

Yale Public Health

Fall 2023

INNOVATING FOR THE PUBLIC GOOD



A publication of the Yale SCHOOL OF PUBLIC HEALTH



President Peter Salovey and Dean Megan Ranney discuss a public health approach to the gun violence epidemic and her bold, innovative vision for YSPH during an episode of Yale Talk: Conversations with President Peter Salovey.

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YSPH's innovations have the potential to change the world, one community at a time.



CREATIVE CONTACT TRACING

In Uganda, a motorcycle taxi service shuttles people and samples for free.



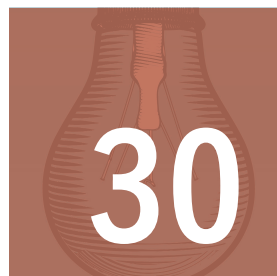
INNOVATION SUCCESS STORY

Pills2Me is a recipient of the 2023 Google for Startups Black and Latino Founders Fund.



ALUMNI NEWS

YSPH alumni are featured throughout this magazine, and in the pages of the Alumni News section.



GIVE US YOUR FEEDBACK

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Scan this QR code to take a brief, 3-question survey & tell us what you like best about this magazine.



2 DEAN'S MESSAGE

4 ADVANCES



IMPROVING MENTAL HEALTH

An evidence-based mental health treatment, created by and for LGBTQ+ individuals.



FIREARM INJURY PREVENTION

Dean Megan Ranney brings her research and innovative thinking around firearm injury prevention to YSPH.



NOWHERE TO HIDE

The Humanitarian Research Lab documents war crimes.

36 YSPH NOTES

44 AWARDS & HONORS

46 YSPH AROUND THE WORLD

48 STUDENT INNOVATORS

DEAN'S MESSAGE



“...our school is moving into full independence for the first time in our esteemed 108-year history. Despite being one of the oldest schools of public health in the country, we are entering this new era with a young spirit.”

I'm writing this welcome note a few weeks into the academic year. Our students have returned to campus, our faculty are deep into the swing of teaching and mentorship, our alumni have gathered for our annual Alumni Day, we held a wonderful welcome reception for our students, staff, and faculty – and after a couple months as dean, I'm pretty sure I like Sally's pizza best!

Seriously, though, my transition to Yale School of Public Health has been a joy, in every way.

Everyone I've met, both within and outside of YSPH, has been welcoming, generous, and excited about our future. And coming from a very small state where I felt like I was only one degree of separation from anyone, I've been impressed by the New Haven and Connecticut community connection and commitment.

Most of all, I've been inspired by the entrepreneurial spirit that suffuses this school.

As you all know well, our school is moving into full independence for the first time in our esteemed 108-year history. Despite being one of the oldest schools of public health in the country, we are entering this new era with a young spirit. I am grateful to President Peter Salovey and Provost Scott Strobel for their support as we collectively build nimble structures, redefine our definition of “impact,” plan new space, and engage in work that matters.

I'm therefore so thrilled that this year's Yale Public Health magazine is highlighting our existing, ongoing work around innovation and entrepreneurship. This topic is one of the core pillars that I've identified to guide our school's transition. And as a newcomer, this magazine has helped me gain deeper insights on some of the incredible work being done across YSPH, the campus, and our larger community.

“I am grateful to President Peter Salovey and Provost Scott Strobel for their support as we collectively build nimble structures, redefine our definition of “impact,” plan new space, and engage in work that matters.”

Read on to learn about everything from cool new algorithms to identify and address proximal causes of the genetic mutations that drive cancer; to the scaling of much-needed, effective mental health treatments created by and for LGBTQ+ individuals through the Yale LGBTQ Mental Health Initiative; to a true “paradigm shift” (one of my favorite terms!) in how to evaluate interventions during their implementation. You will also learn about many of the organizations that nurture innovation across Yale, such as Yale Ventures, with whom we are proud to partner.

I especially enjoyed the profile of Leslie Asanga, Advanced Professional MPH '20, who as a YSPH student started a prescription delivery service for vulnerable populations. He is now expanding his business with new support from the Google for Startups Black and Latino Founders Fund. Leslie serves as an exemplar for so many of us – of what’s possible when you combine intellectual rigor, dedication to community, and an entrepreneurial drive – and of what’s possible with YSPH training.

Finally, as we are moving into a new era for YSPH, we also can use this entrepreneurial spirit to redefine how the entire field of public health does its work, how we teach, and how we communicate and collaborate with the world in which we live.

Stay tuned for more on how we are leading the way in this work.

I look forward to your reactions to the pages of this magazine. Even more, I look forward to meeting you in person or virtually at one of our many upcoming events across campus, Connecticut, and the globe.

Most of all, I look forward to working with all of you to continue to innovate – to create the future of public health, together.

Megan L. Ranney

*Dean, Yale School of Public Health
C.-E. A. Winslow Professor of Public Health*

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Dean

Megan L. Ranney
*Dean of Yale School of Public Health
C.-E. A. Winslow Professor of Public Health*

Managing Editor

Jane E. Dee

Executive Editors

Kira Howell and Colin Poitras

Editorial Team

Jazminx Ellis, Fran Fried, Jessica Iannone, Sabrina Lacerda Naia dos Santos, and Kayla Steinberg

Writers

Fran Fried, Matt Kristoffersen, Colin Poitras, and Jessica Scully

Contributors

Dawn Carroll, Kathe Fox, and Alexandra Hunter

Proofreader

Sheila Foran

Design

AHdesign, Angie Hurlbut
NYM Design, Nilou Moochhala

Cover Art

Mary Peng, MPH '23

Address correspondence to:

Jane E. Dee, Managing Editor
Yale Public Health magazine
47 College Street
Suite 104
P.O. Box 208034
New Haven, CT 06520-8034
Email: ysphpublications@yale.edu
Web: ysph.yale.edu

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Young women are disproportionately vulnerable to the adverse cardiovascular effects of psychological stress.

A STRESSFUL MARRIAGE MAKES IT HARDER TO RECOVER FROM A HEART ATTACK, STUDY FINDS

A study led by researchers at Yale School of Public Health found that marital stress was associated with worse recovery after a heart attack in people 18-55 who are married or in a relationship, and that the stress may make it more difficult for younger adults to regain their physical and mental health after a heart attack.

Identifying marital and relationship stress in young adult patients who have had a heart attack might improve their health outcomes within the first year of recovery, the researchers said.

“Health care professionals need to be aware of personal factors that may contribute to cardiac recovery and focus on guiding patients to resources that help manage and reduce their stress levels,” said Cenjing Zhu, PhD '23, (chronic disease epidemiology), the study's lead author and a recent doctoral graduate from chronic disease epidemiology.

The study, which was funded by a grant from the National Heart, Lung, and Blood Institute (NHLBI), was published in the *Journal of the American Heart Association*.

Participants were drawn from the NHLBI-funded VIRGO (Variation in Recovery: Role of Gender on Outcomes of Young AMI Patients) study. Of the study participants, 36.2% reported severe marital stress, which was more common in female than male participants. Unlike other stressors that are often time limited or situational, marital stress can be chronic and ongoing.

Young women are disproportionately vulnerable to the adverse cardiovascular effects of psychological stress and develop mental stress-induced myocardial infarction four times more often than similarly aged men. Prior research from the VIRGO study also found that young women with acute myocardial infarction (AMI) experienced more depression and overall stress, which was associated with worse outcomes throughout their first year of recovery.

Jane E. Dee

MISLEADING MARKETING OF INFANT FORMULA CRITICIZED

Professor Rafael Pérez-Escamilla, an international authority on breastfeeding and early childhood nutrition, joined other scholars in calling for greater enforcement of the unethical marketing of infant formula in a special three-paper Series published in *The Lancet* earlier this year.

The call for greater marketing controls and enforcement was just one of several interventions and recommendations in the *Lancet* Series in support of a woman's right to breastfeed.

"Breastmilk not only provides optimal nutrition to infants, but it is also loaded with bioactive substances that protect the child against infectious and non-infectious diseases," said Pérez-Escamilla, who served as co-author of the *Lancet* Series articles and as lead author of the first paper featured entitled, "Breastfeeding: Crucially important, but increasingly challenged in a market-driven world."

Pérez-Escamilla emphasized that the Series was not meant to be a manifesto against infant formula, a product that is vital for infants who are not breastfed, but rather a call to decision-makers and authorities to stop infant formula companies from undermining mothers' breastfeeding intentions through misleading marketing that exploits their fears and emotions during a vulnerable period in their lives.

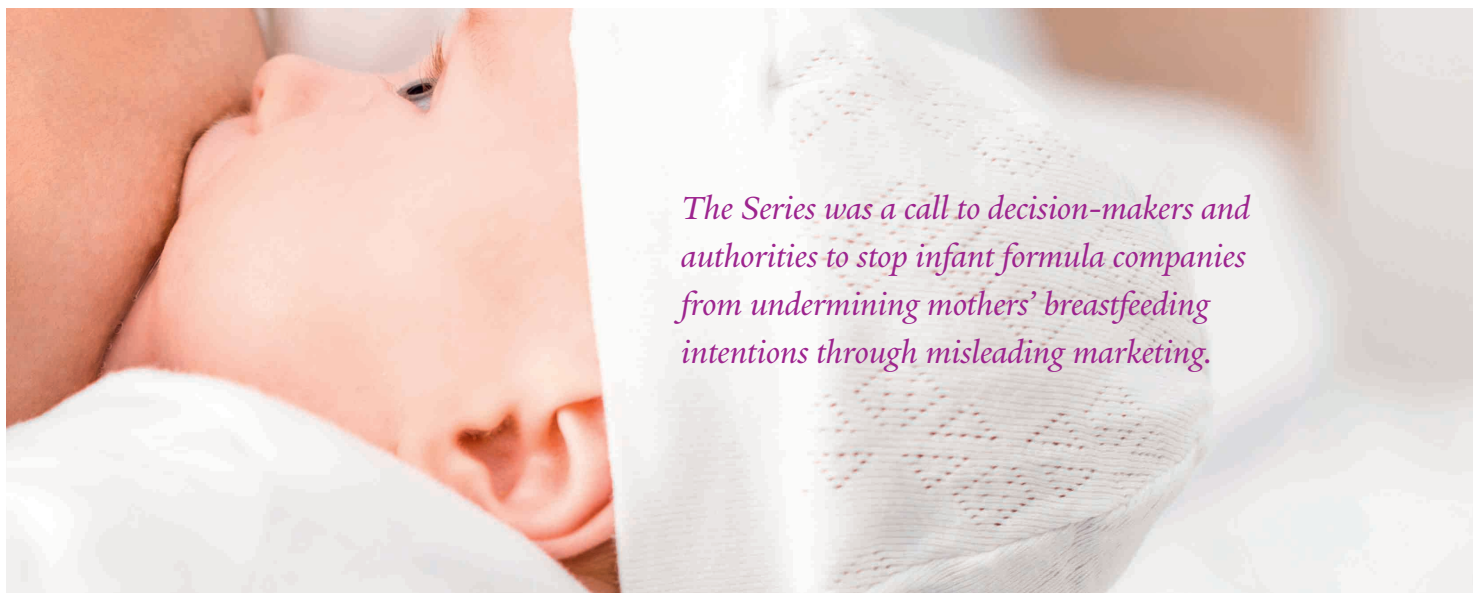
"Infant crying is part of normal infant development; this is how babies communicate their physical and psycho-emotional needs," Pérez-Escamilla said. "Understandably, parents can get very worried and distressed when their infants cry. Unfortunately, infant formula companies exploit these psycho-emotional sensitivities by marketing their products as helping babies cry less and sleep better, without evidence to support these claims," he added.

"Additionally, oftentimes health providers tell parents that the baby is crying frequently because the mother is not producing enough milk and advise them to introduce infant formulas right away without even assessing first the baby's growth and developmental status," he continued.

"Even more worrisome is the fact that these same providers oftentimes benefit from relationships with infant formula companies that are underlined by clear conflicts of interest."

Globally, the great majority of women are choosing to breastfeed, Pérez-Escamilla said, but unfortunately, most of them cannot breastfeed for as long as they would like due to major social, political, economic, and health care structural barriers.

Colin Poitras



The Series was a call to decision-makers and authorities to stop infant formula companies from undermining mothers' breastfeeding intentions through misleading marketing.

TESTING A DIGITAL DEVICE FOR CONTACT TRACING IN SCHOOLS

When Yale School of Engineering & Applied Science developed a new digital contact tracing tool, Yale School of Public Health tested the innovation.

In a proof-of-concept study, a team of researchers led by YSPH doctoral student Dan Li and Dr. Tyler Shelby, MD/PHD '23, (epidemiology of microbial diseases) piloted the contact tracing device in a high school after observing promising results in a university setting. Their prototype uses a Bluetooth-enabled dongle, paired with a smartphone app, to record potential exposures with other students, saving the time and labor that is needed for traditional interview-based tracing strategies.

After simulating a COVID-19 outbreak in the school, the researchers assessed how well the device could track the spread of the mock infection. They found that the device discovered a significant number of contacts that interview-based tracing missed.

“During a respiratory viral pandemic, Bluetooth digital contact tracing can play a critical role in keeping school members safe,” the authors said.

Small changes to the device could improve its performance and convince students to wear it regularly.

They found that their digital tracing strategy, along with its user privacy protections, could also help the students feel safer. Focus groups revealed that the device gave them a greater sense of security. The students also reported being eager to participate – a good sign among teenagers, whose adherence rate to interventions generally lags behind adults.

Their study among teenagers highlighted some challenges with their device, however. Technical difficulties and waning adherence rates kept their insights limited. And even though their device spotted many unique contacts, it did not track more cases than the interview-based method. In fact, only 5% of cases were identified by both methods.

The researchers suggested that small changes to the device could improve its performance and help convince students to wear it regularly.

“The prototype design and technical difficulties during syncing can be improved to increase usability and adherence,” the authors explained. “Further studies addressing these factors are needed.”

Matt Kristoffersen



GRANT SUPPORTS DEVELOPMENT OF NOVEL TEST FOR MALARIA



The cytophone technology uses lasers and ultrasound.

A research team co-led by professor Dr. Sunil Parikh, MD, MPH, has received \$500,000 in funding from the Bill & Melinda Gates Foundation to continue to develop an innovative noninvasive test for malaria using lasers and ultrasound.

The grant will allow researchers to build two improved prototypes of their cytophone testing platform and to do extensive field testing in the West African nation of Burkina Faso, where malaria is endemic, said Parikh, an associate professor of epidemiology (microbial diseases) at Yale School of Public Health and infectious diseases at Yale School of Medicine. Parikh, a co-principal investigator on the project, studies malaria interventions in Africa.

“The goal is to get at both the sensitivity and the specificity of this device,” Parikh said. “I think this grant is going to help us move the research to the next phase.”

Malaria is an enormous health problem globally. In 2021, the most recent year for which data is available, nearly half of the world’s population lived in an area where malaria is endemic, according to the World Health Organization. There were an estimated 247 million malaria cases that year, an increase of two million compared with 2020, and 619,000 deaths, according to the WHO. Young children, pregnant women, and nonimmune travelers are the most vulnerable to severe infection.

Parikh’s co-principal investigator is Professor Vladimir Zharov, director of the Arkansas Nanomedicine Center at the University of Arkansas for Medical Sciences (UAMS) and co-founder of CytoAstra, a UAMS spinoff company advancing cytophone research. CytoAstra is a sub-award recipient of the Gates Foundation grant. Zharov pioneers noninvasive technologies for medical applications including detecting circulating melanoma cells noninvasively using what was a large, nonportable early prototype of the cytophone platform. Realizing the platform’s potential

application for human malaria, Zharov worked with Parikh to develop a portable prototype that could detect malaria infection in people living in endemic settings.

The cytophone technology uses lasers at specific wavelengths focused on superficial blood vessels. When the parasites that cause malaria infection enter red blood cells, they use the hemoglobin inside those cells to liberate amino acids. A byproduct of this process is the release of hemozoin, a compound containing iron. When hit by a laser, hemozoin absorbs more of the laser’s energy than hemoglobin, meaning cells infected with malaria parasites absorb more than noninfected cells. This absorbed energy is transformed into heat, and the heat expansion generates acoustic waves. The cytophone technology detects these waves using a small ultrasound transducer placed on the skin. After software analysis, peaks in the detected acoustic waves can identify malaria infection.

