (Gable et al., 2020).

There are also important considerations for autonomy and beneficence—an individual should have control over and be entitled to their health status while making personal decisions. Wastewater screening focuses on population health and, with any public health intervention, may encourage people to alter their behavior for the health of their community. When this clear data is present, officials must still consider utility and beneficence while acknowledging individual rights over health.

Another important consideration is the value and justification of wastewater data. For instance, is there truly enough evidence for significant quarantines or greater testing if confounders such as those related to the environment exist? It should be used in correlation with other metrics and can be an important additional tool but not necessarily stand-alone evidence, mainly due to other variables and its population focus.

Furthermore, other controversial information can be gained from wastewater, such as drug use. Scientists have been able to identify the use of nicotine, amphetamines, opioids, cocaine, and cannabis in different regions. One study from New York City collected samples from six treatment plants to determine which drugs, licit or illicit, were being used in different boroughs. They found that amphetamines were the highest in Manhattan and Queens, cannabis in The

Bronx and Manhattan, and nicotine, cocaine, and opioids in The Bronx (Centazzo et al., 2019).

Although this is still at the population level, making it impossible to identify individual users through wastewater, especially in large cities, the potential exists. This could open the door for discrimination against certain neighborhoods and increase surveillance not grounded in science. Because of this possibility, there should be strict laws in place to prevent the government or researchers from being able to track individual household or building wastewater data. It should not exist nor be accessible by other corporations, as it may be used to identify potential consumers of pharmaceuticals. This would be highly unethical and violate individual privacy. Wastewater surveillance and the NWSS for disease control can lead to strong public health benefits but must not be expanded to drug monitoring or other data to protect personal autonomy.

Conclusion

The National Wastewater Surveillance System has demonstrated its efficacy as an important tool for public health during the COVID-19 pandemic. By contributing to early detection and monitoring of viral trends, it has helped shape evidence-based responses across the nation. This system has not only complemented past epidemiological strategies but addressed critical gaps surrounding asymptomatic spread and areas with limited testing.

As seen in cities like Houston and Seattle, wastewater surveillance led to proactive public health interventions, potentially reducing the spread of the virus and subsequent negative health consequences. Yet, the findings also highlight challenges and limitations of relying solely on wastewater data. Environmental factors, such as precipitation, can influence the concentration and detectability of the virus, reducing the reliability of the data. Further, the population scope of the data poses challenges with identifying smaller outbreaks, emphasizing the need for additional metrics.

Ethically, the expansion of this system forces us to consider issues related to privacy and potential misuse of the information. While the NWSS and wastewater tracking more broadly maintain individual privacy today, there is a fine line between population health monitoring and the infringement of rights that must be carefully considered as the technology grows.

Looking forward, the success of the NWSS during the pandemic justifies further development of wastewater surveillance in the U.S. It could lead to strong public health responsiveness not only for pandemics but also seasonal

diseases like influenza. Moreover, ensuring robust legal and ethical frameworks to safeguard personal autonomy and privacy is crucial. The potential for wastewater surveillance is immense, offering an important resource for public health that, if safely managed, could revolutionize our approach to disease prevention and control.

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Necrotizing fasciitis with sepsis

by Mercedes Erpelding

Ross University School of Medicine, Class of 2024

A 54-year-old male patient was transferred from a local hospital to our Emergency Department (Cho Ray Hospital) with complaints of a fever, and a few hours of right lower extremity pain as well as swelling, color changes and multiple tense blisters. He had a medical history of alcoholic liver cirrhosis, hypertension and poorly controlled diabetes type 2. Per the patient, 3 days ago he injured his right foot while fishing. He otherwise denies chest pain, SOB, new or worsening cough, abdominal pain, N/V, change in BMs.

Initial vital signs

HR 92 bpm, RR 17 bpm, BP 90/50 mmHg, Temp 101F

Physical Exam of the right lower extremity

There were several tense bullae, erythematous plaques, color changes and hemorrhagic bullae starting from the right knee and down. The patient's strength and sensation were also diminished, but pulses were normal. Labs are shown to the right. Patient was then started on IV Clindamycin, Cefepime, Levofloxacin and Doxycycline. What is the next step in management?

- A. Blood & Wound culture
- B. LE X-ray imaging
- C. Emergent Surgical debridement
- D. Serial exams



Photo of RLE on admission (with patients permission)

Labs

WBC	16 x 10,000/uL (Neutrophil 51%)
Hgb	11,5
PLTs	104 000
PTT	51 seconds
PT	28 seconds
Na	130 mmol/L
K	4.1 mmol/L
CR	3,1
PH	6,9
CO2	27
Glucose	145
ALT	78
AST	144
ALKP	58
CRP	25.1 mg/dL
Lactic	2.9 mmol/L

Correct answer is C (Emergent surgical debridement)

A (Incorrect) After extensive exploration of the affected area and removal of necrotic tissue, deep tissue samples should be obtained for Gram staining, cultures, and histopathology.

B & D (incorrect) Plain x-ray can visualize subcutaneous gas (the source of the crackling sounds in this patient), but this is a specific, not a sensitive finding (positive in fewer than 25% of cases) and absence of gas does not exclude necrotizing fasciitis. Awaiting imaging in this man would delay treatment required for necrotizing fasciitis.

Discussion

Necrotizing fasciitis is a rapidly progressive, life and limb threatening infection that affects the deep soft tissues and is characterized by significant tissue destruction as well as systemic toxicity in some cases. Other differential diagnoses should include but are not limited to PVD, Compartment syndrome, Cellulitis, DVT, Dry gangrene and Pressure necrosis.

The patients LRINEC score and physical exam with pain out of proportion as well as rapidly progressing discoloration with tense bullae made NF higher on the differentials. The risk of NF increases with age, obesity, PVD, tobacco use, ETOH/Liver disease, Diabetes, and anyone with a Immunocompromised status. The patient can become infected via direct inoculation of breaks in the skin or mucosal surfaces such as trauma, IVDU, insulin injections, ulcers and abscesses.



The infection can progress rapidly, causing extensive tissue destruction and a high mortality rate if not treated promptly. The etiology of necrotizing fasciitis involves various types of bacteria and other infectious agents that can cause the condition. The bacteria for NF are split into 3 categories which include Polymicrobial, Monomicrobial and Gram (-) marine organisms. In this particular patient, he had Type III (Marine organisms) which normally have symptoms similar to toxic shock (fever, tachycardia & hypotension), but with early organ failure and cardiovascular collapse.

