A Letter from the Editors

BY THE DOSE EDITORS

Student activism, driven by passionate young people, can change the world. In particular, creative journalism is pivotal in shaping public discourse and highlighting neglected narratives.

Student journalists at The Dose work to captivate audiences and convey complex issues effectively. By spotlighting stories of individuals affected by injustices or health crises, our newsletter aims to invoke a greater sense of shared empathy and motivate action at all levels of society.

Access to life-saving medicines is a basic human right, yet healthcare disparities persist globally. We hope our collection of stories and opinion pieces will help urge leaders and policymakers to prioritize affordable healthcare and medicines for all.

We are excited once again to invite you to read on and advocate at local, state, federal and global levels for ethical and compassionate policies surrounding the practice of health and medicine.
UAEM North America students and recent graduates call for student voices to be heard, humanitarian aid to be allowed, and an end to the violence in the Gaza Strip

BY THE UAEM NORTH AMERICAN COORDINATING COMMITTEE (NACC)

As students and recent graduates of universities all over North America, we feel compelled to respond to the violence taking place in Gaza on October 7, 2023 and since. We are alarmed about the silencing of student and faculty voices who aim to speak up against oppression, and violence in the Gaza Strip. As an organization, we believe that students are active change-makers for health equity and justice and are socially conscious citizens.

We believe that universities should be places where students are empowered to use their voices to advocate for social justice. We are therefore disappointed to see our universities suppressing the speech of nonviolent student activists. It is also troubling to see universities fail to protect their students from third parties, such as members of Congress, who seek to silence free speech on college campuses. UAEM North America also unequivocally condemns actions of intimidation, bullying, threats or violence because of anyone's ethnicity or faith, as well as any statements of antisemitism, anti-Arab racism, and Islamophobia.

As future and current health care, public health, and legal leaders, we are shocked and appalled at the failure of world powers to act in the interests of access to health care and humanitarian aid in the Gaza Strip. To be frank, we expect better of our governments and elected leaders.

The WHO has reported at least 137 attacks on health care institutions and providers in Gaza, resulting in 521 deaths and 686 injuries, including 16 deaths and 38 injuries of health workers on duty. Journalists and aid organizations have reported severe shortages of painkillers and anesthesia, while aid trucks bearing medicines have faced difficulties entering the strip. We stand in firm solidarity with the patients, health care workers, and families of those who have endured the blockade on the Gaza Strip and attacks on civilians in the region.

Due to overcrowding in and damage to hospitals, as well as damage to water and sewage systems in bombings, the war also threatens to worsen Gaza's already-alarming rates of antimicrobial resistance. This threat is all the more powerful because our profit-driven R&D system does not incentivize the development of new antibiotics.

Guided by our shared humanity, we support an immediate and permanent end to the ongoing violence in the Gaza Strip, emphasizing the critical need for the unimpeded flow of humanitarian aid and equitable access to healthcare for all in the region.
UAEM Johns Hopkins University hosted a protest in 2023 at the Food and Drug Administration, pushing for more transparency in clinical trials.

March 29-31
Johns Hopkins University

The UAEM North America Conference is back! After a 4-year digital-only UAEM Conference experience, we will gather student leaders, researchers, access to medicines advocates, and health care champions from all over the world at Science for Humanity: Innovation, Access, Affordability at Johns Hopkins University from March 29-31.

- Learn new skills
- Fight for justice
- Build Connections

RSVP: UAEM student Members for $15
General Attendees: $100
Sponsors start at $250
Submit an abstract for a Poster Session!

Find out More at https://uaem.org/conference
The Conundrum at Kaiser

BY ELLA ESLAMIAN

In the vast landscape of American healthcare, Kaiser Permanente stands as a titan, employing a staggering 24,000 doctors, 68,000 nurses, and 213,000 technicians, clerical workers, and administrative staff. Serving approximately 13 million people across eight states and the District of Columbia, Kaiser's influence on the nation's healthcare cannot be ignored. Yet, the past 12 months have seen this healthcare giant facing unprecedented challenges as its workforce, represented by a coalition of eight unions, took a stand against issues that had been festering beneath the surface.

In the last year, the healthcare system in America has experienced a series of significant events, two of which were the strikes by Kaiser Permanente unions. The strikes, fueled by the frustration of healthcare workers grappling with low pay, burnout, and understaffing, not only disrupted patient care, but also prompted the health giant to make a ‘historic’ deal, signaling a major turning point for healthcare workers nationwide.

