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Public Safety Advisory Board Ad Hoc Committee on Search Warrant Execution

January 2025

Executive Summary

On October 18, 2024, members of the University of Pennsylvania Police Department (UPPD) and two members of the Philadelphia Police Department (PPD) executed a search warrant at a private off-campus property for a cell phone in connection with an ongoing criminal vandalism investigation by the UPPD.

Following the execution of the warrant, members of the Penn community, as well as members of the broader Philadelphia community, raised questions about the manner of the search warrant execution, including the presence of weapons during the search, the number of officers present, the timing of the search, the decorum of the officers, and the execution of the warrant outside of the Penn Patrol Zone.

In response to these concerns, Senior Executive Vice President Craig Carnaroli and Vice President for Public Safety Kathleen Shields Anderson requested that the Division of Public Safety Advisory Board form this *Ad Hoc* committee to review the UPPD's policies, procedures, and practices regarding search warrant execution.¹ We were further asked to review the details of the October 18 warrant execution to determine whether all policies and procedures were followed and whether we identified any recommendations for improvements to the search warrant execution process.

At the end of the review, the committee concluded unanimously that the UPPD officers involved in the search warrant execution acted in accordance with all laws, policies, and best practices and behaved with courtesy and professionalism. We determined that the manner of execution of the search warrant was reasonable and appropriate.

Despite the committee's conclusion that the actions of the UPPD were appropriate, we certainly do not discount or underestimate the impact that this incident likely had on the residents of the property where the warrant was executed. A police action occurring inside of a home is potentially surprising and unsettling to residents. While our review of the video shows that officers took steps

¹ It should be noted that the scope of this review is the lawful issuance and execution of the search warrant, not the underlying criminal investigation for which the warrant was issued.

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Vanessa Chan: Penn Engineering's Inaugural Vice Dean of Innovation and Entrepreneurship

Vanessa Chan, the Jonathan and Linda Brassington Practice Professor in Materials Science and Engineering (MSE), has been named the inaugural vice dean of innovation and entrepreneurship at Penn Engineering. Dr. Chan is an entrepreneur, angel investor, speaker, and educator who is known for her expertise in innovation and entrepreneurship at the intersection of technology and business.



Vanessa Chan

Under President Joe Biden, Dr. Chan served as the chief commercialization officer in the U.S. Department of Energy and the director of the Office of Technology Transitions. In this role, she helped to advance clean energy technologies, notably through the "Pathways to Commercial Liftoff" reports, which provided roadmaps for decarbonizing various sectors, including geothermal and hydrogen. Her impact was recognized through her inclusion as one of the world's 100 most influential business leaders in climate in *Time*100's 2024 list.

Before her tenure at the Department of Energy, Dr. Chan was a partner at McKinsey &

Company for 13 years, where she co-led the innovation practice, large publicly traded companies in commercializing their technologies. Following her time at McKinsey, she founded re.design, a company dedicated to reinventing consumer products to solve everyday challenges, and sold her products on QVC.

Transitioning to academia, Dr. Chan joined Penn's faculty as a professor in the School of Engineering & Applied Science, where she served as the undergraduate chair of the materials science department. She was also a member of the executive committee of Penn Health Tech, a center bridging the Perelman School of Medicine and Penn Engineering with a mission to develop transformative medical devices. At Penn, she has focused on educating and training engineering students in technological innovation and entrepreneurship, as well as supporting the commercialization of University technologies.

Dr. Chan is a speaker and writer, sharing insights on transitioning from corporate executive to entrepreneur and advocating for an entrepreneurial approach to life. Her journey has been featured in various media outlets, including *The Wall Street Journal*, *The Washington Post* and CBS.

Dr. Chan earned her PhD from MIT and a BSE from the University of Pennsylvania, both in materials science and engineering, and holds three patents. A Q&A with Dr. Chan about her new role can be found [here](#).

Ad Hoc Consultative Committee on the Selection of a Vice Provost for Education

Provost John L. Jackson, Jr. has announced the formation of an *ad hoc* consultative committee to advise him on the selection of a Vice Provost for Education.

The vice provost for education has primary responsibility for undergraduate and graduate education at Penn, developing and implementing policies that promote academic excellence, innovative teaching and learning, and interdisciplinary knowledge across the University. The vice provost for education chairs the Council of Undergraduate Deans, the Graduate Council of the Faculties, the Council of Graduate Deans, and the Council of Professional Master's Degree Deans and works closely with the wide range of student services and resources overseen by the vice provost for university life. College Houses and Academic Services, Civic House and the Civic Scholars Program, the Graduate Student Center, the Family Resource Center, the Center for Community Standards and Accountability, and New Student Orientation and Academic Initiatives report to the vice provost for education. The vice provost for education is a vital member of the provost's senior leadership team for academic and strategic planning and will report to and be supported by the deputy provost.

The committee invites nominations of and applications from currently tenured faculty members at Penn. The ideal candidate will have extensive knowledge of the University and its policies and practices, experience working with students and academic programs, and skills in addressing sensitive issues in an effective and principled manner. Candidates must be ethical and discreet in handling confidential information and work well with faculty, staff, deans, and department chairs in negotiating difficult situations. Excellent written and oral communication skills, sound judgment, and demonstrated administrative competence are all necessary.

Nominations and applications, including CVs, may be sent by March 17, 2025 to associate provost for administration Lynne A. Hunter at lynne@upenn.edu.

The members of the consultative committee are:

Chair

- Beth A. Winkelstein, Deputy Provost; Eduardo D. Glandt President's Distinguished Professor, School of Engineering and Applied Science

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Provost's Distinguished Visiting Faculty Fellow Lecture: February 12

On Wednesday, February 12 at 4:30 p.m., Patricia Flatley Brennan, this year's Provost's Distinguished Visiting Faculty Fellow in the School of Nursing, will present: *Preparing for Next Generation AI: Integrating Culture, Context, and Characteristics*.

Until recently, artificial intelligence advanced in distinct generations or "waves," driven by increasingly sophisticated methods. Now, with widespread access to complex AI models, a focus on methods alone is no longer sufficient. AI development (and developers) must also consider culture (shared values, beliefs, and behaviors), context (social and physical environments), and individual characteristics (unique traits). Humanities, arts, and social sciences provide insights into these factors, helping shape AI models and their applications. Lessons from software design offer strategies to efficiently and intentionally enrich AI, making it more relevant, responsive, and reflective of the environments where it will be used. The next generation of AI will thrive through collaborations between developers and experts from these fields.

The lecture will be held in Bodek Lounge, Houston Hall and is sponsored by the Office of the Provost.

