Child injuries plummet in NYC under federal Safe Routes to School program

A federal program to create safe environments for walking or biking to school has contributed to a dramatic reduction in child pedestrian injuries in New York City, according to a study by Drs. Charles DiMaggio, associate clinical professor of anesthesiological sciences in epidemiology and Dr. Guohua Li, Finster Professor of anesthesiological sciences and epidemiology.

In 2005, the U.S. Congress created the Safe Routes to School program to encourage more children to walk and bike to school.

As part of the program the Department of Transportation re-designed streets around over 120 schools in New York City and across the country to make them safer for children on foot and on bikes.

This included making crosswalks and street signals more visible, widening sidewalks, and adding speed bumps—all part of a concept known as “traffic calming.”

“It’s a concept of trying to tip the balance of rights in favor of pedestrians,” says Dr. DiMaggio.

For the study, Drs. DiMaggio and Li looked at auto collision data from several years before and after Safe Routes changes were implemented to see if the rate of child injuries dropped in the redesigned areas.

They did, by 44 percent annually during school travel hours.

“We think the evidence is actually pretty compelling for the effectiveness of the program,” Dr. DiMaggio says. “You rarely see this level of effect in these kinds of public health interventions.”

Although it is in place at about 10 percent of elementary and secondary schools nationwide, dedicated federal funding for Safe Routes ended in 2012, though states and municipalities could decide to finance the program.

“Our study provides compelling empirical evidence that is essential to guiding policy makers,” says Dr. Li. “It indicates that the Safe Routes to School program has made a marked difference in improving the safety of school-age children in New York City.”


The Safe Routes study is one of many research projects by faculty at Columbia’s new Center for Injury Epidemiology and Prevention and in the new injury epidemiology cluster. Read more on page 17.
MESSAGE FROM THE CHAIR

Dear colleagues,

Welcome to the Spring 2013 issue of Two by Two, the Epidemiology Department newsletter.

The last few months have been as dynamic as ever in the department. This month we mark the launch of the brand new injury epidemiology cluster, whose faculty’s work is featured on our front page.

In January we held our fifth Columbia University Scientific Symposium (CUESS), Global sexualized violence: from epidemiology to action, co-sponsored by the Women’s Media Center, which brought together scholars, policy makers, and journalists to address this critical issue. A summary of their discussion can be found in these pages. Please mark your calendars for our next CUESS on April 26, Breakthroughs in autism and related disorders.

Our MPH students in the new curriculum are well into their second semester, as are the students in the inaugural cohort of the Executive MS program. We are already in the midst of our open house series for the fall 2013 Executive MS, and we are seeing substantial interest from a new set of potential students. Registration for EPIC, our summer institute, opened this month and the program is ready for another year of tremendous growth, with a vastly expanded curriculum and impressive early registration numbers.

This issue of Two by Two features an evolution in our publication. As the department expands its digital communication, we are moving to a quarterly publishing schedule for Two by Two, consolidating our news, milestones, and achievements into four issues a year. We shall increasingly be relying on our digital media to communicate timely news and information to the department and to our colleagues outside the department. In addition, for the first time, the articles and features in this issue of Two by Two represent the work of multiple contributors. This is the result of our inclusion of material developed for our online presence, the2x2project, as well as our successful outreach to students interested in writing for the newsletter. We continue our focus on translating our science to the broadest possible audience and anticipate that engaging our faculty and students in producing content will advance this mission. Faculty and students who are interested in contributing to Two by Two should contact Ms. Elaine Meyer at em2642@columbia.edu.

Warm regards,

Follow us on Twitter twitter.com/cuepidemiology, and “like” us on Facebook facebook.com/cuepidemiology to keep up with the latest Department news and events.

UPCOMING MARCH—JUNE

| FRIDAY, MARCH 1  | DEPARTMENT SEMINAR: L.H. LUMEY, MD, PhD |
| MONDAY, MARCH 4  | PIZZA MONDAY                        |
| WEDNESDAY, MARCH 27 | CUEGR: MICHELLE WILLIAMS, ScD |
| WEDNESDAY, APRIL 3 | EPI SOCIAL: CELEBRATING SPRING       |
| FRIDAY, APRIL 12 | DEPARTMENT SEMINAR: JEANINE GENCINGER, PhD |
| FRIDAY, APRIL 19 | FACULTY MEETING                     |
| WEDNESDAY, APRIL 24 | CUEGR, ALAN BERKMAN LECTURE: SUSAN REVERBY, PhD |
| FRIDAY, APRIL 26 | CUESS: BREAKTHROUGHS IN AUTISM AND RELATED DISORDERS |
| FRIDAY, MAY 3  | PIZZA FRIDAY                         |
| FRIDAY, MAY 10 | DEPARTMENT SEMINAR: JESSICA JUSTMAN, MD |
| FRIDAY, MAY 17 | FACULTY MEETING                      |
| MONDAY, MAY 20 | EPI SOCIAL                           |
| FRIDAY, JUNE 7 | DEPARTMENT SEMINAR: ERNEST DRUCKER, PhD |
| FRIDAY, JUNE 14 | FACULTY MEETING                      |

the2x2project

Be sure to also check out our online presence at the2x2project.org.
Predicting and preventing the next zoonotic pandemic

A majority of modern infectious pandemics, including HIV/AIDS, SARS, and swine flu have originated from animals, and yet not a single one of these “zoonotic diseases” was predicted before it appeared in humans.

Although the origins of infectious diseases may seem hard to understand, Dr. Stephen Morse, professor of clinical epidemiology, lays out in the December 2012 Lancet a series of research and surveillance opportunities and goals to pre-empt the spread of pandemics rather than react to them.

An expert on emerging infectious diseases, Dr. Morse, with co-authors including Dr. Ian Lipkin, John Snow Professor of Epidemiology, recommend that this advanced disease surveillance focus on “hot spots”—high-density areas where humans interact with animals—to identify microbes most likely to cause human disease.

“There is no question of whether we will have more zoonotic pandemics—the question is merely when and where the next pandemic will emerge,” Dr. Morse says. “The challenge now is to establish whether and how researchers can intervene before a pathogen reaches the human population and develop appropriate triggers for action.”

A pathogen is typically identified when a human becomes symptomatic with a virus, but that can take weeks to months after infection. Although health authorities can prevent a disease’s spread by quarantining infected people and administering vaccines, by the time those interventions are in place, much damage has already been done.

In the era of globalization, with widespread agricultural trading and air travel, few places are remote enough to be protected from the spread of disease. Dr. Morse and his colleagues recommend identifying potential hotspots by using computer models that mesh together known drivers of pathogen emergence, such as changes in land use, travel routes, and trade; changing human populations; and high diversity of animal populations.

Says Dr. Morse: “With new technologies, for the first time in history, we are now poised to predict and prevent emerging infections at the source, before they reach us.” — Lauren Weisenfluh, MPH ’13, Communication in Health and Epidemiology Fellow


Read an expanded version of this story on the 2×2project at http://the2x2project.org/disease-prediction
Prescription overdose rate reaches epidemic levels in NYC

The rate of drug overdose from prescription opioids such as Oxycontin increased seven-fold in New York City over a 16-year period and was concentrated especially among white residents of the city, according to a paper lead authored by Dr. Magdalena Cerdá, assistant professor of epidemiology; with Dr. Kerry Keyes, assistant professor of epidemiology; Dr. Karestan Koenen, associate professor of epidemiology; Dr. Sandro Galea, and colleagues.

