



EIS Officers Respond to 2009 Pandemic Influenza A virus (H1N1) Through Nontraditional Epi-Aids



Fleetwood Loustalot (EIS '08) (standing) involved in an investigation of 2009 pandemic influenza A virus (H1N1) infections among residents of the San Antonio, Texas, metropolitan area. *(Photo courtesy of Fleetwood Loustalot.)*



**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**



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These notes are being written as we're still a few weeks away from the EIS Conference and scrambling to get all the last-minute details completed. By the time you read this, you'll know if we've succeeded or not.

Since the last edition of the *Bulletin*, EIS participation in the H1N1 response effort has continued, although at a diminished pace. The big news has been the tragic earthquake in Haiti and the growing public health disaster there. EIS participation in the CDC response has not reached the level of involvement that we saw with last spring's H1N1 pandemic; but has been important. EISOs have helped to staff response desks in the Emergency Operations Center (EOC) and have most notably formed the backbone for the surveillance and epidemiology group in the EOC. In addition, EISOs and several EIS alumni have also deployed to Haiti to work on the ground with the response teams. In the initial phases of this response, the term "austere conditions" has taken on a new meaning for many of these officers. They've also learned to appreciate the culinary sophistication of the MRE (Meals Ready-to-Eat). We currently have three officers in Haiti at a given time, and it seems likely that we will maintain at least that level of involvement for the next several months.

Here in the office, we're focused on the next generation of EISOs. This year's 86 "red tags" are a select group of men and women with a broad array of interests and skills. Fifty-five of the new officers are women (64%), and 13 are citizens of other nations (15%). The countries represented in this year's class are Canada (2), Costa Rica, France, India (2), Iraq, Japan, Kenya, South Korea, Mexico, Haiti, and Nigeria. Among the 76 U.S. citizens or permanent residents who have supplied race/ethnicity data, 30 represent racial and ethnic minority groups (35%). There are 30 PhD-level scientists (35%), 42 physicians (49%), 9 veterinarians (10%), 3 nurses (3%), and 2 dentists (2%). One of the MDs and three of the veterinarians also hold PhDs. Ten members of the class have accepted prematch assignments in state health departments.

Please join me in welcoming the newest members of the EIS family!

Aarti Agarwal, MD	Katherine Fleming-Dutra, MD	Dawn McDaniel, MA, PhD
Alejandro Azofeifa, MSc, MPH, DDS	Joanna Gaines, MA, MPH, PhD	Alysha Meyers, MS, PhD
Ijeoma Azonobi, MD	Shikha Garg, MPH, MD	Francisco Meza, MPH, MD
Suparna Bagchi, MSc, MSPH, DrPH	Melissa Gerhart, MPH, MD	Timothy Minniear, MSc, MD
Brian Baker, MD	Simerpal Gill, MSc, PhD	Robyn Neblett, MPH, MD
Kamil Barbour, MPH, MSc, PhD	Alyson Goodman, MPH, MD	Katherine O'Connor, MPH
Michael Bartholomew, MD	Prabhu Gounder, MPH, MD	Erika Odom, MS, PhD
Valery Beau De Rochars, MPH, MD	Neil Gupta, MD	Ekwutosi Okoroh, MPH, MD
Sarah Bennett, MPH, MD	Natasha Hollis, PhD	Gloria Oramasionwu, MPH, MD
Adam Bjork, PhD	Naomi Hudson, MPH, PhD	Amy Peterson, PhD, DVM
Heather Bradley, MHS, PhD	Mam Ibraheem, MBBSCh	Kimberly Porter, MSPH, PhD
Meghan Brett, MD	Kanako Ishida, MA, PhD	Melissa Ray, MPH
Allison Brown, MPH, PhD	Asha Ivey, MA, PhD	Loren Rodgers, PhD
Sudhir Bunga, MBBS, MD	Brendan Jackson, MD	Janell Routh, MHS, MD
Danielle Buttke, MPH, PhD, DVM	Lara Jacobson, MD	Aaron Samuels, MHS, MD
Cristina Cardemil, MPH, MD	Sarah Kemble, MD	Cyrus Shahpar, MBA, MPH, MD
Grace Chen, MPH, MD	Lindsay Kim, MPH, MD	Tyler Sharp, PhD
Amit Chitnis, MPH, MD	Brian King, MPH, PhD	Minkyong Song, MSN, PhD
Bryan Christensen, PhD	Jean Ko, PhD	Laura Steinhardt, MPH, PhD
Heather Clayton, MPH, PhD	Amy Kolwaite, MS, MPH, BSN	Aaron Storms, MD
Sallyann Coleman King, MSc, MD	Candice Kwan, MD	Mahesh Swaminathan, MD
Timothy Cunningham, ScM, ScDe	Stacie Lawson, MS, MPH, DVM	Danielle Tack, MPVM, DVM
Evelyn Davila, MPH, PhD	Mark Lehman, MS, MPH, DVM	Sara Tartof, MPH, PhD
Zewditu Demissie, MPH, PhD	Allison Longenberger, PhD	Christopher Taylor, PhD
Rishi Desai, MPH, MD	Abdirahman Mahamud, MD	Tegwin Taylor, MPH, DVM
Tarayn Fairlie, MPH, MD	Angela Maxted, MS, PhD, DVM	Andrew Terranella, MPH, MD
Noha Farag, PhD, MBBSCh	Chukwuma Mbaeyi, MPH, BDS	Mathieu Tourdjman, MPH, MD
Nancy Fleischer, MPH, PhD	Adamma Mba-jonas, MPH, MD	Jenna Webeck, MPH, DVM
	Jeffrey McCollum, MPH, DVM	Dana Woodhall, MD

Doug Hamilton, MD, PhD (EIS '91)

EIS Officers Respond to 2009 Pandemic Influenza A virus (H1N1) Through Nontraditional Epi-Aids [\(return to top\)](#)

By Kristen D. Folsom

Ironically, the 2009 EIS Conference is where this report begins. While last year's conference was under way, with presentations primarily focused on 2008 *Salmonella* investigations, a handful of officers were pulled away to investigate two novel influenza A cases in San Diego and Imperial Counties, California. This became the first of 26 Epi-Aid investigations for 2009 pandemic influenza A virus (H1N1) by Epidemic Intelligence Service officers (EISOs) and alumni *and* marked a year of Epi-Aids with nontraditional and noteworthy characteristics.

David Sugerman, MD, MPH (EIS '07), was among the first to leave the 2009 Conference to investigate H1N1 in California. He led a team that met with county and state epidemiologists in California to enhance surveillance for hospitalized patients. Others who participated in this investigation were 2008 officers **Jennifer Jaeger, MD; Saumil Doshi, MD; Matt Gladden, PhD; Dianna Blau, DVM, PhD; Minal Patel, MD**, and 2007 officer **Christine Mattson, PhD, MS**. Dr. Patel reported of this pioneering investigation, "We were the first team out with the very first cases. We had no idea what was going to happen in terms of infectivity, severity, or scope of the outbreak. This is in contrast to the things we normally work on (i.e., *Salmonella* and *E. coli*) where we already understand what typically happens."

Through these initial investigations in California, the teams assisted in gathering information regarding patients who had been hospitalized, which was critical in helping to define the case report form and making the recommendation that hospitalized patients be monitored carefully and treated with antiviral therapy. In speaking of the nature of this investigation, Dr. Blau said, "I only have two other Epi-Aids with which to compare this one, but the others I was involved with were on a smaller scale. This one was different in terms of the scope of it — many EIS officers involved,

as well as many other public health workers."

During the weeks and months that followed the initial investigations in southern California, EISOs and alumni spent >34,000 hours investigating H1N1, conducting surveillance for hospitals, long-term care facilities, schools and universities, and other institutions. They assessed factors associated with outbreaks and worked closely with CDC's Emergency Operations Center (EOC) staff in reporting and updating information from which public health decisions are still being made.