The heart of the issue lies in the critical role that care providers play within the healthcare system. Healthcare workers are the tireless individuals who ensure the well-being of communities. However, the strain of low pay has long undermined the morale of many dedicated professionals. Kaiser, being one of the largest medical employers in the United States, found itself at the epicenter of a growing movement as their healthcare workers wanted to achieve fair wages and greater recognition for the value they bring to society.

Over 75,000 nurses, technicians, and administrative staff joined forces to demand change, with the rallying cry echoing from coast to coast. Burnout, a pervasive issue in the healthcare sector, had reached epidemic proportions. Long hours, emotionally demanding work, and constant exposure to human suffering had taken a toll on the mental and physical well-being of the workforce. It was a cry for acknowledgment—a plea for a workplace that not only provided fair compensation, but also prioritized the mental health of those on the front lines.

Chronic understaffing, another pillar of discontent, further fueled the flames of frustration. As the demand for healthcare services surged, the strain on existing employees became untenable. With low staffing, patients experienced delays, reduced quality of care and service, and exposure to greater risks. Thus, the strikes at Kaiser Permanente were also a desperate call for adequate staffing levels—a fundamental necessity to ensure both the well-being of healthcare workers and the quality of patient care.
The Conundrum at Kaiser (cont.)

BY ELLA ESLAMIAN

The aftermath of these strikes has led to a revolutionary deal that can be expected to reshape the landscape of healthcare labor agreements. The new contract, negotiated between the coalition of eight unions and Kaiser Permanente, addresses some of the key concerns that fueled the discontent.

Steve Shields, the lead for labor relations at Kaiser, noted that while negotiations were lengthy, all parties involved left the conversation feeling that a solid agreement had been reached. This sentiment echoes the notion that meaningful change often requires a comprehensive and persistent dialogue between employers and employees, and emphasizes the importance of organized labor to ensure that dialogue.

The deal establishes a minimum wage for healthcare workers at Kaiser Permanente, a critical step in ensuring that even the lowest-paid employees are compensated fairly. In California, this minimum wage will be $25 per hour, setting a standard that transcends the state’s borders with $23 per hour for workers in other states. Another notable component of the deal is Kaiser’s pledge to address its current staffing shortages. With 11% of positions currently unfilled, the health giant recognizes the urgency of this issue. By committing to filling vacant positions, Kaiser not only meets the demands of the coalition but also takes a proactive step towards ensuring that its workforce is equipped to provide the highest quality of care.

The Kaiser Permanente strikes and the subsequent landmark deal serve as a case study of the power of collective action. Healthcare workers, undeterred by the challenges they faced, stood united to demand change. These events not only improved financial security for healthcare workers, but also marked a transformative shift in the approach to healthcare labor relations.

As Kaiser Permanente works to navigate this situation, other healthcare providers across the nation should take note. The challenges faced by healthcare workers are not unique to a single institution; they are systemic issues that require systemic solutions. The deal between Kaiser Permanente and its unions sets a new precedent, urging the broader healthcare industry to listen to the concerns of its workforce, address long-standing issues, and build a future where healthcare professionals feel confident that they are valued, supported, and empowered to deliver the highest standard of care. In this pivotal moment, the healing of the healthcare system begins with a commitment to the well-being of those who dedicate their lives to healing others.
EpiPen Epidemic: The Cost of Greed

BY SARA FARAJ

What is the cost of a life? Most people would struggle to tell you, but pharmaceutical corporations don’t seem to share this struggle. Ask them, and the answer would be the price of their life-saving drugs. Ask Mylan, and they’ll tell you: it’s the exorbitant price of their EpiPen, which is just shy of $700. This price is high for anyone, but could be insurmountable for low-income people and families.

More than 6% of American children and adults, totaling over 20.3 million people, have food allergies. Peanuts, tree nuts, wheat, milk, eggs, soy, and fish—common pantry items for many of us—can pose a serious threat to the lives of millions of people. Allergic reactions to foods range from easy to manage hives or itchiness up to as severe as anaphylactic shock. Anaphylaxis has the potential to be life-threatening as it can cause throat and tongue swelling, difficulty breathing, wheezing, rashes, vomiting, and abdominal pain. According to Johns Hopkins Medicine, these effects can narrow airways, cause a dangerous drop in blood pressure, and lead to death if not properly treated.