It is one of the earliest and most comprehensive studies of how the opioid epidemic has affected an urban area. The researchers used data from the city’s Office of the Chief Medical Examiner for the period 1990-2006 to examine factors associated with death from prescription opioids versus heroin, which used to be the most common type of opioid fatality in urban areas.

The study suggests that the profile of a recreational prescription opioid user as white and financially comfortable is very different from the heroin consumer. “It’s a different type of drug with a different profile, and we need a different type of response to it,” says Dr. Cerdá.


Minimal rise in rates of cancer linked to 9/11 attacks

Those who survived or helped in rescue and recovery efforts after the September 11 attacks are no more likely to have developed cancer than other New York State residents, according to a new study lead authored by Dr. Steven Stellman, director of the World Trade Center Health Registry at the New York City Department of Health and Mental Hygiene and a professor of clinical epidemiology in the department. The study is the largest of its kind to date.

Rates of cancers among a sub-group of rescue and recovery workers, such as police, fire fighters, sanitation workers, and construction workers were up slightly. However the researchers say it is too early to conclude that there was any correlation to time spent at the World Trade Center site.

There have been fears about cancer in rescue and recovery workers because the World Trade Center was one of the last places in New York City where it was permissible to use the carcinogen asbestos in construction. Some workers were at the site for as long as nine months after the attacks.

Dr. Stellman says it is important to continue monitoring prevalence in this group because it is still too early to conclude that being at Ground Zero did not increase cancer risk. “These cancers are very important to look at over the coming years,” he says.

For a video of an interview with Dr. Stellman, visit http://jama.jamanetwork.com/multimediaPlayer.aspx?mediaid=4992750

Read about the New York Times’ coverage of the study on page 7

Jiehui Li, MBBS, MSc; James E. Cone, MD, MPH; Amy R. Kahn, MS; Robert M. Brackbill, PhD, MPH; Mark R. Farfel, ScD; Carolyn M. Greene, MD; James L. Hadler, MD, MPH; Leslie T. Stayner, PhD; Steven D. Stellman, PhD, MPH. Association Between World Trade Center Exposure and Excess Cancer Risk. JAMA. 2012;308(23):2479-2488. doi:10.1001/jama.2012.110980.
The changing face of infectious disease surveillance

Global disease surveillance has evolved dramatically over the past several decades to keep up with the rapid pace at which viral epidemics spread, writes Dr. Ian Lipkin, whose Center for Infection and Immunity (CII) is one of the top infectious disease labs globally. Because of factors such as increased airline travel, changing agricultural practices, mass migration, and climate change, pathogens that cause viral outbreaks can travel quickly around the world. Scientists today are using new tools at every level of disease control. They are using genetic identification methods to detect infectious agents; social media to speed up surveillance; and complex modeling to illuminate the relationships of microorganisms to many types of health conditions, from mental illness, to obesity, to cancer.

“Pathogen discovery has evolved from a ‘whodunit’ exercise carried out by solitary investigators to a team effort involving microbiologists, cellular and systems biologists, geographers, mathematicians and other specialists.”


Questioning the obesity paradox

Several prominent studies have made a stir recently by calling into question whether obesity puts one at risk for an earlier death, as public health officials have long warned. Known as the “obesity paradox” this research finds that at age 65 and over, an elevated body mass index won’t shorten one’s lifespan—and may even extend it.

The problem with the obesity paradox is that it has relied on survey data that does not tell the full story, according to Dr. Ryan Masters, Robert Wood Johnson Foundation Health & Society Scholar, and Dr. Bruce Link, professor of epidemiology and sociomedical sciences. They took a fresh look at this question by including data from individuals who are institutionalized—such as in a hospital or nursing home—and of individuals who passed away before age 65. These groups were missing from past studies, which as a result overrepresented the healthy obese. Using this analysis, the authors found what has long been suspected: that risk for death from obesity does increase with age.

“This study should put to rest the notion that it’s possible to ‘age out’ of obesity risk, and provides a powerful counterfactual against those who say concern over obesity is overhyped,” says Dr. Link.


MARCH 2013
Body mass index just as good as other measures at predicting health risks

Although some scientists have questioned its use, a new study finds that body mass index is as good or better at predicting health risks than other body measures. BMI, a weight-to-height ratio, has been criticized for failing to take into account body shape and muscle mass. However, a study by Dr. Andrew Rundle, associate professor of epidemiology; Mr. Steve Mooney, a doctoral candidate; and Ms. Aileen Baecker, MPH '12, found that BMI better predicted raised blood pressure than other measurements such as waist circumference. Even though BMI did not best predict every element of metabolic syndrome that the researchers measured, it was the most consistent. "Despite the criticism of BMI, it's still a very good health indicator," said Dr. Rundle.

Read Mr. Mooney's article on the study for the 2x2 project http://the2x2project.org/measuring-obesity-bmi


Folic acid may reduce risk of autism

Prenatal folic acid supplements appear to reduce the risk for certain autistic spectrum disorders, according to a large Norwegian cohort study by Dr. Ezra Susser, professor of epidemiology and psychiatry; Dr. Ian Lipkin, with Dr. Mady Hornig, associate professor of epidemiology; Dr. Michaeline Bresnahan, assistant professor of clinical epidemiology; and colleagues at other institutions. Although it is among the most heritable of mental disorders, little is known about how to prevent autism. The study found that mothers in Norway who took folic acid supplements in early pregnancy were 40 percent less likely to have children with an autistic disorder compared with mothers who did not take the supplement.

Folic acid is required for DNA synthesis and repair in the human body. Its naturally occurring form is found in leafy vegetables, peas, lentils, beans, eggs, yeast, and liver.

The findings are particularly critical for Norway, where—unlike in other European countries and in the US—flour is not enriched with folic acid. But even in countries with enriched flour, research has found many women have a lower dietary intake of folate than what is necessary to prevent neural tube defects.

“Our findings extend earlier work on the significance of folate in brain development and raise the possibility of an important and inexpensive public health intervention for reducing the burden of autism spectrum disorders,” says Dr. Susser.

Watch Dr. Susser speak on television about the study http://www.nbcnews.com/video/nightly-news/50843036#50843036

IN THE NEWS

Newtown and mental illness

**THE WALL STREET JOURNAL**

The shooting at Sandy Hook school in Newtown, Connecticut has raised many questions surrounding whether mental health screening could be used to identify killers before they act. In a commentary for the *Wall Street Journal*, Dr. Lloyd Sederer, adjunct professor of epidemiology and medical director of New York State’s Office of Mental Health, speaks in favor of reforming mental health care regulations to make it easier to hospitalize patients with serious mental illness and to ease restrictions on communications between patients’ families and health professionals.

“Doctors have remarked that when patient rights exceed truly necessary protections, individuals with mental illness can ‘die with their rights on.’ Sometimes they may harm others along the way,” says Dr. Sederer.

While the mental health of Newtown shooter Adam Lanza has led to questioning whether schools are equipped enough to identify psychological illness in students, the issue goes beyond schools, says Dr. Sandro Galea.

“This is where system-wide efforts to make sure mental health services are available come into play,” he told ABC. “I think we need greater societal acceptance of the fact that mental illness is as much an illness as a physical illness.”

http://online.wsj.com/article/SB10001424127887324081704578234002322233718.html


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No clear link so far between cancers and 9/11

**The New York Times**

Dr. Al Neugut, professor of epidemiology, says he is not surprised that a recent study failed to find a link between the September 11 attacks and an elevated risk of cancer.