In fact, the large-scale response that H1N1 demanded increased EISO participation in EOC, giving certain Epi-Aids a format uncharacteristic of those in the past. EIS Director, **Doug Hamilton, PhD, MD (EIS '91)**, commented, "In these types of large-scale responses, the experience of the EIS officer and their role is frequently different than on a traditional Epi-Aid. On a traditional Epi-Aid, the teams are usually small, one to five people, and the EISO typically plays a central role in the planning, implementation, and analysis of the investigation. They are usually involved with the process from start to finish and have 'ownership' of the final product."

Defining the H1N1 outbreak was one major task with which CDC and EIS were charged, and one large, conveniently local Epi-Aid right in Atlanta helped to accomplish this. A team of officers assisted the Georgia Department of Health in examining components of H1N1 in the metropolitan Atlanta area in September 2009 (e.g., rates of influenza-like illness [ILI], vaccine adverse events, and differences among patients hospitalized with influenza in previous years versus 2009). These EISOs designed a survey and conducted door-to-door interviews of residents in a random sample of households and distributed information regarding the H1N1 vaccine. EISOs involved in this Epi-Aid included 2008 officers **Saumil Doshi, MD; Kendra Stauffer, DVM; Robert Kirkcaldy, MD, MPH; Vanessa Jarquin, PhD, MS; Nykiconia Preacely, DrPh, MPH**; and **Cynthia Thomas,**

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DVM, MPH, and 2009 officers **Andria Apostolou, PhD, MPH**; **Yenlik Zheteyeva, MD, MPH**; **Julia Gargano, PhD, MS, MFA**; **Aybaniz Ibrahimova, MD, MPH**; and **Roxanne Williams, MD**. The number of officers participating in this investigation, along with the types of tasks that had to be completed and scope and breadth of the information gathered, made this Epi-Aid a lot different from many of the past in which only one or two officers study only one factor of a public health event. “During these types of responses,” said Dr. Hamilton, “the role of the EISO changes over the course of the response. In the early reactive phase of an emergency, EISOs are plugged in wherever they are needed, frequently filling roles and performing tasks that might not necessarily fully utilize their epidemiologist skills.”

In Florida, **Chad Cox, MD, MPH (EIS '09)**, and **Fatimah Dawood, MD (EIS '08)**, assisted the Florida Department of Health in defining prevalence of infections in Tampa because of the high rate of spread of the virus there. They conducted a serosurvey, collecting leftover samples from blood banks to



Chad Cox (EIS '09) (foreground) analyzes data from a serosurvey investigation in Tampa, Florida. (Photo courtesy of Chad Cox.)

be tested for H1N1. This investigation will eventually be expanded to be a nationwide study; meanwhile, Drs. Cox and Dawood and other public health officials involved are awaiting survey results to analyze data that will help prepare epidemiologists and healthcare professionals for the next influenza season.

From a broader perspective, **Crystal Tyler, PhD, MPH (EIS '09)**, was assigned to the Epi-Aid “Representativeness and coverage of emergency department syndromic surveillance for H1N1-associated morbidity.” This was a state-by-state survey that incorporated data from the American Hospital Association and nationwide hospital discharge data to determine whether any demographic characteristic was overrepresented. The system that Tyler implemented to determine representativeness is still being used by H1N1 investigators. The unusual nature of this Epi-Aid, remarked Dr. Tyler, was that “I didn’t need to travel; all of the work was done from my desk.”

Such was the case for many of the Epi-Aids during 2009 in which officers conducted surveillance through telephone interviews, online surveys, and within EOC. This method increased much-needed efficiency among some of the larger, multistate investigations, especially those that involved institutions such as schools and universities.

As with all influenza seasons, decreasing spread of the virus among students, faculty, and staff at schools and colleges was a major challenge in 2009. Providing guidance on limiting exposure, limiting disruption of day-to-day activities, and increasing vaccination were all tasks that challenged EISOs during outbreak investigations.

In late April 2009, a Delaware public university had been experiencing an unusual number of students seeking care for respiratory illness. CDC was contacted, and a group of EISOs were deployed to assist the university and the Delaware Health and Social Services’ Division of Public Health in determining the source of the illness outbreak. The EIS group included **Deborah Dee, PhD, MPH (EIS '07)**; **Mitesh Desai, MD, MPH (EIS '07)**; **Alice Guh, MD, MPH (EIS '08)**; and **Danielle Iuliano, PhD, MPH (EIS '08)**. This investigation was unique

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in its multifaceted nature, described Dr. Guh. “Each of us was able to work on a separate piece of the investigation — almost like a subset study or analysis — that ultimately contributed to the overall investigation. Each component or study could have been a stand-alone study, and each was different in terms of study design and the type of data that were collected, but by working together, we were able to provide a more comprehensive assessment of the outbreak.”

Among their many tasks, the team in Delaware reviewed health-clinic records and conducted online surveys of students, staff, and faculty to determine the source of ILI on campus. A serosurvey was conducted subsequently. Findings of the investigation concluded that illnesses most likely resulted from travel by a group of students to Mexico for spring break, followed by a week of scheduled campus activities that put students in close contact with one another. This was the first reported H1N1 outbreak on a university campus in the United States, and lessons learned from the investigation, including the role of large gatherings in virus transmission, efforts needed to prepare for rapid increases in healthcare-seeking behaviors, and development of effective communication strategies, will help in future preparedness efforts for university campuses.

Dr. Dee commented, “Something unique about this investigation for me was the importance of the qualitative study we did prior to implementing the online, quantitative survey. It was through our interviews with students that we learned about what turned out to be the crucial piece to solving the puzzle of this investigation.” For Dr. Iuliano, the Delaware university investigation was her first traditional Epi-Aid; therefore, she had no point of reference with which she could compare. Still, she said, “It was intense and challenging, and I certainly learned a lot — things that I expected to learn, things that I would rather have not learned, and things that I didn’t expect to learn.”

Other H1N1 outbreaks also occurred among students in schools and summer camps, and EISOs were critical in assisting school personnel with investigations. **Michael Jackson, PhD (EIS ’08)**, joined **Ann Marie France, PhD, MPH (EIS ’08)**,

in New York City to investigate an outbreak in a high school there. In Houston, Texas, an assessment of illness at an elementary school was conducted by **Erin Kennedy, DVM, MPH (EIS ’08)**, while an ongoing assessment of practices and policies to mitigate influenza among Pennsylvania public schools was conducted by **Jeffrey Miller, MD, MPH (EIS ’09)**, and **Henry Wu (EIS ’07)**. Reports of ILI among students at a school near Redding led the Pennsylvania Department of Health to ask CDC to assist in an investigation there. **Achuyt Bhattarai, MD, MS (EIS ’08)**, led a team of researchers that included **Roodly Archer, PhD (EIS ’08)**, and **Rakhee Palekar, MD, MPH (EIS ’07)**. Dr. Bhattarai presented findings on viral-shedding patterns of the school outbreak at the Infectious Diseases Society of America Annual Meeting in October 2009.



Attendees at the Infectious Diseases Society of America (IDSA) pandemic influenza press conference in October 2009. Seated L–R: Richard J. Whitley, MD, IDSA president-elect; Arnold Monto, MD, Recipient of IDSA’s 2009 Alexander Fleming Award for Lifetime Achievement; **Stephen Redd, MD (EIS ’85)**, Director, Influenza Coordination Unit; **Andrew Pavia, MD (EIS ’86)**, Chair of IDSA’s Pandemic Influenza Task Force, Chief of the Division of Pediatric Infectious Diseases, University of Utah; Meredith Vandermeer, MPH, Oregon Public Health Division; **Janine Dailey, MD (EIS ’09)**; **Achuyt Bhattarai, MD, MS (EIS ’08)**; and **Bruce Gellin, MD, MPH (EIS ’86)**, Director, HHS National Vaccine Program Office. (Photo courtesy of Achuyt Bhattarai.)

