Catch our videos: Legendary autoimmune researcher Noel Rose reveals a new direction for inflammation research. Researcher Vanya Jones describes how to prepare older adults to “retire” from driving. And more online extras.

The Magazine enhanced.}

the death issue

to save lives, you have to understand death. Our special 2013 issue explores the myriad ways the Bloomberg school works to prevent death and preserve life.

aLuMNi

We’re looking for personal essays exploring death, life and public health. We’ll include essays online and publish the best one in the print magazine. Watch your email for details.

nexT issue  The end

City of Secrets • Stemming Sickle Cell • End of the Road • A Stick in the Heart

Inflammation the body’s friendly fire
The Road to Hell

What would happen if every six days a 747 loaded with passengers crashed, killing everyone aboard?

Imagine the concern, the outrage, the media firestorm… . We would demand immediate solutions to prevent deaths and save lives. And yet, Americans remain strangely quiet about the 27,000 unintentional prescription drug overdose deaths each year in the U.S.—almost as many deaths as result from motor vehicle injuries. And this is just the tip of the iceberg. For every such death from prescription painkillers, 10 people are admitted for treatment of abuse and 130 people abuse or are dependent on such drugs.

It’s clear that we are in the midst of an epidemic of overdoses of prescription drugs—opioids, sedatives and stimulants. How did we get here?

Well, there’s plenty of blame to go around. Take opioids, for example. In the 1980s and 1990s, there was a growing realization by the medical community that many patients with pain were treated inadequately. Clinical protocols were revised to ensure that physicians assess every patient’s pain levels and treat pain aggressively. In response to the need to better control pain, pharmaceutical companies developed new formulations of narcotics that relieved pain, but unfortunately also had a high potential for abuse.

The result has been astonishing. From 1997 to 2007, U.S. sales of opioid drugs like Vicodin and Percocet increased by more than 600 percent. Concomitantly, prescription drug misuse and abuse increased, necessitating more than 475,000 emergency department visits in 2009 alone—almost twice as many as in 2004.

When I was a practicing physician, I had a healthy respect for the addictive power of narcotics as well as their ability to relieve pain. But you don’t have to be a medical provider to know that narcotic use can ensnare people. We all are familiar with news accounts of celebrities like Rush Limbaugh who become addicted to prescription drugs. Or stars like Heath Ledger who die from prescription drug overdoses.

This problem developed because people from many sectors were trying to do the right thing: help patients in pain. But, as my second-grade teacher used to say, “the road to hell is paved with good intentions.” In an attempt to relieve suffering, the threshold for use of narcotics was lowered. Problems presented by the more frequent prescription of opioids were exacerbated by unethical physicians who operated “pill mills,” patients who practiced “doctor shopping” (collecting prescriptions from different doctors), and our balkanized medical “system” that impedes checks and balances in prescription medication tracking.

As I said, there’s plenty of blame to go around; the question is how to solve the problem.

First we have to define it. The old metaphor of the blind men and the elephant comes to mind. Is it a regulatory problem? Yes. Is it a clinical problem? Yes. A patient education problem? Yes. A law enforcement problem? Yes. In fact, it’s all of these.

Because the problem is complex, solutions can have unintended consequences. In 2011, for example, a Maryland physician was disciplined for writing excessive numbers of medically unwarranted prescriptions for narcotics. An epidemic of withdrawal followed when his patients’ supply was cut off.

We need a systems approach to solutions that involve all the stakeholders. Public health has a long track record of attacking and solving problems like this. For example, injury researchers worked with policymakers, car manufacturers, law enforcement and others to make our roads dramatically safer. Annual traffic deaths in the U.S. fell from nearly 51,000 in 1966 to about 33,000 in 2010, even as our population increased by almost 60 percent.

We need the same kind of effective collaboration today to reduce prescription drug deaths. Patients and the public need to understand the risks, as well as the benefits, of taking these medications, how to safely store them, and methods of proper disposal when they are no longer needed. New drugs with less addiction potential must be developed. All states should have Prescription Drug Monitoring Programs that track prescription drug use. Even better, these state-based databases have to talk to one another. We also need to improve communications among clinicians, health agencies, pharmacists, drug manufacturers and law enforcement. Lastly, we need rational policies that promote judicious use of powerful prescription medications while limiting misuse that can lead to addiction and death.

Academic centers like the Bloomberg School can and should play the role of a trusted partner that brings groups together to find effective answers. By convening all stakeholders, we can devise better solutions.