The technology could eventually represent a big improvement in diagnosing, treating, and understanding malaria. Malaria is currently diagnosed by two methods, light microscopy, and rapid antigen blood tests.

A problem is that the tests aren’t very sensitive. “You can have a very large parasite load with both microscopy and rapid diagnostic tests before you have a positive test,” Parikh said.

Because the cytophone platform can potentially scan a much larger volume of blood, it should be far more sensitive than current tests, Parikh said.

Jessica M. Scully

NOT ALL NEIGHBORHOODS ARE AFFECTED EQUALLY BY HEAT WAVES, NEW DATA SHOWS

As the Earth's climate warms, abnormal heat waves remain an increasingly dire health hazard. But not all neighborhoods are affected equally: redlining, housing discrimination, and inequitable public infrastructure have contributed to disparities in health outcomes from heat.

Policymakers and government officials now have a powerful tool to address these issues. A team of researchers at Yale School of Public Health has developed a metric to gauge heat vulnerability at the census-tract level and created a color-coded interactive map for public use (<http://bit.ly/494O1Je>).

The innovative visual aid, presented in refined detail, can help officials identify areas that may need more public health and policy interventions to combat the adverse effects of heat stress, said Kai Chen, assistant professor of epidemiology (environmental health) and director of research for the Yale Center on Climate Change and Health.

"We want this tool to be used by the public so that we can raise awareness of how vulnerable their communities are and help them take appropriate action," Chen said. "But also, we want this to be used by policymakers so that they can see

the distribution within their state, or even nationally, so they can have certain communities in mind when they implement climate adaptation policies."

The team's index-based analysis reveals new insights into the nature of heat-related health disparities, including its association with race. According to the analysis, which spanned more than 55,000 census tracts across the continental United States, non-white people of color composed more than three-quarters of the population of the nation's most vulnerable tracts.

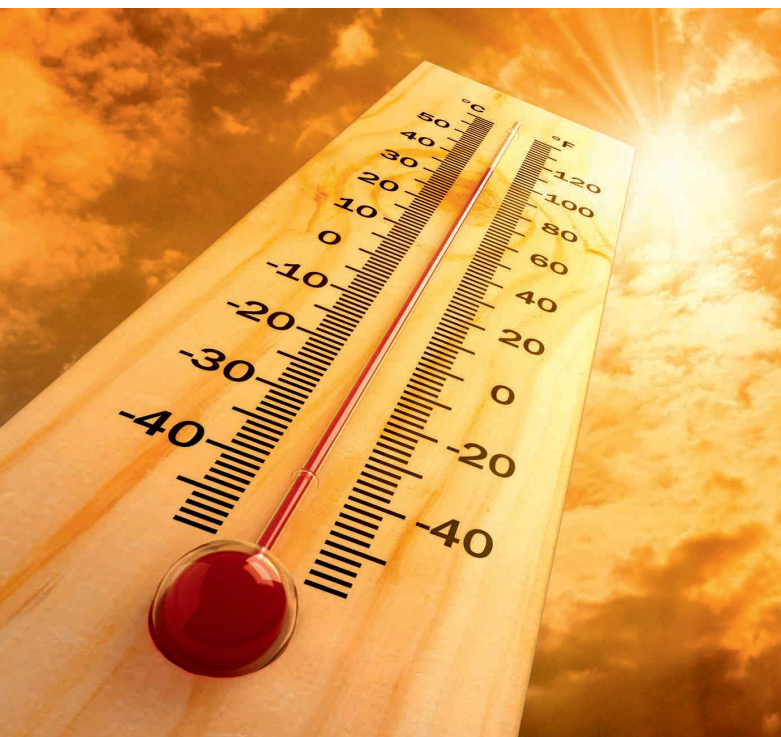
Meanwhile, in the least vulnerable areas, only about one-quarter of the population were people of color. The Heat Vulnerability Index combines a variety of data points like race and ethnicity, diabetes prevalence, building density, evidence of historic redlining, and air temperature anomalies into a single score, from 10 to 26.

The study was supported by a seed grant from the Yale Planetary Solutions Project and the High Tide Foundation.

The index draws a clear correlation between historically redlined neighborhoods and heat vulnerability today. Redlining was a discriminatory practice initially employed by the federal government during the 1930s when it attempted to rank the risk of issuing government-insured mortgages to homeowners. Federal officials used color-coded maps to classify perceived investment risk, with the riskiest areas — neighborhoods where property values were most likely to go down — marked in red. Most of the redlined areas were neighborhoods where Black residents lived, making it difficult for Black residents to access homeownership and government-backed lending programs. Efforts to address redlining culminated in the Fair Housing Act of 1968, which prohibits housing discrimination.

Matt Kristoffersen

According to the analysis, which spanned more than 55,000 U.S. census tracts, non-white people of color composed more than three-quarters of the population of the nation's most vulnerable tracts.



TEAMING UP TO HELP VACCINE DECISION-MAKING

Previously, whenever the CDC or their counterparts in other countries needed to make a public health recommendation, they would have to dig through the scientific literature to find the data. WISSPAR helps to streamline that process for pneumococcal vaccines.

Researchers at Yale School of Public Health and the Johns Hopkins Bloomberg School of Public Health have come together to make a centralized digital database for results from clinical trials of pneumococcal vaccines.

Their public website, called the Worldwide Index of Serotype Specific Pneumococcal Antibody Responses (WISSPAR), can help researchers, decision-makers, and practitioners visualize a vaccine's ability to produce an immune response using data from clinical trials. The flexible tool provides a user-friendly way to assess which product and dosing schedule may work best for different age groups. The database is supported by the Bill and Melinda Gates Foundation.

"There is a tremendous amount of data available for assessing these vaccines from clinical trials," said Stephanie Perniciaro, associate research scientist in epidemiology (microbial diseases) at Yale School of Public Health. "We hope that this platform will be a resource for making informed comparisons between different vaccines."

Pneumococcal vaccines help protect against diseases stemming from certain bacterial infections. The Centers for Disease Control and Prevention recommends vaccines for young children, immunocompromised people, and older adults, but even within these groups there are multiple products from which to choose – including new vaccines, which have limited data for comparison.

The WISSPAR database brings together more than two dozen clinical trials to make decision-making easier. Users can search for trials by vaccine manufacturer, dosing schedule, age group and other criteria, then view the results on detailed, customizable graphs.



The researchers caution that the immunogenicity data cannot be used alone to gauge the effectiveness of the different vaccines. And clinical trials sponsored by different companies could make comparing vaccines more difficult. Still, they say, the easy-to-use website can empower users to make better vaccine decisions.

"Previously, whenever the CDC or their counterparts in other countries needed to make a public health recommendation, they would have to dig through the scientific literature to find the data," said Dan Weinberger, associate professor of epidemiology (microbial diseases). "WISSPAR helps to streamline that process for pneumococcal vaccines."

The Yale team also includes Dominic Cooper-Wootton, a software engineer.

Matt Kristoffersen

YALE RESEARCHERS WIELD AI FOR HEART HEALTH

Artificial intelligence can help physicians spot heart disorders not seen by the human eye.

A team of Yale researchers in the Cardiovascular Data Science (CarDS) Lab has trained a machine learning algorithm to identify complex issues with cardiac testing, potentially allowing health care practitioners to provide care early enough to save lives. That same group of researchers has also adapted their tool to work in portable, wearable devices, creating an on-the-go, ever-vigilant monitor for heart health.

Their models draw from hundreds of thousands of heart tests from around the world, and work on the heart diagnostic test that is most available globally: the electrocardiogram (ECG). By using just photos of images, said Rohan Khera, assistant professor of medicine (cardiovascular medicine) and biostatistics (health informatics), most people can benefit from their work.

“This opens up the possibility to finally bring a screening tool for such disorders that affect up to one in 20 adults globally,” Khera said. “Their diagnosis is frequently delayed as advanced testing is either unavailable or only reserved for those with symptomatic disease. Now we can identify these patients with a simple web-based or smartphone application.”

Their models draw from hundreds of thousands of heart tests from around the world.

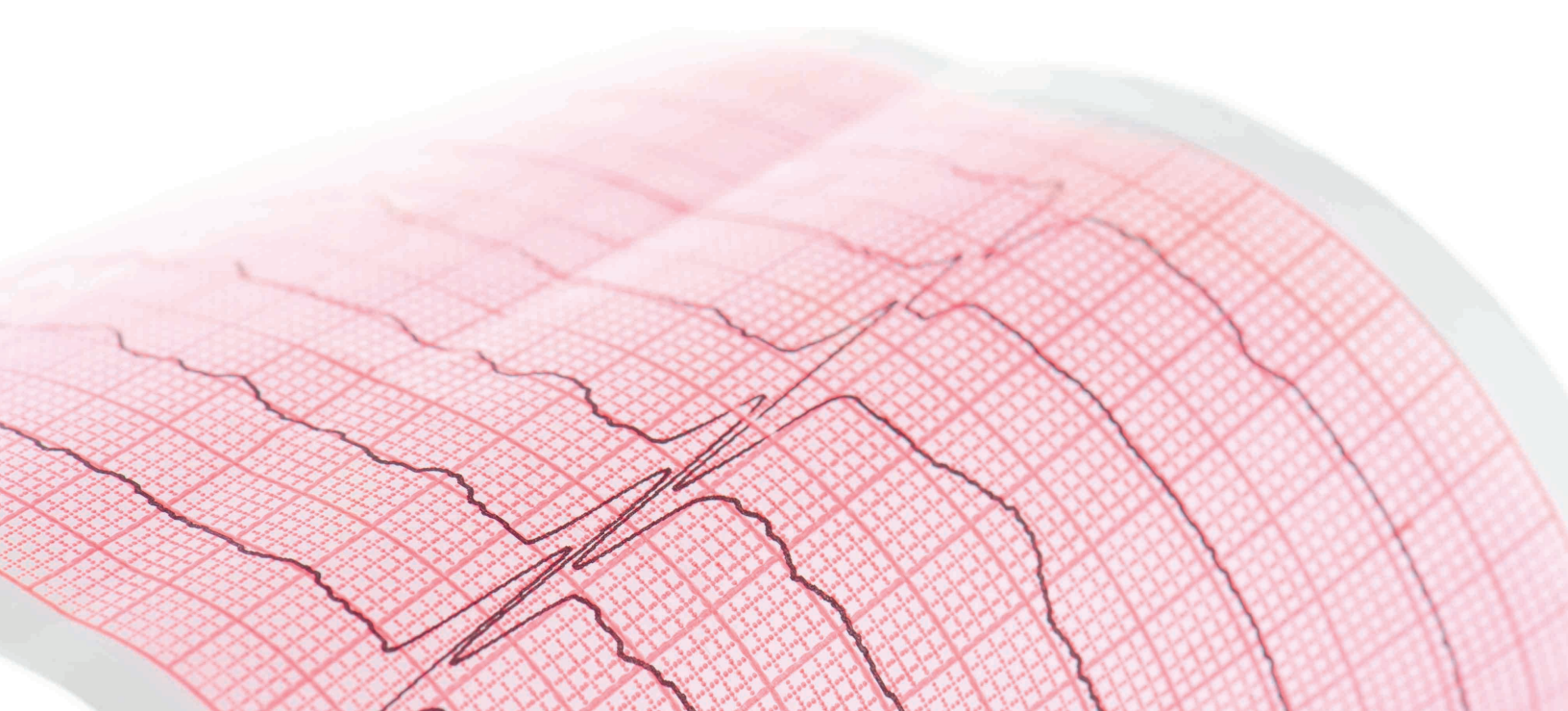
What they have now is a “super reader” of these images, said Veer Sangha, a team member and a Rhodes Scholar. Sangha, Khera and their colleagues have created an algorithm that is skilled at “identifying signatures of LV systolic dysfunction, which the human eye cannot accurately decipher.”

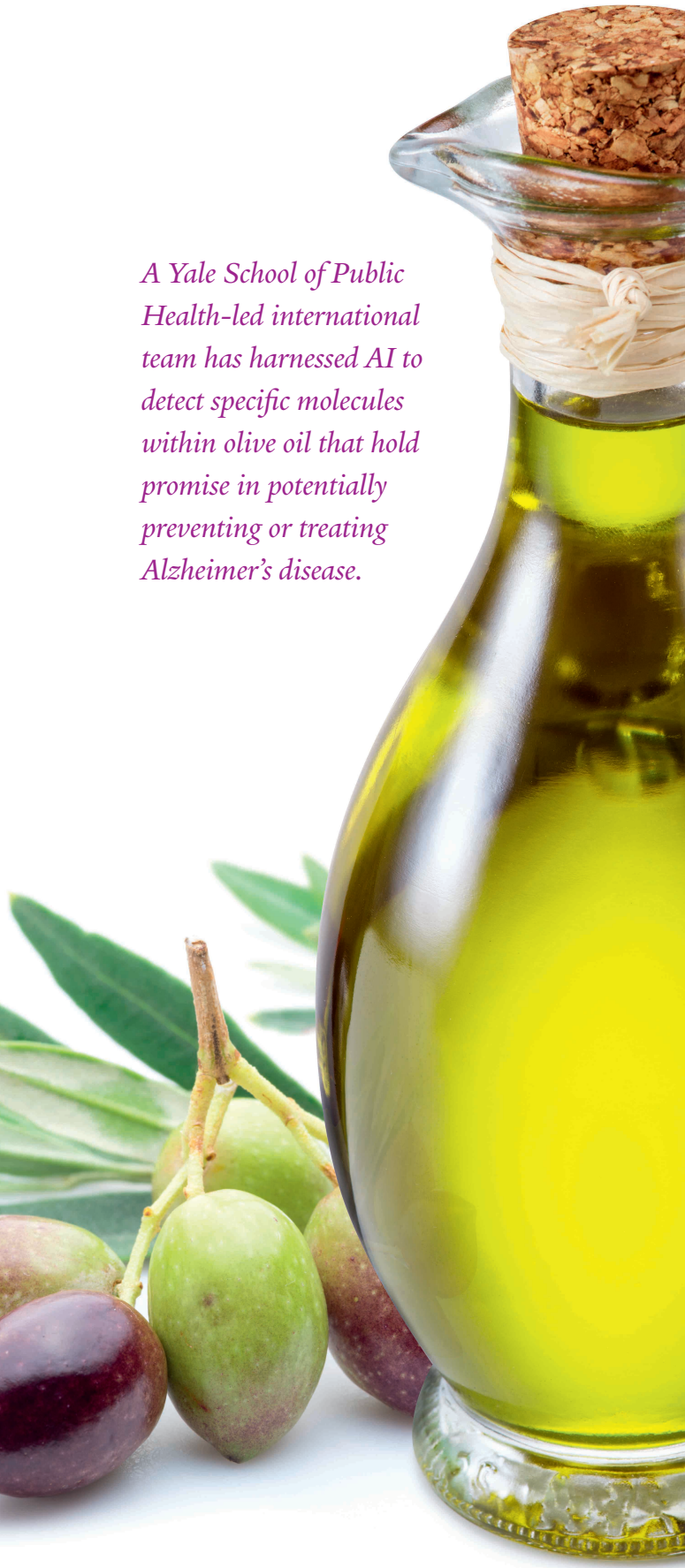
Their efforts have become even more accessible since they trained the algorithm for the simpler ECGs that are recordable from smartwatches and other wearable technologies. Those portable sensors often generate “noisy” electrocardiograms that lack clarity. In a different study, the researchers taught the algorithm on tests that they intentionally blurred to simulate those from wearables.

“This approach represents a novel strategy for the development of wearable-adapted tools from clinical ECG repositories,” the researchers said.

The work has won the Elizabeth Barrett-Connor Research Award for Early Career Investigators by AHA, Yale’s Blavatnik Fund for Innovation Award, and the Wilson Prize.