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Epi-Aids [\(return to top\)](#)

The following Epi-Aids have been issued since February 1, 2010:

Number	Title	Location	Officer
2010-035	Cluster of HCV infections among cardiac patients at Hospital A	MI	Rania Tohme
2010-036	Assessment of health outcomes related to heavy metal and other biocontaminants exposure among the residents of Akaki sub-city, Addis Ababa	Ethiopia	Ellen Yard
2010-037	Outbreak of respiratory illness associated with <i>Chlamydia pneumoniae</i>	TX	Laura Conklin Sema Mandal Sharyn Parks
2010-038	Tuberculosis outbreak in a federal corrections facility	WV	Bisrat Abraham Krista Powell Rachel Radcliffe
2010-039	Communitywide assessment of health impact and public health emergency response following extended disruption of drinking water service during an extreme winter freeze, January 2010, Clarke and Wilcox Counties	AL	Amy Freeland Julia Gargano
2010-040	Investigation of cluster of <i>Burkholderia cepacia</i> respiratory tract infections	TX	Elissa Meites Yenlik Zheteyeva
2010-041	Investigation of hepatitis B virus cases	VA	Thomas Bender Matt Wise
2010-042	Public health response to unexpectedly large decline in reported TB cases	GA	Eleanor Click Matthew Willis
2010-043	Cluster of serogroup B meningococcal disease in a university	OH	Sema Mandal
2010-044	Outbreak of metallo-beta lactamase-producing <i>Pseudomonas aeruginosa</i> at Hospital A	NV	Steven Grube Pritish Tosh
2010-045	Investigation into a cluster of <i>Clostridium bifermentans</i> among patients in a healthcare facility	ME	Susan Hocevar Muazzam Nasrullah
2010-046	Cancelled	—	—
2010-047	Investigation of Rocky Mountain spotted fever cases — Arizona, 2010	AZ	Steven Baty Kristina McElroy

Other Investigations Recently Conducted by EISOs [\(return to top\)](#)

Officer	Investigation	Location	Dates
William Lanier	<i>Escherichia coli</i> O157:H7 outbreak associated with rodeo attendance	UT and ID	7–9/2009
Jessica Kattan	Varicella epidemiology in Connecticut, 2001–2008	CT	8/2009–Present
Jessica Kattan	Surveillance for Guillain-Barré Syndrome during the 2009 pandemic influenza A (H1N1) national vaccination campaign	CT	8/2009–Present
Jessica Kattan	Death related to delayed diagnosis of tuberculosis, 2006–2009	CT	8/2009–Present
Elissa Meites	Surveillance for 2009 pandemic influenza A (H1N1) in the Southern Hemisphere	Buenos Aires, Argentina	8/12–9/10/2009
Jessica Kattan	Outbreak of <i>Salmonella</i> gastroenteritis at a wedding reception	CT	9/2009
Matt Wise	Mixed methods assessment of a legislative mandate for methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) surveillance, Chicago	IL	9/2009
Erin Sauber-Schatz, Chris Gregory	Investigation of autochthonous dengue fever outbreak—Key West, 2009	FL	9/21–28/2009
Jennifer Cope	H1N1 outbreak in a long-term care facility in Morganton	NC	11/4–9/2009
Jennifer Foltz	Nodding disease investigation	Kitgum District, Uganda	11/2009–12/2009
Kendra Stauffer	Collection of clinical information from anthrax case-patient hospitalized in Scotland for anthrax immune globulin (AIG) IND protocol	Glasgow, Scotland	12/18–25/2009
Jessica Kattan	Norovirus outbreak at a birthday party	CT	1/2010
Jennifer Cope	Outbreak of norovirus infection in a Casino	NC	1/19–21/2010
Jessica Kattan	Mumps outbreak	CT	1/2010–Present

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In July 2009, a physician at a summer camp in North Carolina contacted CDC because two adolescent girls who had received oseltamivir were experiencing ILI. **Janine Dailey, MD (EIS '09)**, and **Aaron Fleischauer, PhD, MSPH (EIS '02)**, assisted the North Carolina Department of Health and Human Services and local health departments in identifying oseltamivir-resistant H1N1 among attendees at this camp. And ILI among camp attendees in Washington State led **Nagesh Borse, PhD, MS (EIS '08)**, and **Gayle Fischer, MD, MPH (EIS '06)**, to join **Myduc Ta, PhD, MPH (EIS '08)**, already stationed in Seattle, in an investigation that was conducted through an online survey. Dr. Borse described how this Epi-Aid differed from others, saying, "In [the National Center for Injury Prevention and Control], either the event has occurred or we are preparing to prevent it, whereas H1N1 occurring at the summer camp was live and ongoing, and we had a big task of identifying how these kids were getting sick and spreading it."

The novel nature of this virus alone made H1N1-related Epi-Aids exceptional. While everyone from international public health authorities to lay persons were asking questions, EISOs worked to search for answers. **Jonathan Duffy, MD, MPH (EIS '08)**, recalled, "The Epi-Aid that **Janine Dailey, Agam Rao, MD (EIS '09)**, and I worked on was one that involved oseltamivir-resistant influenza, which meant that the cases had to be reported to the World Health Organization. It also received some national media attention that coincided with the early phase of our investigation. Previous Epi-Aids I had participated in did not involve situations that garnered that kind of acute national and international attention. It doesn't change how you approach the investigation, but it is neat to know that you will be the first one to learn about something that a lot of people are interested in." These three officers were involved in an investigation of a cluster of infections with oseltamivir-resistant H1N1 in a hospital ward in North Carolina.

Outbreaks within hospitals and long-term care facilities and among healthcare providers were common during 2009, and many of the Epi-Aid assign-

ments focused on gathering information to mitigate their spread. **Soo-Jeong Lee, PhD, MD (EIS '08)**, visited Illinois to investigate a hospital outbreak of H1N1 among healthcare personnel there. **Monika Roy, MD (EIS '09)**, and **Erin Kennedy** were involved in an investigation in Harrisburg, Pittsburgh, and Philadelphia, Pennsylvania, where they visited multiple hospitals in search of medical records to help identify and characterize cases of H1N1-associated hemorrhagic pneumonia syndrome. EIS 2008 officers **Matt Wise, PhD, MPH**, and **Marie de Perio, MD**, assisted in conducting an investigation assessing possible transmission of H1N1 infections from healthcare personnel to older residents of a long-term care facility in Boston, Massachusetts. There, healthcare workers were experiencing laboratory-confirmed H1N1, and residents of the facility were experiencing respiratory illness. Drs. Wise and de Perio contacted employees who had been ill to assess possible transmission to residents. Their investigation was conducted by using a questionnaire that had been developed by **Alexander Kallen, MD, MPH (EIS '06)**, for use in other long-term-care facility outbreaks. For Wise, the personal risk that came with being in contact with persons who had acquired the H1N1 virus was something that he had not had to consider with other investigations he had been involved with. "In [the Division of Health-



EISOs and other public health responders working on an H1N1 investigation at a university in Delaware. L-R: Greg Armstrong, Matthew Reynolds, **Deborah Dee (EIS '07)**, **Hannah Gould (EIS '05)**, and **Preeta Kutty (EIS '05)**.

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care Quality Promotion], I've usually investigated bacterial or viral outbreaks that are largely transmissible in the context of people receiving some sort of medical procedure or intervention. With H1N1, it was something that you could conceivably acquire from interviewing ill patients, which most of us were involved in doing," he said.

Remarkably, many H1N1 Epi-Aids conducted in 2009 were not immediate responses to unusual illnesses and outbreaks, but were studies to assess methods, policies, and practices. These studies are important because their findings are used for different purposes, including defining best practices and informing decision-makers for future influenza outbreaks. Three 2009 officers investigated H1N1 infections among pregnant women in New York City (NYC) — **Andreea Creanga, PhD, MD**, lead; **Teeb Al-Samarrai, MD, MS**; and **Samuel Grainger, MD**. Together, they examined severity of H1N1 infection among all pregnant women who had been hospitalized with confirmed H1N1 influenza infection in NYC during May–June 2009. Among 29 hospitals, they conducted reviews of medical records and analyzed the data to conclude that severe illness and adverse neonatal outcomes can result among pregnant women experiencing H1N1.