To move this important agenda forward, I have asked our faculty from the Center for Injury Research and Policy as well as our soon-to-be-launched Center for Drug Safety and Effectiveness to bring together stakeholders for a symposium next spring to engage in a candid discussion about the problem and possible solutions.

It’s time we recognize that the prescription drug abuse problem is an epidemic. We must respond with the urgency and focus that such a public health crisis demands.◆
Stephen Teret trains students to use a potent lifesaving tool: the law.
In 1978, Stephen Teret was a trial lawyer turned MPH student when he first thought of using litigation to advance public health. He explored the idea in a paper for an injury prevention course taught by Health Policy and Management (HPM) professor and injury expert Sue Baker, MPH ’68. The published paper was the first in a series of reports connecting litigation and public health. In a provocative article for a trial lawyers’ magazine, Teret suggested that carmakers be held liable for failing to offer airbags as a safety option. Litigators eagerly took up the idea. By 1985, Ford Motor Company, facing $1.1 billion in airbag litigation claims, began offering airbags in cars.

Teret, JD, MPH ’79, has pursued the integration of public health and the law ever since. Now he’s launching the Johns Hopkins Clinic in Public Health Law and Policy, a first-of-its-kind initiative to teach students to use the law to solve public health problems. “I would hope that in years to come, all schools of public health develop similar clinics and that ours will be seen as the prototype,” says Teret, an HPM professor. He spoke this summer with writer Jackie Powder about the emerging discipline and his hopes for the new clinic.

How did the field develop after the airbag litigation?
We thought, here’s an example of where litigation actually seemed to be successful in changing the behavior of product manufacturers. We then expanded that to deal with litigation involving guns, and litigation involving other consumer products. With guns, we encouraged lawyers to sue gun makers for failing to use existing safety technologies that could prevent some shootings. Another example would be litigation against the maker of an outboard engine for a boat for failing to place a guard around the propeller. It’s work that was done at this School that developed the idea of using litigation as a tool to protect the public’s health and safety.

Is public health law a growth area within the legal arena?
There are a lot of people now who are interested in public health law, much more than there were 10, 20 or certainly 30 years ago. It’s a growth area in that foundations now are supporting work in public health law. For instance, the Robert Wood Johnson Foundation, one of the largest foundations with regard to health issues, has invested a great deal of money in the last few years in enhancing the quality of public health law and increasing the human capital, people who are working in public health law. Lawyers may not be the first group of people that one thinks about when one is thinking about public health, but now there’s widespread acceptance of the value of public health litigation as one of the most potent tools for enhancing the public’s health.

What’s the idea behind the new clinic?
When I graduated from this school a very long time ago, I didn’t really know well enough how I could solve actual public health problems in a practical way, and I think it’s still true for some students today. They’ve learned a lot about key elements of public health—epidemiology, biostatistics, health policy, health behavior, biological sciences—but they haven’t necessarily learned how to go out and solve a public health problem. We’ll present students with a public health problem and they’ll bring together what they’ve learned to actually solve it by the use of law and policy.

But to be effective in public health law, students would need a law degree, wouldn’t they?
No. Students don’t need a law degree. Students in the clinic are going to be fortunate in that they will have at least six faculty members working with them, all of whom have law degrees as well as an understanding of public health. The faculty will help with technical legal issues, although we hope that some of our students who are either lawyers getting their MPH degree or in a JD/MPH joint degree program will also participate and help their colleagues to understand how the law can be used as a tool in public health.

Why did you select salt consumption as the clinic’s first issue?
It’s a compelling public health problem for which there is not a solution immediately in sight. Working on salt consumption will present our students with a problem that has interdisciplinary aspects to it—the biology of how the body deals with sodium, the epidemiology and the costs of hypertensive disease, the behaviors of individuals regarding sodium consumption and the behaviors of businesses that make and market foods.

Most of the salt that people get is not from a saltshaker. It’s the salt that’s already in prepared foods at restaurants and supermarkets. You can go to a fast food or chain restaurant and order a meal that may give you 7,500 mg of sodium (one of the elements of salt)—multiple times the recommended daily dietary allowance of sodium—and there’s no law or regulation that requires the restaurant to give you a warning that you might be placing yourself at risk: “Before you eat that, watch out, you’re getting 7,500 milligrams of sodium.”