Matt Kristoffersen





A Yale School of Public Health-led international team has harnessed AI to detect specific molecules within olive oil that hold promise in potentially preventing or treating Alzheimer's disease.

MOLECULES WITHIN OLIVE OIL MAY PREVENT OR TREAT ALZHEIMER'S

The recent proliferation of artificial intelligence has already had a profound influence on scientific research. Among its many uses is being able to zero in on learning exactly what properties in natural products can be used to combat diseases.

Among the researchers using AI at Yale School of Public Health is Vasilis Vasiliou, department chair and Susan Dwight Bliss Professor of Epidemiology (Environmental Health Sciences). Together with Kirill Veselkov from Imperial College London, an adjunct assistant professor at YSPH, Vasiliou leads an international team that has harnessed AI to detect specific molecules within olive oil that hold promise in potentially preventing or treating Alzheimer's disease (AD).

The team of 11 researchers published its findings in *Human Genomics* in July. Previous studies have suggested that extra virgin olive oil (EVOO) may be helpful in preventing cognitive decline. The team calibrated a machine-learning algorithm to predict the likelihood of existing drugs and known phytochemical constituents of EVOO that would exhibit similarities in functionality with drugs that influence intracellular pathways (protein networks) associated with AD. These analyses were enabled by mass spectrometry-derived EVOO phytochemical profiles identified by Nikolaos Thomaidis, a team member from the National and Kapodistrian University of Athens and an adjunct professor at YSPH.

Their investigation identified 10 EVOO phytochemicals with the highest likelihood of being active against AD. By combining AI with analytical chemistry and omics studies to identify unique therapeutic agents, the research team was able to provide new insights into how EVOO may help treat or prevent AD, and potentially provide a basis for consideration in future clinical studies.

"This remarkable international collaboration marks the inception of a novel research endeavor focused on exploring the beneficial effects of EVOO, not only concerning AD, but also encompassing cognitive function and mental health," Vasiliou said.

Fran Fried

INNOVATION

FOR THE PUBLIC

CHRONIC
PANDEMIC
SOCIAL
CLIMATE
FIREARM INJUR

WHAT IS PUBLIC GOOD

Yale School of Public Health innovates solutions to many public health problems including chronic diseases, pandemic threats, social inequality, climate change, and firearm injury prevention.

YSPH's innovations have the potential to change the world, one community at a time. Our faculty, students, alumni, and staff solve hard problems, working with community partners to develop and sustain solutions over time.

INNOVATION

UNDERSTANDING SPECIFIC GENETIC MUTATIONS THAT DRIVE CANCER

When a patient asks, “Why me?” after learning they have cancer, their physician’s response likely includes a review of the patient’s risk factors.

“Historically, risk factors are nearly the only answer that science or medicine has been able to give to cancer patients who ask, ‘why me?’—or to public health officials who ask, ‘why us?’” said Jeffrey Townsend, Yale’s Elihu Professor of Biostatistics and professor of ecology and evolutionary biology.

Townsend and his colleagues’ innovation is to answer the question, “why me?” for individual patients. A new open-source software package called *cancereffectsizer* developed by the Townsend Lab greatly improves the ability of data scientists and clinical analysts to learn about the specific genetic mutations that drive cancer.

The software calculates the effect sizes of single-nucleotide variants in cancer, quantifying their effect on the ability of the cancer cells to proliferate and survive in humans. The unique algorithm does so by organizing somatic variant data, facilitating mutational signature analysis, and calculating site-specific mutation rates. The software can quantify cancer effects at specific stages of cancer evolution, and in the contexts of other key mutations, using the somatic evolutionary information in their tumor DNA. Then it relates those effects to machine-learned signatures of specific sources of mutations.

“Our answer tells individual patients what proportion of the origination of their cancer can be attributed to known mutagenic causes such as aging, smoking, ultraviolet light, and haloalkane exposure,” Townsend said. “Local populations or professions that suffer from inordinately high levels of cancer may also be able to use the findings to discover instances of exposure to carcinogenic substances.”

Townsend added, “Our results provide molecular validation of well-known correlative findings from the epidemiological literature.” For example, he explained that melanomas are often largely attributable to preventable, exogenous exposure to ultraviolet light, and lung cancers are often largely attributable to preventable, exogenous exposure to

“If you want to know what caused the mutations that drive your cancer, our innovation enables its calculation.”

~Jeffrey Townsend

tobacco. On the other hand, gliomas and prostate adenocarcinoma tumors that are largely attributable to endogenous processes associated with aging are not subject to public health efforts at prevention.

“Our innovation rapidly directs research efforts toward these most important causes, and toward effective public health prioritization, by informing all of us of what actions we can take to prevent cancer,” Townsend said. “If you want to know what caused the mutations that drive your cancer, our innovation enables its calculation. Next steps include applying this method to specific populations with elevated cancer incidence to determine directly whether specific mutagenic sources are responsible—a major boon to the prevention of the next public health threat.”

WAITING FOR THE PUBLIC GOOD



YSPH TEAM CREATES LGBTQ+-AFFIRMATIVE COGNITIVE-BEHAVIORAL THERAPY

LGBTQ+-affirmative cognitive-behavioral therapy (CBT) represents the first evidence-based mental health treatment created by and for LGBTQ+ individuals to address the unique stressors that LGBTQ+ people face.

LGBTQ+-affirmative CBT has been tested across several clinical trials and shows efficacy for reducing LGBTQ+ people's co-occurring depression, anxiety, and substance use problems.

"The treatment has been tested with gay and bisexual men in New York City, New York, and Miami, Florida; queer women in New York City; Black and Latino gay and bisexual men in New Haven, Connecticut; gay and bisexual men in China; transgender and non-binary individuals in Eastern Europe, and in several other settings by colleagues around the world," said John Pachankis, Susan Dwight Bliss Professor of Public Health in the Department of Social and Behavioral Sciences and director of Yale's LGBTQ Mental Health Initiative.

"Given its promise for addressing LGBTQ people's disproportionate risk of poor mental health, the Yale LGBTQ Mental Health Initiative is now studying ways to implement LGBTQ-affirmative CBT across the U.S.," Pachankis said.

His team at Yale created LGBTQ+-affirmative cognitive behavioral therapy by listening to the needs of the LGBTQ+ community and their providers nationwide. Ten years in the making, the value of the treatment was established across randomized trials. This year, Pachankis received a nearly \$4 million grant from the National Institutes of Mental Health to test the best ways of implementing LGBTQ+-affirmative cognitive therapy at 90 LGBTQ+ community centers around the country.

Mental health providers can learn to deliver evidence-based LGBTQ+-affirmative cognitive behavioral therapy through low-cost online training, which would help deliver more evidence-based mental health care to LGBTQ+ people and support its implementation across practice settings, according to a recent study by the Yale LGBTQ+ Mental Health Initiative.

"When we found that LGBTQ-affirmative CBT could help improve LGBTQ people's mental health, we wanted to make sure that LGBTQ people could access this treatment in their local communities," Pachankis said.

Above: The Yale LGBTQ Mental Health Initiative team

IN UGANDA, TUBERCULOSIS INVESTIGATIONS FOCUS ON COMMUNITY

Tuberculosis affects millions of people every year. Unfortunately, many people with TB are undiagnosed, as stigma, misinformation, and logistical resources often stand in the way of help.

Yale School of Public Health researchers have teamed up with the Makerere University College of Health Sciences in Uganda, East Africa, to test a “human-centered” strategy to find and treat more people with TB. The study has adopted a creative approach to delivering contact investigation, the World Health Organization’s recommended technique for finding TB. By using rapid iteration and a diverse range of qualitative methods, researchers have come up with new ways to track, treat, and stop TB. They published a paper describing their trial protocol in *BMC Public Health*.

Instead of the standard implementation strategy, in which those diagnosed with TB and their close contacts are asked to come forward for help, the researchers are employing a handful of human-centered approaches for delivering contact tracing, including a sputum-collection instructional video, a contact identification algorithm, and a motorcycle taxi service to shuttle people and samples for free. The collaborators hope that these out-of-the-box solutions will encourage more close contacts of individuals with TB to get tested and treated.

“We know that contact tracing works for finding TB,” the study’s senior author, Dr. J. Lucian (Luke) Davis, MD, associate professor of epidemiology (microbial diseases),

said. “The human-centered approach tries to ensure contact tracing also works for the people affected by TB. If so, everyone will benefit.”

The Yale researchers worked with Dr. Achilles Katamba, MBChB, associate professor adjunct of epidemiology (microbial diseases) and other Ugandan colleagues to generate the new strategy over several design phases. They held adhesive-note brainstorming sessions, community focus groups, health care worker interviews, and small-group design sprints to gather as much input as they could, then prototyped their strategy in Uganda for over a year.

The team packaged their final selection of human-centered trial components under a brand that Ugandans could recognize. The health care workers and motorcycle riders wear uniforms featuring a custom graphic logo with two Marabou storks, a beloved local bird, flying in front of a sunrise. Their gear carries the brand name Tuli Wamu Nawe, a phrase in the local Luganda language which means, “We are Together with You.” The name strategy emerged from a partnership with a design team at the non-profit social enterprise IDEO.org.

“Active Case Finding (ACF) through contact investigation is a priority strategy to find missing TB cases and curb transmission. However, the best approach to maximize ACF is not known,” Katamba said. “The Human Centered Design and Community of Practice study provides an opportunity to maximize ACF while putting in consideration clients’ needs and circumstances during ACF.”

SUPPORT FOR HEALTH CARE WORKERS

Health care workers also receive help as part of the novel study approach. The organizers assemble WhatsApp groups for each participating health care facility, connecting all facets of the contact tracing effort in one place for emotional support, care coordination, and shared accountability. The chat, along with weekly improvement meetings and confidential audit and feedback reports, could add to the study’s effectiveness by establishing “communities of practice,” the researchers said.

The collaborators recently finished recruiting participants. Now, they are measuring the effectiveness of the implementation strategy by counting the proportion of symptomatic close contacts who get evaluated for TB. In late October, they will have compared the results with those from standard contact tracing methods. They plan to publish their findings in a peer-reviewed journal.

Matt Kristoffersen

Above: Using adhesive notes to brainstorm ways to improve tuberculosis contact tracing in Uganda.

YALE VENTURES: PROMOTING INNOVATION AND ENTREPRENEURSHIP

Entrepreneurial faculty and students at Yale School of Public Health have a partner in Yale Ventures.

Yale Ventures supports innovators across Yale University and in New Haven with resources and opportunities as they translate their ideas and discoveries into new ventures that will positively impact the world's greatest challenges. Launched in 2022, Yale Ventures is led by Managing Director Josh Geballe, senior associate provost for entrepreneurship and innovation at Yale University.

Yale Ventures is home to Yale's innovation programs and centers, operating across and integrating four core functional areas. YSPH faculty and students can engage with Yale Ventures' four primary teams:

- The Intellectual Property and Licensing Services unit works with Yale innovators to patent and license their discoveries and technologies.
- The Innovation Training and Startups team offers programs that are designed to help faculty and students develop their ideas and, in many cases, spin them into new startups. The programs include the Blavatnik Fund, the Roberts Innovation Fund, the Colton Center for Autoimmunity, the Center for Biomedical Innovation and Technology (CBIT), and Tsai CITY.
- The Corporate Partnerships team works closely with the Office of Development to attract resources and build industry collaborations in support of Yale research and innovation across the university.
- The Innovation Community team connects the people, places, and sources of capital for the Yale innovation and entrepreneurship ecosystem, supporting mentorship programming such as a Yale student associates program and convening events such as the Yale Innovation Summit that serve as important catalysts for Yale innovators.

Faculty who engage with Yale Ventures have received support in many ways, including business training, research funding, and recognition awards.

In 2023, YSPH faculty member Rohan Khera, assistant professor of biostatistics (health informatics) and medicine (cardiovascular medicine), received a Blavatnik Fund award

for INSIGHT-AI. Khera and his team from the Cardiovascular Data Science Lab (CarDS) developed the artificial intelligence-based electrocardiogram interpretation, which is designed for global use.

Other successes include Anjelica Gonzalez of Aero Therapeutics, Inc., who won the "Golden Ticket" at Yale Venture's Innovation Summit in 2021, receiving a free year of office space at District New Haven. Aero Therapeutics is supported by the Yale Institute for Global Health's Sustainable Health Initiative. A medical device company,



Dean Megan Ranney, left, presenting a Blavatnik Accelerator Award at the 2023 Yale Innovation Summit.

Aero Therapeutics helps to treat respiratory issues in low-resource settings with affordable devices. In 2021, Gonzalez was also awarded the inaugural amplifyHERscience award, a Yale Ventures program dedicated to supporting and promoting diversity, equity, and inclusion in science and entrepreneurial pursuits.

Jane E. Dee

FOR THE PUBLIC GOOD

INNOVATION

DEAN MEGAN RANNEY BRINGS A PUBLIC HEALTH APPROACH TO THE COUNTRY'S GUN VIOLENCE EPIDEMIC

SPECIAL REPORT

Whether during an interview for Yale Talk: Conversations with Peter Salovey in August, or a panel discussion at Yale Law School in September, Yale School of Public Health Dean, Dr. Megan L. Ranney, MD, is sharing her advocacy and research on firearm injury and prevention at Yale.

Ranney is recognized as an innovative leader who brings community-driven approaches to addressing longstanding and emerging public health problems. She is also an emergency physician, and it was over a decade ago, at the beginning of a weekend shift in an emergency department in Rhode Island, that the urgent need to address the issue of firearm injury and prevention became clear to her.

Ranney's summer weekends were a busy, adrenaline-fueled time for emergency physicians and nurses. The crackle of the EMT radio announced that this weekend would be no different—a patient with a firearm injury was on his way to the emergency department. Ranney had treated many firearm injuries before, but as the EMTs wheeled the patient in, “All the air went out of the room,” Ranney remembered.

The young man on the EMT's gurney had shot himself in the head with his parents' gun. “There was nothing we could do,” Ranney said.

His death has had a lasting impact on her. She learned that suicide is the most common type of gun death in the United States. She also learned that the man's death occurred because he not only had a moment of desperation, but he knew how to access his family's gun. And she realized that his death, like those of so many other people who were seen in the ED after a gunshot wound, was preventable.

She also realized that the tools to apply a public health approach to the country's epidemic of gun violence already existed.

“I'd done a fellowship specifically in injury prevention,” she said. “And it struck me as ridiculous, unconscionable, that we weren't applying these very standard public health methods to this problem that was filling my emergency department, certainly every weekend night and many weeknights as well.”

At Yale, there is “an enormous opportunity ... to be one of the leaders in good, effective, impactful firearm injury prevention work,” said Ranney, the C.-E. A. Winslow Professor of Public Health. “There are not a lot of universities in the country that are taking this issue on in a rigorous and impactful way. And I think there is a very special role that this university can play and that I hope to usher forward here at Yale School of Public Health.”

RESPECTING COMMUNITIES

Over the last decade, 55 to 60% of gun deaths each year have been gun suicides, a statistic that often surprises people in the U.S., Ranney said.

Her public health method addresses firearm injury as a public health issue rather than focusing on firearms themselves. She uses the term firearm injury deliberately because it is less politically fraught than gun violence. Over the years, she and her colleagues have partnered with gun owners, physicians, school nurses, law enforcement, and others, both to identify who is at risk of gun violence and to address the structural issues in communities that increase

WAITING

FOR THE PUBLIC GOOD

40%

THE INCREASED PERCENTAGE OF GUN DEATHS IN
THE UNITED STATES SINCE 2012

“There is a sense that we can’t come together as Americans to address this issue. Reframing firearm injury prevention as a public health problem, and not an us versus them or criminal justice issue, allows us to use the tools of public health to address it.”

~Megan Ranney

the chance of gun violence happening there.

“No one wants themselves or their loved one to die of a firearm injury. Let’s start at that universal truth and think about how we can put solutions in place that are culturally relevant and acceptable,” Ranney said.

“Whether I’m talking about Native American populations that have a significantly higher rate of firearm-related intimate partner homicide and suicide, whether I’m talking about working with the youth in New Haven and Bridgeport, these young, predominantly Black and brown boys

who are at higher risk of being shot, or whether I’m talking about working with rural, elderly white men who have some of the highest rates of firearm suicide in the country—we need to respect the culture and make sure that the interventions we’re developing fit within people’s ways of life.”