Molly Lamb, PhD (EIS '08), and **Amy Free-land, PhD, MA (EIS '09)**, monitored the Hospital Available Beds for Emergencies and Disasters (HAvBED) program, a system to track available hospital beds during a major disaster. In Alaska, **Tracie Gardner, PhD, MS (EIS '08)**, and **Paul Anderson, MD, MPH, MDiv (EIS '08)**, investigated ILI associated with a cruise ship. **Muazzam Nasrullah, MD, MPH (EIS '09)**, was the lead on investigations of >2,200 Georgia schools, the objective of which was to identify factors, including characteristics, policies, and practices, that reduce transmission of H1N1. It was conducted through an online survey that was completed by school principals. Currently, he is analyzing data and periodically updating Georgia's Departments of Health and Education on findings.

Simon Agolory, MD (EIS '09), was involved with assessing school-related modifiable factors as-

sociated with transmission of H1N1 in New York City; **Rashid Njai, PhD, MPH (EIS '08)**, and **Carrie Dooyema, MSN, MPH (EIS '09)**, assessed factors associated with school dismissals and closures in Michigan; and **George Han, MD (EIS '08)**, and Jeffrey Miller were involved with assessing practices and policies of Pennsylvania public schools to mitigate influenza.



Wan-Ting Huang (EIS '07) (third from left), **David Callahan (EIS '99)** (fifth from left), and **Vanessa Jarquin (EIS '08)** (sixth from left), and pose in front of the elementary school in Chicago that was the focus of their investigation. (Photo courtesy of Vanessa Jarquin.)

In Chicago, Illinois, **Kristen Janusz, DVM, MPH (EIS '08)**, led a team of officers — **Jennifer Cortes, MD (EIS '08)**, **Wan-Ting Huang, MD (EIS '07)**, **Vanessa Jarguin, PhD (EIS '08)**, and **Fadila Serdarevic, MD (EIS '08)** — on an investigation in which door-to-door surveys and telephone interviews with elementary-school parents were conducted to understand the social and economic impact of school closures.

Emily Jentes, PhD, MPH (EIS '08), was involved in a nontraditional Epi-Aid surrounding a health communications campaign launched for travelers. This national study involved message testing to determine acceptability of campaign messages for domestic and international travelers, who were given online anonymous surveys regarding posters that had been prepared in conjunction with the campaign. Although the message testing ended in November 2009,

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Recent Publications by Current Officers ([return to top](#))

Awan S, **Nasrullah M**, Cummings KJ. Health hazards, injury problems and workplace conditions of carpet weaving children in three districts of Punjab, Pakistan. *Int J Occup Environ Health*. In press April 2010.

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CDC. Oseltamivir-resistant 2009 pandemic influenza A (H1N1) virus infection in two summer campers receiving prophylaxis—North Carolina, 2009. *MMWR* 2009;58:969–72. (Reported and submitted by **Janine Dailey**.)

CDC. Idiopathic granulomatous mastitis in Hispanic Women—Indiana, 2006–2008. *MMWR* 2009;58:1317–21. Reprint: *JAMA* 2010;303:415–7. (Reported and submitted by **Elissa Meites**.)

CDC. Intent to receive influenza A (H1N1) 2009 monovalent and seasonal influenza vaccines—two counties, North Carolina, August 2009. *MMWR* 2009;58:1401–5. (Reported and submitted by **Janine Dailey**.)

CDC. Hantavirus pulmonary syndrome in five pediatric patients—four states, 2009. *MMWR* 2009;58:1409–1412. (Reported and submitted by **Barbara Knust**.)

CDC. Multistate outbreak of human salmonella typhimurium infections associated with aquatic frogs—United States, 2009. *MMWR* 2010;58:1433–6. Reprint: *JAMA* 2010; 303:500–4. (Reported and submitted by **Shauna Mettee**.)

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(Continued from page 10)

the campaign is still ongoing, and the posters are still featured on the CDC Internet site. **Tarissa Mitchell, MD (EIS '08)**, was also involved with evaluation of communications and education efforts, but regarding resettled refugee populations in Minnesota, California, and Texas.

Assessing vaccine safety is also an ongoing effort of EIS, and will likely be for a long time to come. Matt Wise is setting up a surveillance system in the Emerging Infections Program (an infectious diseases surveillance consortium of state health departments, CDC, and other partners) to monitor for Guillain-Barré syndrome after H1N1 vaccination, as well as developing analytic strategies to quantify the risk. **Oliver Morgan, PhD (EIS '07)**; **Melissa Viray, MD (EIS '07)**; **Christa Hale, DVM, MPH (EIS '08)**; **John Oh, MD (EIS '09)**; and **Jessica Kattan, MD (EIS '09)**, were also involved with this surveillance.

Perhaps the most noteworthy and unusual Epi-Aid of 2009 was number 2009–082, “Outbreak of pandemic 2009 influenza A (H1N1) on a U.S. Navy amphibious assault vessel, San Diego” in which four officers — **Christina Khaokham, MSN, MPH (EIS '09)**; **Fleetwood Loustalot, PhD, MN (EIS '08)**; **Monica Selent, DVM (EIS '09)**; and **Shauna Mettee, MSN (EIS '09)** — sailed onboard the *USS Bonhomme Richard* to conduct an H1N1 investigation that entailed three parts — a detailed assessment of living quarters and reported illness, a blood draw from ap-

proximately 600 marines and sailors (many of whom had been quarantined) who were onboard the ship, and a review of medical charts. (See *Notes From the Field* section on page 14.)

The work to mitigate the spread of H1N1 constituted the bulk of Epi-Aid activity for 2009, and although the H1N1 pandemic has slowed its pace considerably, much of the surveillance and investigation that EISOs were involved with is ongoing today. Data are still being collected and analyzed, and find-

ings and conclusions of investigations are being presented at national conferences and published in peer-reviewed journals. Reports and updates are still being made to CDC's EOC to monitor the status of the pandemic. Thus, the 2010 EIS Conference will have no shortage of H1N1 investigation presentations as EISOs report on the results of their achievements throughout 2009, beginning with the investigation in San Diego and Imperial Counties in California whose urgency was great enough to pull officers away from the 2009 Conference. Dr. Matt Wise might have put it best when he said, “I really have to take my hat off to the group of officers who went out to San Diego ini-

tially when we didn't know exactly what we were dealing with. To have EIS officers voluntarily fly out to begin this investigation in the face of what, at the time, appeared to be substantial personal risk, made me really proud of the role we played as EIS officers in the initial pandemic response.”



CDC website poster that was part of the focus of a message-testing investigation conducted by **Emily Jentes (EIS '08)**.