What legal and policy solutions might the students propose for dealing with this issue?
They might decide that a regulatory agency like a health department should require restaurants to post how much sodium is in a given menu item, and write up a model regulation. They might draft model legislation that sets limits on how much salt is permissible in foods. If they think that litigation is going to be the most effective tool, then they could write up the documents necessary for the commencement of a lawsuit. We want our proposed solutions to actually be implemented, so, ultimately, we’ll work with legislators, regulators, litigators and other policy people to see how what we’ve developed can be used to address a problem that is estimated to cause 150,000 excess deaths a year in the U.S. from hypertension and related diseases.

What will determine whether the clinic is a success?
We have a wonderful group of dedicated public health lawyers who are all excited to teach in the clinic, and we have the best public health students in the world. I don’t foresee any barriers to success.
School Accolades

Lawrence J. Appel, MD, MPH ’89, professor, Medicine, Epidemiology and International Health (IH), and director of the Welch Center for Prevention, Epidemiology and Clinical Research, received the National Award for Career Achievement and Contribution to Clinical and Translational Science.

Four Johns Hopkins Center for Injury Research and Policy (CIRP) faculty are among 20 injury prevention leaders honored by the CDC National Center for Injury Prevention and Control as part of its 20th anniversary celebration: Susan P. Baker, MPH ’68, professor, Health Policy and Management (HPM), and CIRP founding director; Jacqueline Campbell, PhD, MSN, Anna D. Wolf Chair and Professor in Nursing, Andrea Gielen, ScD ’89, ScM ’79, professor, Health, Behavior and Society (HBS), and CIRP director; and Ellen MacKenzie, PhD ’79, Fred and Julie Soper Professor and Chair, HPM, and past CIRP director.

The first recipient of the endowed Susan P. Baker and Stephen P. Teret Chair in Violence Prevention at the University of California at Davis is Garen J. Wintemute, MD, MPH ’83. Baker and Teret, MPH ’79, JD, professor, HPM, were mentors to Wintemute.

Abdullah Baqui, DrPH ’90, MPH ’85, professor, IH, was honored by the Bangladesh Medical Association of North America for his outstanding contribution to clinical research in Bangladesh. He also received the 2012 CORE Group’s Dory Storms Child Survival Recognition Award.

Eric B. Bass, MD, MPH, professor, HPM, Epidemiology and Medicine, was named president-elect of the Society of General Internal Medicine.

Lee Bone, MPH ’77, RN, associate professor, HBS, is the inaugural recipient of the Crenson-Hertz Award for Community-Based Learning and Participatory Research.

Bol, a film co-produced by the Center for Communication Programs under the USAID-funded Pakistan Initiative for Mothers and Newborns project, won Best Film, Best Female Actor and Best New Talent at the 2012 Asian Film Festival in London.

Marie Diener-West, PhD ’84, Helen Abbey and Margaret Merrell Professor of Biostatistics Education and chair of the MPH Program, was inducted as a Fellow of the Society for Clinical Trials.

The School’s Student Assembly presented the 2012 Golden Apple teaching awards to Homayoon Farzadegan, PhD, MS, professor, Epidemiology, and John McGready, PhD ’07, MS, assistant scientist, Biostatistics.

Mary Fox, PhD ’01, MPH, assistant professor, HPM, has been selected to serve on the U.S. Environmental Protection Agency’s Science Advisory Board Ad-hoc Perchlorate Advisory Panel.

Shannon Frattaroli, PhD ’99, MPH ’94, assistant professor, HPM, was appointed to the Baltimore City Board of Fire Commissioners.

Robert H. Gilman, MD, professor, IH, was named an honorary professor at the Universidad Catolica in Santa Cruz, Bolivia.

Diane Griffin, MD, PhD, Alfred and Jill Sommer Professor and Chair, W. Harry Feinestone Department of Molecular Microbiology and Immunology, was elected to the Council of the Institute of Medicine.

John Groopman, PhD, Anna M. Baetjer Professor of Environmental Health, Environmental Health Sciences (EHS), was appointed by the U.S. Secretary of Defense to


How do you measure the success of the international AIDS conference?