UNDERSTANDING FIREARM INJURY

Since the shooting at Sandy Hook Elementary School in 2012, gun deaths have increased by 40% nationally. In 2020, firearm-related injuries surpassed motor vehicle crashes to become the leading cause of death among young people ages 1 to 19 years in the United States.

Firearm deaths among children and adolescents jumped nearly 30% between 2019 and 2020—more than double the 13.5% increase in the general population. The increases were driven by a 33.4% overall rise in firearm homicides, which disproportionately affect young people, especially Black and brown boys and men who are about 20 times more likely to die of firearm homicide than white boys or men, Ranney said.

A recent panel discussion at Yale Law School addressed firearm injury and domestic violence, an issue before the U.S. Supreme Court. The 5th Circuit Court of Appeals recently struck down the federal law prohibiting possession of firearms by people subject to domestic violence protection orders, ruling that prohibiting abusers from possessing firearms is unconstitutional under the Second Amendment. The case, *United States v. Rahimi*, is scheduled for argument before the U.S. Supreme Court in November during the court’s October 2023–2024 term.

70%

THE DECLINE IN DEATHS DUE TO CAR CRASHES OVER THE LAST 50 YEARS

If the case is upheld, Ranney said it will be a public health call to action, as intimate partner violence is the leading cause of homicide death for women. She fears an influx of domestic violence firearm injuries will be seen in hospital emergency departments across the country.

STANDING UP FOR PUBLIC HEALTH

Ranney's public health approach acknowledges that the country will not get to a place where it has zero firearm injuries. However, she believes, it could get the country back to 10 years ago, when there were 40% fewer gun injuries and deaths, she said.

Ranney believes educating and engaging with communities across Connecticut and the country about firearm injury prevention while centering on the voices of survivors is essential to making real change in law and policy. Recently, a resident advisor joined YSPH to advocate and educate around this issue. Nelba Márquez-Greene is a licensed marriage and family therapist specializing in grief, loss, trauma, and their impact on individuals and systems. As one of two Activists in Residence at the school, Márquez-Greene will lead seminars, give talks, and advise students on related topics including how to support survivors of gun violence. Márquez-Greene's daughter, Ana Grace, was murdered at Sandy Hook School on December 14, 2012.

CAR SAFETY AND FIREARM INJURY

According to Ranney, central to public health is the idea that you must think on a larger scale – not just about the patient in front of you, but also about individual- and population-level risk factors, and how to modify and reduce them. As an example, she points to programs that were put in place to reduce car-crash injury and deaths.

Over the last 50 years, deaths due to car crashes have declined by almost 70%. This was achieved not by focusing

“If your loved one has dementia and they own a firearm, you should have a conversation with them about maybe taking the firearm out of the house while you’re having a conversation about whether it’s safe for them to drive.”

~Megan Ranney

exclusively on the car, or through legislation, but through “a suite of different research and interventions that have effectively decreased both the number of car crashes, and the severity or the likelihood of death,” Ranney said.

A similar public health approach can be applied to firearm injury and prevention by first measuring the problem, identifying risk and protective factors, and developing and evaluating interventions to reduce risk or mitigate the effects of exposure. “Then, when we figure out what works, we scale it,” she said.

Speed limits, airbags in cars, drunk driving laws, and enforcement of those laws contributed to the reduction of car crash deaths. Other programs educated young drivers about drunk driving, while hospitals taught new parents how to use a car seat to decrease infant car crash deaths.

“It was things like setting up trauma systems nationwide to help save those who were in a car crash, and of course,



Dean Megan Ranney at a Yale Law School panel in September.

we redesigned cars and made them safer,” Ranney said. Safer gun storage is one of the most important things that can be done to reduce the risk of firearm suicide and homicide, she said. “If your loved one has dementia and they own a firearm, you should have a conversation with them about maybe taking the firearm out of the house while you’re having a conversation about whether it’s safe for them to continue to drive,” she said. “If you have a child or a friend who’s showing signs of depression or suicidality and they have access to a firearm, talk about ways to reduce their access for a bit. Most kids who shoot themselves or others do so with their family’s guns. Kids know where guns are stored.” “We also need to address the issue of social isolation. When we’re separated from each other, we see firearm injury and death increase,” Ranney said.

A LACK OF DATA AND THE RENEWAL OF FUNDING

While many mass shootings are connected to domestic violence, others are connected to firearm suicide. But because there has been very little research on gun violence, the U.S. lacks the most basic understanding of this public health issue, Ranney said.

From 1996 to 2020, there was virtually no federal funding for gun violence research from the National Institutes of Health or the Centers for Disease Control and Prevention. As a result, the U.S. is years behind in understanding the evidence behind how to stop firearm injuries before they happen. “We wouldn’t accept that for heart disease. We don’t accept it for HIV or cancer or COVID-19. We should not accept it for firearm injury and death,” Ranney said.

When she started doing this work as an emergency physician in the early to mid 2000s, she was told by mentors to

not take on the issue because she would never get funding. “In the early days of my doing this, we could get all the researchers who were studying this issue literally in a room. It was a dozen of us,” she said. To help jumpstart the field, she created a small nonprofit called AFFIRM to organize researchers who had similar interests.

It took a social media post in 2018, telling physicians to “stay in their lane,” to rally people around the issue. “My organization, AFFIRM, responded, ‘This is very much our lane, and here are all the reasons that gun violence is a health problem,’” Ranney said.

Two years later, for the first time in 24 years, Congress appropriated money to the NIH and CDC to fund research into firearm injury prevention. It was, she said, a landmark moment.

FUTURE OUTLOOK

Progress will happen when cultural norms change around what safe, responsible firearm ownership looks like. Everyone has a role to play. “We all need to stand up for public health,” Ranney said.

Jane E. Dee

55–60%

THE PERCENTAGE OF GUN DEATHS BY SUICIDE



FOR THE PUBLIC GOOD

“We’re at a stage where we’re ready to take off. We’ve built our playbook.”

~Leslie Asanga

PILLS2ME—AN INNOVATION SUCCESS STORY

Pills2Me is a Yale School of Public Health innovation success story. The company received its initial support and funding in 2020 from InnovateHealth Yale, YSPH’s social entrepreneurship program, and was recently named one of the U.S. recipients of the Google for Startups Black and Latino Founders Fund for 2023.

Leslie Asanga, Advanced Professional MPH ’20, is a pharmacist and the founder and CEO of Pills2Me, a technology startup that increases medication adherence through on-demand prescription delivery and medication therapy management. With the cash award as well as mentoring support from Google, Asanga is expanding his team and scaling up the Pills2Me business, with plans to expand to more U.S. cities between now and the end of the year. The plan is to eventually be a household name nationwide.

The Google for Startups Founders Funds provide cash awards and hands-on support to help Black and Latino entrepreneurs build and grow their businesses. The fund includes a \$150,000 equity-free cash award to help fuel new businesses as well as sales and fundraising training and technical support from Google mentors to help take entrepreneurs to the next level.

Pills2Me is available in New Haven, Connecticut, Las Vegas, Nevada, and Houston, Texas.

“We’re at a stage where we’re ready to take off,” Asanga said. “We’ve built our playbook. We’ve tested user acquisition channels. Our technology’s robust and can handle tens of thousands of deliveries at a time. And so now we’re literally just copying and pasting in various cities.”



Leslie Asanga

While a student at YSPH, Asanga took advantage of Yale University’s many entrepreneurial offerings including an entrepreneurship for social change class and the Student Innovation Lab at Yale School of Management. He collaborated with the Yale Institute for Global Health’s Sustainable Health Initiative, one of the first public health innovation and social entrepreneurship programs led by a school of public health.

He founded Pills2Me during the COVID-19 pandemic with volunteers who delivered medications to people in need in the New Haven area.

Pills2Me received the Thorne Prize from Startup Yale in 2020, which came with a \$25,000 award. “The Thorne Prize was the first funding we got,” Asanga said. “That’s what we used to begin our engineering process, to build our platform.”

After Asanga graduated from YSPH, he moved to Las Vegas where he expanded Pills2Me.

“The COVID-19 pandemic elevated the importance of innovation and social entrepreneurship in the field of public health,” said Associate Professor Kaveh Khoshnood, PhD ’95, MPH ’89. “Our aim is to support students such as Leslie to launch their innovative projects and turn them into sustainable and impactful companies. I am so proud of Leslie and hope his work inspires our current students to launch their own innovative approaches to solve public health challenges in the U.S. and globally.”

Jane E. Dee

W A T I N G

FOR THE PUBLIC GOOD

A NEW APPROACH FOR EVALUATING PUBLIC HEALTH INTERVENTIONS

Randomized clinical trials may be the gold standard for biomedical research but they are often ill-suited for testing complex multi-component public health interventions on a large scale.

Recognizing the need for a more dynamic research tool, a team of researchers led by Susan Dwight Bliss Professor of Biostatistics Donna Spiegelman, ScD, has developed a new adaptive study design called “Learn As You Go” (LAGO) that represents a paradigm shift in how public health intervention evaluations are conducted.

Rather than adhering to the usual confines of standard methods for conducting trials, the LAGO design adopts an iterative approach similar to that used by engineers who tweak, tailor, and adjust a design in real time until an optimal model is achieved.

In LAGO trials, researchers propose an initial multi-component intervention package that is then implemented in pre-determined stages. Data from each stage are analyzed and used to reassess and revise the intervention in preparation for the next stage. This process can continue until an optimal intervention is found that maximizes effectiveness while minimizing cost. Unlike other adaptive study designs, the composition of the intervention in the later stages of a LAGO trial depends on the outcomes from previous stages.

The concept behind the LAGO design first arose following the discouraging results of the BetterBirth Study, a large-scale, cluster-randomized clinical trial that sought to reduce maternal and neonatal mortality rates in Northern India through the implementation of a Safe Childbirth Checklist. Despite enrolling nearly 160,000 mothers and implementing a comprehensive intervention package, the study’s results were disappointingly null, with only

modest improvements in birthing practices and no significant reduction in deaths.

Although researchers could see that the BetterBirth trial was failing to generate improved survival rates as it progressed, there was nothing they could do, due to the strict principles of randomized clinical trials.

LAGO’s rigorous study design, coupled with its inherent flexibility and build-as-you-go approach, allows researchers to “leapfrog” over the ill-fitting paradigm of a randomized clinical trial to accelerate the development and implementation of impactful public health interventions, Spiegelman said.

“Given the vast numbers of preventable deaths around the world and gaping health disparities seen among high-, medium-, and low-income countries, we cannot afford to run null trials of proven interventions,” said Spiegelman, the founding director of YSPH’s Center for Methods in Implementation and Prevention Science (CMIPS).

“The culture, values, and methodologies of randomized clinical trials, although extremely useful for testing the effectiveness of new drugs and devices, are not necessarily optimal when you apply them to large-scale public health interventions,” Spiegelman continued. “Large-scale public health interventions typically don’t involve the evaluation of a single intervention such as a multivitamin versus a placebo. They often involve multi-layered and complex intervention strategies.”

Development of the LAGO design was spearheaded by Spiegelman, who worked in collaboration with Daniel Nevo, an associate professor of statistics at Tel Aviv University, and Judith Lok, an associate professor of mathematics and statistics at Boston University.

Colin Poitras



HUMANITARIAN RESEARCH LAB DOCUMENTS WAR CRIMES

One of the biggest challenges facing international human rights investigators is access to timely, verifiable information. Closed borders, travel restrictions, and locked-down communications channels are just a few of the tactics war criminals and others have used to hide atrocities from the rest of the world.

But those traditional obstacles are no longer insurmountable. Innovations in remote sensing analysis and the growing use of social media around the world are making it increasingly difficult for these individuals to hide.

In the Yale School of Public Health's Humanitarian Research Lab, researchers are sifting through hundreds of images from commercial satellites and NASA thermal imaging sensors as they investigate potential crimes against humanity and war crimes around the globe. Currently, their sights are set deep inside Ukraine and Sudan, where brutal ongoing conflicts are decimating civilian infrastructure and leaving innocent victims lying in the streets.

"Although we may be here at Yale, in reality, we are inside the Ukrainian cyberspace that is part of this war," the lab's Executive Director Nathaniel Raymond told NPR's Morning Edition in an interview earlier this year. "The running joke among our team is that we go to work in Ukraine every day from New Haven."

"Although we may be here at Yale, in reality, we are inside the Ukrainian cyberspace that is part of this war."

~Nathaniel Raymond

But satellite imagery is just one part of the effort. The lab, and its investigative partners, also analyze countless streams of publicly available open-source information — social media accounts, regional media reports, historical records — to identify leads and corroborate what they see from space.

"Everyone focuses on the satellites, but what we really do is work at the intersection of technology and anthropology," Raymond said.

Launched by Associate Professor Kaveh Khoshnood, MPH '89, PhD '95, in 2021, the Humanitarian Research lab is maintained by YSPH faculty and students who are dedicated to addressing humanitarian crises around the world.

Its mission is not limited to war zones. But it is the lab's work in Sudan and Ukraine that has made international headlines.

When the International Criminal Court issued an arrest warrant for Russian President Vladimir Putin last March for the unlawful deportation of Ukrainian children (a war crime), camp locations and other detailed evidence collected by the Humanitarian Research Lab were a key part of the underlying affidavit. The lab's investigative report estimated that at least 6,000 Ukrainian children had been relocated — many under duress — to Russia or Russian-held territories as part of a government-organized network of at least 43 Russian "re-education" and adoption facilities.

Much of the lab's current work is done through its association with the U.S. Department of State's Conflict Observatory, an initiative that was launched last May to collect, analyze, document, and preserve evidence of possible war crimes committed by Russia as part of its invasion of Ukraine.

Since May 2022, the YSPH lab has issued more than 25 detailed reports documenting the destruction of Ukrainian health care facilities, grain silos, and the Kakhovka Hydroelectric Station Dam. The lab also documented the existence

COMPUTATIONAL TOOL ADVANCES STUDY OF COVID-19 AND ALZHEIMER'S

of an organized filtration system in Ukraine's Donetsk oblast and extrajudicial detentions and forced disappearances, including torture, by Russian actors in occupied areas of Ukraine.

More recently, the lab has been monitoring conditions in Darfur and Western Sudan where rival military forces are battling for control of the region. Through its periodic "situational awareness reports," the Humanitarian Research Lab has documented widespread destruction in Darfur, Omdurman, Khartoum, and Nyala, as well as other areas. In many cases, the lab's reports are the only existing documented information on the current status of these communities.

Ultimately, the lab's goal is not only to document atrocities so that those responsible will eventually be held accountable but also to gather enough knowledge about tensions in a region to predict where future violence may occur to help protect civilians and facilitate humanitarian assistance.

"The current armed conflict in Sudan has devastated the lives of so many civilians," said Khoshnood. "Our HRL team is committed to producing scientific evidence that validates the gross violation of international humanitarian and human rights law and supports negotiations between Sudanese armed groups with the hope of leading to a genuine ceasefire and peace agreement."

The lab's reports appear to be having an impact. On June 10, just hours before the State Department was scheduled to release a Yale Conflict Observatory report accusing both sides in the Sudan conflict of violating the Jeddah Declaration of Commitment to Protect Civilians and of hindering the delivery of humanitarian aid, the battling parties announced a 24-hour ceasefire to allow for the movement of humanitarian aid throughout Sudan.

Colin Poitras



Chang Su

Chang Su, PhD '23 (biostatistics), and colleagues at Yale School of Public Health and Emory University have developed an innovative computational tool to characterize the functional organization of genes in cell types using single-cell RNA-sequencing data.

The statistical model they developed, named CS-CORE, addresses the key challenges in single-cell data, including high sparsity and noises. CS-CORE can better identify the biological functions and pathways in cell types in human tissues, such as brain and blood, than existing methods in systematic benchmarking and real data analyses, said Su, assistant professor at Emory University. CS-CORE was developed during Su's PhD studies under the supervision of Hongyu Zhao, Ira V. Hiscock Professor of Biostatistics, and Professor of Genetics and of Statistics and Data Science.