EISO Presentations — Recent Presentations by Current Officers at National or International Meetings [\(return to top\)](#)

Officer	Presentation	Meeting	Date
Janine Dailey	Oseltamivir-resistant 2009 pandemic H1N1 infection among summer camp attendees—North Carolina, 2009	Infectious Disease Society of America (IDSA) (Philadelphia)	Oct 2009
Jessica Kattan	Impact of two-dose vaccination on varicella epidemiology: Connecticut—2001–2008	2009 Northeast Regional Epidemiology Conference (New Brunswick, NJ)	Oct 2009
Cria Perrine	Dairy consumption and iodine status among reproductive aged women in the U.S. (Distinguished poster award)	International Congress of Nutrition (Bangkok, Thailand)	Oct 2009
Minal Patel	Risk factors for infection of health care providers exposed to patients with novel influenza A (H1N1) virus—California, 2009	IDSA (Philadelphia)	Oct 2009
Sara Lowther	Has <i>Haemophilus influenzae</i> type b resurfaced? <i>H. influenzae</i> carriage study—Minnesota, 2009	IDSA (Philadelphia)	Oct 2009
Sara Lowther	Tuberculosis outbreak in a Guatemalan community—Minnesota, 2008	IDSA (Philadelphia)	Oct 2009
Molly Lamb	Body fat and lipids in youth, 8–19 years, 1999–2004	The Obesity Society 27 th Annual Meeting, (Washington, D.C.)	Oct 2009
Erin Sauber-Schatz	Reasons for the increasing Hispanic infant mortality rate—Florida, 2004–2007	15th Annual Maternal and Child Health Epidemiology Conference (Tampa, FL)	Dec 2009
Matt Wise	Mixed-methods assessment of a legislative mandate for methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) surveillance	Society for Healthcare Epidemiology of America (SHEA) Conference (Atlanta)	Mar 2010
Matt Wise	Outbreak of methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) USA300 skin and soft tissue infections among well newborns and postpartum women	SHEA Conference (Atlanta)	Mar 2010
Matt Wise	Improving surgical site infection risk-adjustment methods for hip and knee arthroplasties: data from the National Healthcare Safety Network	SHEA Conference (Atlanta)	Mar 2010
Matt Wise	Outbreak of acute hepatitis C virus infections at an outpatient hemodialysis facility	SHEA Conference (Atlanta)	Mar 2010
Matt Wise	Mupirocin-resistant methicillin-resistant <i>Staphylococcus aureus</i> in mothers and newborns	SHEA Conference (Atlanta)	Mar 2010
Rachel Radcliffe	<i>Staphylococcus aureus</i> infections associated with epidural injections—West Virginia, 2009	Fifth Decennial International Conference on Healthcare-Associated Infections (Atlanta)	Mar 2010
Loretta Chang	Investigation of a cluster of <i>Acromonium</i> - and <i>Leclanicillium</i> -positive clinical cultures from orthopedic patients—Colorado, 2008–2009	Fifth Decennial International Conference on Healthcare-Associated Infections (Atlanta)	Mar 2010
Elissa Meites	Hospital capacity during the 2009 H1N1 influenza pandemic—Argentina, 2009	Fifth Decennial International Conference on Healthcare-Associated Infections (Atlanta)	Mar 2010
Jennifer Cope	Influenza vaccination practices among healthcare workers—North Dakota, 2007–2008	Behavioral Risk Factor Surveillance System Conference (San Diego, CA)	Mar 2010
Kendra Stauffer	Select bacterial zoonoses from feral swine and public health concerns	International Wild Pig Conference (Pensacola)	Apr 2010

Notes from the Field ([return to top](#))

This year, EIS had multiple field deployments for H1N1 investigations. Among the most unusual was EPI-AID 2009–082, “Outbreak of pandemic (H1N1) 2009 influenza on a U.S. Navy amphibious assault vessel, San Diego,” in which four EISOs met a U.S. Navy ship in San Diego and conducted their investigation during the

Outbreak of Pandemic Influenza 2009 (H1N1) Aboard a U.S. Navy Vessel — San Diego, June 2009

Submitted by Christina B. Khaokham, EIS '09

During July–August 2009 exercises in preparation for a long deployment, a number of sailors and marines aboard the *USS Bonhomme Richard* reported to their medical ward with influenza-like illness. The medical ward quickly filled with crew members sick with H1N1. These events set in motion for EIS the opportunity to investigate this outbreak and learn how the virus affected this young, healthy population living in cramped quarters.

The ship is a large amphibious assault vessel, with the capacity to land, helicopter, or dock marine and navy fighting forces. I quickly immersed myself in H1N1 literature and naval traditions and customs, guided by retired Naval officers. The EIS team — Monica Selent, Fleetwood Loustalot, Shauna Mettee, and me — watched the ship's San Diego departure from the flight operations tower as sailors and marines stood along the perimeter of the ship in dress uniforms. I had never anticipated my EIS experience to include walking between amphibious landing craft and Harrier jets, or feeling chest-rattling vibrations while watching flight exercises from a ship's upper-deck, or “crow's nest.”

Life on ship was like *Groundhog Day* (the Bill Murray movie) — 12⁺ hours of surveys, record abstractions, and blood draws, broken up by “chow,” and punctuated with extraordinary experiences that made me pause for regular reality checks. The female team members slept in a four-

person isolation room. I was relegated to a top bunk because of Monica's age and rank (U.S. Air Force LT COL). I was green the first day, but with the help of navy kindness, strong coffee, and meclizine, I developed sea legs.

As big as the ship is, it becomes very familiar and small, even with a few thousand people aboard. I am still impressed by the engaged and thoughtful interactions I had with sailors and marines. As I walked through the passageways, I was greeted with smiles and chatted with many people. As I sat in the medical ward, I talked with young corpsmen and others about my career choices, and learned from senior corpsmen and medical personnel about theirs. Particularly endearing was hearing sailors and marines affectionately call their corpsmen “Doc.” I found it profoundly respectful of the work these men and women do for their platoons or groups. People were eager to learn about H1N1, CDC, and why we non-navy (U.S. Public Health Service [USPHS]) officers wore rank and a combination of a fouled anchor and caduceus collar device. I believe we had many visitors because we were medical, not in anyone's chain of command, and not attached to the ship.

With the support of the ship's senior medical officer, CDR Eileen Hoke, the ship's captain, the commanding officer of the 11th Marine Expeditionary Unit, our navy liaison, ENS Doug Harrington, as well as several corpsmen, we began our surveying and collection of specimens from participants a few days into the cruise.



L–R: Monica Selent (EIS '09), Shauna Mettee (EIS '09), Christina Khaokham (EIS '09), and Fleetwood Loustalot, (EIS '08).

As a veterinarian outnumbered by three nurses, Monica good-naturedly endured our jokes reminding her that, just because the marines were big, did not mean she should use a large gauge needle to draw blood. I decided a good team-building exercise was for all team members to stick the team lead for practice. Shauna walked Monica through it, and I was honored to be her first human “patient.” Monica also received a lot of attention from the sailors and marines for being a U.S. Air Force LT COL. There were always second looks and whispers as we moved through passageways, “Air Force is on board!”

As we made our way past Hawaii toward Guam, we ran laps on the flight deck, participated in a cigar social, and served ice cream to enlisted personnel alongside other officers. The food in the officer’s mess was very good. Our navy liaison informed me that “chow is continuous.” The culinary specialists were warm and generous in their service, especially with portions.

CAPT John Funk, the ship’s commanding officer, invited us to dinner in his personal quarters. His chef cleverly prepared a “swine flu”-themed meal for us, which was glazed pork chops with couscous and panna cotta with berry coulis dessert. CAPT Funk showed us the navigation systems in his room, and invited us up to the bridge where sailors read and interpret an array of dimly illuminated gauges to chart the ship’s course.

As we became aware of the tsunami in American Samoa, flooding in the Philippines, and earthquake in Indonesia, CAPT Funk addressed the crew, stating, “Our tasking has not changed.” These developments made me reflect on my own flexibility, the possibility of being



Resupply at sea. (*USS Bonhomme Richard* on right.)

rerouted to provide assistance, and the difficulties of leaving loved ones for months at a time. I have come away from this experience with treasured memories and gratitude for the kindness shown by the *USS Bonhomme Richard*’s sailors and marines. As they continue their mission, my appreciation grows for their service and sacrifice. I am hopeful that our work provides knowledge used to protect the health of these sailors and marines.