Treatment

As noted before, the patient was originally started on IV Clindamycin, Cefepime, Levofloxacin and Doxycycline for abx treatment. Due to his unstable condition and LRINEC score of 10, he was unable to undergo MR imaging and was admitted to the ICU. The patient was also aggressively volume resuscitated with lactated ringer solution given concern for the acute renal failure, shock liver, and metabolic acidosis. The patient underwent emergent right lower limb debridement and fasciectomy for suspected

Laboratory Parameter	LRINEC Points
C-reactive protein (mg/l)	
<150	0
≥150	4
Total white blood cell count (µl)	
<15	0
15-25	1
>25	2
Hemoglobin (g/dl)	
>13.6	0
11-13.5	1
<10.9	2
Sodium (mmol/l)	
≥135	0
<135	2
Creatinine (mg/dl)	
≥1.6	0
<1.6	2
Glucose (mg/dl)	
≥180	0
<180	1

necrotising fasciitis. Both blood cultures and cultures from the leg grew *Vibrio* species as suspected. Over the next few weeks, he underwent multiple further wound debridements (as seen in photo above). His ICU stay was complicated by acute respiratory distress syndrome, acute kidney injury and DIC. Current status is unknown.

Utility of the LRINEC score

The LRINEC (Laboratory Risk Indicator for Necrotizing Fasciitis) score is a clinical tool used to help identify patients who may have necrotizing fasciitis.

Take Home Points

- *Vibrio* species cause necrotizing fasciitis, the infection usually occurs when the bacteria enter the body through open wounds, cuts, or abrasions. Higher risk in patients who are immunocompromised, obese or with a hx of liver disease and uncontrolled DM.
- Symptoms include severe pain which may seem out of proportion to signs of infection, as well as blisters/bullae filled with fluid, rapidly spreading redness/swelling, skin discoloration and fever/chills.
- Diagnosis is made through clinical exam, blood tests and imaging. If a patient at high risk then immediately go to surgical debridement.
- Early diagnosis and aggressive treatment are crucial for better outcome, as necrotizing fasciitis can progress rapidly and lead to severe complications including sepsis and death.

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Yearning for Mother: Amidst Cancer and Pandemic

by Dr. Hossein Akbarialiabad, MD MSc HMBA

Senior fellow at St George and Sutherland Clinical School, UNSW Medicine, Sydney, Australia



In lands where faint hope whispers low,
A mother's fight, a daughter's woe.
The shadow of cancer, dark and vast,
In realms where choices fade fast..

Their journey, one of hope and fear,
In a world where help seems not to near.
Scarce treatments, hard to find,
In places where fates are unkind.

The daughter watches, eyes wide and clear,
Seeing life's harsh tides draw near.
Her mother's warmth, once strong and bright,
Now dims in the fading light.

But then, a twist, cruel and stark,
As COVID strikes, a fateful mark.
Despite their fight, their strength, their might,
The mother falls to the pandemic's plight.

In a silent room, where hopes were spun,
A young heart weeps for a battle not won.
Her mother's voice, once a guiding beam,
Now a memory, a distant dream.

Where vaccines flow, a tide of aid,
Her mother's life might have been saved.
But in their land, so far from reach,
Such cures are just whispered speech.

Silent cries from the depths of need,
On affluent shores, they hardly heed.
While some arms embrace the healing shot,
Others in distant lands have not.

In memory of a life so dear,
Let the call for vaccine equity appear.
A plea for justice, fervent and clear,
For global access, for all to hold near.

A girl alone, her loss so deep,
In a world where injustice does creep.
For every soul deserves a chance,
In health's embrace, not left to chance.



Paityyakari

by Megala Loganathan

University of Vermont Larner College of Medicine, Class of 2024

"Paityyakari!", a colloquial term in Tamil, the language spoken where I grew up in Chennai in Southern India, translates to 'crazy woman'. As I looked over at the cowering woman I was speaking with through the gates of my house, I noticed a rolled-up newspaper at her feet that was aggressively hurled at her by a passerby. She gave me a searching look, as if expecting fear and I nodded reassuringly. I had come to acquaint myself with her over years of exchanging smiles and petting goats, as she passed by my house every weekend with the local goatherd, presumably her son. She spoke quickly and continuously, often into the sky, her facial expressions shifting from tearful one moment to joyful the next. Although I did not know what to make of this at the time, I sensed how people treated her and the heaviness and the negativity of the word Paityyakari weighed on me.

A trans-continental move to the US when I was eighteen and the subsequent cultural acclimation process challenged me to reconcile multiple identities, shedding parts of myself that did not conform to my perceived schema of what a medical student should be. This internal journey made it all the more surprising to find myself emotional in a dimly lit hospital room while evaluating a patient alongside a colleague for a possible Transient Ischemic Attack.

After a thorough neurological evaluation, I carefully put her socks back on. I heard snuffles and looked up to see my patient with tears streaming down her face. "It's been so long since someone even touched me with any kindness," she confided. Pausing, I took a seat and asked, "What are you feeling right now?" My colleague quickly glanced at his watch as she responded, "You stand out here. Like me. Maybe you will listen". With unrestrained emotion, she opened up about her struggles moving to the US from China, describing the daily challenges of navigating an

unfamiliar world and the cultural constraints preventing her from sharing her difficulties with her husband.

Over eight thousand miles away from where I grew up, this patient was grappling with the same invisibility about mental health that I was so familiar with. It dawned on me that the stigma surrounding mental illness transcends cultural boundaries while being deeply ingrained within them. The resistance my tongue meets when forming English words that sometimes betrays the fact that this was once not their home, now served as a reminder of my unique journey to this space. I realized the very parts of me I used to diminish myself became anchors for how I related to people. Our narratives connected us and revealed our commonality.

I handed her a tissue and nodded silently as I allowed myself to be engulfed in her feelings. I blinked quickly to resorb some of the tears that were threatening to spill over as my patient's expression mirrored my own. In this silent exchange we affirmed each other in our own unique ways that our feelings were warranted and welcome. "I give myself an A+" she concluded laughingly.

"I give you an A+ too" I responded, promising to return with resources in her preferred language that might be helpful.

Leaving the room to present to our attending, my colleague and I were approached by another student.

"How was that?" he asked.

As I attempted to gather my thoughts and push through the lump in my throat, my colleague answered,

"Crazy woman".



"Unseen"

by Mohamad K. Hamze

University of Vermont Larner College of Medicine, Class of 2024

The hospital lights seem brighter today
as I stride in
The AC a bit cooler than usual
always running no matter the weather.