“I think, given the time frame and the exposures there wasn’t a high likelihood that there would be an elevated risk, certainly for cancer, and to the degree that it was, it would not be for the cancers that they’re finding.”

Dr. Neugut said he sympathizes with people who had cancer they attributed to the disaster, but noted that “cancer is a very specific outcome, and in most exposures, you have to be exposed for an extended time before you get the cancer.”

“The 9/11 attack was a terrible thing, but it doesn’t cause everything in the world” he added. Read more about the study on page 4.


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Women today feel more freedom and yet more pressure to drink

**Atlantic**

Women today are feeling in part more freedom and yet more pressure to drink than in earlier eras, which owes to gains in the workplace. An article on this phenomenon in the Atlantic features perspective from Dr. Kerry Keyes who has found that the rates of binge drinking and alcohol disorder use are increasing in women.

“While men are more likely to have alcohol disorders than women, the increase in women outpaces what we see in men,” she says. Data tracking back over the last 60 to 70 years suggests that more gender equality in a country may correlate with higher drinking rates, according to Dr. Keyes.

IN THE NEWS

Tracking rape in Syria

Sexual violence has long been a weapon of war, but documenting it has usually happened after a conflict is over. Now a group of researchers and activists are challenging traditional public health research methods for the conflict in Syria, tracking in real time reports of rape and other types of sexual violence.

NPR’s “All Things Considered” profiles the work of advocacy group Women Under Siege, which they track through crowd sourcing of social media from inside the country including Facebook, Twitter, and YouTube.

The project is different from most data collection efforts, which do not start to interview the victims until after a conflict is over, says associate professor of epidemiology Dr. Karestan Koenen, who joined Women Under Siege as the lead epidemiologist on the mapping project.

Participating also is MPH ’13 student Jackie Blachman Forshay, who works with a team of Arabic translators to transcribe the accounts. “At this point I’ve watched anything that has to do with rape in Syria. If it’s on YouTube, I’ve seen [it],” she says.

Even though there are questions surrounding verification of reports of sexual violence, the alternative is worse, says Dr. Koenen:

“Waiting until after a conflict is over to collect this data has all kinds of problems, including the fact that we know many of the victims will be dead and never have the opportunity to speak,” she says. “Our team, Jackie, and the translators who remain anonymous, they’re really engaged in the heartbreaking work of engaging with this incredibly traumatic material.”

http://www.npr.org/2013/02/05/171158882/through-social-media-tracking-rape-in-syria

View the Syria Crowdmash project https://womenundersiegesyria.crowdmap.com

Subway track death prompts renewed look at psychiatric commitment law

When in December a man was pushed onto the New York City subway tracks to his death by a woman with a history of mental illness, it raised questions about the efficacy of a state law that was passed to help head off such situations. Some have called for broadening what is known as Kendra’s Law, which allows families to petition for a judge to commit a relative to an institution if that person’s mental illness could endanger others.

However, the law in its current form has been effective, according to Dr. Bruce Link who has studied the issue. He found that those who have been committed under the law were less violent over time than similar patients who were not.

“Waiting until after a conflict is over to collect this data has all kinds of problems, including the fact that we know many of the victims will be dead and never have the opportunity to speak,” she says. “Our team, Jackie, and the translators who remain anonymous, they’re really engaged in the heartbreaking work of engaging with this incredibly traumatic material.”

http://www.npr.org/2013/02/05/171158882/through-social-media-tracking-rape-in-syria

View the Syria Crowdmash project https://womenundersiegesyria.crowdmap.com

Bad flu season puts pressure on prevention measures

This past winter has been one of the worst flu seasons in recent memory. In New York City, the number of cases is already more than three times what was seen last year.

“We lose over 35,000 people a year in the U.S. alone to influenza,” says Dr. Ian Lipkin. To avoid catching the flu, he recommends an alternative to shaking hands:

“T wave, I do a fist pump. I knock elbows. I bow.”

http://newyork.cbslocal.com/2013/01/09/some-advice-to-avoid-getting-the-dreaded-flu
Spin Doctors

The media, the science, and the hyping of research results

Last September, a group of Stanford University researchers published a controversial study reporting that organic foods are no more nutritious than conventional foods.

The media jumped on it.

Organic Food No Healthier than Non-Organic: Study,1 Reuters reported. Business Week’s headline: Organic Food Adds No Vitamins for Extra Cost.2 Other reputable outlets gave the results similar coverage.

But almost as soon as that news cycle ended, the backlash began. It soon became clear that the researchers had been misleading. They had defined nutrition only based on number of vitamins, downplaying other advantages of organic foods, like reduced pesticides and antibiotic-resistant bacteria.

Outlets that had at first reported the study credibly backtracked. “Parsing of Data Led to Mixed Messages on Organic Food’s Value” read a New York Times headline.3 “Lots of chatter, anger over Stanford organic food study,” said the Los Angeles Times.4

But it was not just the media that was at fault.

In their paper the scientists had represented the risks and advantages of pesticides and bacteria as though those issues fell outside of what it means for food to be nutritious, saying “the published literature lacks strong evidence that organic foods are significantly more nutritious than conventional foods. Consumption of organic foods may reduce exposure to pesticide residues and antibiotic-resistant bacteria.”

How did this study get legs so fast? That question has recently been on the minds of both scientists and journalists, touching on important issues related to how science is communicated in an era of 24/7 news.

Recent research into medical spin suggests that the Stanford organics study is hardly an isolated incident. When faculty at Université Paris Descartes reviewed 70 randomized controlled trials published during 2008 and 2009, they found that half of news...
reports were guilty of spinning scientific results. But interestingly, a majority of the spin originated in the conclusion section of the scientific abstract—that is, with the scientists.

"If their trial is negative they try to find at least a positive message and emphasize this positive message," said Dr. Philippe Ravaud, the senior author of the study, a professor at Descartes, and an adjunct professor in the department.

Some reporters seized on the PLoS study as vindication against scientists who have accused their profession of sloppy and sensationalistic reporting.

Their excitement obscured perhaps a more troubling finding in the PLoS study, which is how complicit the media was—at least initially—in reporting research without questioning it, as in the Stanford organics study.

Although scientists and journalists tend to portray theirs as an adversarial relationship—one in which the scientist’s quest for accuracy is at battle with the journalist’s quest for a story that people will read and find relevant, both scientists and journalists have an interest in hyping positive results and downplaying negative ones.

"Everyone involved can be tempted to benefit from exaggeration. The news person has what looks like an exciting story and the investigator has visibility, which is increasingly valued by medical school PR offices and promotion committees," says Dr. David Ransohoff, a professor of medicine and epidemiology at the University of North Carolina-Chapel Hill and an associate editor of the Journal of the National Cancer Institute.

Not only does media coverage of a study influence a scientist’s prominence, but it can also direct funding toward certain medical procedures and diagnostic tests, shape individuals’ health choices and change grant funding priorities.

There have been many examples in recent years of the symbiotic relationship between medical researchers and journalists.

One cited by the PLoS study took place in 2009, when researchers at the Henry Ford Hospital in Detroit reported that acupuncture is as effective as drug therapy for treating breast cancer. The media was quick to cover these impressive results.

However, the researchers’ study included only 25 women in each trial group at the study’s conclusion and thus was not statistically significant, say the authors of the PLoS paper.

Dr. Eleanor M. Walker, the lead author of the study and director of breast services in the department of radiation oncology at Henry Ford, defended her paper to the Chronicle of Higher Education, saying "everything that was mentioned is in fact in the paper and supported with data." She did not respond to a request for comment for this article.