Submitted by Shauna Mettee, EIS ‘09

My grandparents were marines. I knew little about their experience except that they met at a marine-sponsored dance, and that my grandfather had barely begun his service when WWII began. He was captured within 6 months and was part of the Bataan Death March. He survived in POW camps for >3years. When I was a child, he talked about his experience there openly. He wasn’t angry, but often shared his sadness about war. His stories were my only real personal experience with the military. No one else in my family had ever served. So, flash ahead to this Colorado girl joining USPHS and actually wearing a uniform. I was still figuring out what a gig line was when the call came in from Doug Hamilton asking if I wanted to participate in an H1N1 outbreak investigation aboard a navy ship, and could I leave tomorrow? So began the madness of ordering navy coveralls, name tapes, and other necessary items to pick up in San Diego before the ship sailed. Turns out, the ship took a couple of weeks to depart, but we used that time to prepare for the investigation, await our new navy uniforms and, in my case, learn how to salute. I’d barely begun in USPHS; let alone known how to operate in a full military environment. Officer Basic Course training was still months away.



Christina Khaokham (EIS ‘09)

Life on the ship, though, was great. You learn a new sort of walk — one in which you try to make bumping into walls look like you meant to do it. Through narrow walkways, you take big steps so as not to trip over the passage openings. At every turn are the “Z doors,” heavy metal doors with swing arms that have to be closed before the doors next to them are opened to maintain negative pressure. And the noise — I don’t think I was that aware of the constant noise of air, motors, and engines until I returned home. The navy chaplain offers a service to videotape sailors reading stories to send back to their children at home. I had an 8-month-old baby back home, so I read the caterpillar book (parents, you know the one). It seemed like a great idea, until I got it home and realized that, even with a microphone, you couldn’t hear me over the noise of the ship. Still, something fun to give my son some day.

The best part of the ship experience was the people. I ached being away from my son for a month, but I spoke to dozens of others who were away from their families for 8–9 months. I learned a lot about their passion for the navy and their love of what they do. The medical crew we worked with were amazing. They were true emergency responders. The way they looked out for the crew like family and were still prepared to help serve at a moment’s notice in a world-event such as a tsunami or earthquake spoke to their commitment. And they were a fun group to hang out with, too.

Although leaving the ship by helicopter was exciting, flying to Guam before heading home, I found there was a lot about the ship-board experience I missed. For one, the sleep — I had some of the best night’s sleep of my life. (That was, in part, because of the hum and rocking of the ship, and perhaps in part that my baby wasn’t awaking me every couple of hours). I also missed the walks out on deck, staring over huge expanses of ocean. But most of all, I miss the people onboard the ship.

Submitted by Monica Selent, EIS ’09

As an active duty U.S. Air Force officer in the EIS program, my perspective on this Epi-Aid is a little different than my fellow EISOs on this trip. I first heard about it during a conversation in the hallway outside my cubicle. The Quarantine Branch leadership was discussing that the San Diego EISO, Christina Khaokham, was going to investigate an H1N1 outbreak onboard a navy ship, and then someone said, “Monica’s in the military. We should send her to help.” Startled, I popped my head out the door to ask, “Me? On a navy ship?” However, I couldn’t pass up the opportunity to help my sister service and learn more about this new virus.

The support from the San Diego Quarantine Station

and County Health Department was outstanding. We got space to work, computer access (thanks to the entire building being wireless), supplies purchased quickly (as we figured out what we’d need to take with us during our cruise), and their patience (as our departure was pushed back a few times). Christina and Steve Waterman (EIS ’81) were perfect hosts for the Atlanta-based



L–R: ENS Doug Harrington, U.S. Navy, and Shauna Mettee (EIS ’09).

EISOs. Steve invited us one night to his house for dinner and his blue ribbon-winning home-brewed beer. Christina made sure we sampled all the best Mexican food in town.

While in port, we travelled from the county office to the navy base almost every day and were always in uniform when boarding the ship. One Saturday afternoon, as I was passing my backpack through the X-ray machine to depart the ship, I heard a voice behind me call out “Are you the CDC people?” I answered with an enthusiastic “Yes, sir, we are,” then turned around to see a man dressed in civilian clothes. From the pictures hanging up around the ship, I recognized him as the ship’s captain. I was pretty sure this was not how CDC wants their EISOs in the field to arrange the first meeting with such a significant Epi-Aid partner. I was also very glad that, after a long week of 12⁺ hour days, I had the presence of mind to throw that “sir” into my answer when I didn’t know to whom I was talking.

The hospitality of the San Diego team was only unmatched by the hospitality of the navy. They took care of us from day one. The ship provided us with bunks, hot showers, good food, plenty of work space, and tremendous support in recruiting enough participants. Everyone knew CDC was aboard, asked questions, and treated us

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What's Happening? — Births, marriages, and other significant events in the lives of current officers ([return to top](#))



EIS Field Assignments Branch (EFAB) officers (pictured above) participated in the NIOSH orientation in December 2009.



Molly Lamb (EIS '08) (pictured above with husband, Derek Lamb, and baby) gave birth to son Brendan Alexander Lamb on February 23, 2010. Brendan tipped the scales at 8 lbs, 1 oz, and was 20 inches long.

Update from the former Career Development Division, Office of Workforce and Career Development:

This Division is now entirely contained within the newly proposed Scientific Education and Professional Development Program Office (SEPDPO), in the cluster of offices that make up the new CDC Office of Surveillance, Epidemiology, and Laboratory Services under Dr. Steve Thacker's leadership. (The other offices include one each with a focus on epidemiology and analysis, surveillance, informatics, and laboratory, as well as the National Center for Health Statistics.) We chose our name for a few specific reasons. "Scientific Education" refers simultaneously to the education of scientists, education in the sciences, and to the science of education. Just as we seek rigor in our science at CDC, we also seek rigor in our educational programs. "Professional Development" refers to the fact that our educational programs are practical and applied to real world issues, that they are not simply didactic and that participants in our programs learn skills that lead to their development as public health professionals. As of this print date, the internal structure of SEPDPO is not yet finalized, but the EIS Program and the EIS Field Assignments Branch are likely to be placed in a Division of Applied Sciences within SEPDPO. Please stay tuned (in future EIS Bulletins) for announcements regarding SEPDPO. Please also stay tuned for discussion about the impact of the newly passed health (care) reform legislation on public health, as it will offer opportunities especially in the area of workforce.

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with immense courtesy and respect. My fellow EISOs mentioned how they thought it was “cool” to be on a navy ship. I hadn’t really thought of it as anything other than another military installation (although the morning meetings on the flight deck did make the best conference room I’ve ever sat in). My impressions changed the night we got to go outside to watch the Harriers. Watching the planes fly vertically and feeling the power of those engines vibrate through you as they take off and land only a few yards away was really, really cool.

The navy also got to see that CDC is more than willing to work as hard as they work at sea. Our doors were open every day from 8 a.m. until 8 p.m. to work within the crew’s schedule, filing out the questionnaires and collecting serum. While aboard, I realized how much those young sailors and marines reminded me of the many Airmen that I’ve worked with over the past 12 years. It’s not easy to be at sea, in close quarters, working long hours 7 days a week, away from your loved ones, and travelling the world knowing that you represent a way of life that some people can only dream of and others want to destroy. It was an honor to be aboard and to be part of an investigation that will help keep that crew, and others like them, healthy and strong until they return home.

Submitted by Fleetwood Loustalot, EIS ‘08

Amphibious assault vessel — that’s all the EIS office would need to include in the e-mail subject line to pique one’s interest. It somewhat trumps *Hospital A*, *Restaurant B*, or *Prison C*.

I would say that this experience was one of those EIS deployments that we dreamed about when we were applying for the fellowship. You know the kind — one that you wonder why someone would pay you to do this, and one where you mull over the pictures months later with a big grin on your face. This is, of course, long after you have forgotten the inconveniences that come along with any deployment.

So the story begins. I gave up a 10-day training session at a fairly nice place, kissed my 11-month-old baby and wife goodbye, and packed my bag. I had been out on a previous H1N1 outbreak in Texas a few months before this deployment, so I had some degree of comfort with H1N1 investigations. However, my knowledge of navy and marine ranks and protocol were a bit deficient. *Study hard and fast.*

I had never been on a naval base before this deployment. As we proceeded through the gate, cruising along San Diego Bay, I sat in the backseat — amazed. Row after row of floating buildings, some with a flurry of preparation activity, others sitting idly by waiting for the next departure. They remained abstract at this point, even a bit distant.