Every anesthetized patient drifts off to sleep
a little more easily
Every surgery complicated
but without complications.

Room 14's call bell is louder than before
"more water, please"
Room 23 is much more antsy than yesterday
but at least today he's going home.

Over my morning coffee I open a live stream with a single tap
volume off
Over 6000 miles away a cancer center, or was it a children's hospital?
now just rubble and ash.

It's loud in this hospital, but I'm struck by the silence
the distinct lack of explosions outside
It's hectic, but I'm struck by the calm
the relative absence of sniper fire.

Here, there are no patients without a bed
no babies without a parent
Here, the electricity is always enough
to keep the surgery theater's lights on.

To die here is a spectacle, a play bathed in spotlight
and our time to mourn is a luxury
To die there is to die unseen, in the shadow of a thousand fires
neither in mystery or in certainty.

A screenshot replaces the live stream in my feed
brightness all the way down
A screenshot of a WhatsApp message from a resident physician
meant for a friend but sent to the world:

"We're alive
but we're not okay."



Medicine in Art

Section Editor; **Gohar Shahsuvaryan, MD**

Family Doctor, Medical Geneticist, Yerevan, Armenia

A Pulse of Faith: Diagnosing St. Luke's Patient

by **Gohar Shahsuvaryan, MD**

In Rome's Palazzo Barberini gallery, an extraordinary painting is displayed—unique and valuable not only from an artistic perspective but also as a critical testimony to the history of medical science. Acquired by the Italian government from a private collection in 2011, this piece is one of the works of the renowned Italian Baroque artist Giovanni Lanfranco (1582–1647), completed in 1620.

In a collaborative study conducted from 2014–2015, Dr. Thomas Heine, a pediatrician at Massachusetts General Hospital at Harvard University, and art historians specializing in Lanfranco's work, particularly Professor Erich Schleier, concluded that the child depicted in this well-known painting suffers from a congenital heart defect. According to classical religious iconography, the elder holding the boy's hand is likely Saint Luke, while the young woman represents the child's mother. In the New Testament, Saint Luke is referred to as the "beloved doctor" (Colossians 4:14), making it fitting that Lanfranco's canvas includes a work by Hippocrates. This painting, where Saint Luke is depicted as both a healer and an artist, is unprecedented and unique, showing a remarkable and delicate connection between art and medicine.

The painting by Giovanni Lanfranco is titled Saint Luke Healing a Child with Dropsy (San Luca guarisce un bambino idropico). The word "hydrops," of Greek origin (hydro—water), translates in ancient terminology as "excess fluid" or "edema." Dr. Heine and his colleagues suggest that the child portrayed likely has a significant ventricular septal defect with Eisenmenger syndrome, complicated by congestive heart failure. This conclusion is based on the child's age (approximately three years)

and a careful analysis of physical signs characteristic of this pathology. From a diagnostic perspective, the child's appearance—the emotional focal point of the painting—warrants special attention. The pose, indicating physical weakness; the limp wrist, sallow skin tone, distended abdomen, dark circles under swollen eyes on a gray background, and cyanosis on the lips and fingertips—these symptoms speak volumes to knowledgeable physicians, particularly pediatric cardiologists.

An interesting and important aspect of this painting is Saint Luke holding the child's wrist. Could he be checking the pulse? Did Lanfranco understand the physiological connection between a weak pulse and heart failure? Art experts believe that in depicting the healer holding the patient's wrist, he was likely following a centuries-old artistic tradition. Measuring and describing the pulse, about which the Greek philosopher Galen wrote sixteen books, has been and continues to be a vital aspect of patient examination.

The 17th century in Italy was a "boiling cauldron" of medical discoveries. In 1513, Leonardo da Vinci illustrated an atrial septal defect in a heart cross-section; in 1559, Realdo Colombo described pulmonary respiration and introduced systole to the medical community; Fabricius in 1619 discovered venous valves; and Santorio of Padua created the first device for measuring body temperature in 1614, among others. This list of discoveries is extensive, and Giovanni Lanfranco, being an educated man living and creating in Parma, Rome, and Naples, could not remain indifferent to such progress.



Giovanni Lanfranco "St. Luke Heals a Dropsical Child", 1620, Palazzo Barberini, Rome



If you ever visit Rome, make sure to find time to visit the National Gallery of Ancient Art at Palazzo Barberini to witness firsthand this extraordinary work by Lanfranco—a masterpiece where, centuries ago, a great artist possibly depicted (for the first time) a child suffering from a disease that Eisenmenger, Roger, and Dalrymple only described in the 19th century.

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Third Annual Global Health Conference: A Milestone for Collaboration and Innovation

The Third Annual Global Health Conference, held in Danbury on September 23-24, 2024 marked a significant milestone for our community. Bringing together partners, friends, and colleagues from around the world and across the country, the event served as an inspiring platform to connect, exchange ideas, and foster collaboration.

The Conference began with pre-conference events, including a roundtable meeting with our international partners. This meeting offered an opportunity to discuss future developments, enhance collaboration among partner sites, foster LMIC-LMIC partnerships, and exchange ideas on advancing the development of the Global Health Academy.

The first day of the Conference was dynamic and eventful. It opened with a plenary session highlighting the structure and flagship projects of the Global Health Academy. This was followed by breakout sessions on topics such as Global Local Initiatives, Nursing in Global Health, and Entrepreneurship in Global Health. Participants engaged in focused discussions, sharing ideas and developing actionable plans to address critical challenges in these areas.

A major highlight of the day was the keynote lecture delivered by Prof. Nelson Sewankambo, titled *"Research and Publishing in Global Health: Establishing Equitable Partnerships."* The lecture was both thought-provoking and insightful, raising compelling questions that led to a robust discussion during the subsequent plenary panel. The day concluded with another series of breakout sessions, covering topics such as Health in Conflict, Teaching How to Teach, and a special session devoted to launching the collaborative project between the Patricia A. Tietjen, MD Teaching Academy and the Global Health Academy, focused on implementing the Intercultural Learning Curriculum.

Another highlight of the day was undoubtedly the Linde Poster Session, which offered every global health partner site an opportunity to present their institutions. Additionally, posters showcased the experiences of



students who participated in the Global Health Electives Program and the projects developed by participants in the Youth Academy for Latinx Leaders.

This session was a tremendous success, fostering networking and providing a platform to celebrate program highlights. In addition, the students of this year's YALL Academy Summer School were awarded for their project.



