

**Disease Detectives:
Protecting America's Health & Safety**

**A Hollywood, Health & Society Writers Briefing in Partnership
with the Writers Guild of America, west**

**September 16, 2003
Writers Guild of America, west**



HOLLYWOOD, HEALTH & SOCIETY
PARTNERING ENTERTAINMENT, EDUCATION AND THE CDC

Disease Detectives: Protecting America's Health & Safety

At this writers briefing, convened by the Writers Guild of America, west, the USC Annenberg Norman Lear Center's Hollywood, Health & Society project brought together members of the Centers for Disease Control and Prevention's Epidemiologist Intelligence Service (EIS) to brief writers on their work and their stories.

Participants

Neal Baer, MD, executive producer, *Law & Order: SVU*

Sandra Berrios-Torres, MD, former fellow, CDC Center for Injury Prevention and Control

Mitchell Cohen, MD, director, CDC Bacterial & Mycotic Diseases

Douglas Frye, MD, deputy director, HIV Epidemiology Program, LA County

Lauren Lewis, MD, medical epidemiologist, CDC Environmental Health

Laurene Mascola, MD, MPH, FAAP, chief, Acute Communicable Disease Control Unit, LA County

Writers Guild of America, west

The WGAw, led by Victoria Riskin, represents writers in the motion picture, broadcast, cable and new technologies industries. The Writers Guild of America is the sole collective bargaining representative for writers in the motion picture, broadcast, cable, interactive and new media industries. It has numerous affiliation agreements with other U.S. and international writing organizations and is in the forefront of the debates concerning economic and creative rights for writers. Visit the Web site at www.wga.org.

Hollywood, Health & Society

Hollywood, Health & Society is a project at the Norman Lear Center that provides entertainment industry professionals with accurate and timely information for health storylines. Funded by the Centers for Disease Control and Prevention (CDC), the project recognizes the profound impact that entertainment media have on individual behavior. The Lear Center helps the CDC supply writers and producers of all types of entertainment content with accurate health information through individual briefings, special seminars and expert consultation. Visit the Web site at www.entertainment.usc/hhs.

The Norman Lear Center

The Norman Lear Center is a multidisciplinary research center that explores the implications of the convergence of entertainment, commerce and society. From its base in the USC Annenberg School for Communication, the Lear Center builds bridges between faculty who study aspects of entertainment, media and culture. Beyond campus, it bridges the gap between the entertainment industry and academia, and between them and the public. Through scholarship and research; fellows, conferences, events and publications; and in its attempts to illuminate and repair the world, the Lear Center works to be at the forefront of discussion and practice in the field. For more information, please visit www.learcenter.org.

The Writers Guild
of America, west



HOLLYWOOD, HEALTH & SOCIETY
PARTNERING ENTERTAINMENT, EDUCATION AND THE CDC

USC ANNEBERG
The Norman Lear
CENTER

3 Disease Detectives: Protecting America's Health & Safety

NEAL BAER: I welcome you to the Hollywood, Health & Society Forum. We do these every couple of months for writers to really get up close and personal with experts in a variety of fields of medicine that the CDC in particular focuses on, which is sponsoring this with the Norman Lear Center at USC. We bring the experts to you. Dr. Lewis is a medical epidemiologist with the Health Studies branch of the CDC's National Center for Environmental Health.

Doctor, what led you to becoming a medical detective? What does that entail? And can you tell us about that in terms of your investigations of lead poisoning or even in suicide prevention?

DR. LEWIS: Well, I became interested in public health in medical school. You know, maybe out of all the things we have to learn, we may have one course on public health. And we had a speaker who was at that time the director of public health in D.C., which is where I attended medical school. And he talked about how, in public health, your patient is the community or the population and the impact you can have by treating a community compared to one patient at a time. And it really resonated within me. And I knew by the end of his talk that that's what I wanted to do. And I just didn't know how to do it and with a lot of research, I found out about the training program—the Epidemic Intelligence Service—at the CDC, which trains professionals in the health field who already have advanced degrees in a health-related field on investigating health problems.