Everyone, regardless of their medical needs or income, should have access to life-saving drugs. In the 21st Century, a time when newer and cheaper drugs are produced every single day, no single company should be allowed to control the market in perpetuity. Yet, despite their success since the 1980s, Mylan has extorted consumers, manipulated competition, and impeded patients’ access to life-saving care for anaphylaxis.

The impact of this issue is not limited to the individuals who suffer from severe allergies; this condition impacts entire families. As someone who has grown up with a brother with severe food allergies, it is an experience I am all too familiar with. I have seen the hesitancy surrounding the purchase and use of EpiPen due to its cost, challenges in paying for this expensive drug, and the abundance of other additional non-medical expenses that are necessary for maintaining a safe environment in our allergy household.

Still, food allergies are poorly understood, and there are many do not realize how life-threatening they can be for some people. In severe cases of allergies, affected persons must go to great personal and financial lengths to protect themselves. The reality can consist of reading label after label on all products and meticulously triple-checking ingredient lists to confirm that the item is safe for their consumption and would likely not result in anaphylactic shock—and these tasks alone can be a daily burden and source of great stress.
EpiPen Epidemic: The Cost of Greed (cont.)

BY SARA FARAJ

In an allergy household, everything must be done with precision and care. Foods are kept separate and any potential cross-contamination must be carefully avoided. My brother’s three allergies—wheat, eggs, and nuts—can sometimes be difficult to manage, though not impossible. Over the years, all members of our family have become accustomed to the procedures we practice in the home to protect his well-being. Although our system at home has some normalcy, activities like eating out at restaurants, ordering fast food, attending gatherings that serve food, and trying new cuisine will always be anxiety-inducing. Unfortunately, my brother’s story is not unique. Millions of Americans go to the same lengths each day to protect themselves and their loved ones from allergens. Yet, the government has not done nearly enough to make life easier for those with food allergies.

Living with food allergies is not only physically consuming, but also incredibly expensive. In 2013, the most recent year for such data, JAMA estimates that the overall economic cost of food allergies was around $4,184 per year per child. When you factor in rising inflation and increased costs from recent supply-chain issues this number has skyrocketed costs for all families in the U.S., let alone allergy families. Alternative foods, free of allergens like wheat, eggs, nuts, and milk, have reached exorbitant prices. It is estimated that gluten-free bread costs about $7 per loaf, much more than the $2-4 loaf many Americans are used to. Costs are already disproportionate for those with food allergies when it comes to grocery shopping and doctor’s visits. The cost of life-saving medicines deepens that burden, and our government has done nothing to alleviate these challenges.

In particular, America’s lack of attention to reducing EpiPen prices is astonishing. Epinephrine, the main ingredient in EpiPens, is used to treat anaphylaxis by reducing throat inflammation to open airways, maintaining heart function, reducing hives and itching, and, importantly, preventing more histamine from being released into the body. EpiPens, epinephrine auto-injectors produced by the pharmaceutical company Mylan, were originally sold in 2007 for a mere $60. According to JAMA, from 2007 to 2014, the average out-of-pocket spending on EpiPens doubled. Nowadays, those with food allergies can pay anywhere between $125 to $400 out-of-pocket, though if they lack insurance, costs can be upwards of $600, as reported by Pew. This number is astonishing, especially considering that epinephrine is not costly to produce. It is clear, as it has been for decades, that Mylan is exploiting consumers for life-saving medication.
EpiPen Epidemic: The Cost of Greed (cont.)

BY SARA FARAJ

Is a price cap the best solution? Over the years, there have been a few alternatives to EpiPen produced, such as Auvi-Q, but these products have been met with recalls and don’t necessarily cost less for consumers. Additionally, the first generic version of the EpiPen was only approved in 2018 and still costs a whopping $300 as reported by the FDA. Despite some of the strides made to improve market competition, the Mylan EpiPen still reigns as the more widely used treatment option. EpiPen is also commonly used for training nurses and other caregivers, making the administration of this specific drug brand a more preferred option even in professional spaces. It is abundantly clear that the only solution is to cap epinephrine prices, while working to specifically target the EpiPen along with any other generic option. Consumers deserve to have a choice when it comes to medication selection without having to concede hundreds of dollars a year.