The Gala Dinner featured an awards ceremony recognizing outstanding contributors to the program:

- **Dr. Mitra Sadigh** received the John Murphy Leadership Award for her innovative and initiative-driven leadership, which has had a lasting impact on the program and beyond.
- **Javier Rincon** was honored with the Sister Jane Frances Award for his leadership in advancing the Youth Academy for Latinx Leaders Project.
- **Dr. Robyn Scatena** was awarded the Linde Excellence in Mentoring Award for her invaluable role in mentoring global health scholars and supporting their career goals through moral, social, and intellectual guidance.

This year also marked the establishment of the new Majid Sadigh, MD Scholarship, designed to support female faculty members dedicated to improving the physical and mental well-being of underserved and marginalized populations. The inaugural recipient, **Dr. Sabrina Bakeera-Kitaka**, was recognized for her Adolescent Health Outreach Project in Uganda.

The second day of the Conference featured two plenary sessions: one focused on the Framework for Bi-Directional Exchanges and another on Special Projects in Global Health. These sessions highlighted the experiences of our partners in exchange programs, introduced new global health sites in Thailand and the Philippines, and showcased flagship projects at our partner sites.

The Conference was a remarkable platform for connection and collaboration. Partners shared invaluable insights, boundless energy, and a commitment to building impactful partnerships. The overwhelmingly positive feedback from both international and domestic attendees underscored the Conference's success and our shared vision for the future.



John M. Murphy, MD Leadership Award
Recipient: Mitra Sadigh



Linde Excellence in Mentoring Award
Recipient: Robyn Scatena



Sister Jane Frances Award
Recipient: Javier Rincon



Majid Sadigh, MD Scholarship
Inaugural Recipient: Sabrina Kitaka

We extend our heartfelt gratitude to our panelists for their thoughtful contributions and to our audience for fostering such vibrant and impactful discussions!



View Poster Collection

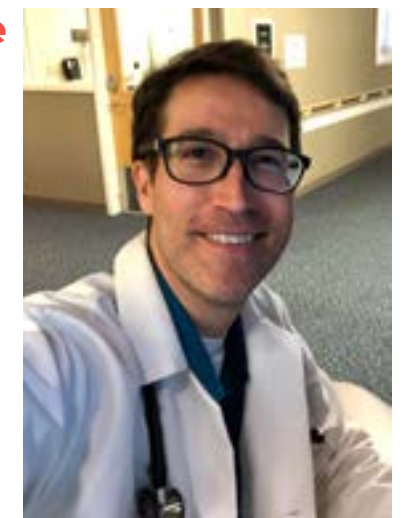
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Your Reflections and Insights from the Conference

Celebrating the Global Health Family

by **Stephen Scholand, MD**

Global Health Academy Faculty, GH Program Associate Director



It felt great this past week seeing our Global Health family in person at our annual meeting.

Thank goodness the pandemic is over!

Making those human connections is so vital and certainly very rejuvenating.

On the sidelines, I met Mr. Christian Trefz and his wonderful wife, Eva, whom I think of as the "godparents" of the Program – having provided so generously for our Global Health endeavors and activities through the years.

I met the "godchildren" of the Program – teenaged kids from Danbury, Connecticut – who amazed us with their hard work, enthusiasm, and talents. After hearing Isabella Valenzuela's amazing songs, I believe she will appear next on America's Got Talent!

In between, I was reminded over and over again of the incredible talents and capabilities of all our GH faculty and leaders from around the world. Each one of our leaders could "break off" and start a new program if needed, like the branches of a tree that propagates easily. Majid's vision of "an Army of Educators" now seems realized.

There were new members joining the family – Dr. German, who spent huge sums of his own money building and now operating a "floating clinic" to reach the underserved in inaccessibly remote areas of the Philippines; Doctors Sy and colleagues, who, against tremendous odds, have truly changed the lives of their communities for the better;

and our Indian partners, who seemed so innovative and able to do so much with the resources they have.

I met with Sister Jane Frances Nakafeero of Uganda on Sunday night and learned she needed about \$20,000 for her laboratory at Naggalama Hospital. By the next morning, a small miracle had occurred, and the funding was secured!

Now, I hope that Dr. Noeline Nakasujja, professor of Psychiatry at Makerere University in Uganda, can procure additional funds for her Psychiatry residents in need. She described a "buy-in" of approximately \$5,000 to support an individual in achieving their goal of becoming a psychiatrist in Uganda. That seemed like such a small amount for such a worthy cause.

To me, this is an essential part of meeting in person – that we see each other, relate to each other, and inspire each other.

Of course, the highlight was when our very own Dr. Majid Sadigh appeared. The atmosphere felt like a wedding – with photos, smiles, and hugs. Then, hearing Dr. Sadigh's impassioned speech about Dr. Sabrina Bakeera-Kitaka, the inaugural recipient of his scholarship award, was so inspiring. It certainly highlighted the incredible talents and accomplishments of our family members.

Now, I look forward, deeply inspired, to the continued growth and success of our Global Health family. Thank you, dear friends and colleagues!



Thank you Letter

by **Đỗ Trịnh Quỳnh Nhi, MD**

Global Health Scholar, Cho Ray Hospital, Vietnam

I think I was the youngest at the conference, and I feel extremely grateful for the opportunity to participate. We had a chance to exchange cultures, and I found myself motivated by every single session and presentation.

Before this experience, I never thought I could have the chance to visit the U.S. as a medical doctor. After the conference, my perspective changed. Now, I dream of stepping out of my comfort zone and becoming a good speaker, like Ms. Beth, to share my feelings, experiences, and knowledge with others.

In Vietnam, we have many talented doctors, but we rarely represent ourselves or participate in international conferences due to a lack of English skills and confidence. This realization has inspired me to try my best every day to improve myself, so I can help my country compete on a global level.

I truly appreciated everything you prepared for the conference; you took care of us so thoughtfully. Thank you for everything and for giving me this opportunity! It has become one of the best memories of my life.



by **Majd Soudan, MD, Associate Program Director**

Nuvance Health Network Psychiatry Residency Program

Reflecting on the recent Global Health Conference, I am struck by the depth of insight and collaboration each session offered. The gathering of professionals from diverse backgrounds created a truly enriching environment, allowing us to exchange valuable perspectives on pressing global health challenges. The discussions, ranging from local initiatives to intercultural projects, underscored the potential of unified efforts to address gaps in healthcare delivery and education.