Because of the incentives that both scientists and journalists have to cherry-pick results, some experts say medical journals need to do a better job of catching spin.

"Researchers often have an interest in overstating their findings, sometimes through financial interests, but often, also, because of an honest and passionate belief in their favorite pet theory," Dr. Ben Goldacre, a frequent critic of science journalism and writer of the website Bad Science said over email. "But for these overstatements and distortions to make it into print, academic journals themselves have to fail."

And in recent years it seems they have failed. Retractions have risen, drawing attention to the flaws of the peer-reviewed system.

Some of the most prestigious and best-known journals like Science and Nature, the ones whose studies make it into the news most often, have had more retractions than specialized journals.9

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7 http://chronicle.com/blogs/percolator/scientists-often-responsible-for-spin-of-their-results-researcher-finds/30872

Some scientists point out that they are operating in a climate that demands sexy results at the expense of accuracy.

The big journals have their eye out for studies that are more likely to generate media coverage, says Dr. Richard Ransohoff, the director of the Cleveland Clinic’s Neuroinflammation Center and a cousin of David Ransohoff. The two of them published an article in 2001 called “Media Sensationalism: When Scientists and Journalists May Be Complicit Collaborations,” which anticipated many of these issues.9

Unlike the specialty journals, which are often published by professional societies and run by practicing scientists, high-impact journals are typically headed by professional editors, says Richard Ransohoff. While these editors usually have science doctorates, they have been out of the field for a while and are lacking expertise in most of the areas their journal publishes in.

“The people running those journals always have one eye on the quality of the science and its importance to the scientific community, but there are other eyes on getting publicity because that in some ways helps their journal,” says Dr. Ransohoff.

This seems to have been what played out in 2006 when the New England Journal of Medicine published a study by scientists at Weill Medical College of Cornell University finding that a computerized tomography or CT scan could prevent 80 percent of lung cancer deaths if detected at an early stage—a dramatic result, especially since the scans were not a part of routine medical screening for lung cancer. The media ran with the story.

Emboldened by the coverage, the Cornell authors and screening advocates were able to pressure Congress into investigating whether to halt a long-running national trial that was comparing the CT scan to the chest X-ray. They also helped get state legislatures across the country to consider bills to direct tobacco settlement funds to CT screening programs.

But the Cornell group came under fire when it was discovered that they had financial interests in the results, including millions in grants from the parent company of a cigarette-maker and patents pending related to CT screening and follow up.10

Even before those issues emerged, critics had drawn attention to the study’s methods. While some in the media reported these objections, they certainly did not lead the coverage.

While no party was blame-free in the debacle, the New England Journal bears major responsibility for publishing the study, says Dr. David Ransohoff, who at the time was a prominent critic.

“It will likely go down as one of the bigger publishing goofs the New England Journal has ever made,” he says, adding that it was a rare but serious slip up on the part of the journal.

What keeps the media from being wary, says David H. Freedman, a journalist and author of Wrong: Why Experts Keep Failing Us—and How to Know When Not to Trust Them, is that for them, scientists can occupy a rarified plane in journalists’ minds.

“[I]n health journalism (and in science journalism in general, scientists are treated as trustworthy heroes,” Freedman writes in a recent article in the Columbia Journalism Review. “Scientists are human beings who, like all of us, crave success, status, and funding, and who make mistakes; and ... journals are businesses that need readers and impact to thrive.”11

That perspective is shared by Dr. Kausik Datta, an immunology researcher at Johns Hopkins University who has written on topics related to media coverage of science for the blogging network SciLogs. Journalists can have “too much awe for the scientist/institution associated with the study, including personal/emotional investment,” he says.12

Some scientists point out that they are operating in a climate that demands sexy results at the expense of accuracy.

“On the one hand, scientists are expected to present their data dispassionately and objectively; at the same time, they are also expected to make their research sound "sexy," or at least relevant and orderly,” said cancer and stem cell biologist Dr. Ada Ao on Nature’s Scitable blog.13

Scientists are usually quick to say that there are many journalists who labor to get the story right.

Journalists who get it wrong are often under the gun, pushed by the deadline pressures of publications that demand several stories or blog entries a day, and make it difficult to seek out various points of view. While editors at some publications may give their reporters time to get it right, many others prioritize more news at the expense of better-reported news.

Some scientists are skeptical of this defense, but they acknowledge that their profession could do a better job of communicating their research and making their findings more accessible.

“As a working scientist, I feel that our first duty is to science. But that doesn’t mean that we should confine ourselves to the proverbial ivory tower,” says Dr. Datta. “We need to actively engage with the general public at large, as well as science journalists, and spend some amount of time on a regular basis to skim through how our research work is being portrayed in the media, as well as engage in dialogs if necessary.”

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10 http://www.nytimes.com/2008/03/26/health/research/26lung.html?pagewanted=all&_r=0
12 http://www.scilogs.com/in_scientio_veritas/author/datta
13 http://www.nature.com/scitable/blog/theprometheancell/a_humble_rant_re_spin
One of the surest ways to combat the spread of AIDS is preventing the transmission of HIV from a mother to her child. This has been achieved in the rich nations of North America and Western Europe, where it is virtually unheard of today for a pregnant woman pass HIV to her child. But in poorer nations, mother to child transmission is one of the chief causes of new infections.

Recognizing that if what has been done in rich nations could be done in developing nations, the spread of AIDS could be significantly reduced, the United Nations in 2011 set a global plan to effectively eliminate pediatric HIV by 2015.

To answer the question of whether this ambitious plan can be achieved, the Department of Epidemiology and ICAP brought together some of the people who have been working the hardest on this problem, many of them on the ground in various parts of Africa, for a Columbia University Epidemiology Scientific Symposium (CUESS) “Eliminating pediatric HIV: Hype versus hope,” held on November 29, two days before World AIDS Day.

The event was hosted by Dr. Wafaa El-Sadr, director of ICAP and professor of epidemiology, and Dr. Elaine Abrams, senior director for research on the mother-to-child plus initiative in ICAP and a professor of epidemiology and pediatrics.

Eliminating pediatric HIV, though a daunting goal, is not quite the same as full-scale eradication of the disease. What it means is that there would be a 90 percent reduction in new infections from 2009 to 2015.

Today, 90 percent of new pediatric HIV infections occur in 22 “high burden countries,” according to Dr. Landon Myer a professor of public health at the University of Cape Town and an adjunct faculty member at Columbia, who was one of the speakers. In nations in Sub-Saharan Africa, mother to child transmission of HIV is one of the primary causes for new HIV infections.

Transmission can happen in the womb but is most common later, either during labor and delivery or when the child is being breast fed, said Dr. Myer. The behavioral and clinical measures used in rich nations to prevent the spread of HIV—such as family planning, caesarian sections, antiretroviral drugs, and discouraging breastfeeding—are much more difficult to carry out in the high burden countries.

This is especially true for antiretroviral therapy. Short of an AIDS vaccine, the most effective way to keep HIV from spreading is “treatment as prevention”—undergoing a drug regimen that restrains the growth and reproduction of HIV. Staying on this regimen makes it significantly less likely one will transmit the disease through sex, shared needle use, or through pregnancy.

But it is much harder to carry out in low and middle-income countries than in the United States. Where it has often proven difficult to keep pregnant mothers and mothers of infants to a consistent antiretroviral regimen.

Moreover, use of antiretroviral drugs carries unique risks in developing nations, especially when it comes to breastfeeding, which is where 35-40 percent of pediatric HIV cases begin.