Please register at https://upenn.co1.qualtrics.com/jfe/form/SV_cU7Yfd-V6qg3P4IU.

Ad Hoc Consultative Committee on the Selection of a Vice Provost for Education

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Faculty

- Vance Byrd, Presidential Associate Professor of Germanic Languages and Literatures, School of Arts & Sciences; Special Advisor to the Vice Provost for Faculty
- Amalia Daché, Associate Professor, Graduate School of Education; Faculty Director, DuBois College House
- Nancy Hodgson, Claire M. Fagin Leadership Professor; chair, department of Biobehavioral Health Sciences, School of Nursing
- Kelly Jordan-Sciutto, Professor and Associate Dean for Organizational Effectiveness, School of Dental Medicine
- Diana Robertson, Vice Dean and Director, Wharton Undergraduate Division; Samuel A. Blank Professor in Legal Studies, Wharton School
- Masao Sako, Arifa Hasan Ahmad and Nada Al Shoaibi Presidential Professor of Physics and Astronomy, School of Arts & Sciences; faculty co-director, Center for Excellence in Teaching, Learning, and Innovation

Students

- Meruyert Bizhanova, Graduate School of Education; president, Graduate and Professional Student Assembly
- Ria Ellendula, C'25, president, Undergraduate Assembly

Public Safety Advisory Board Ad Hoc Committee on Search Warrant Execution

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to minimize disruption, it is impossible to completely remove the potential for discomfort and even fear surrounding this kind of police action.

Committee Charge

At its first meeting, the committee reviewed its charge and set out a scope of work. That charge and scope is comprised of the following:

This Ad Hoc Committee of the DPS Advisory Board will focus attention on, and develop an understanding of, how search warrants are executed by the Penn Police Department.

This Task Force comes in response to public concerns over the manner in and reasons for which the search warrant was executed on October 18, 2024, for evidence in connection to a vandalism case. The Task Force members will gather as a body to review information, discuss and formulate recommendations for the Senior Executive Vice President and the Vice President for Public Safety. The goal is that the work will conclude in January 2025, but the committee may take additional time if needed to conduct a thorough review.

Committee Process

The *ad hoc* Committee on Search Warrant Execution was comprised of five members of the Division of Public Safety Advisory Board and met on four occasions. As part of the review process, this committee reviewed Pennsylvania Laws and Rules of Criminal Procedure, UPPD directives and policies, example operations orders and search warrants, and extensive body worn camera footage from the execution of the search warrant on October 18, 2024. The committee also met with UPPD leadership and subject matter experts.

Committee Findings

Prior to this review, committee members saw media coverage and, in some cases, social media posts, regarding the execution of the search warrant on October 18, 2024. The committee was unable to corroborate many of the allegations posted anonymously online and then reported by various news outlets.

Specifically, this committee found that the UPPD officers involved in the search warrant execution acted in accordance with all laws, policies, and best practices and behaved with courtesy and professionalism with all individuals with whom they came in contact during the execution of the warrant. The committee determined that the manner of execution of the search warrant was reasonable and appropriate based on the information known to the department.

The committee also observed that officers and detectives followed all rules and policies with respect to the individual who was the subject of the search warrant.

While this committee does not find that there was any failure to follow policy or any policy that requires change, we do find that there is an opportunity for greater transparency and for some changes that can help ensure the community's trust in the operations of the department. The relationship between the campus and broader community and the Penn Police should be one of mutual respect and trust. Even though the nature of criminal investigations precludes the public availability of certain information, there nonetheless are opportunities for sharing appropriate information and inviting community input.

Recommendations

This committee makes the following recommendations following our review:

1. The manner of execution of any search warrant, including number of personnel, equipment, and other plans, should require final approval by the Vice President for Public Safety in addition to the Chief of Police.

The goal of this recommendation is to assure the community that in addition to ensuring all appropriate police standards and policies are followed, the execution is also reviewed by a senior University administrator.

2. The Division of Public Safety should prepare an annual report to the Public Safety Advisory Board regarding the number of executed search warrants for the year. This should include demographic information, general location information, and any other data that the department is able to share regarding the number and type of warrant executions for the year. Additionally, the department should provide an annual review of the Emergency Response Team, including training completed, current equipment, number of activations, and other relevant information.

This review will be in addition to the annual data that is already shared with the Board regarding demographic and other information for all car and pedestrian stops conducted by officers as well as complaints against police during the year. This reporting process has allowed the community to better understand the department's actions and to provide feedback, and it is our hope that including data on search warrant executions and the use of the Emergency Response Team will further increase transparency and build community trust.

3. There should be a dedicated Commander for Tactical Operations & Emergency Preparedness whose job will be to supervise the training, equipment, and operations of the Emergency Response Team while reporting to the Deputy Chief of Patrol Operations.

Following this review, committee members have a far greater understanding and appreciation of the extensive planning, preparation, and training that underly every search warrant execution. The complexity of tactical operations and considerations for executing warrants justify the consolidation of these function under one commander.

Conclusion

Our goal with these recommendations is to consolidate oversight of policies, procedures, and training and to encourage the continued consideration of the community impact resulting from police actions. We find that there was no violation of policy or best practice in the execution of this search warrant, and that the department exercised discretion in the manner of execution in order to minimize the discomfort of residents.

The committee appreciates the transparency and cooperation of the Division of Public Safety throughout this review process.

—Public Safety Advisory Board Ad Hoc Committee on Search Warrant Execution

OF RECORD

As many of you are aware, President Trump has issued a series of Executive Orders, including one that rescinded Executive Order 11246, as amended, that had required the recipients of federal funds, like Penn, to take affirmative action to promote equal opportunity in employment. As a result, the University has updated its Equal Opportunity Policy and Nondiscrimination Statement. The new policy and statement, which appear below, reflect Penn's long-standing commitment to values of excellence, freedom of inquiry and expression, and respect. We understand that the revisions to federal laws and regulations can be troubling when they change rapidly. Please know that we remain committed to cultivating a culture that is open-minded and curious, inventive and practical, exhibiting brilliance across fields, imperfect but self-improving, and relentlessly focused on enhancing social good.

—J. Larry Jameson, Interim President

—John L. Jackson, Jr., Provost

—Craig R. Carnaroli, Senior Executive Vice President

—Jonathan A. Epstein, Interim Executive Vice President for the Health System and Dean of the Perelman School of Medicine

University of Pennsylvania Policy on Equal Opportunity

The University of Pennsylvania's special character is reflected in the wide variety of backgrounds, experiences, and perspectives of the Penn community. We seek talented faculty, students, and staff who will constitute a vibrant community and help create an educational and working environment that best supports the University's commitment to excellence in teaching, research, and scholarship.