As for the UNGA Science Summit Panel Discussion, "Bridging the Gap in Global Mental Health Education," it was a highlight for me. Participating in the rehearsal and panel at the UNGA allowed for a focused dialogue on mental health disparities and educational challenges worldwide. The session not only emphasized the importance of global collaboration but also inspired actionable steps for integrating mental health education across borders.

Thank you for your leadership in coordinating such impactful sessions.

by **Sarah Chiavacci**

M.D. Candidate, UVMLCOM, Class of 2027



I wanted to formally thank you all for your efforts in organizing the Global Health Conference in CT. As one of the Nuvance Health Global Health Summer Elective participants, I loved the opportunity to connect with the greater global health community and present my research from Uganda.

Specifically, I found the sessions on Entrepreneurship in Global Health and Conflict Medicine to be very informative and they helped widen my perspectives. As a developing physician with a future career in global health, I believe this conference was extremely beneficial.



Science Summit during the 79th United Nations General Assembly



Another significant event alongside the Global Health Conference was the Science Summit during the 79th United Nations General Assembly. This year, our program participated for the third time, hosting panel discussions as part of this prestigious event.

A record-breaking five of our proposals were accepted by the event's organizing committee. For the first time, two of our plenary discussions were held as in-person events in New York City.

Our plenary discussions began with virtual events on September 11, 2024. The first panel, titled "One Size Does Not Fit All: How HIC-Created Standards Limit Global Majority Wellness and Achievement of the Sustainable Development Goals (SDGs)," was moderated by Dr. Mitra Sadigh. Esteemed panelists included Drs. Caryn Mhangara, Sabrina Kitaka, Keneilwe Molebatsi, and Shushanik Isahakyan. This session explored how standards developed in High-Income Countries (HICs) often fail to address the needs of Low- and Middle-Income Countries (LMICs), limiting progress toward achieving the SDGs. The panel shared strategies for developing more inclusive and effective global health solutions.

The second panel, "Finding a Common Language: Intercultural Development in a Global Context," also held on September 11, was moderated by Dr. Robyn Scatena. Panelists Drs. Loraine Amell Bogaert, Vincent Setlhare, Susan Byekwaso, Chiratidzo Ndhlovu, and Zahiruddin Quazi Syed engaged in conversations about overcoming biases and building cultural competence to foster better cross-cultural collaboration in global health.



On September 12, we hosted the panel "Capacity Building in Global Health: Supporting LMIC Empowerment, Sustainability, and LMIC-LMIC Collaboration Towards Achieving the SDGs," moderated by Dr. Mitra Sadigh. Panelists Drs. Robert Kalyesubula, Tendai Machingaidze, Duong Duy Khoa, and Nikita Yakovlev examined strategies for strengthening local capacity in LMICs, reducing dependency on HICs, and advancing sustainable development.

Following the Global Health Conference, on September 26, we hosted two in-person panel discussions at the Science Summit during the 79th United Nations General Assembly in New York City.

The first panel, "Overcoming the Academic, Digital, and Research Divides: Bringing LMICs to the Decision-Making Table," moderated by Dr. Mitra Sadigh, featured panelists Drs. Nelson Sewankambo, Fiona Makoni, Marcos Nunez, Abhay Gaidhane, and Alexander Bazarchyan. This session explored the ongoing impact of colonialism in global health, where HICs dominate decision-making. The panel highlighted initiatives that empower LMICs through education, research, and collaboration, enabling them to shape global health agendas.



The second panel, "Bridging the Gap: Global Mental Health Education Across Borders," was moderated by Dr. Charles Herrick. Panelists Drs. Noeline Nakasujja, Majd Soudan, Sabih Rahman, Martina Kabenge, Oliva Okwir, and Daniel Ranga addressed global mental health disparities, focusing on issues of access, stigma, and cultural barriers in LMICs. The panel showcased innovative strategies and successful initiatives, including the Rudy Ruggles GMH Scholars Program.

These discussions were rich, engaging, and fostered meaningful dialogue with the audience. They highlighted challenging areas, uncovered difficult questions, and explored potential solutions.

We extend our gratitude to the organizers for the opportunity to participate and to our partners for enriching these discussions with their diverse views and perspectives.



SPOTLIGHT



Hispanic/Latinx Voices; Stories from our Community

Section Editor; Elvis Novas

Advisor for the Dominican Community Center and member of the Board of Directors of Housatonic Habitat for Humanity, Danbury, CT

Jacqueline Cabrera is a Dominican-American poet, advocate, and public servant dedicated to community service, housing justice, disability rights, and youth mental health. Born in the Dominican Republic in 1991, she immigrated to the U.S. as a teenager and graduated from Hostos Community College in 2016 with honors. Cabrera earned a Bachelor's degree in Sociology from Baruch College, studying social justice and race relations.

In 2022, she published her first poetry book, *Amor Fati*, and began her career as a mixed media artist. She also worked as a Bilingual Parent Consultant for the Connecticut Parent Advocacy Center, helping families navigate educational systems, especially those with disabilities. In 2023, she was elected to the Danbury Zoning Commission, focusing on housing affordability, and she served as Vice President of Finance for the Danbury Young Democrats. Currently, she works as a Community Organizer for the Connecticut Working Families Party.

Cabrera co-founded *Fill My Cup*, a support group for mothers, and serves as Vice President of the Dominican Community Center's Executive Board. Her work has earned her the Greater Danbury Chamber of Commerce's 40 Under 40 Award in 2024, recognizing her contributions to the community.



by Jacqueline Cabrera

YALL Coordinator & Vice-President, Dominican Community Center

My hope for the future is rooted in community, by uniting all voices in the same room and leveraging the commonalities between one another to find proactive solutions. At the Dominican Community Center, we are doing just that. Building healthier communities has been our focus since the beginning.

In the fall of 2022, I met Elvis Novas at a personal development training, during the first month of my work as a family liaison at Westside Middle School Academy. Elvis spoke about the Dominican Community Center and expressed his passion for the future of the organization. I soon knew that I wanted to be part of the organization because the values that the organization holds are my values as well. In the next few months, I joined the DCC,

and as I got to know the organization, my love for the DCC only grew. I found the organization at a point in my life when I was looking for a home away from home to dedicate my free time to. For those of you like me, who have had to start over in a new city, you understand the feeling of loneliness and isolation I felt not having friends or family members in Danbury. I wanted to use my free time wisely and connect with like-minded individuals who care about improving their communities. Getting to know each member of the center and understanding why they are so passionate about their work at the DCC reassured me that, once again, I was on the right path. I had found my people, the people I wanted to grow with, and who challenged me to be a better person. I have found lifelong friends at the center. The dedication that each member has to the center is admirable.