Some studies have looked at ”pre-exposure prophylaxis,” administering antiretrovirals to infants to prevent them from contracting HIV. The risk is that they can later become resistant to the drugs, which means they could develop full-blown AIDS if infected with HIV. For this reason, it can be attractive to try to discourage mothers...
from breastfeeding altogether. But that comes with its own set of problems, said Dr. Louise Kuhn, professor of epidemiology (in the Gertrude H. Sergievsky Center). Breast milk is an important source of nutrients for infants in an under-resourced environment. According to a study in Zambia by Dr. Kuhn, uninfected infants who were not breastfed were at significantly greater risk for death than those who were.

Yet another challenge to eliminating pediatric HIV is lack of healthcare workers in many of the most affected countries, according to Dr. Address Malata who is the director of the Kamuzu College of Nursing at the University of Malawi. Developing countries must nearly triple their current numbers of health workers to deal with the burden, she said.

There have been some positive developments in recent years. The cumulative number of new infections averted in children more than doubled between 2009 and 2011 in low- and middle-income countries, according to Dr. Myer.

More pregnant women are being tested for HIV, and antiretroviral drugs have become easier and cheaper to access. South Africa recently negotiated the lowest price ever for an antiretroviral called tenofovir, at $10 per month, more than one-third lower than any other price negotiated for that drug.

Other approaches, such as decreasing the number of unwanted pregnancies through family planning education have barely been tried. Part of the problem, said Dr. Craig McClure, Chief of HIV/AIDS section at UNICEF, is that in many of these nations, women do not have the same sexual and reproductive rights as women in most developed nations.

Given these hopes and challenges, panelists were divided over whether the UN’s target can be met.

Some nations have made significant progress, among them Uganda, Tanzania, Mozambique, and Zimbabwe; however, countries that make up the most new infections are doing worse, especially Nigeria, according to Dr. McClure.

“If we don’t do something about these poor performing targets, we won’t achieve targets of the plan,” he said.

Nonetheless, he is optimistic: “I get asked almost everyday whether the global plan can be achieved, and I really believe it can.”

Others were less certain. According to Dr. Elaine Abrams, it may take up to 20 years for targets to be achieved in countries like Nigeria.

Even if the global plan is not achieved by 2015, it will have played a very important role in public health, said Dr. Wafaa El-Sadr in closing remarks:

“Targets can sound lofty and unrealistic but, I don’t hear such targets in other parts of public health, or in other areas of health. Maybe there are lessons learned that setting these targets and setting these high goals may actually be very useful in mobilizing communities and mobilizing us.”
When rapes are covered in the media, they are usually treated as isolated—albeit horrifying—events and are prosecuted individually. But the recent gang rapes in Delhi and in Steubenville have shined a spotlight on the cultural roots of sexualized violence.

Bringing this issue out of the shadows is essential to finding solutions, said panelists at the Columbia University Epidemiology Scientific Symposium “Global sexualized violence: From epidemiology to action.”

The group of academics, journalists, activists, and policymakers who came together for the event on January 25 said sex crimes must be treated not as isolated events but as a global public health crisis that cuts across cultures and nations, and that demands the same intervention resources as any other public health issue.

Sexualized violence is a serious public health problem across the globe. According to a World Health Organization multi-country survey of women ages 15-49, reports of physical and/or sexual violence are prevalent in rich and poor countries alike—from as low as 15 percent in Japan to as high as 72 percent in Ethiopia.

Many women and girls reported their first sexual experience as forced—ranging from 17 percent in rural Tanzania, to 25 percent in rural Peru, to 30 percent in rural Bangladesh.

The idea to hold a symposium addressing sexualized violence as a global epidemic came out of a partnership between Dr. Karestan Koenen, an associate professor of epidemiology at the Mailman School who specializes in trauma research, and the Women’s Media Center, an advocacy group for women in the media. Dr. Koenen has worked with Lauren Wolfe, director of the center’s Women Under Siege Project, to raise awareness about sexualized violence in conflict.

Over the course of the day, presenters considered sexualized violence from a population health perspective, looking at how such crimes are rooted in larger cultures and societies, the wide-ranging impact on women’s physical and mental health, and how to use public health tools to gather statistics and take action. Several panelists spoke about the “cult of masculinity,” in environments like the military and fraternities.

Rates of sexualized violence are often high in these “hyper-masculinized environments” said panelist Dr. Rita K. Noonan, who as associate director for program development at the CDC’s Injury Center, has worked on translating research on sexual and dating violence into prevention efforts.

In the U.S. military sexual harassment and abuse is a significant problem, said Dr. Amy Street, the deputy director of the Veteran Administration’s women’s health sciences division in Boston. In the wars in Iraq and Afghanistan, 25 percent of women and 1 percent of men reported sexual assault, and 51 percent of women and 11 percent of men reported sexual harassment.

“Those are pretty striking numbers,” Dr. Street said. In these situations, she noted, the victim usually knows the perpetrator. “It’s an incredible betrayal, especially since there is an emphasis on teamwork and working together.”

Journalist Helen Benedict’s 2009 book, The Lonely Soldier: The Private War of Women Serving in Iraq, documents this culture at the ground level with intimate portraits of seven women who dealt with sexual and other abuse while on active duty in the Middle East.

Part of the problem is an intensely misogynistic culture she said, giving the example of a comment made by a soldier she met in Iraq. “He told me that Vietnam had prostitutes but they don’t have them in Iraq, so they send women soldiers instead,” said Benedict, who is also a professor at the Columbia School of Journalism.

According to Dr. Tia Palermo of SUNY-Stonybrook, the growing body of research on sexualized violence is crucial to changing these cultures and reducing these crimes. “Some activists have argued that we don’t need expensive studies and more statistics, but any response will depend on accurate and complete understanding of causes, dynamics, and trends of sexualized violence and conflict,” she said.

However, quantifying sexualized violence is not straightforward.
There have been widely divergent reports of prevalence found by researchers, which has led skeptics to accuse feminists of inflating the numbers. There are inherent difficulties in collecting data on sexualized violence because of privacy issues and the traumatic nature of these events. Moreover, victims frequently do not report rape because of shame and fear of repercussions. Most of the time, rape and other forms of sexualized violence are committed by partners but not by strangers, husbands, boyfriends, and acquaintances. Studies have found that women are less likely to report rape if they know the perpetrator.

In some cases, the repercussions of reporting a rape can be very severe. In Egypt, for instance, many women will not go to the police to report a rape, because of fear of stigmatization, victim-blaming, and even of being raped again, according to Women Under Siege.

There are certainly inherent difficulties in these types of studies, said panelists. Data is difficult to collect because of privacy issues and the traumatic nature of these events.

Nonetheless, scientists have been able to improve the accuracy of data collection. One of the best examples of this, said Dr. Leslie Roberts, an associate clinical professor of population and family health at the Mailman School, was Dr. Diana Russell’s 1982 San Francisco survey. She found that prevalence of rape in a representative sample was six to seven times higher than what had been reported in earlier nationwide surveys.

Unlike those earlier studies, Dr. Russell and her team conducted in-person interviews, where they asked women not just whether they were raped but whether a partner had forced them to have sex or had sex with her in her sleep.

The Women Under Siege Project has been a leader on using epidemiologic and journalistic methods to document reports of sexual violence in the civil war on Syria through a live, crowd-sourced map. “By plotting each report on a map, we are hoping to not just collect documentation that may otherwise be lost, but also to make people pay attention to the victims,” says Wolfe. “The work also gives us indicators of what kinds of medical and psychosocial services may be required, and where. It is also documentation that may one day be used toward evidence in potential war crimes trials.”