Penn's commitment to equal opportunity and nondiscrimination is fundamental to the University's mission of advancing knowledge, educating leaders for all sectors of society, and public service. The University of Pennsylvania prohibits unlawful discrimination based on race, color, sex, sexual orientation, religion, creed, national origin (including shared ancestry or ethnic characteristics), citizenship status, age, disability, veteran status, or any other class protected under applicable federal, state, or local law.

Penn is committed to ensuring that its academic, social, recreational programs and services as well as opportunities for admission and employment are available on a nondiscriminatory basis without regard to an individual's legally protected class status. The Office of Equal Opportunity Programs, in collaboration with the Division of Human Resources and the Office of the Provost, oversees the implementation and administration of the University's equal opportunity and nondiscrimination policies and programs.

The University recognizes the right of members of the community to raise questions and pursue complaints of discrimination and adheres to a strict policy that prohibits retaliation for doing so. Questions, complaints of alleged discrimination, or concerns regarding these policies or their implementation may be directed to the executive director of the Office of Equal Opportunity Programs, Franklin Building, Suite 421, 3451 Walnut Street, Philadelphia, PA 19104-6205, (215) 898-6993 or fax (215) 746-7088.

Equal Opportunity and Nondiscrimination Statement

The University of Pennsylvania seeks talented students, faculty, and staff with a wide variety of backgrounds, experiences, and perspectives. The University of Pennsylvania does not discriminate on the basis of race, color, sex, sexual orientation, religion, creed, national origin (including shared ancestry or ethnic characteristics), citizenship status, age, disability, veteran status or any other class protected under applicable federal, state, or local law in the administration of its admissions, financial aid, educational or athletic programs, or other University-administered programs or in its employment practices. Questions or complaints regarding this policy should be directed to the executive director of the Office of Equal Opportunity Programs, Franklin Building, 3451 Walnut Street, Suite 421, Philadelphia, PA 19104-6106; or (215) 898-6993.

CareQuest Institute for Oral Health Supports Scholarship for MOPH Student at Penn Dental Medicine

CareQuest Institute for Oral Health has recently awarded the CareQuest Institute Scholarship at Penn Dental Medicine, designated for a student in Penn Dental Medicine's Master of Science in Oral and Population Health (MOPH) program. The scholarship awards \$45,000 annually for two years.

"This generous support from CareQuest Institute plays an integral role in helping us attract and develop leaders who can inform, develop, implement, and evaluate policies that address current and future challenges in oral health," said Michael Glick, executive director of the school's Center for Integrative Global Oral Health (CIGOH), which welcomed its first cohort of MOPH students in the 2023-2024 academic year.

The two-year online MOPH program covers a variety of disciplines related to creating, synthesizing, and disseminating evidence to inform clinical practice and policies at all levels of the healthcare system. Through elective courses, students can develop a curriculum of their preference in one of three streams—oral and population health research; health services research, management, and policy in oral health; or community and population-based oral health promotion.

The MOPH program is among the dual-degree opportunities, which run concurrently with students' dental school education, available to Penn Dental Medicine predoctoral candidates. The CareQuest Institute Scholarship at Penn Dental Medicine was open to such dual-degree students, with second-year DMD student Christopher Oshana, D'27, selected as the scholarship awardee.

"We are deeply committed to addressing systemic barriers in oral health, and our future dental professionals will play a vital role in meeting these complex challenges," said Patricia Ma, chief legal officer and executive vice president of CareQuest Institute for Oral Health. "By supporting students like Christopher through the Master of Science in Oral and Population Health program, we are investing in the next generation of leaders to drive meaningful change and improve access to oral healthcare for underserved communities."

Mr. Oshana, who began the MOPH program this academic year, has a strong interest in serving underserved populations. He is a National Health Service Corps (NHSC) scholar, who will have a three-year service period with the NHSC after graduation.

"My desire to join the MOPH program goes hand-in-hand with my National Health Service Corps involvement," said Mr. Oshana, who is interested in teaching and advocacy work in addition to clinical dentistry. "Completing the MOPH program will give me the tools to propose, implement, and evaluate programming that may alleviate my patients' access to care. With the generous support of this scholarship, a MOPH degree will allow me to possibly enter a career in academia, public health policy, or organized dentistry and train me as a future agent of change in dentistry."

From the Faculty Senate Office

Faculty Senate Executive Committee Agenda Wednesday, February 19, 2025 3-5 p.m. ET

1. Finalize the Minutes of January 22, 2025
2. Tri-Chairs' Report
3. *In Principle and Practice* Strategic Framework Progress Report
Discussion with Senior Vice President for Strategic Initiatives David Asch and Deputy Provost Beth Winkelstein
4. Open Expression Task Force
Discussion with co-chairs Lisa Bellini and Sigal Ben-Porath
5. New Business

Honors & Other Things

Seven Penn and CHOP Physician-Scientists Elected to American Society for Clinical Investigation

Seven physician-scientists from the University of Pennsylvania Perelman School of Medicine and Children's Hospital of Philadelphia (CHOP) have been elected to the American Society for Clinical Investigation, joining one of the nation's oldest and most respected medical honor societies. The ASCI comprises than 3,000 physician-scientists who represents all medical specialties.

Newly elected Penn and CHOP members are:

Mucio Kit Delgado is the faculty director of the Nudge Unit and an associate professor of emergency medicine and epidemiology. Dr. Delgado is an associate director of the Center for Health Incentives and Behavioral Economics, and co-chair of Penn Medicine's opioid task force. His research blends behavioral and data science with insights gleaned from practicing emergency medicine in an urban trauma center to help promote smarter health choices and policy. Recent work by his teams includes revamping treatment for patients with opioid addiction, understanding racial disparities in firearm injuries and suggesting solutions for gun safety, and working to combat distracted driving.

Rajat Deo is an associate professor of cardiology. He is a cardiac electrophysiologist who has devoted his research efforts to assessing and categorizing an individual's risk of developing serious heart-related conditions, like sudden cardiac death and fatal cardiovascular disease. Dr. Deo has expertise in analyzing genetic data and proteins in the blood to determine how they contribute to cardiovascular diseases. He also uses advanced data analytics techniques and artificial intelligence to analyze changes in heart rhythms from ECGs and cardiac monitors over time with the goal of spotting early warning signs of dangerous heart rhythm problems before they occur. He is a standing member of the NIH's cardiovascular diseases study section and has a keen interest in mentoring trainees in clinical and translational research.