After our first visit to the ship, I realized a floating city was a more appropriate association. Forklifts delivering palates of food, endless military supplies being brought onboard, and more people than you would see at the mall on Black Friday. To put in perspective the massive nature of this vessel, I recently read that the ship held a fundraiser — a 5k run on the deck.

After the investigation preparations were completed and a few mechanical delays were corrected, we left San Diego. Sailors and marines “manned the rails” as we proceeded out of the harbor. A sense of patriotism wells up inside even as I think about it now. The word that comes to mind is *sacrifice*. These sailors and marines would be gone for the next 9 months. Spouses’, children’s, parents’, and friends’ lives would continue on at home.

While underway, we received noteworthy support to conduct the investigation from the crew, medical officer, and the captain. My favorite recollection of the captain was the nightly radio addresses to recap the day and provide accolades to deserving sailors and marines. FDR’s fireside chats come to mind. As we invited a substantial portion of those onboard to participate in the investigation, we were about to interact and talk with hundreds of sailors and marines, many out for their first sailing, others veterans. We learned to navigate the passageways, locking doors, and picked up a scattered knowledge of ship terms. The food was excellent, coffee always available, and fresh air was only a deck away. Throughout the day, we would hear Harriers taking off and landing, and helicopters circling the ship conducting training exercises. The logistics of maintaining this operation were extraordinary.

Picture this: dark blue water, clean air, endless horizons, and crashing waves. This is the experience on the upper deck, and it would recharge any battery. My departure was one that would rival most boys’ best daydreams — delivered by helicopter to Hawaii after flying over the Pacific Ocean for about an hour. Lesson of the day: *Amphibious assault vessel* in the subject line? *Respond to that e-mail first.* ⚡

Alumni Notes — Publications and significant events submitted by alumni

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Asim Jani (EIS '03) (pictured below with wife, Smruti, and son, Arjun) writes “Smruti and I were blessed with the birth of our son, Arjun, about 3 weeks ago on Jan 11, at 7:10 a.m. He was 7 lbs, 4 oz, healthy and peaceful!”



Richard Besser (EIS '91), *ABC News'* senior health and medical editor, received the "Mercy Moves Through Me Award" at a luncheon in February at the Biltmore Hotel in Atlanta. The award is given by St. Joseph's Mercy Care Services to individuals and organizations that provide service or advocacy on behalf of the underserved.

Peter Kilmarx (EIS '94) was recently awarded the Lester B. Granger Award for lifetime achievement in social justice at the Martin Luther King Jr. annual celebration at Dartmouth College, January 29, 2010. More information is available at <http://www.dartmouth.edu/~ide/programs/socialjustice/>.

Lawrence Altman, MD's (EIS'63) article “An Elite Team of Sleuths, Saving Lives in Obscurity” appeared in the *New York Times* Health section on April 5, 2010. In this article, Dr. Altman describes the relevance of Mark Pendergrast's book, *Inside the Outbreaks: The Elite Medical Detectives of the Epidemic Intelligence Service* (Houghton Mifflin Harcourt, 2010) and provides brief historical highlights of landmark accomplishments of EIS. The article is available at <http://www.nytimes.com/2010/04/06/health/06docs.html?th&emc=th>.

Job Notices ([return to top](#))

Epidemiologist (GS-13/14), Agency for Healthcare Research and Quality, Center for Outcomes and Evidence

The Agency for Healthcare Research and Quality (AHRQ) provides national leadership to enhance the quality, safety, effectiveness, and efficiency of medical care through promotion of improvements in clinical practice and in the organization, financing, and delivery of care. The Center for Outcomes and Evidence (COE) conducts and supports research on and assessment of medical practice, technologies, processes, and systems. Specific areas of interest include safety, quality, effectiveness, and cost-effectiveness and methods and measurement development for outcomes research, cost-effectiveness analysis, and evidence-based systematic reviews and technology assessments. COE is also interested in appropriate use of therapeutic and medical technologies, including preventing overuse, underuse, and adverse effects.

The epidemiologist will serve as the agency authority and expert in epidemiology and related public health concerns in therapeutics (e.g., pharmaceuticals and medical devices) with responsibility for developing policy and objectives, appraising programs, and initiating requirements for epidemiologic studies. Assignments will cover complex problems. Responsibilities will include overseeing contracts, grants, awards, and cooperative agreements with full responsibility for carrying out all required monitoring and management duties. A strong background in cardiovascular medicine is particularly desirable. Applicants should be U. S. citizens or permanent residents.

Potential candidates should contact Bill Baine (EIS '72) (william.baine@ahrq.hhs.gov or 301 427-1504) or Yen-Pin Chiang, PhD (yen-pin.chiang@ahrq.hhs.gov or 301 427-1493) at the Center for Outcomes and Evidence, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850-6649.

Public Health Physician 3, New York State Department of Health

Salary: \$104,082–\$160,000

Location: Center for Community Health, Division of Epidemiology, Corning Tower Building, Empire State Plaza, Albany, NY 12237

Minimum qualifications: Current license and registration to practice medicine in New York State and board certified in a medical specialty *and* either a master's degree in public health or 2 years of experience in a public health program.

Preferred qualifications: Ten years of experience directing a large public health program. Specific epidemiologic knowledge, experience and research in communicable disease surveillance, outbreak detection and control, with programmatic experience in areas such as emerging infectious diseases, nosocomial infectious disease surveillance, and control HIV, TB, STD and immunizations. Specialty training in preventive medicine or infectious diseases is preferred. Ability to direct a large, high-profile, fast-paced public health program.

Responsibilities: The Public Health Physician 3 will serve as the director of the division of epidemiology and the state epidemiologist. Oversee and direct a division of over 350 employees and an annual budget of approximately \$120 million. Division staff perform communicable disease surveillance, epidemiology research, and control efforts, ensuring efficient application of public health resources in meeting public health needs. The incumbent also serves as the state epidemiologist, providing guidance and consultation on communicable disease surveillance, control and treatment with other units of state, local, and federal governments, health care providers, and professional organizations. The physician will represent the NYS Department of Health on a national level and provide leadership throughout the division in the development, implementation, evaluation, and dissemination of effective public health policies and programs.

Conditions of employment: Permanent, noncompetitive appointment. This position requires frequent daytime and overnight travel, and might include destinations not served by public transportation.

Application procedure: Submit resume to Human Resources Management Group, PHP3/07085/JC, Room 2276, Corning Tower Building, Empire State Plaza, Albany, NY 12237-0012, or by e-mail to resume@health.state.ny.us, or by fax to 518-474-6771. Please use the subject line *PHP3/07085/JC*.

Director, Office of Epidemiology, Nashville/Davidson County Public Health Department

The position will lead the Office of Epidemiology. Areas of responsibility for the office include community health assessment, epidemiology of chronic disease and behavioral risk, social determinants of health, maternal and child health, and infectious diseases including TB and STD/HIV.

Duties: Conducting public health surveillance; analyzing and interpreting public health data; consulting and collaborating with program staff on matters of epidemiologic assessment, data analysis, and program evaluation; making public health data accessible and useful for community-based prevention activities; conducting epidemiologic studies and surveys; preparing and publishing

epidemiology reports and manuscripts; and making presentations to medical centers, universities, and community-based organizations.

Required qualifications: Post-baccalaureate degree, with specific training and experience in epidemiology and biostatistics; 5–10 years experience in public health practice and applied epidemiology; knowledge of the principles and operations of public health surveillance; management and leadership skills, including experience mentoring other epidemiologists; and outstanding skills at verbal and written communication with a variety of audiences.