And what we do is we investigate and control, or try to prevent, health problems. Either immediate threats like outbreak investigations or more chronic ongoing threats, like obesity and diabetes. And I've had so far, I guess, a less traditional career. I was an EIS officer in the Division of Violence Prevention at the CDC in the Injury Center. And a lot of my work was in suicide prevention. One of the investigations I participated in was in Houston, Texas. The doctors in Houston were concerned with the number of suicides among the young people in their community and wanted to address it. It's a really poorly understood issue. They knew they needed more information and asked for help. And so we worked with the doctors to set up a study. What we did was we interviewed every adolescent

4 Disease Detectives: Protecting America's Health & Safety

and young adult who came into one of the ER's or trauma centers in Houston who were brought in because they had a very serious or nearly fatal suicide attempt but survived that attempt.

We interviewed them and we talked to them about a variety of issues. And the question I was interested in was, did you seek help prior to attempting to take your life? And if you did, who did you talk to? And what we found was that young people tend to not to seek help before attempting suicide. And when they did, they went to family members and friends as opposed to doctors and counselors and professionals. And that was really the group we had been targeting, educating those people. And they rarely used hotlines, which are primarily for that group. So our findings really taught us that we need to shift our focus and educate the public on how to recognize and respond to their family members and friends who may be at risk for suicide. And to encourage young people to seek help. And we also need to publicize the hotlines. That it's there for them and how to use it, so that really is an area where you all can play a big role in helping to address this issue.

BAER: Let me ask you just a question. When you were investigating these adolescents who had attempted or were thinking about suicide, who are those kids? What are they like? Why are they different from other kids? Who are they likely to be?

LEWIS: Their age range was between 13 and 34. So they were adolescents and young adults. And they came from—there's no association between a socio-economic level. They came from all walks of life. And there was no association with race either. So these can be anyone's kids.

BAER: Dr. Sandra Berrios-Torres is a former EIS fellow from the CDC. Her expertise is in worker injuries and on the job illness surveillance. She was very much involved in establishing the World Trade Center Rescue Worker Injury and Illness Surveillance System. And she's worked with the Utah Department of Health and the Salt Lake City Organized Committee to form injury surveillance systems for the 2002 Winter Olympics. So she's an expert on bio-terrorism preparedness as well.

5 Disease Detectives: Protecting America's Health & Safety

So why don't you speak to us about some stories in terms of—I'm thinking just if I were to be writing a television show where I want to do some kind of topic about preparedness for bio-terrorism. Are we really ready? What did you learn from the World Trade Center disaster?

DR. BERRIOS-TORRES: Well, my work on the World Trade Center actually was not specifically in bio-terrorism surveillance. My work at the World Trade Center was the initial assessment of all the injuries that had been seen at the four emergency rooms that were within a three mile radius of the World Trade Center, which the Health Department had already undertaken.

When we arrived that evening, we helped them complete that work. Subsequent to that, I also had the opportunity to work with them on actually establishing a way of counting not only the injuries, but what other types of illness complaints were being seen right at the site. There were units called Disaster Medical Assistance Team Units, which are actually federalized. You know, go in and set up temporary camp to help provide first aid, usually after natural disasters. They were deployed to the World Trade Center, and they were the ones who were really seeing the workers. What we found was that with everything that was happening, the workers really were not going to the emergency rooms unless it was a real severe situation. And so that was a way of assessing where there were really injuries happening and what kind of medical complaints. Were there enough respirators available in that sort of situation?

With regards to the bio-terrorism surveillance that was done up there, it was the type of setting where we had individuals at seventeen emergency rooms. And every single patient that came in, we would have the staff identify if they were coming in with a specific syndrome, one of ten syndromes.

All of that was then analyzed to try to see if there was anything unusual happening based on a specific area code, based on a specific type of syndrome. And then people were sent out to do further evaluation of actually going through a specific chart and contacting patients.

6 Disease Detectives: Protecting America's Health & Safety

BAER: What kind of story would we tell about a firefighter who was at Ground Zero? Are they healthy now? What's happening to someone who was there?