Yi Fan is a professor of radiation oncology. His research focuses on understanding how the body regulates blood vessel growth and immune responses, particularly in tumors and damaged tissues. By figuring out how these processes are controlled, Dr. Fan and his collaborators hope to find new ways to treat diseases by "reprogramming" the environment within tissues. This approach could help stop cancer from spreading or repair damaged heart tissue. Using advanced tools like 3D imaging, gene editing, and genetic and metabolic analysis, Dr. Fan aims to develop safer, more effective treatments for patients facing serious health challenges.

Terence Peter Gade is the Matthew J. Wilson Professor of Research Radiology, an associate professor of cancer biology, and deputy vice chair for research in the department of radiology. He is the co-director of the Penn Image-Guided Interventions Lab, where his team focuses on using cutting-edge imaging techniques to better understand how cancer develops and responds to treatment, with the ultimate goal of improving diagnosis and creating advanced, targeted therapies. His primary area of study is liver cancer (hepatocellular carcinoma), where his research has already led to clinical trials aimed

at addressing major challenges in patient care, including the identification and targeting of treatment refractory, dormant cancer cells.

Ethan M. Goldberg is an associate professor of neurology and director of the Epilepsy Neurogenetics Initiative at CHOP. He specializes in the care of children with complex neurodevelopmental disorders, including epilepsy, developmental delay, and autism spectrum disorder. His lab is interested in how genetic variation leads to neurodevelopmental disorders, with a specific focus on GABAergic inhibitory interneurons—specialized brain cells—and how their dysfunction may lead to neurological diseases. His lab has been involved in the discovery and characterization of genetic epilepsies and the development of novel therapies in pre-clinical models.

Jorge Henao-Mejia is a professor of pathology and laboratory medicine. His lab focuses on investigating the molecular mechanisms that regulate the duration and intensity of immune responses, which can lead to chronic inflammation. His team discovered that inflammatory cells can be tightly regulated by specific but little-understood groups of noncoding RNAs. Using cutting-edge gene-editing techniques like CRISPR, they study how these regulatory RNAs in immune cells respond to external cues—such as diet or allergens—to either prevent or promote the progression of pathologies like asthma, cancer, and obesity.

Nilam S. Mangalmurti is an associate professor in pulmonary, allergy and critical care. Her research investigates the role of red blood cells (RBCs) in the immune system, and how they malfunction in conditions affecting the critically ill, such as sepsis and acute respiratory distress syndrome. Her pioneering work has emphasized RBCs role in the immune system and has had a significant impact on the field. Her lab discovered that red blood cells have a receptor, TLR9, that senses DNA outside of cells and can trap it, potentially preventing harmful inflammation in the lungs, but driving inflammatory responses when homeostasis is disrupted by illness or injury. This transformative research has redefined RBCs as active immune cells capable of regulating nucleic acids and significantly advancing scientific understanding of RBC biology.

The new members will be officially inducted into the society at the ASCI Dinner and New Member Induction Ceremony on April 25, 2025 in Chicago.

John Bassani: 2025 Society of Engineering Science William Prager Medal

John Bassani, a professor emeritus in mechanical engineering and applied mechanics (MEAM) in Penn Engineering, has been awarded the 2025 Society of Engineering Science (SES) William Prager Medal for outstanding research contributions in theoretical solid mechanics.

The award goes to Dr. Bassani for his contributions to the mechanics of materials in the areas of dislocation mechanics, grain boundaries, crystal plasticity, and texture evolution and fracture, using methods that link atomistic modeling, continuum mechanics and computation. With decades of teaching experience and research in both MEAM and materials sci-

ence and engineering (MSE) at Penn, Dr. Bassani has spent years studying plastic deformation and fracture, from atomic-level properties to macroscopic continuum mechanics in a wide range of materials. His research spans the relationship between mechanics and microstructures in metals, ceramics and polymers, culminating in recent work on hydrogels related to medical sciences, specifically thrombotic embolization, i.e., the rupture of vascular blood clots.

"Being recognized by my community is validation that my nearly 50-year approach to research has been fruitful and, importantly for me, worth continuing," said Dr. Bassani. "I hope that my work inspires my colleagues, especially collaborators in our current research on embolization, which builds on my work on fracture that began in the aerospace industry just after I completed my bachelor's degree. It's rewarding to see that my career trajectory has led to this medal in recognition of that."

The award is named after a pioneer in the field of theoretical mechanics who Dr. Bassani has looked up to in his own career. "I am fortunate to be the fourth generation in a very supportive academic family tree that began with William Prager, who was a giant in my field," said Dr. Bassani.

The formal presentation of the award will take place during a ceremony at the Society of Engineering Science 2025 annual meeting, to be held in Atlanta from October 12-15, 2025. Dr. Bassani will give a plenary lecture during the meeting to accompany his recognition.

Susan Domchek: 2025 ASCO-American Cancer Society Cancer Prevention Award

Susan M. Domchek has been recognized by the American Society of Clinical Oncology (ASCO) with one of the society's highest honors, as the 2025 recipient of the ASCO-American Cancer Society Cancer Prevention Award.

Dr. Domchek is the Basser Professor in Oncology in the Perelman School of Medicine, and executive director of the Basser Center for BRCA at Penn Medicine's Abramson Cancer Center, where she also serves as director of the Mariann and Robert MacDonald Cancer Risk Evaluation Center.

The award is annually bestowed upon a distinguished expert who has made significant contributions to cancer prevention and control research or practice. Dr. Domchek will accept the award at the 2025 ASCO Annual Meeting, taking place from May 30-June 3 in Chicago.

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John Bassani



Susan Domchek

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Dr. Domchek's research focuses on improving the genetic evaluation and medical care of individuals with inherited risk factors for cancer. As the director of the Basser Center—established in 2012 as the first comprehensive center for the research, treatment, and prevention of cancers related to *BRCA1* and *BRCA2* genetic mutations—she leads a team dedicated to advancing innovative genetics research and providing education and genetic counseling to families. She is particularly interested in developing cancer interception strategies, including the possibility of immune-interception for those with a genetic susceptibility, and is the principal investigator of an ongoing clinical trial testing an experimental vaccine to potentially prevent cancer for people with *BRCA1* or *BRCA2* mutations.

"Dr. Domchek's work has made an incredible impact on countless individuals and their families who are affected by inherited cancer-associated gene mutations," said Alison Loren, chief of the division of hematology-oncology. "We're proud to see her efforts recognized through this special award from her peers at ASCO."

Amy Gutmann: Yale Legend in Leadership Award

Penn president-emerita and Penn professor Amy Gutmann accepted the Yale Legend in Leadership Award at the Yale Higher Education Leadership Summit at the Yale School of Management in New Haven, Connecticut, during a ceremony held on January 28.