First, we look at the competitiveness of the science: over 12,000 abstract submissions and our lowest-ever acceptance rate for oral presentations—under 4 percent. Second, we were trying to bring together all of the science and implementation data to say we could begin to turn this thing around. That messaging was strong, it was consistent and it was galvanizing. Third, from a U.S. perspective, what we most cared about was reaffirming bipartisan support for both the domestic and global HIV effort. By that measure, we also were very successful.
Some people argue that the money expended on these conferences would be better spent on antiretroviral drugs or condoms. That is a very real argument. We don’t think we’ll have another conference this large. With social media and the Web, we feel we can have an ever-expanding audience for the science without necessarily having everybody physically together. That said, AIDS is unique in being a truly global pandemic. It is unique in requiring responses across sectors. We need the politicians, the researchers, people from the infected communities … . As a global movement, we need to come together and come to consensus on what the goals are.

What will be your priorities when you lead IAS, starting in 2014?
My thinking is evolving. Certainly what our work has really been known for is highlighting the key populations most affected by HIV and their unmet needs for prevention, treatment and care. I think that very much will be a theme that I will bring to this.

How is CFAR going to change AIDS research at Hopkins?
It’s already starting to have an impact. We’re going to make the first round of developmental awards this year … to support junior investigators with new ideas and hopefully bring some more senior investigators new to HIV into the field. We have been asked to take the lead in the CFAR African research network. [Africa is] obviously the center of the pandemic. It’s also a critical place for the next phases of research. [And] one of our aims is addressing the epidemic in Baltimore. We have already formed a community participatory board. We really want the community to be a partner.

What’s your leadership style?
If you stay really focused on the science, on the public health issues, the human rights issues, on the real concerns of real people, then other people are happy to participate. And you create a space where junior people feel they’re a part of something that really matters. Then they work enormously hard, and you build a team that can punch above its weight.

the Defense Health Board, a federal advisory committee.

The Institute for Global Tobacco Control received the 2011 All-Star Award from Constant Contact, Inc., for exemplary communications results.

Rafael Irizarry, PhD, professor, Biostatistics, was chosen as the 2012 Myrto Lefkopoulou Distinguished Lecturer at the Harvard School of Public Health.

Ruth Karron, MD, professor, IH, was appointed to the Advisory Committee on Immunization Practices of the CDC by the U.S. Department of Health and Human Services Secretary.

Jonathan Links, PhD ’83, professor, EHS, received the 2012 Ernest L. Stebbins Faculty Award.

Paul Locke, DrPH, MPH, JD, associate professor, EHS, was appointed to the National Research Council committee, Lessons Learned from the Fukushima Nuclear Accident for Improving Safety and Security of U.S. Nuclear Plants.

Jill Marsteller, PhD, MPP, associate professor, HPM, and Lainie Rutkow, PhD ’09, MPH ’05, JD, assistant professor, HPM, received Advising, Mentoring and Teaching Recognition Awards (AMTRA).

Cindy Parker, MD, MPH ’00, associate professor, EHS, was appointed to the Baltimore Commission on Sustainability.

Keshia Pollack, PhD ’06, MPH, associate professor, HPM, was awarded the Mid-Career Outstanding Service Award by the Injury Control Emergency Health Services Group.

Elizabeth Selvin, PhD ’04, MPH, associate professor, Epidemiology, was elected a Fellow of the American Heart Association. She also received an AMTRA.

Moyes Szklo, MD, DrPH, MPH, professor, Epidemiology and Medicine, was elected to the Brazilian Academy of Sciences.

Roland J. Thorpe Jr., PhD, MS, associate scientist, HPM, has been named a Fellow of the Gerontological Society of America.

Zhibin Wang, PhD, assistant professor, EHS, was named to the 2012 Kimmel Scholar Program by the Sidney Kimmel Foundation for Cancer Research.

Daniel Webster, ScD ’91, professor, HPM, has been appointed to the Institute of Medicine’s Planning Committee for the Evidentiary Base for Violence Prevention Across the Lifespan and Around the World Workshop.

Albert Wu, MD, MPH, professor, HPM, and director of the Center for Health Services Outcomes Research, has been selected to serve on the National Quality Forum’s Patient-Reported Outcomes Expert Panel.

A SOURCE for Service
Five JHSPH faculty recently were selected as SOURCE (Student Outreach Resource Center) Service-Learning Faculty Fellows and received awards to implement service-learning into academic courses: Daniela Lewy, MPH ’06, research associate, IH; Vanya Jones, PhD ’06, MPH, assistant professor, HBS; Roni Neff, PhD ’06, MS, assistant scientist, EHS; Beth Resnick, MPH ’95, CPH, assistant scientist, HPM; and Carey Borkoski, PhD, MA, instructor, HPM.
Driving for Life

Vanya Jones is an engaging, exuberant lecturer. The assistant professor of Health, Behavior and Society leavens theory-heavy discussions in courses like Program Planning for Health Behavior Change with examples from her research. Last January, I found myself in a Hampton House classroom, taking the program planning class as part of my MPH coursework. At one point, possibly while I was grappling with the slippery nuances of the Integrated Behavior Model, she mentioned that one of her projects focused on older drivers and safety issues.