Preferred qualifications: Extensive knowledge of public health programs and the health care system, and typical sources of health and health services data; experience using data to develop, plan, and monitor public health interventions; skills in SAS® and other relevant software used for data analysis and report-generation; skill and experience in program evaluation methods; knowledge and experience assessing social determinants of health; and experience with investigation of outbreaks and acute and communicable disease epidemiology.

Salary is commensurate with qualifications and experience; excellent benefits.

Send curriculum vitae to William S. Paul, MD, MPH, Director, Metro Public Health Department (bill.paul@nashville.gov).

Deputy State Epidemiologist, Tennessee Department of Health

The Tennessee Department of Health is seeking candidates for the position of deputy state epidemiologist. The position is within the Communicable and Environmental Disease Services section of the Department. The deputy state epidemiologist might have oversight responsibilities in the Preparedness, HIV/STD, Environmental Epidemiology, TB and general communicable disease epidemiology programs depending on experience and interests. Substantial interaction with immunizations, hospital infections, and other epidemiology programs is required. The job will include personnel management and administrative duties.

Candidates must be physicians eligible for unrestricted licensure in Tennessee and should have public health experience. An MPH or other advanced training (e.g. EIS) in public health and epidemiology are desirable.

Interested candidates should send curriculum vitae or inquiries to Tim Jones, MD (tim.f.jones@tn.gov) or Donna Teasley (donna.teasley@tn.gov) or call either at 615-741-7247.

Director, Division of Occupational Medicine, Mount Sinai School of Medicine

The Mount Sinai School of Medicine, located in New York City, is internationally acclaimed for excellence in clinical care, education, and scientific research. The Mount Sinai School of Medicine seeks an experienced physician (MD), board-certified in occupational medicine at the associate to full professor level, to direct the Division of Occupational Medicine. The qualified candidate must have strong academic credentials, supervisory experience, and a willingness to lead a strong academic program in a complex environment.

The Mount Sinai Division of Occupational Medicine, one of the largest and most renowned academic occupational medicine programs in the United States, traces its origins to the pioneering epidemiologic studies of workers exposed to asbestos, led by the late Irving J. Selikoff, MD. Today the Division encompasses: clinical programs in occupational medicine, including the New York State-funded Irving J. Selikoff Center in Occupational Medicine; the World Trade Center Medical Monitoring and Treatment Program, providing diagnostic and treatment services to over 25,000 workers and volunteers who served in New York City after 9/11; the World Trade Center Data and Coordination Center; research programs in occupational epidemiology and ergonomics; and training programs in occupational health (a residency program in occupational medicine, the NIOSH-supported New York–New Jersey Education and Research Center (ERC), and teaching programs for medical and MPH students).

Interested candidates should submit a curriculum vitae to Philip Landrigan (Philip.Landrigan@mssm.edu) or call 212-824-7046.

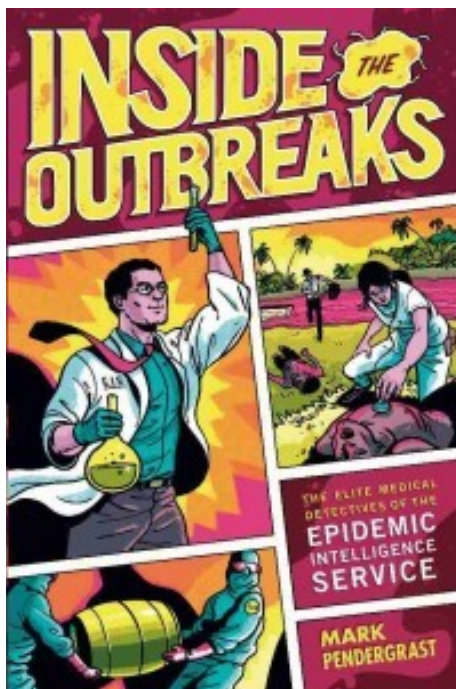
Permanent Position as Scientific Advisor, Robert Koch Institute, Berlin, Germany

The Robert Koch Institute (RKI) is looking for a senior scientist as scientific advisor in the department for infectious disease epidemiology. This person will report directly to the director of the department. Tasks include quality assurance of research proposals and scientific manuscripts, coordination and implementation of a research strategy within the department, initiation and coordination research projects.

The incumbent should be a native English speaker with relevant epidemiologic research experience, including experience as first author and reviewer of scientific manuscripts. Expertise in infectious disease epidemiology is preferred.

This position does not require control of the German language, although the willingness and ability to acquire some German communication skills is welcome.

For more details, contact Gérard Krause (EIS '98), director of the Department for Infectious Disease Epidemiology (approximately 130 staff members) at RKI. RKI is the national Public Health Institute in Germany and has similar tasks as the CDC in Atlanta. Gérard Krause can be reached through krauseg@rki.de or cell phone +49 30 18 754 3404. He will also be available during the EIS conference in Atlanta, April 19–22, 2010.



Inside the Outbreaks: The Elite Medical Detectives of the Epidemic Intelligence Service

Inside the Outbreaks: The Elite Medical Detectives of the Epidemic Intelligence Service (Houghton Mifflin Harcourt), Mark Pendergrast's history of the EIS, has an official publication date of April 13, 2010, though it reached most bookstores a bit before that date. Mark Pendergrast will speak at the EIS Conference at 12:30 p.m. on Wednesday, April 21, and will be signing books before and after the speech. The CDC Foundation and Share store have purchased copies at a discount price, which they are passing on to EIS alums. Although the book retails for \$28, EIS alums will be able to purchase copies for \$15. Pendergrast hopes that the cartoonish cover (not his idea) will entice bookstore browsers to pick up (and read) the book.

As you all know, this is the first comprehensive history of the EIS and has been a long time coming. Over the span of five-plus years, Pendergrast interviewed approximately 500 current and former EISOs, read most of the salient Epi-Aids and papers published in medical journals, and conducted other background research. The result is a fast-paced narrative from 1951 to the present. Even seasoned CDC veterans will learn something from these pages. "I am deeply grateful for all of the help I received from so many EIS alums," Pendergrast says, "and it will mean a huge amount to me if they enjoy the book. But the most important outcome will be to educate lay readers about this little-known program and, by extension, to persuade them of the importance of properly funded public health efforts."

The book has already garnered the following glowing early reviews:

Publishers Weekly: "Plucky epidemiologists track the world's ailments in this hectic public health saga.... The scientific fight against these cunning, deadly pathogens makes for an often engrossing browse."

Kirkus Reviews: "Pendergrast provides an exhaustive account of the 'shoe-leather epidemiologists' who trek to the world's troubled spots when a serious or unusual disease strikes. The author produces an impressive, occasionally awe-inspiring narrative about the CDC's Epidemic Intelligence Service.... Fans of medical mysteries will find scores of EIS case histories to slake their appetites in this meticulous history."

Library Journal: "A great reminder of the importance of public health, both in the United States and around the world, this is good reading for those who wonder whether vaccinations and other simple disease preventatives such as clean water and mosquito nets are relevant today. The zippy manga cover and engrossing tales will pull in nonfiction readers not usually up for medical history."

Booklist: "Wherever widespread illness breaks out, agents of the Epidemic Intelligence Service (EIS) will likely be dispatched to investigate.... The unsung heroes of the EIS get their due in this lengthy history and paean to their service."

Seed Magazine: "FBI, CIA, CSI—there's no shortage of three-letter agencies that solve the world's deadly problems with brains and bravery, rather than pure brawn. All but unknown amongst this group is the EIS, the Epidemic Intelligence Service.... Pendergrast ably recounts the last half-century of these cases in an episodic fashion, complete with the mystery, intrigue, and gory details of your favorite police procedural drama."



Author, Mark Pendergrast (center), posing with citizens in Niger, where he accompanied EIS members **Natasha Hochberg, MD (EIS '04)**, and **Jamie Eliades, MD, MPH (EIS '04)**, on an Epi-Aid in 2006. (Photo courtesy of Jamie Eliades.)