When applied to single-cell studies on Alzheimer's disease and COVID-19, CS-CORE also uncovered dysregulations in biological pathways in cell types that advanced the understanding of the disease mechanisms.

Su was awarded the JXTX + CSHL Biology of Genomes scholarship and presented CS-CORE in a talk at The Biology of Genomes meeting at Cold Spring Harbor Laboratory in May 2023. CS-CORE was jointly developed by The Zhao lab: Hongyu Zhao, and lab members Chang Su, Zichun Xu, Xinning Shan, Biao Cai, and Emma Jingfei Zhang of Emory University. Their paper, "Cell-type-specific co-expression inference from single cell RNA-sequencing data," was published in Nature Communications.

Jane E. Dee

FOR THE PUBLIC GOOD

Since its inception in 2013, InnovateHealth Yale has coached over 200 students, funded 66 startups, and awarded over \$400,000 in impact grants and internship funding to a broad array of student ventures.

INNOVATEHEALTH YALE SUPERCHARGES PUBLIC HEALTH

Fatema Basrai knows how far an idea can go.

Basrai is the managing director of InnovateHealth Yale, Yale School of Public Health's social entrepreneurship program, and the Sustainable Health Initiative (SHI), which strives to solve complex global health challenges through business-minded approaches, creative problem-solving, and international collaboration.

Since its inception in 2013, InnovateHealth Yale has coached over 200 students, funded 66 startups, and awarded over \$400,000 in impact grants and internship funding to a broad array of student ventures. InnovateHealth Yale alumni have been funded and supported by Techstars, MIT Solve, the Chan Zuckerberg Initiative, and leading venture capital firms.

InnovateHealth Yale partners with centers for innovation and entrepreneurship across Yale University including Yale Ventures, the central university entity for supporting innovators across the university and in New Haven with resources and opportunities.

Tsai Center for Innovative Thinking at Yale (Tsai CITY) is a hub that inspires students from diverse backgrounds and disciplines to seek innovative ways to solve real-world problems.

In a recent interview, Basrai discussed the importance of mentoring, supporting, and funding new ideas in public health to improve the lives of people in communities throughout the world.



Fatema Basrai

Q: Why is innovation so important to public health and its mission of protecting and improving the health of people in their communities?

Basrai: Public health encompasses pretty much every area of our lives. Just like medical doctors are coming up with new therapeutics and new medications, when we are innovating in public health, we are finding new ways to solve old and new problems.

Innovation is a driving force that empowers public health to stay relevant, responsive, and effective in safeguarding and enhancing the well-being of individuals and communities. It enables the field to overcome challenges, embrace new opportunities, and continually improve the quality of health care and health outcomes for all. Through InnovateHealth Yale and SHI, we are committed to supporting students and alumni to become part of that driving force.

Q: How does InnovateHealth Yale decide which startups and nonprofits to fund?

Basrai: First of all, we ask: How does this funding particularly impact public health challenges, and what is the end goal for the startup or nonprofit? Then, we look at how much research and thought has gone into the problem, and if the students who are working on this have spent several years thinking about this problem. We also call in our advisors — people with different levels of expertise all around the university. If we have a specific question, we can ask one of our partners or advisors, and make sure that the student innovator gets connected to the right resources, whether it's InnovateHealth Yale funding, SHI mentorship with our global mentors-in-residence, or another grant or mentorship opportunity.

INNOVATING FOR THE PUBLIC GOOD

Q: How does InnovateHealth Yale provide support to chosen innovations?

Basrai: We provide one-on-one mentorship, primarily with me or our faculty director, Kaveh Khoshnood, PhD '95, MPH '89, and we connect students with other faculty members, mentors in our network, and the greater Yale network. We also give impact grants for student ventures in the spring and fall through Startup Yale, and provide funding for summer internships for students to work with organizations doing innovation work in the public health space. Everything we give out is a grant. We're not taking equity for these startups. As students and founders become alumni and are successful, we hope that they will be interested in giving back.

Q: What are some of InnovateHealth Yale's biggest success stories?

Basrai: Leslie Asanga, Advanced Professional MPH '20, founder and CEO of Pills2Me and the Thorne Prize winner in 2020, recently received a Google for Startups Black Founders Fund award that includes a cash prize and access to Google's resources for entrepreneurs.

April Koh, YC '16, started Spring Health when she was a 24-year-old Yale student, winning the Thorne Prize in 2016. In 2021, she and her partner used the \$25,000 prize money to start their artificial intelligence-enabled mental health clinic. The company has really taken off and is now valued at over one billion dollars.

Khushi Baby, the winner of the inaugural Thorne Prize in 2014, founded by Ruchit Nagar, MPH '15, developed a bracelet embedded with a silicon chip that can be worn by infants in rural India to record their vaccination history. A mobile phone app writes and reads the vaccination records on the bracelet and sends them to a database. The Khushi Baby team has signed a three-year contract as the Nodal Technical Support Partner to the Department of Health, and received \$2.4 million in funding for the innovation from the Central Ministry of Health and Family Welfare.

Q: Tell us more about the Sustainable Health Initiative

Basrai: The other hat that I wear is the managing director of the Sustainable Health Initiative, which is a global health innovation program based at the Yale Institute for Global Health.

Since 2019, the Sustainable Health Initiative has invested in entrepreneurs who are dedicated to positively impacting health care in the world's emerging economies.

Students work with SHI Fellows to create their ideal startup or hone their existing idea to maximize its impact on complex global health challenges. These peer coaches also serve as go-betweens between the student initiatives, program staff, and SHI Mentors in Residence, who are partners with robust experience in global health innovation and entrepreneurship.

We have some great success stories for SHI-funded initiatives: Metamagics, an India-based technology company, helps to make the organ transplant process more efficient and effective. Care providers can use their cloud-based, AI-enhanced platform to monitor and analyze their patient's condition before and after transplant, maximizing the chance of success. Recently, thanks to mentorship and support from SHI, the company raised \$360,000 and successfully piloted the software with Yale New Haven Hospital's kidney transplant center.

Aero Therapeutics helps physicians in low-resource areas to treat neonatal respiratory issues with rugged and affordable devices. Through SHI, the company raised \$580,000 and received one year of free office space in New Haven.

Recently we launched the Venture Development Program within SHI. The specialized initiative is embedded within Tsai CITY's venture development programs and supported by expert coaching from the SHI core team, SHI Fellows, and SHI Mentors in Residence. Students who are selected for the program train with Tsai CITY in their venture development programs while receiving global health specific coaching and resources.

Matt Kristoffersen

“VOICES”



**TOWNSEND OFFERS COVID BOOSTER GUIDANCE TO
CANCER PATIENTS | WTNH**

“We can figure out what treatments are associated with that higher risk and what kind of booster schedules might aid those patients.”

~Jeffrey Townsend, PhD, *Elihu Professor of Biostatistics and Professor of Ecology and Evolutionary Biology*

**DEZIEL STUDIES ENVIRONMENTAL INJUSTICE DUE TO OIL
AND GAS DEVELOPMENT | AJPH**



“The combination of numerous environmental hazards and social stressors has long been understood to contribute to heightened health risks and health disparities.”

~Nicole C. Deziel, PhD, MHS, *Associate Professor of Epidemiology (Environmental Health Sciences); Co-Director, Yale Center for Perinatal, Pediatric and Environmental Epidemiology*



LOWE POINTS TO THE LINK BETWEEN EXTREME WEATHER AND MENTAL HEALTH | THE LANCET

“Early June 2023 was marked by an unprecedented disaster: wildfire smoke emanating from Quebec (Canada) spread throughout the northeastern USA. ... This so-called crisis in the air threatens physical and mental health. Robust research links extreme weather events to psychiatric symptoms.”

~Sarah R. Lowe, PhD, *Associate Professor of Public Health (Social and Behavioral Sciences), Associate Professor of Psychiatry and Associate Clinical Professor of Nursing; Affiliated Faculty, Yale Institute for Global Health*

RAYMOND AND TEAM FIND EVIDENCE OF UKRAINIAN CHILDREN TAKEN TO RUSSIA | FOX61



“Secretary Blinken said that this report for the State Department helped with the President’s determination that crimes against humanity have been committed.”

~Nathaniel Raymond, *Lecturer in Epidemiology (Microbial Diseases) and Executive Director of the Humanitarian Research Lab – YSPH*



ALUMNI NEWS & INNOVATION

WELCOME FROM ALUMNI ASSOCIATION PRESIDENT KATHE FOX



Dear Alumni,

I had the pleasure of meeting our new dean, Dr. Megan Ranney, MD, in April when she spoke about our alumni as critical players in the school's success.

Ranney, the C.-E. A. Winslow Professor of Public Health and Professor of Emergency Medicine at Yale School of Medicine, is nationally known for her advocacy and research on firearm injury prevention as well as her community-driven approaches to addressing longstanding and emerging public health problems. As dean, she will oversee the school's historic transition from a department within YSM to a fully independent, self-sustaining professional school.

Ranney's four pillars that will guide her leadership are inclusion and community; innovation and entrepreneurship; communication; and data-driven leadership.

Innovation is the theme of this Yale Public Health magazine, which showcases our faculty, students, alumni, and staff who are having an impact on public health. These individuals are thinking and acting with creativity, hoping to improve and sustain the health of our communities, nation, and world.

Innovation is the buzzword of the 21st century—everyone wants to be an innovator. In other times we have called individuals who sought to change the status quo scientists, explorers, experimenters, and discoverers. What all these individuals have in common is a desire for a different world—hopefully, one that will be better for all. These individuals have energy, ideas, passion, and commitment, traits that are critical for the formulation of an innovative idea and are required to see that idea through to implementation.

Public health has always been a discipline where innovation led to lifesaving and life-extending changes. According to the CDC, the following are the top innovations of the 20th century:

- Vaccinations
- Motor vehicle safety
- Safer workplaces
- Control of infectious diseases
- Decline in deaths from coronary heart disease and stroke
- Safer and healthier foods

- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard

We take these innovations for granted, often forgetting that their foundation was in public health innovation.

I remember Jim Jekel, emeritus C.-E. A. Winslow Professor of Public Health, lecturing in the course in the fall of 1977 when I was in my first year. He said, "The average life expectancy for a man at age 60 has not changed from 1776 to 1976." He was introducing us to two concepts at the same time: age-adjusted life-expectancy and competing causes of death. While we know that the life expectancy at birth has changed dramatically in those 200 years, few public health changes extended life for those who lived to age 60. Since 1977 that too has changed as the impact of car safety, smoking cessation, and medical advances have become widespread.

Sadly, the COVID-19 pandemic revealed that many individuals consider public health and individual health synonymous. Yet we know that health advances, with a foundation in public health, are collective, not individual; they require a common mindset where everyone adopts, adapts, and changes for the collective good. Without the acceptance and understanding of collective versus individual rights, many public health initiatives flounder. But the pandemic also revealed the power of innovation as we adapted and adopted so that the entire world would survive.

I love innovations, most especially those which target individual behaviors, nudging us to make and sustain changes so that we are healthier. From diet to reproductive health, to safer aging, and emotional health—innovators and their contributions have changed, I think for the better, our lives.

Read Yale Public Health magazine and enjoy the accomplishments of our YSPH family.

In solidarity,

Kathe Fox, PhD '81

President, Association of Yale Alumni in Public Health (AYAPH)

YUET MEI CHIN INNOVATION FUND FOR JUNIOR FACULTY WORKING IN CLIMATE CHANGE

Please note: The donor prefers to remain anonymous.

What inspired you to create this fund?

My father is a professor and a scientist, and I know from him the challenges that young scientists and researchers face in getting funding for their work. I wanted to support them as they begin their careers.

Why is supporting the school's efforts on behalf of climate change and health important to you?

Climate change and its impact on our planet and the people who live on it is, in my opinion, the most important and pressing crisis we face today. This summer, with its wildfires and record-breaking heatwaves across the globe, is just a harbinger of what is to come, and I believe we urgently need people working to find solutions to mitigate the most catastrophic effects of climate change.

What is something you'd like to see your gift to YSPH accomplish?

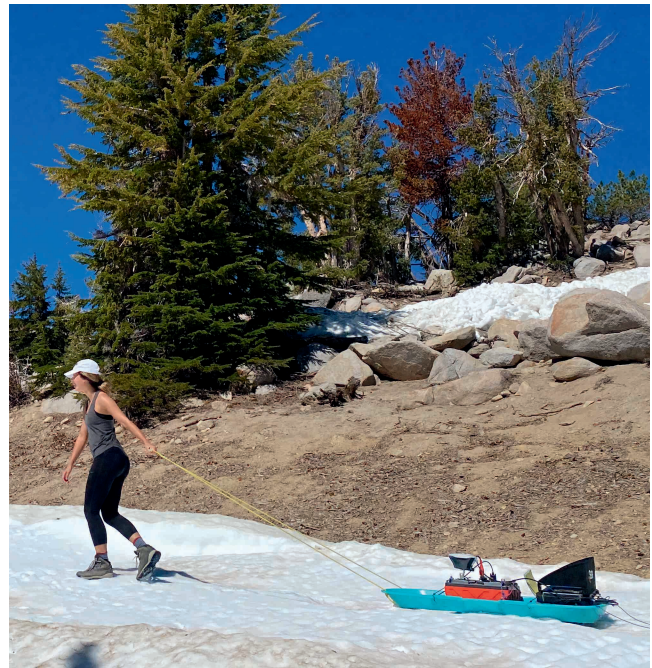
I'd like to see it spark research that can be used to develop policies, innovative programs, or technology solutions to address the worst impacts of climate change.

What one piece of advice would you give to future generations and to future donors?

Universities such as Yale are essential for their contribution to global knowledge, and providing financial support for their mission is an important way to assist with this work. I would suggest thinking about areas where you believe it is important to expand our understanding, and investigating whether Yale has programs in those fields. It is a wonderful way to become involved on a personal level with Yale and to see firsthand the impact your support can have.

Above: Nicole Smith, MPH '24 (Environmental Health Sciences) tests ice core equipment on a snow patch in mid-July during an internship at the Desert Research Institute in Reno, Nevada.

Opposite: Kaitlyn Maurais, MPH '24 (Epidemiology of Microbial Diseases) collects mosquitoes for the Connecticut Agricultural Experiment Station.



ALUMNI BY THE NUMBERS

YSPH alumni live across the world and in all 50 states. We are grateful that so many are willing to give back to the school.

79

ALUMNI SERVE AS CLASS AGENTS

74%

OF ALUMNI HAVE ENGAGED WITH YSPH STUDENTS THROUGH VOLUNTEERING, EVENTS, DONATIONS, AND OTHER ACTIVITIES SINCE GRADUATING.

77

COUNTRIES WHERE ALUMNI RESIDE. ALUMNI LIVE IN ALL 50 STATES, PLUS WASHINGTON, DC & PUERTO RICO.

9 DECADES

YSPH HAS LIVING ALUMNI ACROSS NINE DECADES OF GRADUATES.

AN ABIDING LOVE FOR YALE TURNS INTO A LASTING GIFT—IN 15 MINS



Arthur Wheaton Ide III, MD, and Lisa Ragen Ide, MD '89, MPH

For Lisa Ragen Ide, MD '89, MPH, Yale has always been a place of possibility.

“Yale provides such an outstanding education and exceptional experiences for anyone who attends that it feels like an education from Yale makes anything possible. The opportunities are just extraordinary. People end up with the perspective that they can make a difference in the world,” Dr. Lisa Ragen Ide, MD '89, MPH, said.

For Ide and her husband, Dr. Arthur Wheaton Ide III, MD, making a difference came in the form of scholarship giving. The couple recently learned that it was possible to endow a scholarship at the Yale School of Public Health at half the usual cost, thanks to a generous matching gift program by anonymous donors to inspire scholarship giving at the school. Learning of this, the couple created the Lisa Ragen Ide MD '89, and Arthur Wheaton Ide III, MD Scholarship Fund at YSPH.