"President Gutmann is one of the most revered leaders in higher education today," said summit organizer Jeffrey Sonnenfeld, the Lester Crown Professor in Management Practice at Yale's School of Management. "A trailblazer who was the first in her family to graduate college, Gutmann made accessibility and affordability key priorities during her tenure at UPenn, more than doubling the number of students from low-income and first-generation college families, while launching bold, successful initiatives. Those projects include the Penn Compact, Penn First Plus, Penn Connects, and the Pennovation Center, among many other widely-celebrated achievements on campus and around the community."

"President Gutmann's accomplishments and reputation as a leader and scholar transcend the halls of academia," continued Dr. Sonnenfeld. "The impact of her scholarship on democracy and democratic pluralism extends into her public service during the administrations of President Barack Obama, who nominated her to serve on a presidential commission, and President Joe Biden, who nominated her to serve as U.S. Ambassador to Germany. During her tenure, President Gutmann fortified the longstanding U.S. friendship with Germany and served as an ethical and moral beacon of leadership on is-



Amy Gutmann



Interim President J. Larry Jameson and keynote speaker Eddie S. Glaude Jr., the James S. McDonnell Distinguished University Professor at Princeton University (both center), with honorees and program participants.

sues ranging from support for Ukraine's defense against Putin to resistance against rising extremism."

Dr. Gutmann, the Christopher H. Browne Distinguished Professor of Political Science in the School of Arts & Sciences, and a professor of communication in the Annenberg School for Communication, has been Penn's longest-serving president, holding the office from 2004 to 2022. Named by *Fortune* as one of the "World's 50 Greatest Leaders" in 2018, Dr. Gutmann championed access to education and healthcare, innovative discoveries that save lives and propel economies forward, global engagement, and public-private partnerships.

During her tenure, Dr. Gutmann oversaw expansions of student financial aid, innovative collaborative research, and patient-centered clinical care—in addition to the single largest private contribution to the Philadelphia School District.

In 2009, President Barack Obama appointed Dr. Gutmann to chair the Presidential Commission for the Study of Bioethical Issues for seven years; during that time, the commission published 10 reports on major issues, including preventing and responding to public health crises. Dr. Gutmann also is an award-winning author and editor of 17 books, including *Democratic Education* and *The Spirit of Compromise* and, along with Penn Integrates Knowledge Professor Jonathan D. Moreno, *Everybody Wants to Go to Heaven but Nobody Wants to Die: Bioethics and the Transformation of Health Care in America* with an afterword on pandemic ethics in the paperback edition. Aside from her public service, Dr. Gutmann has served on the boards of Vanguard and the Berggruen Institute.

The Legend in Leadership Award was created 25 years ago to honor current and former CEOs and university presidents who serve as living legends to inspire leaders across industries, sectors, and nations.

The 2025 Dr. Martin Luther King, Jr. Community Involvement Recognition Award Winners

The 2025 Dr. Martin Luther King, Jr. Community Involvement Recognition Awardees were honored at the annual MLK Interfaith Program and Awards Commemoration on January 23, 2025.

The 2025 Dr. Martin Luther King, Jr. Community Involvement Recognition Awardees are:

Dr. Judith Rodin Community Education Award

Felix Shondell Jones is a nurse at Penn Medicine. He has won numerous awards for clinical excellence and compassionate bedside care. He volunteers as a community health nurse, a nurse for Philadelphia Prisons, and with the nonprofit Reclaim U, which motivates community members through cognitive behavioral therapy.

Community Involvement Recognition Award-Community Member

Stephanie Booker is the CEO and founder of A Home Is a Right. The organization was established in 2011 to provide permanent housing for at-risk veterans and has expanded to become a million-dollar nonprofit, offering mental health resources, furniture, clothing, and food. Ms. Booker also rehabilitates homes for low-income, first-time buyers in collaboration with the Philadelphia Housing Authority.

Community Involvement Recognition Award-Penn Faculty or Staff

Jack Drummond, inaugural director of restorative practices at the Perelman School of Medicine, focuses on enhancing psychological safety in workplaces. He is also a faculty fellow at DuBois College House and founder of the West Philadelphia String Music and Mentorship Program.

Student Award-Graduate

Makayla Buchanon, a student in the School of Social Policy & Practice, is a member of the Association of Black Social Workers and a graduate resident assistant.

Student Award-Undergraduate

Sade Taiwo, C'25, is a health and societies major from Philadelphia. She is dedicated to health equity and volunteers with Puentes de Salud, an organization that promotes the health of the Latin American community in Philadelphia, as well as the Shelter Health Outreach Program. She held leadership roles with UMOJA and the Netter Center's Community Resource Partnership. She serves as co-lead of Monolith: Black Visual Arts Collective.

Photo by Damien Townselle

**Division of Public Safety
University of Pennsylvania Police Department Crime Report**

About the Crime Report: Below are the crimes against persons and/or crimes against property from the campus report for **January 27-February 2, 2025**. The crime reports are available at: <https://almanac.upenn.edu/sections/crimes>. Prior weeks' reports are also online. —Eds.

This summary is prepared by the Division of Public Safety (DPS) and contains all criminal incidents reported and made known to the Penn Police, including those reported to the Philadelphia Police Department (PPD) that occurred within our patrol zone, for the dates of **January 27-February 2, 2025**.

January 2, 2025. The Penn Police actively patrol from Market Street to Baltimore Avenue and from 30th Street to 43rd Street in conjunction with the Philadelphia Police.

In this effort to provide you with a thorough and accurate report on public safety concerns, we hope that your increased awareness will lessen the opportunity for crime. For any concerns or suggestions regarding this report, please call DPS at (215) 898-7297. You can view the daily crime log on the [DPS website](#).