The benefits of lowering epinephrine prices cannot be understated. Not only would it mean that those with food allergies could begin to afford life-saving medications, but it will also help make these medications far more accessible to the general public. Schools, businesses, and workplaces will be much more likely to carry epinephrine, ensuring that anyone suffering from anaphylaxis can receive life-saving treatment as soon as possible. Every minute of wait between EMS arrival and epinephrine administration decreases survival by 4%. After just 10 minutes, survival decreases by an additional 18% according to PubMed. We know that greed kills. Each day that epinephrine prices stay high, more and more people are at risk of death from untreated anaphylactic shock. Making the EpiPen accessible for all people regardless of their income is crucial to saving thousands of lives.

We must call on lawmakers to strive for a safer future for those with allergies. The greed of pharmaceutical companies cannot be allowed to dictate the cost of human life. It is time to end pharmaceutical exploitation. We need a price cap now.
A Spoonful of Sugar: UAEM Johns Hopkins

BY THE DOSE EDITORS

Grassroots fundraising stands as a vital pillar for student activists and organizations that have aspirations to increase community investment in the causes and projects that are important to them. By directly engaging family, friends, and neighbors, groups like UAEM can not only achieve financial support, but also build a network of committed allies. Additionally, this approach fosters autonomy, ensuring their vision remains undiluted by external influences often associated with traditional funding sources.

By raising awareness on issues that are meaningful to a group and mobilizing people around important causes, grassroots fundraising nurtures a sense of community and empowerment among supporters, encouraging not only monetary contributions but also the sharing of time, skills, and resources. For student activists, this method is about more than just securing funds; it’s a platform for education, skill-building, and fostering a deeper connection with the values they champion.

Ultimately, grassroots fundraising offers more than monetary support; it cultivates a resilient, engaged, and responsive community of advocates committed to meaningful and lasting change. Most importantly, this approach helps to nurture a generation of socially responsible leaders dedicated to making a positive impact in the world. The Dose Team is excited to shine a spotlight on one particular group of student leaders that demonstrated outstanding teamwork in their fundraising campaign over Giving Tuesday: UAEM Johns Hopkins. Representing this chapter are Hanna Wu, Ashish Nalla, Milun Jain, and CJ Cole.

These leaders from the UAEM JHU Chapter shared: “we are proud to contribute our student voices in the pursuit of change in global health and access to medicines starting at the university level. We feel incredibly thankful for the support of our diverse and dedicated network that we can truly work towards our mission and contribute to a world where equitable access to essential medicines is a reality for all. This support has nurtured and inspired our collective passions and guided us towards promoting transparency in clinical trials and advocating for equitable licensing of medical technologies.”
A Spoonful of Sugar: UAEM Johns Hopkins (cont.)

BY THE DOSE EDITORS

Hanna Wu, Co-President
- **Field of Study:** BA in Anthropology and BA in Medicine, Science & Humanities
- **Future Career Interests:** Medicine
- **Hobbies:** reading, singing, playing the violin, traveling
- **Favorite thing about UAEM:** the mission and working alongside like-minded, passionate peers
- **Fun fact:** My birthday is on Halloween!

Ashish Nalla, Co-President
- **Field of Study:** BS in Biomedical Engineering
- **Future Career Interests:** Medicine, Neurology, Diagnostics, Global Health, Antimicrobial Resistance
- **Hobbies:** Dancing, Stand-Up Comedy, Movies, Travel, Fantasy Football
- **Favorite thing about UAEM:** I love the tight-knit community, passion, and innovation at UAEM—everyone working together towards a common goal is truly inspiring.
- **Fun Fact:** I find an unusual sense of relaxation and enjoyment in ironing clothes (Yes, I do this for fun, LOL!)

Milun Jain, Treasurer
- **Field of Study:** BS in Biomedical Engineering
- **Future Career Interests:** Medicine, MedTech
- **Hobbies:** Tennis, Dance, Travel
- **Favorite thing about UAEM:** the diverse group of people involved
- **Fun fact:** I am part of a competitive Indian dance team at Hopkins called Blue Jay Bhangra.