Their decision was further motivated by the Yale \$50 Million Challenge, a program that offers additional endowment funds to the school for gifts made to endowed funds at YSPH. Notably, not only regular gifts, but also planned gift commitments such as bequests and lifetime income gifts, contribute towards unlocking these additional endowment funds.

When the couple learned that planned gifts qualified for the Challenge, they decided to expand the scholarship fund even further by designating a donation to it from an Individual Retirement Account. They had wanted to make a planned gift to Yale but did not want to redraft their wills. Using an IRA meant doing little more than signing on the (electronic) dotted line.

“It could not have been easier,” Lisa Ragen Ide said. “If it took 15 minutes, I would be surprised.” She also sees the gift as making future giving easier too, because the couple can keep adding to the scholarship as part of their annual charitable giving.

Giving to Yale was a natural fit. Her father, the late Brooks Geer Ragen, '55, endowed scholarships and professorships, a tradition that her mother, Suzanne Ragen, continues. Two of her brothers and two of her children also attended Yale College.

She was moved by the Yale campaign for Humanity and saw the Yale School of Public Health as a perfect fit with the mission “to improve the world now and for future generations.” Though she attended Yale School of Medicine, she worked closely with a YSPH professor, the late Frank Black, as her thesis advisor. Her project with Black led to an opportunity to work with Dr. Luc Montagnier of the Pasteur Institute who would later share the Nobel Prize for discovering the virus that causes AIDS.

The self-direction that Yale School of Medicine is famous for continues to serve her. “My experience with the Yale system at the School of Medicine was really transformative in how I continue to study and transition roles in medicine,” she said. Her career has spanned emergency medicine, occupational health, and now telemedicine as she is chief medical officer of Zipnosis, which provides a telehealth platform to large health systems across the country. She has also served as a physician at the Center for Victims of Torture in Minnesota for decades.

Before beginning his career as a dermatologist, her husband was a Peace Corps volunteer in Nepal. They share a concern for addressing the social determinants of health, the socioeconomic, environmental, and behavioral factors that research has shown to be strong influences on health, and a commitment to make good health accessible to everyone.

“We feel so strongly about the importance of public health and public health education in the U.S.,” she said.

ALUMNI

INNOVATORS



NORMA PADRÓN

Norma Padrón, PhD '14, (Health Policy and Management) is the founder and CEO of EmpiricaLab, a company specializing in peer-to-peer training within health care organizations to accelerate their digital transformation. The platform supports employee training across units, locations, and roles.



TRAVIS WHITFILL

Travis Whitfill, MPH '14, (Chronic Disease Epidemiology), an assistant professor adjunct in pediatrics (Emergency Medicine) is the co-founder of several startup companies, including the Connecticut-based microbiome company, Azitra Inc. He is active in YSPH's Alumni Affairs efforts.



KAYLA WOOLEY

Kayla Wooley, MPH '21, (Health Care Management) is Founder & CEO of StaffOnTap, an online platform connecting understaffed nursing homes and temporary nurses. StaffOnTap was the winner of the 2023 Yale Angels Pitch Off that showcased five promising startups from the Yale community that competed for prizes and pro bono services from Yale alumni. Wooley recently joined the Founders Pledge at Yale School of Medicine and YSPH, a community of entrepreneurs who are interested in impacting not only their business ventures, but medical and health outcomes on a global scale.



Elizabeth Bradley

VASSAR COLLEGE PRESIDENT & YALE ALUMNA ELIZABETH BRADLEY RECEIVES 2023 WILBUR LUCIUS CROSS MEDAL

BRADLEY WAS A PROFESSOR OF PUBLIC HEALTH AND FACULTY DIRECTOR OF YALE'S GLOBAL HEALTH LEADERSHIP INSTITUTE, THE BRADY-JOHNSON PROFESSOR IN THE GRAND STRATEGY PROGRAM, AND HEAD OF BRANFORD COLLEGE.

Vassar College president and Yale alumna Elizabeth “Betsy” Bradley, PhD '96, has been awarded a 2023 Wilbur Lucius Cross Medal for her leading scholarship in public health and her unwavering commitment to the health and well-being of local and global communities.

The Wilbur Cross Medal is the highest honor that the Yale Graduate School bestows on its alumni. Named in honor of former Graduate School Dean and Governor of Connecticut Wilbur Lucius Cross, the award was established in 1966 to honor alumni of Yale Graduate School for outstanding achievements.

Prior to becoming the 11th president of Vassar College, Bradley was a professor of public health and faculty director of Yale's Global Health Leadership Institute, the Brady-Johnson Professor in the Grand Strategy program, and head of Branford College. She was a member of the Yale faculty for 20 years.

Bradley is renowned internationally for her work on the quality of hospital care and large-scale health system strengthening efforts within the U.S. and abroad. In addition, she has been instrumental in founding the Vassar Institute for the Liberal Arts and a collaboration on global liberal arts with institutions in Rwanda, India, and Scotland.



Kaakpema Yelapaala

YELPAALA WILL SERVE AS A LECTURER IN THE EXECUTIVE MPH PROGRAM, SHARING HIS INSIGHTS ON INNOVATION, ENTREPRENEURSHIP, AND THE USE OF DATA IN PUBLIC HEALTH.

Public health innovator and global entrepreneur Kaakpema “KP” Yelapaala has joined the Yale School of Public Health as a senior fellow and lecturer in the Department of Health Policy and Management.

Yelapaala, a YSPH alum who received his MPH in global health in 2006, brings an understanding of global digital health and health care innovation to his new post along with 20 years of experience working across public and private sectors in the United States, Sub-Saharan Africa, and the Caribbean.

Yelapaala co-founded InOn Health in 2018. The company improved access to care in the United States using digital communication channels and consumer insights to better connect multicultural populations to health care services. Before that, Yelapaala founded access.mobile International, a global digital health company in 13 African countries.

“KP has a wealth of knowledge and experience when it comes to creating sustainable innovations and leveraging data to address global health inequities and improve public health,” YSPH Dean Dr. Megan L. Ranney, MD, MPH, said. “He is a leader in this important area, and we are excited that he will be sharing his insights and expertise with our faculty and students.”

Yelapaala was an employee of the Clinton Health

PUBLIC HEALTH INNOVATOR KAAKPEMA YELPAALA APPOINTED SENIOR FELLOW AND LECTURER AT YSPH

Access Initiative (CHAI) where he assisted former YSPH Professor Elizabeth Bradley, PhD ’96, in founding a program to improve hospital management systems in Ethiopia. In 2007, he was the recipient of the Yale University Eric W. Mood New Professionals in Public Health Alumni Award for leadership and innovation in global health. He was recognized as a “Luminary” in Rock Health’s list of the Top 50 leaders in Digital Health for 2022.

“It is an honor to be appointed a senior fellow and lecturer at the Yale School of Public Health by Dr. Ranney,” Yelapaala said. “Her four core pillars for the future of public health resonate deeply with me given my background as an entrepreneur and digital health leader working in the U.S. and globally. I am enthusiastic about how YSPH can support the next generation of public health innovators and social entrepreneurs.”

Yelapaala will serve as a lecturer in the Executive MPH program, sharing his insights on innovation, entrepreneurship, and the use of data in public health. Innovation and entrepreneurship, and data-driven leadership are two of the four core pillars that Dean Ranney has identified as being essential to the future of public health. The other two pillars are inclusion and community, and communication. Yelapaala also will assist in the development of innovation and entrepreneurship initiatives at YSPH in collaboration with programs across Yale.

When asked what advice he gives people stepping into the innovation space, Yelapaala offered three insights:

- Never lose sight of what communities identify as their needs.
- Center equity in everything you do from the beginning as opposed to thinking about equity as something to address after achieving initial success and scale.
- No matter how great our intentions may be, if we can’t build sustainable financial models, we cannot sustain the work.

Colin Poitras



JOHN BROWNSTEIN, PhD '04, was recently recognized by Becker's Hospital Review as one of 2023's "35 hospital and health system chief innovation

officers to know." Brownstein is Professor of Biomedical Informatics at Harvard Medical School, chief innovation officer at Boston Children's Hospital, and a global leader in health care IT, especially informatics and big data analytics. As chief innovation officer, he runs a 100-person multidisciplinary team focused on digital innovations that impacts clinicians and consumers. His group is supported by a multimillion-dollar budget including grants from the National Institutes of Health, the U.S. Agency for International Development, the Department of Defense, the Intelligence Advanced Research Projects Activity, the Centers for Disease Control and Prevention, Google, Skoll, and the Bill & Melinda Gates Foundation. His work has pioneered "digital epidemiology" using diverse digital data sources to understand population health. His work has been published in over 300 peer-reviewed papers, all focused on new methods and applications in digital health. This work was recognized by the White House with the Presidential Early Career Award for Scientists and Engineers. Brownstein is co-founder of digital health companies Epidemico and Circulation and an ABC Medical News Contributor. He has authored over 300 peer-reviewed articles on epidemiology and public health. This work has been reported on widely, including pieces in the New England Journal of Medicine, Science, Nature, The New York Times, The Wall Street Journal, CNN, National Public Radio, and the BBC.



ROBERT W. BUCKINGHAM, DrPH '78, is Professor of Public Health at the University of Michigan-Flint. Buckingham was the Founding Dean of the School of Public Health at

the University of Saskatchewan from 2009-

2014. He has authored 12 books and many scientific papers, with the most recent book entitled "Understanding Loss and Grief for Women," published by Praeger Publishers in 2018. Buckingham has authored five books on hospice care, including "Care of the Dying Child," published by Continuum International Publishing Group, which has been translated into seven languages. Buckingham helped pioneer the development of the first hospice in the U.S. and is considered one of the "Founding Fathers" of the hospice movement in North America. He was the first director of research at the first hospice in Connecticut in 1974, and subsequently assisted in developing 81 hospice programs throughout the world, including a hospice for children with AIDS in Thailand. For his humanitarian work in the field of hospice care for children with AIDS he was awarded the prestigious Ivanosky Prize in Humanitarian Medicine by the Russian Institute of Virology in 1992. In 2014, Buckingham was awarded the Nelson Mandela Award for Academic Leadership for his work as Dean at the University of Saskatchewan from Harvard University. From 2016 until 2022, Buckingham was a member of the board of directors of the Association of Schools of Public Health European Region (ASPHER) which oversees 120 schools and programs in public health throughout Europe. He presently is on the ASPHER-WHO COVID-19 Task Force and has written five scientific papers on COVID-19 that were published in international scientific journals in 2020, 2021 and 2022. He is sought after for his advice and recommendations on the handling of the COVID-19 pandemic worldwide. He has participated in numerous media events pertaining to the pandemic.



SHADRACK OSEI FRIMPONG, MPH '20, and current MD candidate at Yale School of Medicine, recently received an honorary doctor of science (social sciences) degree

from Royal Holloway, University of London. Frimpong received the honorary doctorate for his work with Cocoa360, the non-profit he founded in 2015 in his home village of

Tarkwa Breman, in Ghana's Western Region. Cocoa360 supports local cocoa farmers by providing tuition-free schooling and localized health care that the farmers help fund and manage. To date, the organization's "farm-for-impact" model has treated 21,200 patients, reached 35,000 farmers, and educated 300 students. Upon receiving the honorary degree, Frimpong noted, "[This honor is] an endorsement of our drive to radically transform how global health and international development is done—truly put communities at the forefront of impact."



SHARON K. INOUE, MD, MPH '89, MACP, has been awarded the John Phillips Memorial Award for Outstanding Work in Clinical Medicine by the American College of

Physicians (ACP), a national organization of internal medicine physicians. Established by ACP's Board of Regents in 1929, the John Phillips Memorial Award for Outstanding Work in Clinical Medicine is given to internal medicine physicians in recognition of their innovative, impactful, and sustained contributions to the field. Clinical medicine includes all aspects of clinical research or the practice of medicine. Dr. Inouye is a noted leader in internal medicine, geriatrics, and clinical research known for her transformative contributions to the clinical care of older adults and the medical breakthroughs that followed. She is currently a Professor of Medicine at Harvard Medical School, where she also serves as Milton and Shirley F. Levy Family Chair. Aside from Dr. Inouye's work with Harvard Medical School, she is also the Director of the Aging Brain Center at the Hinda and Arthur Marcus Institute for Aging Research at Beth Israel Deaconess Medical Center (BIDMC). She is an elected member of the National Academy of Medicine, and the incoming editor in chief of JAMA Internal Medicine. For the past 30 years, she has been the pre-eminent investigator in the prevention of delirium and functional decline among elderly hospitalized patients. One of Dr. Inouye's career accomplishments includes creating the Confusion Assessment Method, the

ALUMNI NEWS

most widely used instrument for identifying delirium in elderly hospitalized patients. She also developed the Hospital Elder Life Program (HELP), a multicomponent strategy shown to reduce delirium by 40%. Dr. Inouye's innovative work has led to over 400 publications and over 70,000 citations, changing the lives of millions of older adults worldwide.



JENNIFER MANDELBAUM, MPH '16, was recently awarded the Rising Star Award from the National Association of Chronic Disease Directors for her work at the South

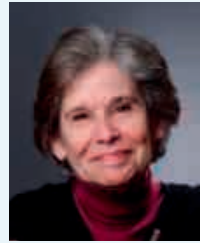
Carolina Department of Health and Environmental Control (DHEC). This award recognizes "an individual staff member in a state, tribal, or territorial Chronic Disease Unit... who has demonstrated exceptional leadership and innovation to promote health." As a program evaluator at DHEC, Jennifer works on two CDC-funded grants addressing South Carolina's persistent racial and socioeconomic disparities in diabetes and heart disease by expanding the capacity of health systems in high-burden, medically underserved areas. Jennifer serves as the lead data manager and quantitative analyst for a statewide survey of South Carolina's rural health clinics and Federally Qualified Health Centers. Jennifer also recently defended her PhD dissertation in the Department of Health Promotion, Education, and Behavior at the University of South Carolina. Her dissertation examined Nutrition Facts label use among U.S. adolescents.



GEORGE SIMEON MPH '94, shared the exciting news that his company, Curevo Vaccine, completed a \$26 million Series A1 financing round last November, and raised a total of

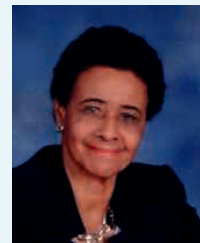
\$86 million in 2022 allowing the company to more aggressively pursue clinical and research activities on CRV-101, a clinical stage adjuvanted sub-unit vaccine under investigation for the prevention of shingles

in older adults. In 2019, George visited CNBG's newly opened museum (CNBG is China's 100-year-old vaccine manufacturer) and unexpectedly came across a photo of Yale graduate, Yan Fuqing. In addition to being the first Asian student to receive a doctorate in medicine at Yale, he was a public health pioneer in China. (https://en.wikipedia.org/wiki/Yan_Fuqing.)



JUDY STAVISKY, MPH '80, MEd, has spent considerable time over the past decade attending Amish schools, sharing meals with Amish families, and joining events

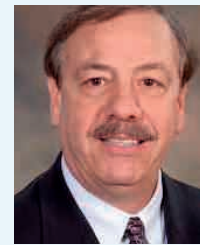
hosted in the Amish community. Judy has a lengthy career in philanthropy and helping nonprofit organizations become more successful. She is co-author of "Do It Better! How the Kids of St. Francis de Sales Exceeded Everyone's Expectations," chronicling the journeys of Philadelphia's student refugees. Recently Judy has been supporting the city's refugee resettlement efforts, connecting food insecure Philadelphians with meals. She has taught public health programming at Arcadia and Drexel Universities.