BERRIOS-TORRES: There are studies that have been done since then to look at the long-term health issues that have come up with them. And certainly there are respiratory issues that are still going on with them.

The folks from Environmental Health were actually looking at more of what the actual agents might have been—toxic substances. And so I can't really speak to that. Not all of the rescue workers are trained in the same type of protective equipment. There are different types of protective equipment which folks can donate. And yet one part may not fit—the mask may not fit the actual gadget that goes with it. Even if the equipment is available, are people using it? I mean, you've got the emotional aspect that's a part of a rescue and recovery situation such as the one that was going on there. You had folks that were on that pile for 18 hours straight. And simply some of the equipment, particularly with the firefighters, is something that came up in other discussions later. The equipment that firefighters use is intended to be for rushing into a fire that's going to take X number of minutes to resolve or, you know, at most, an hour. And then they're out of that. But it's not intended to be for wearing for 18 hours on that pile. So some of the issues that the folks that do work specifically with worker-related issues is trying to come up with better designs. Something that's lighter, something that can be worn longer. And then people such as, for example, the police department that were covering all of that area, they don't have any specific protective equipment that they're ever trained to use in that kind of situation where you've got a lot of particulate matter that's dispersed in the air. How is that affecting your eyes? People that were coming in with complaints of their eyes, which we were not necessarily having severe injuries to the eyes, but having to have their eyes washed. Could there be specific goggles that they could use? They get a lot of that work force—construction workers that were there for a while. It's not something that you receive as part of your training.

BAER: One last question. Given your expertise in injury prevention and bio-terrorism preparedness, what worries you most right now? What are we least prepared for?

7 Disease Detectives: Protecting America's Health & Safety

What keeps you up at night?

BERRIOS-TORRES: Well, I mean, I think with, obviously post-9/11 and anthrax, bio-terrorism awareness has so increased that it's something that's definitely at the forefront. I think if you look at issues of injury, we still have problems with a lot of deaths. Fires in homes because people don't have fire alarms, and all these things are preventable, or fire alarms that are not working. And children drowning—that's still a huge issue. Whether it's because of pools that are not properly secured or they simply don't have swimming ability. Children in car seats. All these things. And then the issue of violence. We still have major problems with violence against women. It's another area that still there's a lot to be learned and a lot that can be done in areas of prevention.

BAER: Thanks. We'll move on to Dr. Mitchell Cohen, who is director of the Division of Bacterial and Mycotic Diseases—fungus. And he's been involved in a number of important epidemic investigations as a disease detective, including new diseases, which we'll get into. Diseases like Legionnaire's and SARS and old diseases like cholera and others that have become resistant to antibiotics, particularly tuberculosis. Can you tell us what it's like to be on the forefront of a new disease that comes in like SARS?

DR. COHEN: Well, it can be anything. I mean, you do what needs to be done. And you can be in one area of a specialty and as everything starts to unfold, then you recognize that you need help in a certain area. SARS is a good example because when it was recognized that this disease was a real thing that had posed a risk, we started developing teams to address different areas. So we'd have an epidemiology team. So we'd pull people who worked in chronic diseases or someone who worked in injury and put them a part on that team because as a medical epidemiologist, what you do is you use the scientific method to answer questions about disease and health. So you're capable of doing a lot of things. So when we would deal with SARS, we'd start putting groups of people together. We would have a group that worked with surveillance that would interact with states. We would have an international group where people would talk to other countries about what their experience was. We would have a clinical group where they would talk with people

8 Disease Detectives: Protecting America's Health & Safety

who were providing clinical care to individuals.

The thing about epidemiology is it's one of those disciplines that can be anything that you want it to be. From just the clinical care of people to the descriptions of disease to the implementation of prevention and control strategies. So it can be very diverse, a job being a disease detective. One of the basic elements is, though, that it's a scientific approach. It's the scientific method. You collect data. You develop a hypothesis. And then you test that hypothesis.

So SARS was a perfect example of that. We had all of these teams that would pull together data on different areas. You'd put that data together. And then you would take that and you would try to develop public health policy. And sometimes it was your best professional judgment because that's where you go when you don't have enough data.