Two years later, on the morning of September 23rd, I am headed to the Third Annual Global Health Conference at Nuvance Health with my mother, Jacqueline Saldana, in the car's passenger seat. We dropped off my sons at their schools and then drove to Danbury Hospital, not realizing that the conference was to be held at Ethan Allen. We arrived at the hospital, parked on the 3rd floor, and proceeded to head to the first floor, where we spoke to the employee at the front desk, and they confirmed that the conference was, in fact, not being held in the hospital. Thankfully, I always head out early enough to have 10–15 minutes to spare. As our presentation approached, my heart started to pump faster and faster. I get nervous about public speaking, but I needed to get up there and speak about the outstanding YALL Academy. As I started to present, my nerves calmed down, and I was able to present along with my colleagues Jason Nova and Javier Rincon.

The Youth Academy for Latinx Leaders was one of the last few presentations, so we had time to watch and learn from the other presentations. It was great seeing so many initiatives, such as ours, happening worldwide. I felt very proud and thankful to be part of our local initiative, helping local youths understand Health & Wellness, Education, Finance, and Civic Education.

Our work locally is helping to fill a void in the Danbury Public Schools. Our students have progressed tremendously, capturing the workshops/lessons and using them in their day-to-day lives. All 6 of our second-year students did a splendid job with their research projects and poster presentations. I

saw many conference attendees approach their projects, which was a very positive sign. It was a testament to their dedication and the support they received in the past year. They each worked on an original research project under the guidance of a UVM medical student. I thank the University of Vermont medical students for volunteering their time to tutor our students. This is also their win!!!

Projects by YALL students:

- Blaymin Fabian: Impacts of lifestyle choices on stress levels among adolescents
- Barbara L. Merchan & Shaila Rodriguez: Cultural perspectives on Alzheimer's: A comparative analysis of Latino and Non-Latino family caregivers
- Daniela Valenzuela: The effect of cellphone use on sleep in high school students
- Isabella Valenzuela: Exploring the influence of age on cognitive ability: A comparative analysis
- Hermin Almonte: Understanding trauma and coping mechanisms among high school students: A survey-based study

I look forward to continuing my work with the Youth Academy for Latino Leaders.

See you all next year.





Global Health Reflections

Written by Curtis Plante, UVMLCOM, Class of 2027

Broadening Scopes of Practice: Insights from Tropical Diseases at Cho Ray Hospital

Starting Global Health last January, I was told that rotating at Bệnh viện Chợ Rẫy would be an opportunity to engage with medicine on the systems level. It was a chance to witness a drastically different healthcare system at a time when ours fails so many. As I entered the Department of Tropical Diseases, I knew I would see many infections endemic to Vietnam, though I was unsure how they would impact my future care of patients. I never imagined the experience would illustrate a culture of family-centered care in medicine or how a specialized department could be tailored to meet the broad needs of the community it serves.

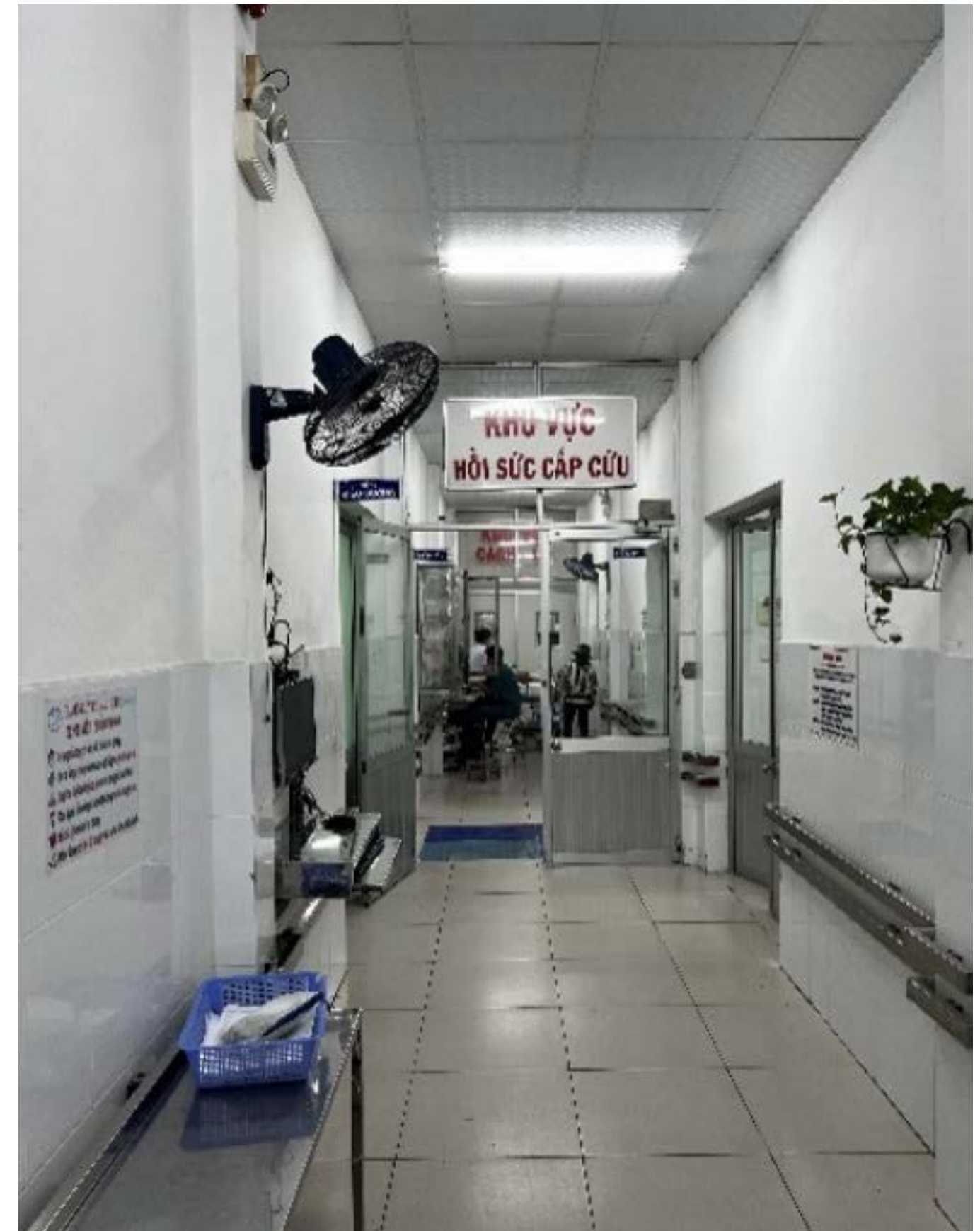
Walking up the stairs to Tropical Diseases, I was first struck by the large, locked, prison-like gate unique to this department alone. Each room held eight patients, with overflow in the hallways. They were further crowded with a family member beside each patient, responsible for all non-medical care. Family members slept under the beds of their loved ones to support them at all times. With non-medical care covered, nurses were able to focus solely on their medical duties. Those without family were assigned a caretaker paid by the government, illustrating this role's importance in the medical team. Nonetheless, the culture centered around family seeped into the wards and became an integral part of the healthcare system.