IRENE TROWELL-HARRIS, MPH '73, EdD, received the R. Louis McManus Award, the most prestigious award given by the National Council of State Boards of Nursing

(NCSBN). The award is given for sustained and significant contributions through the highest commitment and dedication to the mission and vision of NCSBN. In giving this award to Trowell-Harris, NCSBN noted: Booker T. Washington once stated, "Success is to be measured not so much by the position that one has reached in life as by the obstacles which he has overcome." For Major General Irene Trowell-Harris, titles alone do not define her success. To achieve success in reaching her personal and professional goals she was faced with many social and economic barriers as well as race and gender barriers. Despite many daunting

challenges, every accomplishment kept her motivated and more determined to build upon each success. Her lived experience is the basis of her leadership at community, state, and country levels where she inspires and mentors others to overcome barriers. As the first African American woman to be promoted to general officer in the Air National Guard and the only woman to be honored with a chapter of the Tuskegee Airmen in her name. Trowell-Harris has never lost sight of her goals. Serving on numerous committees representing high-level government and military officials, she exerts her influence to improve the experience of military women serving their country as well as after they leave active duty. It is due to her visionary leadership that all women veterans now enjoy a level of health benefits that addresses their needs. Trowell-Harris knows that it takes sustained commitment, the right connections, a bold vision, and clear intentions to make a positive and lasting impact as a leader.

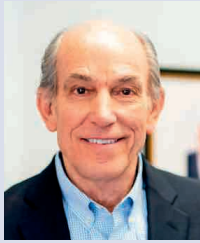


LEON F. VINCI, DHA, MPH '77, has been appointed as a board member of the Virginia Western Community College (VWCC) Scholarship Advisory Board. On behalf of the Virginia

Western Educational Foundation, Inc., his responsibilities include awarding annual scholarship disbursements to eligible students. VWCC is one of the 23 colleges of the Virginia Community College System and comprises its largest campus across the Commonwealth. Within the catchment area for VWCC, 45% of those seeking a college education attend Virginia Western. Eighty-five percent of VWCC graduates remain in the region post-graduation, fueling the economic engine of the entire Roanoke Valley in Virginia.

HAVE AN UPDATE? Your classmates want to hear about you! Send your news (and photos) to ysph.alumni@yale.edu.

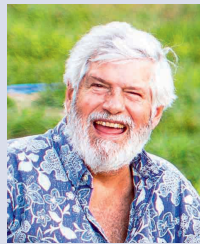
IN MEMORIAM



GERALD (GARY) E. BISBEE Jr., MPhil '75, of New Canaan, Connecticut, passed away on March 10, 2023, with his family

by his side. He was born on July 12, 1942, in Waterloo, Iowa, to the late Gerald and Maxine Bisbee. In 1970, he married Linda Ude and together they shared an academic journey, earning Gary an MBA in Finance from the Wharton School and a PhD from Yale University. Health care became his area of expertise. Gary's career included faculty positions at Yale and Northwestern universities and leadership roles at several health care companies. He co-founded APACHE Medical Systems, and served on the board of the Cerner Corporation for over 30 years. In 1998, he co-founded the Health Management Academy, whose mission was to convene executives of the largest health care systems across the United States to share best practices. The Academy, under Gary's guidance, produced many of today's most important health care leaders. Most recently, he was the founder of ThinkMedium, a modern-day think tank that promotes ideas at the intersection of health care strategy, leadership and practice. He also wrote a widely distributed weekly, "Bisbee Brief." He had a deep respect for education and took pride in mentoring young people. Gary loved life and had many passions. He was a singer and proudly sang the U.S. and Canadian

national anthems at a Chicago Blackhawks game. He was a sports fan and an avid cyclist, racing across several states and in France, and doing 15 relay triathlons with his children in Washington, DC, and New York City.



JONATHAN WATERS FISHER, MPH '79, died peacefully at the University of Vermont Medical Center after

a short, aggressive battle with acute myeloid leukemia. He was gentle, kind and generous and a devoted son, brother, father, grandfather and friend. Jonathan graduated from the Middlesex School in 1966, where he played soccer and rowed. He graduated from Pomona College in 1971 with a degree in anthropology, after studying primatology with Alan Walker at Makerere University in Uganda. Jonathan earned his master's in public health at Yale University in 1979, after working on a country-wide nutrition survey in Lesotho. Between his studies, Jonathan spent time motorcycling across Europe, working in the sugarcane fields of Kauai, summiting Mt. Kilimanjaro, and road-tripping across Africa in a VW Beetle, homesteading with his brothers in Vermont's Northeast Kingdom, traveling to Central America by VW bus and working at Plantation Farm Camp in northern California. In 1981, Jonathan began working at the University of Vermont on a USAID grant that brought him to Honduras, Haiti, and Uganda. He

met his wife, Molly McClaskey, while working at UVM, and they married in 1984. Jonathan became a father to his son, William, in 1987 and his daughter, Emily, in 1990.

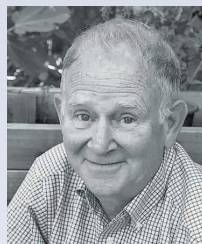
VALENTINE GALASYN, MPH '77, MD, died Friday, December 2, 2022, in Pierce Memorial Baptist Home. He was the loving husband of Aili (Hakkila) Galasyn for 67 years. Born in Hartford, Connecticut, he was the son of the late Stanley and Frances (Kowalsky) Galasyn. Val's 30-year career in the U.S. Navy began at the end of WWII when he enlisted at age 17 and continued through the Korean War, the Vietnam War, and submarine patrols throughout the Cold War. He served as a physician for the Navy specializing in environmental and emergency medicine where he earned the rank of Captain. He earned his PhD in Chemistry from the University of Illinois, his medical degree from the University of Tennessee, and his Master of Public Health from Yale University. He became the director of the Naval Undersea Medical Institute in Groton and helped establish the Emergency Department at Windham Community Memorial Hospital. He was a member of the Finnish American Heritage Society, Windham County 4-H Foundation, and the Fin, Fur, & Feathers Club. He was a lifetime member of the Connecticut State Medical Association and the NRA. He loved the many dogs he had over the years and enjoyed fishing, hiking, farming, and the outdoors. Taking things apart and fixing them was a lifelong hobby. He was humbled when

he was inducted into the Connecticut Veterans Hall of Fame for his military and community service and was a veterans Quilt of Valor recipient in 2018.

SHIRLEY HANDLER, MS '53, passed away on Tuesday, April 4, 2023, at the age of 93. Born in 1929, in Boston, Massachusetts, Shirley lived with her family in the Mattapan, Roxbury, and Brighton neighborhoods, and graduated from Brighton High. At the age of 16, she entered Smith College where she earned her B.A. in education and child development. After graduation, she began her long and successful career in health education with a position at the American Cancer Society. While there, she was awarded a fellowship to the Yale School of Public Health where she earned a Master of Science degree. Beginning in 1972, she worked in the Boston Public Schools first as a teacher of health education and health curriculum coordinator and later as the Program Director for Comprehensive Health for the entire school system. In the latter role, Shirley developed and implemented K-12 health curriculum standards and worked with community organizations and state and local officials to develop the drug-free schools program. In 1989, while working full time, she obtained her Ed.D. from the University of Massachusetts. Shirley retired from the BPS in 2001, but almost immediately returned to work. She taught for the next 10 years at Cambridge College, where she founded the Health Education Graduate Program. She retired for a second time in 2012, at the age of 80. For her contributions to the

field of public health, she received a number of awards including a Lifetime Achievement Award for contribution to the field of comprehensive health education and a Leadership Award from the BPS for service and commitment to the development of young women. She lived for more than 30 years in Needham, before moving to Brookline in 1989.

MICHAEL HUNCHAREK, MPH '86, died in at the age of 60. Following his Yale degree, he received his MD degree from Boston University and did his residency training in radiation oncology at Harvard. He worked as an oncologist and primary care specialist in Wisconsin, St. Louis, Missouri, and South Carolina. He published numerous articles, including meta-analyses of oncology clinical trials.



JOEL KAVET, MPH '67, ScD, an innovative health care professional and benefactor, a Red Cross volunteer assisting Wounded Warriors at Walter Reed National Military Medical Center for the last 10 years, a Navy veteran of the Cuban Missile Crisis era, and a 48-year resident of Bethesda, Maryland, died April 7, 2023, after a two-year battle with prostate cancer. Joel was a lifelong learner – interested in everything and everyone. He was passionate about public service and politics. He was a kind and faithful friend. He had a sharp wit and a great sense of humor.

He believed in making life better for those he served during his long public health career, and for the many injured veterans and first responders he served during his retirement. Joel also served as a public member for three years on the Board of Professional Responsibility (Ethics) of the District of Columbia Court of Appeals. He earned the admiration of the legal colleagues with whom he served. As Director of Managed Care Program Development & Research at The United Mine Workers of America Health and Retirement Funds, Joel created a landmark program, MineRx, widely recognized as a national model for consumer-directed safe use of medications. He devoted his professional life in both the public and private sector to developing health policies to ameliorate the economic impacts of disease. In August 2022 Joel endowed the “Joel Kavet, MPH '67, ScD and Robert Kavet, MS, ScD Scholarship Fund” at Yale School of Public Health, a gift matched by funds from the school. This award exemplified Joel’s belief that solutions to complicated public health issues require an education system fed by motivated students prepared to tackle today’s and tomorrow’s problems. At Harvard, he developed a lifetime friendship with Rashi Fein (and his family), a noted economist and health policy expert whom Joel regarded as a mentor. After Fein’s death in 2014, Joel assisted in establishing the Rashi Fein Internship in Health Policy. It seeks outstanding students interested in promoting equitable access to high quality, affordable, cost-effective health care. Until

IN MEMORIAM (CONTINUED)

recently, Joel was active in reviewing applications for this prestigious award. It was in his volunteer work post-retirement that Joel's passion for public service was most on display. In 2012, Joel became a Red Cross Volunteer supporting Occupational Therapy Assistive Technology at the Walter Reed National Military Medical Center. Sometimes referred to as the "Wounded Warrior" section of the hospital, Assistive Technology designs a prosthetic or technical solution tailored to the needs of an individual veteran suffering the scars of his or her service. His colleagues, military staff, and the veterans receiving treatment all grew to love and respect Joel for his dedication and kindness of spirit. A graduate of the U.S. Navy Reserve Officers' Training Corps program at RPI, Joel spent two years as a Lieutenant serving on a radar picket ship, USS Investigator, during the Cuban Missile Crisis naval blockade.

MARJORIE NELSON, MPH '73, MD, of State College, Pennsylvania, passed away following a stroke. Marjorie was born in Kokomo, Indiana [June 24, 1939] to Earl and Elda Nelson. She graduated from Kokomo High School and continued to receive a Bachelor of Science from Earlham College, then earned a Doctor of Medicine degree from Indiana University in 1965. She completed both her internship and her residency at the Pennsylvania Hospital. Her first two months of residency were spent on the hospital ship, Hope, serving medical needs of people in Guinea and

Sierra Leone. During her residency Marjorie was deeply involved in the Quaker organization, Young Friends of North America (YFNA). Twice she attended international meetings of the Prague Christian Youth Peace Conference as YFNA's representative. The Vietnam War was raging and in September 1967 Marjorie was on her way to Vietnam with the American Friends Service Committee to provide medical care to civilians suffering from the ravages of the war. Three months into her medical work in Quang Ngai, on a visit to Hue, during the Tet offensive, she was taken captive by soldiers of the National Liberation Front (NLF). By that time Marjorie was able to converse in the Vietnamese language and was treated respectfully during her two-month captivity, as detailed in her book, "To Live in Peace in Midst of the Vietnam War." Following her release, Marjorie returned to Quang Ngai for another year to continue serving those suffering from the war. Marjorie served as medical director of Planned Parenthood until 1977, and as a faculty member of the new Ohio University College of Osteopathic Medicine (OUCOM). Her expertise in public health was important in the early evolution of OUCOM, and her work as a physician was deeply appreciated by her patients and by her professional colleagues in Athens. In Athens she was also a founding member of the Athens Friends Meeting (Quaker). Upon her retirement Marjorie moved to State College, PA, to live at the Quaker retirement community of Foxdale. In State College she became

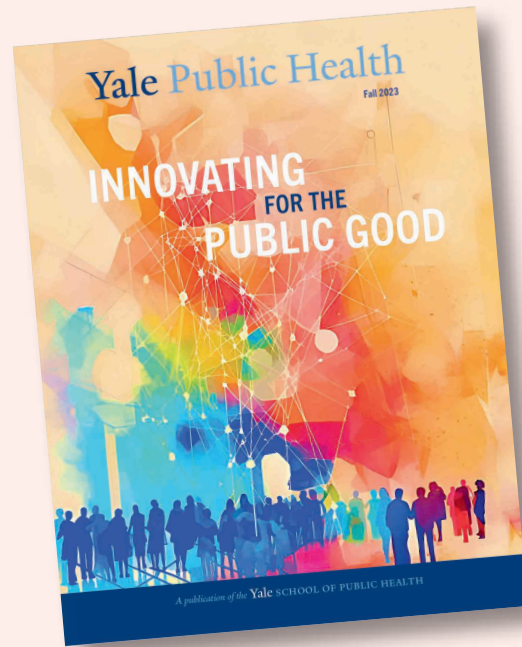
a valued member of both the Foxdale community and of the State College Friends Meeting. During her life Marjorie enjoyed tai chi and archery and was a member of the Society for Creative Anachronism. She also wrote the Star Trek novel, "Pawns and Symbols," using the pseudonym Marjliss Larson.

COL. BOBBY G. ROWE, MPH '68, passed away at the age of 87. Bobby was born to Henry and Louise Rowe in Kinston, North Carolina. Growing up he loved his high school days the very most with baseball, friends and life in the 50s. After high school, Bobby enlisted in the United States Air Force, serving four years and benefiting from the GI Bill by attending Campbell University, earning a Liberal Arts degree, and Wake Forest University, earning a B.S. in Sociology. Upon graduation he accepted an Air Force commission in the Medical Service Corps and went on to earn a Master of Public Health from Yale University. He was assigned to the Military Airlift Command, served throughout the world, completing his military career as Hospital Administrator at Langley A.F.B. in Hampton, Virginia, and retired as a full colonel. Bobby enjoyed coaching and supporting little league baseball, fishing, watching sports, and shopping. He volunteered as a health insurance consultant for the Peninsula Agency on the Aging, and he frequently served as a Baptist preacher throughout his career. Bobby was a great conversationalist. He could talk with anyone, and he did. His children

relied on his advice and he will be missed dearly though he lives in their hearts and in their minds.

KEITH TAIT, MPH '81, MFS, '81, passed away on February 9, 2023. He is survived by his daughter. For more than 25 years, Keith traveled globally, promoting occupational hygiene while working at Pfizer. He was an active member of AIHA's Exposure Assessment and International Affairs Committees and championed the control banding approach. He served as a faculty member at AIHA's first Fundamentals of Industrial Hygiene Program in India. Keith was also instrumental in supporting India's first master's program in industrial hygiene. He visited India and other countries several times to conduct training programs. Keith also served as a president of AIHA's Metro New York Local Section. In 1998 he was recognized as the local section's outstanding member. Keith cared so much for everyone who crossed his path. He will be remembered by his many friends and colleagues for his generous spirit, fiery intellect, and passion for our profession.

SEND OBITUARY NOTICES TO
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AWARDS & HONORS FALL 2023

The Wheeler Lecture Prize, awarded over the years to the world's most esteemed chemists, was presented in May 2023 by the University College Dublin School of Chemistry to **PAUL T. ANASTAS**, professor of epidemiology (environmental health sciences), and Teresa and H. John Heinz III Professor in the Practice of Chemistry for the Environment. Considered the “father of green chemistry,” Anastas also received the 2021 Volvo Environment Prize, one of the world's most respected environmental prizes.

MICHAEL CAPPELLO, professor and chair of the Department of Epidemiology of Microbial Diseases at the Yale School of Public Health, and professor of pediatrics and microbial pathogenesis at the Yale School of Medicine, was presented with the Francis Gilman Blake Award for outstanding teaching of the medical sciences at YSM's commencement on May 22, 2023. Each year's awardee is chosen by the graduating class.

KAI CHEN, assistant professor of epidemiology (environmental health) and director of Research, Climate Change and Health, has accepted an invitation to become a member of the Climate & Health Working Group in US CLIVAR, a national research program with a mission to foster understanding and prediction of climate variability and change. The working group will focus on several priorities, including improving the quantification, communication, and understanding of uncertainties in climate predictions and projections.