The project has drawn significant attention to sexualized violence being committed by the Syrian army, and it is one of the leading examples of new journalistic models that are being used to draw attention to the epidemic of sexualized violence, which panelists said is often not covered by the mainstream media.

One problem, said Maria Hinojosa, an anchor for PBS and NPR, is that often times male editors and producers think of sexualized violence as a “women’s topic” that would not be of interest to men. Because she was committed to telling these stories, Hinojosa started her own production company, the Futuro Media Group, which has produced an award-winning documentary on child brides. “As a journalist, if you care about these stories, you have to find your own way,” she said.

Benedict encouraged journalists to pitch stories that examine novel angles of these issues. Such angles might include examining the link between porn and sexualized violence and how or when men “learn to rape.” Said Benedict: “Any mother who has had a son knows that boys are not born rapists.”

“We entirely neglect why rape fails to decline while other crimes drop,” she added.

Jimmie Briggs, a former journalist and the director of ManUp, a global campaign to stop violence against women and girls, offered a male perspective. His organization works to get men and boys involved in reducing and sharing responsibility for the problem of violence against women, through shifting negative gender norms.

Even though there are many dedicated activists, journalists, and policymakers working toward ending sexualized violence, public health scientists are needed now more than ever, said author and activist Robin Morgan, a co-founder of the Women’s Media Center: “[Academics] carry a weight that activists still do not.”
The “nature versus nurture” debate was once one of the most heated in science. According to the nature side, people are born with inherent traits that remain the same over the course of life. The nurture side sees people as blank slates whose psychological and physical traits are formed by their experience in society.

In recent years, a new and more complex understanding has emerged, one that views genes and environment as engaged in a highly entangled interplay.

Dr. Stephen Cole, professor of medicine, psychiatry, and biobehavioral science at University of California at Los Angeles’s School of Medicine, spoke about his research in this field at January’s Columbia University Epidemiology Grand Rounds (CUEGR). Dr. Cole looks at how social realities—such as one’s income status or experiences of trauma or loneliness affect an individual’s biology right down to the gene-level and can put someone at greater risk for a variety of diseases, from cancer to depression.

Approximately 10 percent of genes are affected by social circumstances and how one adapts to them, Dr. Cole has found.

A stressful experience, such as loss of a loved one, creates a biochemical reaction, such as release of hormones or neurotransmitters. This in turn affects how genes are transcribed into proteins. Such experiences contribute to disease risk by increasing the production of inflammatory proteins and decreasing the production of antibody proteins.

“You essentially have a pathway by which the social world can regulate the genome,” Dr. Cole said.

He and his colleagues have also found that some people are more genetically susceptible to social influences than others.

These findings have huge implications. They suggest that, contrary to the beliefs of genetic determinists, people can actually go through significant changes over the course of life as a result of social environment. However, the nature camp is right to focus on what is heritable, as such changes are ultimately gene-based.

“What we do, where we go, and who we interact with actually has some kind of vote in what is happening in our bodies,” Dr. Cole said.

“So we can structure or make the choices about what we do with our lives that can in a sense help us be the healthy people we were meant to be.” —Bianca Dearing, PhD candidate

Going beyond ‘nature versus nurture’

A Columbia University Epidemiology Grand Rounds
An evolution of clusters

Injury Epidemiology

This month marks the formal launch of a new cluster in our department, the injury epidemiology cluster. The emergence of this cluster reflects the impressive body of research, training and service that has coalesced around injury epidemiology, and the department’s investment in supporting this work going forward.

Dr. Guohua Li, who is also director of the new Center for Injury Epidemiology at Columbia, will lead the new injury epidemiology cluster. Dr. Li is a world leader in the field and last year published a foundational text on injury epidemiology.

The injury epidemiology cluster establishes an important new avenue for our department to advance knowledge in this area and inform policy and service initiatives in domains from airline safety to safe routes to school, all aimed at reducing the incidence and severity of injury on a population level. We congratulate the superb faculty who are carrying this work forward.

The injury epidemiology cluster will launch in March 2013, joining our other five clusters—chronic disease epidemiology, infectious disease epidemiology, lifecourse epidemiology, psych/neuro epidemiology, and social epidemiology—as the core administrative and intellectual organizing units in the department.

Epidemiology Innovation

The injury epidemiology cluster developed as an outgrowth of the epidemiology innovation cluster. When it was established three years ago, the epidemiology innovation cluster aimed to be a seedbed for the germination of new ideas and directions for the department. Under the leadership of Dr. Leslie Davidson, professor of clinical epidemiology, it has done just that, successfully budding off an entire new program capable of standing on its own.

Recognizing this success, the department is winding down the innovation cluster, making room for the injury cluster. Dr. Davidson has been an integral part of the transition, bringing to it the steady hand she has brought to all cluster activities thus far.

The department shall suitably celebrate Dr. Davidson’s leadership later in the spring.
An associate professor of clinical epidemiology Pam Factor-Litvak, PhD, MPhil, MS, studies biological relationships between environmental exposures and development through a life course perspective.

Her path into the field of epidemiology is different than most. She had planned to go into chemistry while majoring in the subject at the University of Rochester but soon decided she was uninterested in a life of lab work.

Dr. Factor-Litvak had her first encounter with health research in the summer between her junior and senior years of college. She worked with a small department of preventive medicine, where she completed an evaluation of a drug abuse program. It was then that she was introduced to and deeply inspired by Dr. Mervyn Susser’s *Causal Thinking in the Health Sciences*, a classic epidemiological book that offers a holistic assessment of health outcomes, causal reasoning, and inference in the field. “It became my bible,” said Dr. Factor-Litvak. “My mentor had introduced me to the book as it had just come out, and I thought it was so cool in how it explores epidemiology.”

This put her on the path to earning a master of science in epidemiology at Harvard University and then to pursuing a doctorate in epidemiology at Yale.

During her doctoral studies, she made a personally difficult decision to take a leave of absence so that she could get more work under her belt and become familiar with conducting epidemiological studies. She moved to New York City to work as a project coordinator for head and spinal cord trauma incidence and prevalence in the Bronx in collaboration with the Albert Einstein University Hospital. She went on to a job evaluating health services programs at Blue Cross and Blue Shield.

After these experiences, she decided to complete the rest of her PhD at Columbia.

Her desire to become a life course epidemiologist came as she was working on a study in Yugoslavia on how maternal exposure might affect pregnancy outcomes and childhood intelligence.

Today, Dr. Factor-Litvak’s research examines the relationships between early-life exposures to toxic chemicals and social stressors and development over the lifecourse. Her chemistry background has been of particular value here, she says.

Her most recent research has looked at the relationship between organochloride pesticides, phthalates, brominated flame retardants to pregnancy outcomes and child development. She is also looking at health outcomes from prenatal exposure to the pyrethroid class of pesticides—which are replacing organophosphate pesticides. Additionally, she works on epidemiological studies of Amyotrophic Lateral Sclerosis (ALS), a neurological progressive disease. She is currently performing a case-only study examining associations between oxidative stress and ALS progression.

Aside from her research, Dr. Factor-Litvak teaches life course epidemiology. She was also recently appointed associate dean for research resources at the Mailman School, where she will monitor research funding opportunities and track faculty progress in obtaining funding.