Rounds began, and I was quickly overwhelmed by the variety in the single room I was covering. This department encompassed much more than just infections, including animal bites/stings, intoxications, adverse drug reactions, autoimmune diseases, paraneoplastic complications, toxic ingestions, and more. Suicide in

Vietnam is most often attempted through ingestion of insecticides. Therefore, Tropical Diseases treated suicides as well, and the locked door's purpose became clear. Some rooms better resembled a neurologic or psychiatric ward, holding almost exclusively patients with altered mental status. Throughout my time in Tropical Diseases, I watched more sternal rubs than any other physical exam.

The physicians managed this wide range of conditions, showing their flexibility and deep care for their patients. In a country with intense stigma against suicide, they cared for those disregarded by others. For patients with no family, stuck in a culture deeply dependent on family support, they acted as social workers to work with the government and get them help. They broadened their scope of practice to care for their patients through any means, even while overcapacity in sweaty, overcrowded rooms.

As medicine in the United States becomes increasingly compartmentalized, it is easy to limit your scope of practice and push to pass patients onto the next service. It is easy to draw a sharp line in the sand because a patient's needs may not fall within your specific job. As I progress through my career, those in the Tropical Diseases Department at Bệnh viện Chợ Rẫy will be a constant reminder for me to think twice before drawing that line—a reminder to continually look to broaden my scope of practice without overstepping my role and to support my patients in every possible way.



Written by Michelle Pollak, AUC, Class of 2024

Thailand, Walailak University School of Medicine

This week in my global health elective in Thailand brought up some unexpected feelings. I had assumed that, being half-Asian, I might blend in more easily here. However, I've quickly realized that the locals immediately recognize me as a foreigner. Constantly being noticed—stared at with a mix of curiosity and sometimes hesitation by patients and staff—has given me some new insight into barriers that go beyond just language.

In pediatrics, I've become accustomed to easily connecting with children, often in unspoken ways, but I've noticed that connecting with the children here has not come as naturally, and the responses here have varied greatly. Many children look at me with curiosity; they look up at me and act a bit shy but then end up smiling back. But many children have been hesitant when they see me. The doctor's office can already be a scary and intimidating place for young children, so adding another unfamiliar aspect, like a foreigner, can heighten those emotions. One child's reaction really stuck out to me. I've never had a child genuinely seem scared of me, hiding in his mother's arm and not wanting to look at me, which left me questioning how I was being perceived. I felt frustrated at not being able to reassure him in the ways I know I would back home, where it would be second nature for me to comfort and put the child at ease.

I felt a sense of helplessness. I realized how heavily I rely on communication, and having that barrier is incredibly frustrating to deal with. When a mother in the clinic began to cry, I really felt helpless in the situation. Instinctively, I wanted to offer comfort, but I found myself hesitating and unsure of the cultural norms. Would it be appropriate for me to reach out and touch her arm or hand? I wanted to comfort her, but I was worried my gesture could be misinterpreted, especially coming from a foreigner.

The language barrier has made me aware of how vital communication is in building trust and connection, something I've often taken for granted. Being unable to communicate with my patients as I would normally feels like a limitation on the care I can provide. At times, I wish I could simply blend in. I'm reminded of how vital language, cultural understanding, and connection are in providing care.

This experience has been humbling, teaching me to rely more on observation and empathy, even when words fail. It's shown me that being a foreigner in medicine requires cultural sensitivity. And though I wish I could communicate and offer comfort as I do back home, I am learning the importance of patience and adaptability in working with patients across cultures.



News

International Overdose Awareness Day



On August 31st, the Youth Academy students and mentors represented the Global Health Academy and UVM at the annual International Overdose Awareness Day ceremony. They recognized individuals and organizations contributing to the fight against the opioid pandemic, distributed educational materials, and taught community members how to use Narcan.

The ceremony took place at Kennedy Park in Danbury at 6 PM. A heartfelt thank you to everyone who joined and supported this important day.



Javier Rincon (R), M4 UVM LCOM, and Elvis Novas (L), DCC of Danbury, speak to community members during the 3rd annual International Overdose Awareness Day Ceremony in Danbury, CT.



Javier Rincon (Pink Shirt), M4 UVM LCOM, and members of the Dominican Community center, MCCA and Danbury PD organize a ceremony for International Overdose Awareness Day in Danbury, CT. Connecticut is home to some of the countries largest pharmaceutical companies and is plagued by opioid overdoses.

Global Health Bridge for UVMLCOM students



On October 14-15, 2025, third-year medical students from UVM's Larner College of Medicine participated in the two-day Global Health Bridge event at the Danbury campus in Connecticut. This program introduced students to foundational global health concepts and explored a wide array of critical topics, including local initiatives like the Youth Academy for Latinx Leaders Project, adolescent health services in Uganda, decolonizing global health, and case studies on health professions education from Vietnam and Zimbabwe. Sessions also covered global mental health, health in conflict, intercultural development, and elective opportunities for medical students at Nuvance Health. Global Health Academy Faculty members, some connecting remotely, brought invaluable insights to these sessions. Student feedback highlighted the program's organization, content, and the contributions of our dedicated faculty and guest lecturers, reinforcing the impact of the Global Health Bridge experience.

Adolescent Health Outreach Project, Uganda

We are thrilled to share updates from Uganda about the Adolescent Health Outreach Project, led by Dr. Sabrina Bakeera-Kitaka, the inaugural recipient of the Majid Sadigh MD Scholarship.

On November 22, the project included a visit to Katanga Valley, where 50 participants were trained on essential topics such as road safety, sexual and reproductive health, and mental health. Additionally, postgraduate students successfully completed a six-week course in Adolescent Health and Medicine as part of this initiative. We extend our heartfelt congratulations to our colleagues and friends on this remarkable achievement. A special thanks to Dr. Sabrina Bakeera-Kitaka for her energetic leadership and outstanding work in driving this impactful project forward.