Penn Police Patrol Zone

Market Street to Baltimore Avenue and from 30th Street to 43rd Street

Crime Category	Date	Time	Location	Description
<i>Aggravated Assault</i>	01/28/25	10:20 AM	3900 Chestnut St	Domestic aggravated assault
<i>Aggravated Assault-Gun</i>	01/28/25	11:53 AM	4000 Walnut St	Offender threatened the complainant with a firearm and fled the area
<i>Assault</i>	01/27/25	4:01 PM	3400 Civic Center Blvd	Complainant was assaulted by known offender
	02/03/25	7:45 PM	51 N 39th St	Complainant verbally threatened by patient's partner
<i>Auto Theft</i>	01/28/25	4:31 PM	3333 Chestnut St	Secured electric bicycle taken from bike rack
	01/30/25	3:59 PM	3220 Market St	Report of a scooter theft
	02/01/25	5:14 PM	421 Curie Blvd	Theft of a secured electric scooter from bike rack
	02/03/25	10:09 AM	3535 Market St	Secured electric bike taken from bike rack
<i>Bike Theft</i>	01/28/25	6:35 PM	3730 Walnut St	Theft of a secured bicycle from bike rack
<i>Burglary</i>	01/27/25	9:58 AM	1 Convention Ave	Burglary of a POS register from first floor café
	01/28/25	9:37 AM	329 S 42nd St	Complainant reported an unknown offender entered her apartment and fled when she called to him
	01/29/25	7:24 AM	4247 Locust St	Offender gained entry into apartment and took the complainant's car keys and vehicle
	01/29/25	11:26 AM	4046 Chestnut St	Offender gained access to apartment building and took multiple packages/Arrest
	01/30/25	4:02 AM	4138-52 Market St	Report of a commercial burglary
	01/31/25	12:33 PM	4258 Chestnut St	Unauthorized male removed packages from residence/Arrest
<i>Fraud</i>	02/04/25	12:28 PM	224 St Marks Sq	Burglary
	02/03/25	5:48 PM	3565 Sansom St	Fraudulent wire transfer made to unknown offender
<i>Harassment</i>	02/04/25	12:19 PM	4035 Baltimore Ave	Fraud
	01/27/25	2:00 PM	255 S 36th St	Complainant received unwanted emails from unknown offender
	01/29/25	5:41 PM	1 Convention Ave	Complainant received harassing calls and text message from known offender
<i>Other Offense</i>	01/29/25	11:12 PM	3913 Pine St	Offender trespassing inside apartment/Arrest
<i>Retail Theft</i>	02/01/25	4:36 PM	4233 Chestnut St	Retail theft of alcohol
<i>Theft from Building</i>	01/27/25	11:31 AM	3615 Chestnut St	Copper pipes taken
	01/27/25	2:47 PM	3400 Civic Center Blvd	Theft of headphones from unsecured office
	01/29/25	12:42 PM	51 N 39th St	Theft of a jewelry from hospital room
	01/29/25	1:37 PM	305-307 S 40th St	Package taken from vestibule
	01/31/25	9:12 AM	3730 Walnut St	Theft of a wallet from locker
	01/31/25	3:40 PM	4036 Walnut St	Package taken from foyer area of apartment building
<i>Theft Other</i>	02/02/25	4:55 PM	3600 Chestnut St	Package taken from mail reception area in apartment building
	01/28/25	3:21 PM	4000 Spruce St	Stolen wallet/credit cards used without authorization
	01/28/25	5:21 PM	4035 Chancellor St	Package taken
	01/31/25	12:15 PM	3300 Market St	Theft of an unattended lunch box from steps
<i>Vandalism</i>	01/28/25	11:32 AM	3601 Walnut St	Symbol carved on banister

Philadelphia Police 18th District

Schuylkill River to 49th Street & Market Street to Woodland Avenue

Below are the crimes against persons from the 18th District: 13 incidents were reported for **January 27-February 2, 2025** by the 18th District, covering the Schuylkill River to 49th Street & Market Street to Woodland Avenue.

Crime Category	Date	Time	Location
<i>Aggravated Assault</i>	01/28/25	10:38 AM	3940 Chestnut St
	01/28/25	11:53 AM	4034 Chestnut St
	01/29/25	9:05 PM	4606 Kingsessing Ave
<i>Assault</i>	01/27/25	9:34 AM	4700 Blk Locust St
	01/27/25	2:16 PM	255 S 36th St
	01/27/25	4:01 PM	S 34th St & Civic Center Blvd
	01/28/25	6:01 PM	4225 Chestnut St
	01/29/25	5:46 PM	1 Convention Ave
<i>Rape</i>	01/31/25	5:01 AM	1236 S Markoe St
<i>Robbery</i>	01/27/25	1:14 PM	3400 Blk Civic Center Blvd
	01/31/25	1:03 PM	4200 Blk Chestnut St
	01/31/25	9:30 PM	4800 Market St
	02/01/25	3:14 PM	S 48th & Walnut Sts

The Division of Public Safety offers resources and support to the Penn community. DPS has developed a few helpful risk reduction strategies outlined below. Know that it is *never* the fault of the person impacted (victim/survivor) by crime.

- See something concerning? Connect with Penn Public Safety 24/7 at (215) 573-3333.

- Worried about a friend's or colleague's mental or physical health? Get 24/7 connection to appropriate resources at (215) 898-HELP (4357).
- Seeking support after experiencing a crime? Call Special Services (support and advocacy resources) at (215) 898-4481 or email an advocate at specialservices@publicsafety.upenn.edu.

Update

February AT PENN

CONFERENCES

13 *Modern Day Abolitionism: Carcerality and Black Radical Resistance through Grassroots Organizing, Prison Activism, and Spiritual Liberation*; features talks by Timothy Malone, Wolf Humanities Center; Rima Vesely-Flad, Initiative for Black Buddhist Studies; Lydia Pelot-Hobbs, University of Kentucky; and Laura McGaugh, Florida State University; 5-7 p.m.; room 403, McNeil Building; register: <https://tinyurl.com/africana-conf-feb-13> (Africana Studies).

14 *Penn Carey Law Antitrust Association Annual Symposium*; a keynote presentation by Herbert Hovenkamp and three distinguished panels of antitrust practitioners, exploring the topic *Silicon Valley and the Sherman Act: Monopolization and Information Sharing in the Age of AI*; all day; Michael A. Fitts Auditorium, Goksin Hall (Penn Carey Law Antitrust Association).

History Honors Thesis Symposium; history major honors thesis students of the class of 2025 will give brief presentations of their thesis research, followed by a poster session and reception; 2 p.m.; room 309, College Hall (History).

FILMS

14 *Food for Thought*; exposes the connections between environmental injustice and the carceral system and amplifies the voices of those fighting for the rights of incarcerated individuals; features Q&A with director Gabrielle Patterson; noon; room 473, McNeil Building (Asian American Studies).

18 *Ainu: Indigenous People of Japan*; captures the lives of the Ainu people in their town of Biratori in Hokkaido and the efforts of the communities' elders to keep their culture alive; features discussion with director Naomi Mizoguchi; 4 p.m.; Penn Museum (Penn Museum, Center for East Asian Studies).

Bye Bye Tiberias; Hiam Abbass returns home with her daughter in an intimate documentary about four generations of women and their shared legacy of separation; features Q&A with director Lina Soualem; 5:30 p.m.; room 109, Annenberg School; register: <https://tinyurl.com/cargo-tiberias-feb-18> (Center for Advanced Research in Global Communication).