In her free time—when she has it—Dr. Factor-Litvak enjoys reading spy and mystery novels, spending time with her family, and puzzling over prenatal determinants of telomere length. — *Arti Virkud, MPH ’13 Communication in Health and Epidemiology Fellow*
As an associate professor of epidemiology at the Perelman School of Medicine at the University of Pennsylvania, Peter Kanetsky, PhD ’97, MPH ’91, is actively engaged in training the next generation of academic clinicians and public health professionals.

His research has focused on investigations of inherited genetic variation and its relationship to cancer development and progression. However, he has recently begun to study non-cancer outcomes including renal disease progression in adult and adolescent populations.

As a biochemistry major at Cornell University, Dr. Kanetsky’s early interests involved work around biomarkers. He continued this area of study during his PhD, completing his dissertation in part on micronutrient biomarkers and their association with cervical dysplasia.

He was initially drawn to the field of epidemiology while working as a research technician on a cross-sectional study of women with cancer at the Albert Einstein College of Medicine following his undergraduate career. He was also influenced by the book And the Band Played On by Randy Shilts which chronicles the outbreak investigation and political controversies in the early days of AIDS. “After two years of laboratory experience at Einstein and learning about the unfolding of the HIV epidemic, I realized that epidemiology was the common denominator,” he says.

Dr. Kanetsky holds his training experiences at Mailman in high regard. “I look back very fondly on my time in the epidemiology department. As my cohort of peers has aged, it’s exciting to find out where they are now and to see how they became involved in public health.”

He remains in contact with many professors who inspired his research over the course of his career; notably Dr. Al Neugut who teaches the same cancer epidemiology course that Dr. Kanetsky took as a student. “Mailman taught me the tenets of good mentorship and made me appreciate the multidisciplinary nature of public health.”

Over the course of his post-doctorate career, Dr. Kanetsky has built a successful research portfolio, which includes studying the genetic risk for melanoma and testicular cancer. On the teaching side, he has established an introductory epidemiology class offered to undergraduate students at the University of Pennsylvania.

“Teaching has always interested me, and I’ve always approached knowledge with the attitude that if you can effectively teach the material, you will inevitably know the material,” he says. “Teaching is a way to help better understand the nuances of epidemiologic knowledge and practice.”

Dr. Kanetsky says that in order to successfully communicate material, one must understand that each student has an individual learning style. A professor must be open to a variety of teaching approaches drawn from across a spectrum of disciplines.

He is a strong advocate of mentorship. He credits his own experience as a mentee with guiding the opportunities he has been presented throughout his career.

To current master’s and doctoral students who are pursuing a career in epidemiology he says to “make it a point to speak with people in the field to discuss the day-to-day life of an academic researcher. When I talk to students or early stage investigators, I always mention that after earning your PhD and entering into the research community, you will be confronted with things that you did not necessarily envision for your career path.” What people do not anticipate is the hands-on training they will get in clinical psychology and administration, he says.

“Being an academic researcher, you have to learn effective management styles to direct the people on your research team who are looking up to you as their group leader. And you have to acquire effective communication skills in order to excel at being a sought-after collaborator.”

—Christopher Tait, MPH ’14
Kiki Korikis, the associate director for human resources and faculty affairs in the department, attributes her career path to her natural fascination with people and the satisfaction she derives from helping them.

Kiki works closely with faculty, staff, teaching assistants, casual employees, and volunteers. She is engaged with them every step of the way through their appointments in Epidemiology, from posting positions and advising on benefits to processing payroll and shepherding the complex process of faculty promotions.

In a department of over 250 members, this is an enormous job that demands exceptional organization, speed, and attention to detail simply to keep up with the workload. Kiki has been demonstrating those skills since she began in the department last summer, but she brings some even more valuable talents to bear each day: warmth, sensitivity, compassion, and diplomacy.

“Kiki has genuine warmth. When speaking with her, she gives you her full attention and listens carefully with sincere interest and concern. She is truly a ‘people’ person; you can’t help but like her,” says Dr. Grace Hilyer, associate research scientist.

Her 16-year-career at Columbia has spanned many offices across the university. On the Morningside campus, she worked in central human resources, labor relations, and the office of benefits and retirement. At the Medical Center she worked for the chief financial officer, in the office of affirmative action, and the division of hematology/oncology in the department of medicine.

A Queens native, Kiki went to Catholic high school and then to college at Long Island University in Southampton. She has also earned a master of public administration from Columbia’s School of International and Public Affairs.

Some of Kiki’s early and most memorable work experiences occurred during her first job after college, as a caseworker for welfare recipients at New York City’s Human Resources Administration.

There, she learned the ropes of working with many different types of people. Her job was to interview clients and help them find a proper work assignment, educational opportunities, or if needed, to process them for disability.

“It was really interesting meeting so many people from so many different walks of life,” Kiki says. “I think there is a perception about the types of people on welfare, which isn’t always accurate.”

Some of her clients did not fit the perception that people have toward those on welfare, Kiki says. She recounts being surprised one day when a woman walked into her office wearing a suit, with resume in hand. She was a once successful lawyer but needed help finding a job after having a mental breakdown as a result of marital problems.

“Working for welfare definitely instilled more humility in me. It really showed me that this could happen to anybody,” says Kiki.

When she began working at Columbia in 1997, Kiki also started a degree in clinical psychology at Teacher’s College. She planned to use her training in psychology to be a profiler for the U.S. Federal Bureau of Investigation, an aspiration that came out of her natural interest in people. She even began the interview stages to work for the agency. Her interest in this area came out of her natural interest in people.

“I like to know what makes people tick. I’m sort of captivated by people. I like to know why people behave the way they do, what motivates people, because the truth is unless you know where someone is coming from or what they’ve been through, you can’t really know who they are,” she says.

Her plans changed when Kiki met her current husband, Nelson. They married and a few years later had their son Kellen, who is now 12. They currently live in Rockland County.

In her current position, Kiki sees herself as an advocate for people.

“HR is about people. It’s dealing with people and their problems and helping to solve them and about helping people to navigate their way either through a happy occasion or through a tumultuous situation,” she says.

**APPointments and Promotions**

**STAFF**

**Katherine Austin-Evelyn** was appointed as program coordinator in the psych/neuro epidemiology cluster.

**Evelyn Choudhury** was appointed as program manager in the epidemiology innovation cluster.

**Natalie Engmann** was appointed as data analyst in the chronic disease epidemiology cluster.

**Abhishek Goyal** was appointed as data analyst in the chronic disease epidemiology cluster.

**Ava Hamilton** was appointed as data analyst in the lifecourse epidemiology cluster.

**Ashwata Pokhrel** was appointed as project coordinator in the chronic disease epidemiology cluster.

**Bijal Shah** was appointed senior cluster administrator in the chronic disease epidemiology cluster.

**Sean Slifer** was appointed as program coordinator in the chronic disease epidemiology cluster.
Executive MS trainees

This fall, the department launched the executive master of science in epidemiology, a research degree program designed to provide working health professionals with the knowledge, skills, and credentials needed to engage in rigorous population health research.

Our inaugural class includes 19 trainees with diverse and accomplished backgrounds, including several physicians who have worked in infectious disease, pediatrics, and obstetrics/gynecology; pharmaceutical researchers; a department of health employee; the vice president of a market research firm; and a product liability attorney, among others. This cohort coalesced into a tightly knit study group almost immediately, and students are already gaining invaluable knowledge and perspective from each other to augment what they acquire in the classroom.

“The students in the Executive MS in Epidemiology program are from an incredibly diverse array of backgrounds but converge on an interest in improving public health and understanding the rigorous science of epidemiology,” says the program’s faculty director Dr. Kerry Keyes, “I have been extremely impressed with the commitment of these students, and the depth of experience that they bring to the classroom. Working with these students has been a joy.”