We wish continued success for this inspiring initiative and eagerly look forward to hearing more updates!



Global Health Presentation at General Medical Staff Meeting



Dr. Julia Auerbach, Dr. Sharon Adams, Dr. Bulat Ziganshin, Dr. Aparna Oltikar, and Dr. Mae K. Tighe at the General Medical Staff Meeting in Danbury hospital

On November 13th, Dr. Bulat Ziganshin presented an overview of the Global Health Program and the Majid Sadigh, MD Global Health Academy during the General Medical Staff Meeting at Danbury Hospital.

Dr. Ziganshin highlighted the program's initiatives, the scope of activities, and ways in which Nuvance Health staff can get involved. He discussed global health elective opportunities for residents, faculty visits, and the Global Health Scholars Program, emphasizing the vital contributions of Nuvance Health staff in the success and realization of these initiatives.

Global Health Partnership Spotlights

Faculty Visit to Thailand



From October 27 to November 9, 2024, Dr. Julia Auerbach, a Family Medicine Physician at Nuvance Health, visited the Walailak University School of Medicine in Nakhon Si Thammarat, Thailand. The visit aimed to supervise medical students during the initial weeks of their global health electives and to further strengthen the partnership between our institutions.

We sincerely thank our partners at Walailak University School of Medicine for their warm hospitality, outstanding support, and for organizing a highly productive agenda for this visit.

Nursing Division Collaboration with ACCESS, Uganda



From September 28 to October 5, 2024, Nuvance Health Nursing Division staff members Keith Prazeres, Kathleen Nix, and John Leopold visited Nakaseke Hospital and the ACCESS site in Uganda.

The purpose of the visit was to establish collaboration with the nursing team at Nakaseke Hospital and work together to create and teach several educational sessions for the nursing students at the ACCESS/Nakaseke nursing school, based on the collaboratively designed curriculum.

We would like to extend our heartfelt thanks to Johnbosco Ntambara and the entire ACCESS/Nakaseke Nursing Team for their invaluable collaboration and support.

"I do want to express how profoundly personal and life-changing this experience was for me. It was an incredible honor to visit and connect with ACCESS students and staff. I'm grateful to have gone with such an exceptional team, and to have made some lifelong friends with the Nakaseke ACCESS community."

Kathleen Nix, Pediatric RN, Nuvance Health



Global Health Scholars at Nuvance Health

Congratulations to Dr. Trinh Quynh Nhi Do, a physician from the Department of Pulmonology at Cho Ray Hospital, for successfully completing her global health clinical observership in the Intensive Care Unit at Norwalk Hospital on November 9th, under the supervision of Dr. Robyn Scatena.



Congratulations to Dr. Tuan Anh Vuong, a cardiac ICU physician from Cho Ray Hospital, who completed his clinical observership in Cardiology from October 8th to December 4th, 2024, under the supervision of Dr. Robert Jarrett at Danbury Hospital.



WELCOME

Warm welcome to Dr. Tuan Duc Anh Bui, an ICU physician from Cho Ray Hospital, who arrived on November 10th and started his clinical observership in the Intensive Care Unit at Norwalk Hospital under the supervision of Dr. Robyn Scatena.

Global Health Electives Updates

GHEs Participants in 2024



Applications received for GHEs in 2025



UVMLCOM

Out of 20 **M4 student applicants**, eight students have been confirmed and are preparing for their Global Health Electives (GHEs) in Uganda and Vietnam during the winter-spring months.

Nine M1 student applications have been received for the 2025 Summer Global Health Electives, with interviews scheduled for the first week of December 2024.

One Pediatrics resident successfully completed their elective in the Dominican Republic on November 14, 2024.

AUC/RUSM

Fifty-five fourth-year students applied for 2025 GHEs, with 47 accepted so far. Applications for the waitlist are still ongoing.

Two students are currently completing their GHEs at Walailak University School of Medicine in Thailand from October 28 to December 6, 2024.

Residents

For 2025, **five Nuvance Health residents and two UVMLCOM residents** from Psychiatry, Internal Medicine, and Anesthesiology are scheduled for Global Health Electives.

Resources

[Yale Medicine 2008](#)

[Photos and Reflections 2021](#)

Global Health & the Arts

Nuvance Health and UVMLCOM Global Health Website

COVID-19 Resource Center

[Nuvance Health and UVMLCOM Annual Report 2020](#)

AUC/RUSM Annual Report 2018

Cases and Reflections from Mulago

Climb for a Cause 2018

Climb for a Cause 2019

Ebola: Sequences on Light and Dark

Ebola: Two Doctors Respond to the 2014 Ebola Epidemic in Liberia: A Personal Account

Global Health Annual Reports

Global Health Conference 2019 Photos

Global Health Conference 2019 Videos

Global Health Conference 2019 Book

Global Health Diaries and Newsletters 2015-2016

Global Health Diaries and Newsletters 2016-2017

Global Health Diaries and Newsletters 2017-2018

Global Health Diaries and eMagazines 2018-2019

Global Health eMagazines 2020-2021

Global Health Diaries 2020-2021

Global Health Reflections and Photos 2017 and 2018

Global Health Reflections and Photos 2019

Ethical Dilemmas book

Global Health Program Website

Global Health at WCHN Facebook

Ho Chi Minh City and Cho Ray Hospital

The Homestay Model of Global Health Program video

Kasensero Uganda

Nuvance/MakCHS Global Health Information Center Booklet

Paraiso and the PAP Hospital

Photographs from Uganda, by photojournalist Tyler Sizemore

Presentations By Global Health Scholars

[Previous issues of the Global Health eMagazine](#)

[Program Partners](#)

Publications

Site Specific Information

[Tropical Medicine Spanish 101](#)

Tropical Medicine Courses

The World of Global Health book

The World of Global Health Video

Words of Encouragement

UVM Larner College of Medicine Blog

Participant Guide in Global Health, Thailand

Cho Ray International Student Handbook

DRC Facing a New Normal

Photos and Reflections 2019

Coronavirus 2019 Important clinical considerations for Patients & Health care Providers

Interviews

A Connecticut Doctor in Africa, by journalist Mackenzie Riggs

Majid Sadigh, MD Interview Regarding Ebola in Liberia (Video)

My Heart Burns: Three Words Form a Memoir (Video)

Two UVM Docs Combat Ebola in Liberia (Article)



THANK YOU