CJ Cole, Secretary
- **Field of Study:** BS in Environmental Engineering and BS in Molecular & Cellular Biology
- **Future Career Interests:** Public Health, Toxicology
- **Hobbies:** Tennis, Running, Journalism
- **Favorite thing about UAEM:** Conferences
- **Fun fact:** I once helped rehabilitate baby rabbits after they got separated from their mom during a tornado.
The Wellness Corner: Updates and Events

BY THE UAEM NORTH AMERICAN COORDINATING COMMITTEE (NACC)

Updates on Active Campaigns and Committees

- The Empowerment team helped launch 14 new chapters. The UAEM Chapter Engagement Program is offering a series of workshops to help student leaders at emerging UAEM chapters build strong mission-oriented goals. UAEM also created the Chapter Empowerment Fund Program, which supports UAEM members by providing them with resources to grow their local chapters.
- The Clinical Trial Transparency Team prioritized discovery through FDA Freedom of Information Act (FOIA) requests and partnerships with elected officials. UAEM collaborated with Congressman Neal Dunn to write a letter to the FDA Commissioner which underscored the urgency of a complete FDA response to the items in UAEM’s citizen petition. In partnership with the Yale School of Medicine's Collaboration for Regulatory Rigor, Integrity, and Transparency (CRRIT), the Transparency team is currently studying 32 cases of noncompliant trial sponsors obtained through FDA Freedom of Information Act (FOIA) requests. They are also developing a white paper and intend to publish their findings in 2024.

UAEM student leaders enjoying an evening of food and friendship during the Leadership Workshop.

The Clinical Trial Transparency Team Lead Megan Curtain (middle) meeting with Dr. Jennifer Doudna (left), one of the inventors of CRISPR technology, a genome editing method that won her the Nobel Prize in Chemistry in the year 2020.

Recent Past Events

- The UAEM NA Leadership Workshop took place from September 15-17 in New Haven, CT, the city where UAEM was founded. Interested students joined to build skills in advocacy and learn how to be effective leaders.
- The UAEM NA Annual Meeting took place virtually on October 21. During this event, the vision and strategic plan for 2024 was shared, and members voted on new leadership for the UAEM Board of Directors.
- The UAEM NACC engaged with Access to Medicines week from October 23-27.
- The UAEM NACC hosted west coast and east coast Power Hour events on November 28 for Giving Tuesday.

Upcoming Events

- The UAEM North America Conference will be hosted at at Johns Hopkins from March 29-31.
About The Dose Editorial Team

MADELINE CHUNG, MBE
Editor-in-Chief

Madeline Chung, MBE, is a bioethicist and health disparities researcher from Case Western Reserve University, conducting research on barriers to health care access for underserved and marginalized populations with the goal of producing meaningful findings that practitioners can integrate in their clinical practice to achieve more culturally-responsive care. She is currently a health sciences student and medical scribe exploring pathophysiology and clinical workflows in the Stanford University-Cleveland Clinic MOST Fellowship. She is also a patient caregiver in a hospital pediatric hematology-oncology department and is serving on the Board of Advisors for the Inamori International Center for Ethics and Excellence.

ISHIKA SETH
News Editor

Ishika is a third-year undergraduate student at UCLA studying Human Biology and Society. She participated in a California legislative advocacy project, and she has since become the National Liaison for the UCLA chapter as well as a NACC member. Currently, she is involved with the Xtandi and Affordable Access Plan (AAP) campaigns and is spearheading a campaign to bring increased transparency around UCLA’s use of the Affordable Access Plan. Outside of UAEM, Ishika is investigating and innovating new models of equity and social medicine that can be incorporated into healthcare systems. She is also researching the impact of clinical telehealth interventions in reducing the risk for substance use disorders and volunteering in a pain management clinic for underserved communities in Los Angeles.

ZAINAB JAMALI
Features Editor

Zainab is studying Human Biology and Arabic at UCLA and aspires to pursue a career addressing global health inequities, with an emphasis on maternal and child health and access to medicines in the developing world. Her previous work in the field includes involvement with breast cancer and diabetes screening initiatives locally as well as in international communities, including Sri Lanka and India. Additionally, she has worked on refugee health issues as an intern at the International Rescue Committee. She is passionate about advocating for and working with marginalized communities in the healthcare sector. She is dedicated to increasing access to medical care and pharmaceuticals, both domestically and globally and is excited to be a part of UAEM’s efforts to raise awareness and initiate change in this area.