FITNESS & LEARNING

14 *Study Break: Sweet Treats and Thistle the Golden Retriever*; spend your Valentine's Day afternoon with CURF's canine mascot, Thistle the golden retriever; 3-5 p.m.; first floor, 3539 Locust Walk (Center for Undergraduate Research & Fellowships).

16 *Sunday Reset with Joy Ding*; a presentation on the neuroscience behind self-love practices and a demonstration on its applications to daily life as a means to cultivate resilience and reduce stress; 2 p.m.; Institute of Contemporary Art; register: <https://tinyurl.com/ica-reset-feb-16> (ICA).

College of Liberal & Professional Studies
Online webinars. Info: <https://www.lps.upenn.edu/about/events>.

13 *Bachelor of Applied Arts and Sciences Virtual Application Completion Sessions*; 12:30 p.m.

18 *Bachelor of Applied Arts and Sciences Virtual Information Sessions*; noon.

Penn Libraries

Various locations. Info: <https://www.library.upenn.edu/events>.

13 *Walk2Wellness*; hour-long walk featuring hot chocolate and mingling; 3 p.m.; meet between the Button and the Ben Franklin statue.

14 *Print Your Own Valentine*; create your own valentine; practice the art of letterpress printing by choosing from a selection of valentine designs crafted by Common Press staff; noon-4 p.m.; Common Press, Fisher Fine Arts Library.

18 *Write a Note of Kindness*; observe Random Acts of Kindness Week by penning a note to a pal; noon-3 p.m.; lobby, Fisher Fine Arts Library.

MUSIC

15 *The Inspiration A Cappella and The Excelano Project Present "Love Talks and Slow Jams"*; a groovy, sultry evening of sweet melodies and romantic harmonies; 8 p.m.; Class of 1949 Auditorium, Houston Hall; tickets: \$11-\$13.

ON STAGE

14 *PennNaach Presents "Mission Naach-possible"*; PENNnaach, the University of Pennsylvania's premier South Asian Women's Dance Troupe, promotes South Asian culture through traditional, classical, and modern dance; 7 p.m.; Iron Gate Theater; tickets: \$8-10 (Platt Performing Arts House). *Also February 15*, 6 p.m.

READINGS & SIGNINGS

17 *Negotiating Legality: Chinese Companies in the U.S. Legal System*; Ji Li, University of California Irvine; 12:15 p.m.; room 418, PCPSE (Center for the Study of Contemporary China).

Kelly Writers House

In-person events at Arts Café, Kelly Writers House. Info and to register: <https://writing.upenn.edu/wh/calendar/0225.php>.

18 *Grieving Together: A Conversation on Making Art About Grief and Loss*; Jamie-Lee Josselyn, creative writing; Janice Jenkins Tosto, Germantown Community Radio; Meg Gladieux, Healthy NewsWorks; 6 p.m.

Penn Bookstore

In-person events in the 2nd floor conference room, Penn Bookstore. Info: <https://www.business-services.upenn.edu/bookstore-events-by-month/202502>.

12 *Uncertainty and Enterprise: Venturing Beyond the Known*; Amar Bhide, Columbia University; 5:30 p.m.

18 *Enemy Feminisms: Terfs, Policewomen, and Girlbosses Against Liberation*; Sophie Lewis, Center for Research in Feminist, Queer, and Transgender Studies; Sarah Banet-Weiser, Annenberg School; 3 p.m.

TALKS

11 *Machine Learning: Algorithmic and Economic Perspectives*; Alireza Fallah, University of California, Berkeley; 11 a.m.; room 225, Towne Building (Electrical & Systems Engineering).

12 *Improving Organ Utilization and Outcomes After Abdominal Organ Transplantation*:

An Epidemiologic Perspective; Kyle R. Jackson, surgery; 9 a.m.; room 701, Blockley Hall, and Zoom webinar; join: <https://pennmedicine.zoom.us/j/96442998641> (Center for Clinical Epidemiology and Biostatistics).

Beyond Scaling: Frontiers of Retrieval-Augmented Language Models; Akari Asai, University of Washington; noon; room 414, Amy Gutmann Hall, and Zoom webinar; join: <https://upenn.zoom.us/j/95663463468> (ASSET Center).

Regulatory T Cells as a Mediator of Tissue Repair in Pulmonary Fibrosis; Aditi Murthy, pulmonary, allergy & critical care; noon; room 213, Stemmer Hall (Penn-CHOP Lung Biology Institute).

Eliminating the Other in Juan Radrigán's Medea Mapuche?; Florencia Foxley, Dartmouth College; 4:45 p.m.; room 200, College Hall (Classical Studies).

Architecture and Meditation: A Path to Healing Mind and Planet; Vo Trong Nghia, VTN Architects; 6:30 p.m.; Kleinman Center, Fisher Fine Arts Library (Architecture).

13 *An Indian Immigration System: The Cherokee Search for Labor*; Noah Ramage, Yale University; noon; room 209, College Hall (History).

This is an update to the [February AT PENN calendar](#). To submit events for an upcoming AT PENN calendar or weekly update, email almanac@upenn.edu. More events are available in the online version of this update.

Energy Week at Penn 2025

Energy Week at Penn, five days of energy-focused events across campus, is taking place now through Friday, February 14. It is hosted by the Kleinman Center for Energy Policy and the Vagelos Institute for Energy Science and Technology.

For the full 2025 event schedule, visit <https://energyweek.upenn.edu/>.

Almanac

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APPC Study Finds Nearly Half of Adults Incorrectly Think Benefits of Daily Aspirin Outweigh the Risks

For years, healthy older adults were advised by doctors to take a low-dose aspirin daily to reduce the risk of heart attack. But in March 2019, the American College of Cardiology and the American Heart Association (AHA) announced new guidelines and no longer routinely recommended a daily dose of aspirin for healthy adults over the age of 70 because the risk of gastrointestinal bleeding outweighs the benefits.

Over five years later, many Americans still have not received the message.

The Annenberg Public Policy Center (APPC) at the Annenberg School for Communication at the University of Pennsylvania finds in a new health survey that nearly half (48%) of U.S. adults incorrectly think that for most adults, the benefits of taking a low-dose aspirin every day to reduce the chance of heart attack or stroke outweigh the risks. In all, nearly one in five U.S. adults who say they have no personal or family history of heart attack or stroke report routinely taking a low-dose aspirin, with 10% saying they take it “basically every day,” 2% “a few times a week,” and 6% “a few times a month.”

The past rationale for routine low-dose aspirin use was that aspirin acts as a blood thinner and reduces the clotting that can clog arteries and lead to heart attack or stroke. Low-dose aspirin is still considered an important strategy for preventing heart attack in people who have been diagnosed with cardiovascular disease and are not at risk of increased bleeding.