BAER: Talk a little bit about TB and is it really a problem? Is resistant TB a growing problem? And what do we do with people who don't take their medication? Do we hospitalize them? Do we put them in jail? What do we do?

COHEN: Well, it was one of those diseases that we were ready to move to the refuse pile of infectious diseases. You know, like we did with smallpox, so now we don't worry about smallpox anymore. But, you know, that's another phenomena of public health. TB was one of those diseases that we were controlling. And we were controlling it well because what we were doing is we had a strategy called Directly Observed Therapy. In other words, people who have TB have to take drugs for a long period of time. And a lot of people who have TB may not be very reliable about taking those drugs. You know, how many of us take ten days of a prescription? You know, you take eight days and you leave it in your medicine chest or something. Well, if you have to take it for nine months, that's a problem. So the people who worked in TB figured out the strategy. And it was called Directly Observed Therapy. And what you do is that you either have the person who has TB come to the Health Department or you send the Health Department people out to find them wherever they are and you give them their medicines a couple of times a week. And with that, we were eliminating TB.

9 Disease Detectives: Protecting America's Health & Safety

I went to a meeting in about '82 or '83. And there was this big chart that they had where they were drawing the TB incidence down to by the year 2010, it was going to hit zero. We were going to eliminate tuberculosis. Well, what then happened was, we have competing priorities. And there are limited resources. So when something starts to be taken care of, what do we do? Well, we pull those resources from one area and move them to another. So with HIV starting to become a problem with all of the chronic disease concerns, we started moving people from tuberculosis control to these other areas that got imported into the country. Things like smallpox and plague and cholera and I can't remember what the fourth one was. Yeah, yellow fever. And once you got past those diseases, you were sort of on shaky grounds with what you could do. Now our general counsels have told us that if we really think that there was a bad problem, that we could invoke the Public Health Service Act and go in and do something. So theoretically, we might be able to do that. But there are many ethical and local and state considerations about trying to control a person's movements and isolate or quarantine them like that.

DR. FRYE: We found that there are some people who do not take their TB medicine. It's not necessarily a crime, but they're contagious. So it's a public health problem. So we decided to incarcerate the person who was not taking their medicine. Other people were wondering well, we'll keep him in the hospital. A very expensive way to do it. And what we did was re-open some sanitariums, which were the old TB hospitals where you used to quarantine TB patients, in the north in San Mateo County and one here in LA County in High Desert. It was called civil detention. And that was supposed to be a good way to do it, you know. They're not in jail, but you're keeping track of them. And as soon as they take their medicine, they can go.

BAER: What are you passionate about right now? I asked the head of NIH that once, and he said teen alcoholism. So that was what bothered him the most. So what bothers each of you the most right now? What worries you?

LEWIS: I was talking about this earlier. I'm a mom. So adolescent health issues, risk behaviors. Sexual behaviors that put teenagers at risk for STD's and teen pregnancy. High risk behaviors that put them at risk for injuries. And suicide and

10 Disease Detectives: Protecting America's Health & Safety

violence. That's what, as a mother, wakes me up.

BAER: What is the STD rate?

AUDIENCE MEMBER: One in four.

BAER: One out of four teens, and chlamydia is, I think, still the most common. But very obviously a significant problem if one out of four teenagers will have an STD.

BERRIOS-TORRES: For me as a Latina, it's more the issue of health disparities and being able to look at that, the differences in the groups, and not only how it affects them, but approaches to prevention efforts and education, everything from materials that are available in the correct language for the right group and all of that. I think that would be very helpful.

BAER: Can you just really briefly, Dr. Berrios-Torres, talk about those specific disparities. Say cervical cancer or amputations or—what do you see?

BERRIOS-TORRES: Well, something in the area of injury, unintentional injury. For example, one of the number one causes of death in children is motor vehicle accidents. And you're thinking well, how is it that a child is going to die in a motor vehicle accident? That comes to everything from either a parent that's driving under the influence to vehicles that don't even have safety belts. They may not be able to afford getting a child seat. If they can afford to get the child seat, they may not even know how to actually appropriately use that seat. I mean, simple things that all of that comes from do you have a campaign out there that's getting to them in their language in the right media? And so forth.