To learn more about the program and register for an informational open house, visit http://cuexecmsepi.org. Open houses will be held March 11 at the Mailman School and April 10 at the Columbia Club.
Dr. Sleemi is a practicing doctor in female pelvic medicine and reconstructive surgery who travels internationally to perform fistula and other gynecologic procedures.

Dr. Sleemi earned her MD and an MPH at George Washington University School of Medicine and did her residency at Louisiana State University-Charity Hospital. After that, she moved to New York City as a National Health Service Corps Scholar for the U.S. Public Health Service.

She became interested in working on fistula operations after caring for women with the condition as a surgeon abroad in Niger. A painful childbirth injury, fistula is rare in the U.S. and other countries in the developed world, but all too common in parts of Africa and Asia, resulting from obstructed labor and lack of emergency obstetric services. It leaves women incontinent of urine, feces or both, in great pain, and often shunned by society.

After her experience, Dr. Sleemi decided to pursue a pelvic floor surgical fellowship and then went on to get formal training as a fistula surgeon in Northern Nigeria in 2004 and 2005.

Since then, she has done this work with the Eritrean Women’s Project, in partnership with the U.N. Population Fund and the Eritrean Ministry of Health.

Here in New York, she is an attending surgeon and associate director of the obstetrics/gynecology residency program at Maimonides Medical Center in Brooklyn.

While there, Dr. Sleemi has developed a global health elective in gynecology for residents, coordinating surgical trips to Eritrea, Kingston in Jamaica, Nicaragua and most recently, Port-au-Prince in Haiti.

She also is a lecturer at SUNY Downstate Medical Center in the area of global health and co-chairs the school’s Global Health Interest Group.

Despite her already impressive credentials and work experience, Dr. Sleemi decided to pursue the executive MS because she wanted to develop epidemiologic knowledge that she could use across borders.

She envisions using her training to help create a research method curriculum in developing countries “so the tools to research and publish scientific articles are in the hands of professionals who care for women with conditions, such as obstetric fistula and maternal birth trauma, on a daily basis.”

She says she appreciates the executive MS for the curriculum and its schedule.

“It lends itself to my rather hectic schedule of my daily work here in New York as an attending and my frequent global health trips,” she says. “I was able to pursue a degree that was important to my career and future, without putting my care for patients and training of residents here and abroad, on hiatus.”

She has high praise for her cohort, her courses, and Dr. Keyes’ leadership:

“The quality of the educational experience has been tremendous and changed the way I read scientific papers, review journal articles for peer-review publications, and formulate research hypotheses.”

Dr. Mejia is a doctor at the Earth Institute’s Malaria Program, whose career as a researcher has focused on malaria in Africa.

She earned an MD in 1992 in her native Colombia and spent the early part of her medical career working as a general practitioner in a rural hospital in the northern part of the country that served the Wayuu indigenous community. There she trained a cadre of indigenous community health workers.

After that, she moved to Bogota, the nation’s capital, to study philosophy and to work as an instructor in the history of science and medicine department at El Bosque University.

Her first association with the Mailman School of Public Health came in 1999, when she decided to pursue a PhD in the school’s then new program on the history of public health. This involved doing an MPH and a dissertation on the history of malaria control in Latin America which is how she was introduced to epidemiology.

She took a course on the epidemiology of malaria from a professor who had just joined the Earth Institute. That professor ended up bringing Dr. Mejia on as a research assistant.

Given her clinical and research background, Dr. Mejia is highly qualified as a health professional, but she says the MS will give her more advanced methodological knowledge to allow her to conduct relevant global health research.

“My aspiration is to conduct valuable research in global public health that uses both quantitative and qualitative methods, to make the best use of what different disciplines and methods can offer to address complex questions,” she says.
**AWARDS & GRANTS**

*Drs. Elkind and Gordon receive teaching awards*

Dr. Mitchell Elkind, associate professor of neurology and epidemiology, and Dr. Rachel Gordon, assistant professor of clinical medicine and clinical epidemiology, were chosen to be members of the Virginia Apgar Academy of Medical Educators, an active community of educators at the College of Physicians & Surgeons dedicated to promoting, rewarding, and supporting outstanding education for medical students, residents, fellows, and faculty.

*Inaugural injury epidemiology grants*

The department’s Center for Injury Epidemiology and Prevention, part of the new injury epidemiology cluster, has funded four exploratory projects, including two with principal investigators in the department. One is called “Safe, stable and nurturing relationships among children suspected of experiencing maltreatment,” led by Dr. Shakira F. Suglia, assistant professor of epidemiology.

The other is “Incidence and risk factors for injuries among firefighters at the Fire Department of New York,” led by Dr. Denis Nash, adjunct associate professor of epidemiology.

More news about the Center’s activities, and information about the application process for the exploratory grant program can be found at [http://cuinjuryresearch.org](http://cuinjuryresearch.org).

*Dr. Keyes receives early investigator award*

Dr. Kerry Keyes was given the Columbia Psychiatric-Neurological Epidemiology Early Career Award. The award recognizes excellence in the areas of psychiatric and/or neurological epidemiology by an individual at the instructor or assistant professor level or the equivalent.

*Dr. Hesdorffer named ambassador for epilepsy*

Dr. Dale Hesdorffer, associate professor of clinical epidemiology (in the Gertrude H. Sergievsky Center), has received an Ambassador for Epilepsy award from the International Bureau for Epilepsy/International League Against Epilepsy recognizing her outstanding achievement in the international struggle against epilepsy.

*Dr. Mayeux gets American Association for the Advancement of Science distinction*

Dr. Richard Mayeux, the Gertrude H. Sergievsky Professor of neurology, psychiatry and epidemiology, has been named a fellow by the American Association for the Advancement of Science (AAAS). Fellows are honored for their efforts to advance scientific applications that are deemed especially promising or socially distinguished.

*Dr. Sederer receives American Psychiatric Association award*

Dr. Lloyd Sederer, adjunct professor of epidemiology, was selected as a recipient of the American Psychiatric Association’s Annual Irma Bland Award for Excellence in Teaching Residents. This award recognizes his outstanding and sustaining contributions made as a faculty member at Columbia University.
**BRIEF MENTIONS**

**Dr. Morabia joins AJE board**

Dr. Alfredo Morabia, professor of clinical epidemiology, has joined the editorial board of the American Journal of Epidemiology. Dr. Morabia will not only revive the section “Snippets from the Past,” but will also comment on the historical ramifications of papers published by the journal decades ago. In addition, he will be in charge of handling papers on the history of epidemiology.

**Dr. Greenlee gives radio interview to Columbia’s global health journal**

In a radio interview with Columbia’s Journal of Global Health, Dr. Heather Greenlee, assistant professor of epidemiology and oncology, discusses the meaning and future of integrative medicine and the social and political obstacles that it must face to become a part of modern healthcare.

Listen here: [http://www.ghjournal.org/whig/episode-10](http://www.ghjournal.org/whig/episode-10)

**Dr. Turner welcomes baby girl**

Dr. Alezandria Turner and her husband welcomed their newborn baby Kaylee Anaya Turner on December 17, 2012. Kaylee weighed seven pounds and three ounces when she was born.
MARCH 2013


SUBMIT TO TWO BY TWO

If you have a study, news story, award, or other milestone you’d like to share in Two by Two, please email Elaine Meyer at em2642@columbia.edu with your submission.