But doctors’ recommendations for healthy adults have shifted on the risks and benefits of taking a low-dose (typically, 81 mg.) aspirin. In 2022, three years after the publication of the new AHA guidelines, the U.S. Preventative Services Task Force recommended against starting a new regimen of low-dose aspirin use for the primary prevention of cardiovascular disease for an even larger group of older adults—those 60 and older without a history of cardiovascular disease (including heart failure and stroke) or signs or symptoms of cardiovascular disease.

“Habits backed by conventional wisdom and the past advice of healthcare providers are hard to break,” noted Kathleen Hall Jamieson, director of the Annenberg Public Policy Center and director of the survey. “Knowing whether taking a low-dose aspirin daily is advisable or not for you is vital health information.”

In the survey, 45% of respondents report that they or someone in their family has had a heart attack or stroke, while 49% do not have a family history of heart attack or stroke (6% are not sure). A 2024 AHA report estimates that 3.1% of Americans age 20 and older have had a heart attack and 3.3% have had a stroke, and over 48% of adults 20 and older have cardiovascular disease, including coronary heart disease, heart failure, stroke, or hypertension.

Those with a personal history of heart attack or stroke may be directed to take a low-dose daily aspirin by their doctors. Those 40- to 59-year-olds who have a 10% or greater 10-year cardiovascular risk also may be directed to take aspirin, in line with the recommendations. Still, the survey finds that 18% of those with no history of heart attack or stroke report regularly taking a daily low-dose aspirin and 43% of this no-history group say that for most adults, the benefits of doing so outweigh the risks.

Among the group with no history, younger survey respondents are more likely to correctly report that the risks outweigh the benefits—possibly, because older respondents are more familiar with the earlier guidance. Twenty-nine percent of respondents with no relevant medical history who are 18 to 39 years old correctly say that the risks of a daily aspirin outweigh the benefits, compared with 11% of those 40 to 59 years old and 7% of those 60 and older.

APPC has been tracking the American public’s knowledge, beliefs, and behaviors regarding vaccination, COVID-19, flu, RSV, and other consequential health issues through this survey panel over the past two-and-a-half years. APPC’s team on the survey includes Laura A. Gibson and Shawn Patterson Jr., research analysts; Patrick E. Jamieson, director of the Annenberg Health and Risk Communication Institute; and Ken Winneg, managing director of survey research.

Adapted from an [Annenberg Public Policy Center news release](#), February 4, 2025.

Who to Vaccinate First? Penn Engineers Answer a Life-or-Death Question with Network Theory

Engineering and medical researchers at Penn have developed a groundbreaking framework that can determine the best and most computationally optimized distribution strategy for COVID-19 vaccinations in any given community. Published in *PLOS One*, this study addresses one of the most critical challenges in pandemic response—how to prioritize vaccination efforts in communities with individuals of different risk levels when supplies are scarce and the stakes are high.

The research team, which includes Saswati Sarkar, a professor in electrical and systems engineering (ESE); Shirin Saeedi Bidokhti, an assistant professor in ESE; Harvey Rubin, a practicing physician at Penn Medicine and a professor of infectious diseases; and ESE doctoral student Raghu Arghal, designed their framework to be able to account for enough population complexity to determine the best and most applicable vaccination strategies, but not so complex that it becomes inaccessible to public health offices without high-powered supercomputers. What the researchers ended up creating was a highly adaptable framework that provides effective and unique strategies in a matter of seconds and only requires the computational power of a personal laptop.

Determining the best theoretical strategy for a vaccine rollout that includes all influencing parameters such as individual health metrics, location limitations and doses required, would typically take months or more, even with the massive computational power available today. This is because the size of communities over which such rollouts would need to be optimized can easily reach one million. For example, communities in the boroughs of New York City range from 0.5 to 2.7 million people.

“We needed an approach that would provide strategies on a more relevant timeline and require less computing power,” said Dr. Sarkar. “This was especially important to us as we wanted the framework itself to be accessible to low-resourced and remote communities, which are typically the most affected by disease outbreaks. We had to approach this real-world problem more practically while still using network theory tools that captured enough population heterogeneity to arrive at a meaningful and useful strategy.”

To achieve this “Goldilocks” level of complexity, the researchers defined three broad, yet representative groups:

- **High-Risk Group:** Includes the elderly and immunocompromised individuals who are most vulnerable to severe forms of COVID-19 and death.
- **High-Contact Group:** Essential workers, such as healthcare providers, teachers and grocery store employees, who are at high risk of spreading the virus.
- **Baseline Group:** The rest of the population, who do not fall into the high-risk or high-contact categories.

Defining these distinct groups and drawing on decades of research on optimal control frameworks, the team was able to use a numerical methodology with just the right amount of complexity that can offer unique and effective strategies for any given community. Not surprisingly, the framework showed that to reduce death tolls overall, it is best to vaccinate either the high-risk group or the high-contact group first, and the baseline last.

“The most common strategy, and the one that was deployed with the COVID-19 vaccines, vaccinates the high-risk group first,” said Dr. Saeedi Bidokhti. “But for 42% of the simulated instances, our framework shows that it is actually more effective to administer the vaccine to the high-contact group before the high-risk group.”

Regardless of which group should be prioritized, it became abundantly clear that there is no one-size-fits-all solution. “This computational framework can help us identify specific solutions for different groups of people and those that are more nuanced which we may not come to intuitively on our own,” said Mr. Arghal. “Additionally, as infectious diseases and their outbreaks become more complex, spreading at different rates in different communities, the use of this network theory approach will only become more pertinent.”

The team’s success is a direct result of the collaboration across engineering, network theory, and medical research. “Working with medical researchers bridges the gap between theoretical models and real-world applications,” said Dr. Saeedi Bidokhti. “By collaborating with experts in the field, we ensure that our engineering and model work has a direct, tangible impact on public health.”

“Addressing these challenges requires a computational mindset, and it can’t be done by one group alone,” added Dr. Rubin. “And, the result of this collaboration is crucial because infectious diseases like norovirus, mpox, and dengue are ongoing threats, and new ones will inevitably emerge. It takes interdisciplinary collaboration to develop strategies for tackling multiple diseases simultaneously—including the rollout of vaccines for several viruses at once.”

Expanding the framework’s capabilities to address simultaneous outbreaks of multiple diseases, as well as the spread of opinions on behaviors that affect the spread of disease and the correlation between the evolutions of such opinions and diseases, are a few projects on the horizon for this research team.

Adapted from a [Penn Engineering news release](#) by Melissa Pappas, January 23, 2025.