BAER: It would probably be fairly easy to show that behavior. I mean, the networks make you show people wearing seat belts. If you have people in cars, you have to show them wearing seat belts. So obviously you'd want to show kids properly placed in seats and things like that. Dr. Cohen?

COHEN: My concern is that in the not distant future, we'll have infections that we were once able to treat with antibiotics that we no longer will be able to treat. We've had increasing resistance in infections in communities and in hospitals. The pharmaceutical industry is reducing their research in these areas because from a profit perspective, you're much better off producing a drug that a person has to take for the rest of their life. For example, if they have high blood pressure or diabetes, in contrast to something they'd only take for five or ten days because they have an infection, so there's less incentive there when it costs them something like that \$900 million to put a new drug out, the need to have a return on their bottom line. So there are fewer things in the pipeline than there were ten, fifteen, twenty years ago.

At the same time, we have all these changes in society and technology that's encouraging the transmission of diseases. SARS is a good example—well, that's a virus. But here we had global communities where people are rapidly able to go from one part of the world to another, so that a disease that emerges in one geographic area can be rapidly transmitted to another. So, all of these things are increasing the potential risk of transmissibility. We have fewer things to treat. We're already starting to see infections that are resistant. So it's the potential that, I guess, concerns me is that we will find ourselves in a post-antibiotic era.

DR. MASCOLA: I think I have two things. One would be vaccines, and especially vaccines aimed at the elderly. I think an influenza vaccination. I think these are good tried and true vaccines. Obviously, with influenza, you have to get it on a yearly basis. But that prevents an amazing amount of deaths nationwide, over 40,000. And the same thing for infant and childhood vaccinations. Obviously, those are very crucial. And most states, they don't mandate it by law. There are a lot of children who don't get them until they have to go to school, and suffer the risks and consequences of getting illness. And not all of them are gone. In fact right now, the Marshall Islands are seeing a huge resurgence of measles that's causing deaths and destruction. So it's not like just vaccinations in our own countries, but everywhere. It should be equal access.

And then tobacco. I can't say enough about tobacco and the number of lives that

12 Disease Detectives: Protecting America's Health & Safety

it kills. It's insidious. And second-hand smoke and the way it affects people's lives and wreaks havoc on people. It is linked to car accidents, you know.

BAER: No more?

MASCOLA: No more judgments. I'm a person of few words.

FRYE: I was going to say tobacco, but you stole it.

MASCOLA: Sorry.

FRYE: No, to me, tobacco's the number one cause of preventable death in this country. And what bothers me the most is to see it on TV and to see it in advertising and to see it on the movies. I walked out of *My Best Friend's Wedding* because there was a five minute advertisement for smoking that Julia Roberts did. And I just couldn't handle it. And until you're aware of that, you just don't see it, and then you see it. And it's every five minutes at least. And we know that it went from 20 percent of lead actors and actresses smoking to 80 percent in a decade. And guess what happened to teen smoking? It went right up. And so I would just put that out there. You know that there's a money trail. It's just unfathomable.

AUDIENCE MEMBER #1: If the TV industry requires child seats to be shown on TV, why can't we then do the same for no smoking?

BAER: Because writers smoke and they love to put people who smoke on TV.

AUDIENCE MEMBER #1: That's just like seeing a guy who writes a script without a baby seat in the back and gets away with it. That isn't American. We need to do something.

BAER: Before we end, I want to ask everyone to please fill out the evaluation form, and to please thank this great panel, they've been very informative. And certainly many stories are out there to be told. And there's certainly many a series in the future, I think. Thanks so much.

13 Disease Detectives: Protecting America's Health & Safety

FRYE: Just one thing. You know, you've got your EIS officers? It's a big network. It's a big good ole boys and girls club, and we all know more EIS, and everybody's got stories. So if we don't have the story, somebody we know has got a story you're looking for.