NICOLE DEZIEL, associate professor of epidemiology (environmental health sciences), has been named a co-director of the Yale Center for Perinatal, Pediatric, and Environmental Epidemiology (CPPEE). She will share leadership duties with the center's director, **ANDREW THOMAS DEWAN**, associate professor of epidemiology (chronic diseases).

JEANNETTE ICKOVICS, the Samuel and Liselotte Herman Professor of Social and Behavioral Sciences, Yale School of Public Health, will receive the 2023 Martha May Eliot Award for her innovative work in prenatal health care and mentorship. Ickovics is the first person to receive National Institutes of Health funding for a randomized controlled trial on group prenatal care — joining pregnant people with similar backgrounds together for patient education and emotional support. In addition to shaping the group prenatal care curriculum, she was the founding director of the NIH-funded T-32 training grant, which exposes health care trainees to policy, social, and behavioral research.

MELINDA IRWIN, Associate Dean of Research and Susan Dwight Bliss Professor of Epidemiology, received a \$7 million grant from the National Cancer Institute to investigate how nutrition and exercise interventions can improve chemotherapy outcomes and reduce toxicity for women with ovarian cancer. Irwin's team will assess the effect of the intervention on treatment delays, patient-reported chemotoxicities, and relevant biomarkers.

AKIKO IWASAKI, Sterling Professor of Immunobiology and professor of epidemiology (microbial diseases) and of dermatology and molecular, cellular, and developmental biology, and an Investigator for the Howard Hughes Medical Institute, has been selected as the 2023 recipient of the Connecticut Medal of Science. Iwasaki is recognized for her major discoveries in the areas of innate sensing of viruses, and instruction of adaptive anti-viral immunity. Iwasaki also received the 2023 Else Kröner Fresenius Prize for Medical Research.

BECCA LEVY, professor of social & behavioral sciences and of psychology at Yale University, was honored with the Gerontological Society of America's 2023 Richard Kalish Innovative Publication Award for her 2022 book, “Breaking the Age Code: How Your Age Beliefs Determine How Long and Well You Live,” (HarperCollins). The award recognizes insightful and innovative publications on aging and life course development in the behavioral and social sciences.

SHUANGGE STEVEN MA, professor of biostatistics and director of the Biostatistics and Bioinformatics Shared Resource, has been awarded a 2023 YCC Pilot Award to support innovative cancer research. Ma, chair of the Department of Biostatistics, is a member of Yale Cancer Center's Cancer Prevention and Control Research Program, “Canceromics modeling with statistically principled deep learning.”



MELINDA PETTIGREW, professor of epidemiology and deputy dean of the Yale School of Public Health, who served as

interim dean during the last year, has accepted the position of dean at the University of Minnesota School of Public Health. Pettigrew, the Anna M.R. Lauder Professor of Epidemiology, assumed the duties of interim dean on July 1, 2022 and filled the role until the arrival of Dr. Megan L. Ranney, MD, MPH, in July. Pettigrew will begin her new role at University of Minnesota on Dec. 29. In her research, Pettigrew studies the molecular epidemiology of respiratory tract infections and the growing public health threat of antibiotic resistance. A graduate of Grinnell College, Pettigrew received her PhD from Yale in 1999. She conducted a postdoctoral fellowship at the University of Michigan before joining the Yale School of Public Health faculty in 2002.

JOSEPH ROSS, professor of health policy and management and of medicine (general medicine), Yale School of Medicine, was named deputy editor of the peer-reviewed journal JAMA. Ross served as an associate editor of JAMA Internal Medicine from 2013-2019, and the U.S. outreach and associate editor at The BMJ from 2020-2023.

HONGYU ZHAO, Ira V. Hiscock Professor of Biostatistics, professor of genetics and professor of statistics and data science, has been elected president-elect of the International Chinese Statistical Association. Additionally, Hongyu and **HEPING ZHANG** were recognized with the ICSA 2023 Distinguished Achievement Award.

The MacMillan Center for International and Area Studies offers awards through the Kempf Memorial Fund, and Faculty Research Grants. **ROBERT HECHT**, professor of clinical epidemiology was awarded both to launch a new partnership between YSPH and the Cambodia National Institute of Public Health. **YULIA ROZANOVA**, associate research scientist in medicine (AIDS), and **DR. SHEELA SHENOI**, MD, associate professor of medicine (infectious diseases), with **KAVEH KHOSHNOOD** associate professor of epidemiology (microbial diseases) and **DINI HARSONO** from the Center for Interdisciplinary Research on AIDS (CIRA), received a Kempf Award to host a series of events titled: “Managing Health during Humanitarian Crises: Resilience, Establishing Health Priorities, and Impact on Health Care Workers.”

FROM SCHOOL PROJECT TO FESTIVAL SCREENING



From left: Dr. Kelvin Ameneyedor, MD, MPH '23 (global health), Mukund Desibhatla, MPH '23 (chronic disease epidemiology, maternal child health), and Chidum Okeke, MPH '23 (health care management)

Early in Russia's 2022 invasion of Ukraine, African college students fled to Ukraine's western border, seeking refuge in another country. Three recent YSPH graduates tell their stories.

Chidum Okeke, MPH '23 (health care management), Mukund Desibhatla, MPH '23 (chronic disease epidemiology, maternal child health), and Dr. Kelvin Ameneyedor, MD, MPH '23 (global health) created “African Wave: Voices Amidst Conflict Caught in the Crossfire of the Russian-Ukrainian War” for a class last spring. They submitted it to the American Public Health Association's (APHA) Film Festival where it was accepted and scheduled to be screened ahead of the 2023 APHA Annual Meeting and Expo.

YSPH AROUND THE WORLD

A summary of some of the global public health partnerships at Yale School of Public Health.

NEW HAVEN, CT, USA

The Yale Digital Media for Health Outcomes course guides students through the design of digital social and behavior change communications. Developed in partnership with the Ad Council, African Union, Africa CDC, Population Services International, and UNICEF, the course includes instruction from several experts in the health communications field, case studies from WHO and Yale School of Public Health, and examples of communication campaigns.

UKRAINE

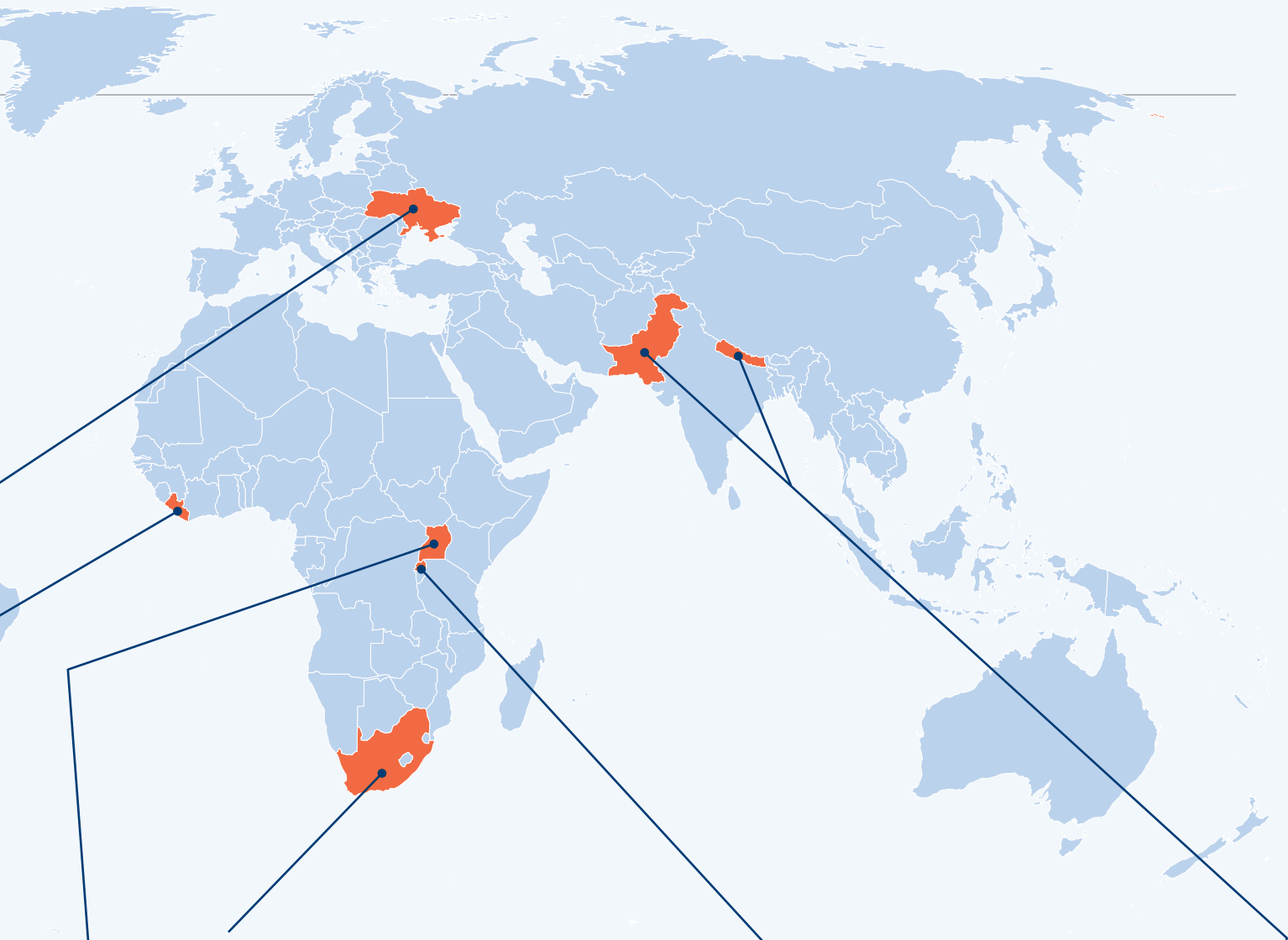
The RESPECT project (REsponding to the needs of PEople deprived of liberty in ConflicT), delivers mental health interventions in Ukrainian prisons and is led by Associate Research Scientist Danielle Poole and Professor Rick Altice.

MARIUPOL, UKRAINE

Associate Research Scientist Danielle Poole and colleagues published the first geographically comprehensive before-and-after study of the effects of an ongoing conflict on specially protected medical infrastructure. During Russia's siege, 77% of medical facilities in Mariupol sustained damage, a violation of the Geneva Conventions, the researchers contend. The innovative work, which builds off of the satellite imagery damage classification by the Yale Humanitarian Research Lab, is leading the advancement of war crime documentation.

LIBERIA

Through Yale University's USAID-funded award, BRIDGE-U: Applying Research for a Healthy Liberia, the University of Liberia College of Health Sciences has launched the first health entrepreneurs' learning program, HEALR: Health Entrepreneurship Advancement Leveraging Research, designed to support aspiring health entrepreneurs in developing their skills while accelerating the progress of their health ventures. Assistant Professor Kristina Talbert-Slagle said the goal is to empower participants to identify unmet health care needs in Liberia and propose viable solutions. The program is part of a collaboration with the Consortia for Improving Medicine with Innovation and Technology in Massachusetts.



SOUTH AFRICA

Mind the Gap: Mental Health and Substance Use Disorders among PLHIV on TB Preventive Therapy in South Africa, is led by Associate Professor Luke Davis and is focused on understanding how mental health and substance use disorders affect TB preventative therapies among adults living with HIV (PLHIV).

UGANDA

Assistant Professor Laura Forastiere received a YIGH Spark Award for her project on malaria morbidity and mortality in Uganda. The Spark Award will be used to conduct a feasibility pilot to understand barriers to malaria testing and to assess an approach to enhance testing and treatment among people attending private health services.

RWANDA

Associate Professor Sarah Lowe received a YIGH Spark Award for her work on behalf of Rwanda's orphaned children. A national program seeks to close large-scale residential facilities and reunite children with their families. Researchers will conduct a study to assess mental health, and implement interventions.

PAKISTAN & NEPAL

Assistant Professor Ashley Hagaman received a YIGH Spark Award for her work decolonizing suicide interventions in Nepal and Pakistan. A local artist made stickers that correspond to the core elements of a crisis/safety plan to help prevent suicides. The stickers give people with limited literacy a way to make an easily used plan.

STUDENT INNOVATORS

Earlier this year, we asked students to tell us about their innovative projects. Here is what they said.



WORKING AT THE FOREFRONT OF CHANGE IN THE 911 SYSTEM

The West Metro Fire Rescue Advanced Resource Medic in Lakewood, Colorado, is a pilot agency for the Center for Medicare and Medicaid Innovation. It employs a nurse practitioner, a physician assistant, and an advanced practice firefighter/paramedic who schedule urgent-care services and telehealth visits in patients' homes. They also do lab work, provide pregnancy tests, set broken bones, order mobile imaging, suture wounds, prescribe from a progressive formulary from the back of a specialty ambulance, and are working towards admitting patients in mental health crisis directly to in-patient services. The opportunity to work on the forefront of change in the 911 system has been the professional honor of my life.

—Program Director Mike Binney, Executive MPH '25



TURNING PATIENTS INTO HEALERS

Bravo Conscious Health is a health care-technology platform redesigning patient care by joining distinct medical modalities with allopathic medicine to prioritize root cause resolution, emphasize preventative care, and achieve greater power parity between patients and their doctors. A team of MDs, non-allopathic clinicians, healers, and lifestyle coaches will redefine the patient experience by unifying the interaction between belief systems, physiological functioning, and disease states. The platform simultaneously aims to bridge silos in patient data to develop predictive models to improve diagnosis and treatment, while minimizing the effort and uncertainty that sick people must go through to successfully engage with their own health and healing. I hope to empower patients to become their own healers, and doctors to be guides.

—Rodrigo “Rod” Bravo, MPH '24 (Health Care Management); MD Candidate, College of Medicine Tucson



CHANGING THE PARADIGM OF EMERGENCY TREATMENT

Auriva Health's IoT platform has the potential to address life-threatening events across a spectrum of medical conditions. Recently, Auriva Health secured a spot in the highly competitive MIT/NIDA Bootcamp for Biomedical Innovation, with support from the National Institutes of Health. Auriva Health's wearable and portable devices can detect medical emergencies including seizures, myocardial infarction, and diabetes-related hypoglycemia. Once an event is identified, the platform can activate a drug delivery device, potentially saving lives in the critical moments before medical assistance arrives.

—Jolene Bressi, PharmD, Executive MPH '25



PROVIDING A MENTAL HEALTH PLATFORM FOR CHILDREN & FAMILIES

I'm working on a mental health analytics platform/app that specializes in helping students K-12 and their families navigate their mental health journey using data insights. We collect and analyze data from various sources, such as surveys and therapy sessions, to understand a child's mental health status. Our platform offers guidance on available treatments and provides caregivers with a customized dashboard on mood, behavior, anxiety, and depression. We provide parents with on-demand classes and a directory of culturally aligned therapists so they can address concerns early and make informed decisions about their child's well-being.

—Sham Firdausi, Executive MPH '25, (Health Informatics)



AUTHOR, MOTIVATIONAL SPEAKER & COACH

I am devoted to serving students from diverse backgrounds. My journey, from public housing apartments in rural Alabama to becoming a PhD student has armed me with invaluable insights, which I now use to help others realize their greatest potential. In my role as a certified Academic Success Coach, I provide much more than academic guidance. I offer accountability, mentorship, and insightful wisdom, drawing from my personal journey.

—Crystal Harrell, PhD candidate (Social and Behavioral Sciences)



BUILDING A 'KNOWLEDGE HUB'

In my mental blueprint, the HealthLink platform's mission will be to empower users by providing them with resources on preventive care, healthy living, and early disease detection. It wouldn't be just a health care tool—it would be a knowledge hub with the mission to turn individuals into informed decision-makers about their health.

—Casey Ma, MPH '25 (Health Care Management)



EMPOWERING THAILAND'S 'DISEASE DETECTIVES'

Based on the award-winning PODD project empowering farmers in Thailand to become disease detectives, we've released a free open source surveillance platform called The One Health Toolkit (<https://onehealthtoolkit.org/>) that helps low- and middle-income countries implement affordable and effective One Health surveillance as an early warning system for outbreaks.

—Matt Parker, MPH '24 (Epidemiology)

Yale School of Public Health
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