I immediately wrote “older drivers” in my notes and circled it a few times. I knew there was a story there.

My father lived it. He was a great driver for more than six decades. A veteran Air Force pilot, he had an intuitive appreciation of safety. In his prime, he could fly 7 tons of metal at more than 600 miles per hour and bring it all home safely. Into his 60s, he piloted a Cessna 172 and other planes across the country. He was a natural pilot, with a keen sense of direction, astonishing mathematical skills and a smooth, sure touch at the controls.

All of those skills made him a safe, reliable driver. On car trips when I was a kid, he would say things like, “We’ll be there in 42 minutes.” And usually, he was right. Late into his retirement years, however, things began to change. He began having problems with his vision, hearing, reaction times and memory. (He would later be diagnosed with Alzheimer’s.) He became something unthinkable: a dangerous driver.

He held fiercely to driving. When polite suggestions and blunt reasoning failed, we turned to his physician. We gave the doc the facts and asked him to tell my dad to stop driving. A good military man to the end, dad respected authority and obeyed.

It was a hard time for my family, recognizing that age had imposed unforgiving limits on our father. Our consolation was in knowing that he wouldn’t hurt himself or anyone else while driving.

As writer Douglas Birch explains in the story on page 36, we live in an aging society and this issue will only become more critical in the coming years. We can only hope that research by Vanya Jones and others will lead us to better solutions.

Brian W. Simpson
Editor, Johns Hopkins Public Health
bsimpson@jhsph.edu

Letters to the Editor

A Father, a Daughter and Autism
I was very touched by this piece [“Open Mike,” Spring 2012]. Your message inspired me to connect with others about this issue and understand that we are a community working together as colleagues, friends and resource advocates to educate ourselves and others about pressing public health issues. Thanks for leading the way, Dr. Klag, by sharing this heartfelt message. It makes a positive difference, as you do for us.

Gail Wallace, PhD
University of Alabama at Birmingham

Thank you, Dean Klag, for your editorial. It was interesting and moving and got me started thinking about children with special needs. I wish more people had the guts to share a personal story to call attention to a public health issue.

Magnus Borres, MD, PhD, MPH ’84
Medical Director, Immunodiagnostics
ThermoFishier Scientific
Uppsala, Sweden

Building Mentally Healthy Countries
I am delighted with your article on global mental health [“A Global Call for Mental Help,” Spring 2012]. Most nations have no information concerning the economic costs of NOT providing mental health programs. Ideally, nations would allocate 1 to 2 percent of their budget to mental health.

I would also like to see an educational program for mental health professionals on integrating mental health services and primary health care. We provided a one-week seminar to mental health professionals in Panama, using Skype. Similar programs can help other nations integrate mental health and primary care services, based on a country’s unique needs, resources and culture.

Leonard Feinberg, PhD
UN Representative
Faculty, W.A. White Institute
Associate Professor Emeritus, Iona College
Greenwich, Connecticut

A Silent Epidemic
Unless and until we find a way to speak about child sexual abuse (CSA)—without shying away or talking about “monsters,” as the article [“Reason versus Rage,” Spring 2012] points out—we will not be able to adequately make advances in prevention and treatment. A plethora of information about both CSA prevention and treatment is available. Unfortunately, nearly everyone is working without adequate resources to step up programming. As a more-than-concerned citizen, as a mother and as the founder of Stop the Silence: Stop Child Sexual Abuse (www.stopcsa.org), I implore the public to get involved, despite their discomfort, and ask policymakers to put the resources in place to address CSA as the public health epidemic—indeed, pandemic—that it is.

Pamela Pine, PhD
Glenn Dale, Maryland

Enthralled? Appalled? Send us your comments: editor@jhsph.edu.
Wheels imply freedom. That freedom is not easily relinquished by aging drivers, no matter whether those wheels are affixed to a bicycle in Afghanistan, an electric motorbike in China or a car in the U.S. (See page 36.)

Photos:
above/Shehzad Noorani; below/Xu Haitong