



The public radio show about law and American life

# Justice Talking Radio Transcript

**The Law and Infectious Disease —Air Date: 4/14/08**

*The way in which governments and intergovernmental organizations like the World Health Organization and the United Nations respond to the potential spread of infectious disease is being debated across the globe. Public health measures intended to prevent the spread of epidemics — from HIV/Aids to Avian Flu, MRSA to Tuberculosis — raise many legal questions about privacy and civil liberties. Tune in to this edition of Justice Talking as we explore how health officials manage the spread of infectious disease and what it may mean for your rights.*

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MARGOT ADLER: From NPR, this is Justice Talking. I'm Margot Adler. A frightening new disease in one part of the world can set off panicky headlines across the globe. Some state legislators have been updating dusty laws on quarantine, but some public health leaders say the federal government is still playing catch-up.

UNIDENTIFIED MALE: It has been shocking the lack of vigilance that we have and the CDC agreed with all of that. They have now begun to plan and ramp up.

MARGOT ADLER: Voices of caution point to government abuses of the past.

UNIDENTIFIED FEMALE: We can talk about forced involuntary vaccinations coming late at night with no information, no consent.

MARGOT ADLER: The threat of infectious disease and the law of the land, after the news.

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MARGOT ADLER: This is Justice Talking from the University of Pennsylvania's Annenberg Public Policy Center. I'm Margot Adler. Both new and old contagions are posing a threat to global health. From Avian Flu and SARS to Hepatitis B and Tuberculosis, the numbers are chilling. Take TB — there's almost 9 million new cases of tuberculosis each year around the world. Tens of thousands of them are extensively drug resistant. A new drug resistance staph infection known as M-R-S-A, or MRSA, is alarming researchers and health care providers. Recent research estimates there were 94,000 cases in the U.S. last year and approximately 18,000 people died from the infection. Meanwhile, fewer and fewer new antibiotics are being developed and those few costs hundreds of millions of dollars before they make it onto pharmacy shelves. In response to potential threat, some health experts are calling for better laws on quarantine and a bigger commitment to research. But activists say healthcare leaders, in their zeal to protect public health, underestimate another threat: the power of stigma attached to these diseases. Reporter Jill Replegle has this cautionary tale from San Francisco.

JILL REPLOGLE: [TRAFFIC NOISE] The Castro neighborhood of San Francisco prides itself on having the highest number of same sex couples of any zip code in the country. But residents didn't appreciate their neighborhood being called the epicenter of a new infectious disease last January. Researchers from the University of California San Francisco published a paper at that time reporting high rates of an aggressive strain of multi-drug resistant staph infection, or MRSA, in the Castro. They also found high rates of the MRSA strain among male gay patients at a health clinic in Boston. They suggested that the disease might be spread through sex. Gay activists like Hank Wilson were furious at how the news was presented.

HANK WILSON: We got slapped because worldwide in English newspapers there were headlines: "New HIV," "flesh eating bacteria," "gay disease," "new gay disease." And those were headlines around the world.

JILL REPLOGLE: And it wasn't just the headlines. Some gay activists objected to being singled out by study authors as separate from the general population. Chip Chambers is one of the study's authors. He was caught off guard by the reaction and says the real meaning of the study's findings got jumbled in the political tumult.

CHIP CHAMBERS: The importance to me was not that any particular group was found, but that whatever group was found, it could have been in children, that here's a more drug resistant variant of this clone that has spread like wildfire in a more susceptible form.

JILL REPLOGLE: Chambers says researchers don't yet know why this particular MRSA strain has spread so quickly in gay communities that were studied. MRSA was once found only in hospitals. But infections began to turn up in people outside of clinical settings about 10 years ago. Most infections usually don't go beyond the skin but MRSA can lead to pneumonia and infections in the blood stream. MRSA killed over 18,000 people in 2005, according to the Centers for Disease Control. Outbreaks have turned up in all kinds of groups including athletes and children. But gay men felt targeted by the way the media presented this latest research. Gay health activists in San Francisco formed the MRSA Action Group. [YELLING CROWD]

UNIDENTIFIED MALE: [SPEAKING OVER MEGAPHONE] When do we want it? Now! What do we want?

JILL REPLOGLE: The group held this protest in front of the San Francisco Chronicle in March. It was captured on YouTube. The protestors criticized some media outlets for giving the impression that gays were responsible for spreading MRSA. Rick Loftis is a general practitioner in the Castro and a member of the MRSA Action Group.

RICK LOFTIS: They're talking about a community that is traditionally stigmatized. Um, you know, HIV was for many years, still in many communities, being blamed on gay people as a "gay disease." But again, that was just an example of an infection that spilled into a population that was vulnerable.

JILL REPLOGLE: The angry response led some newspapers to write follow-up articles clarifying that the MRSA strain wasn't a sexually transmitted disease or a gay disease. But the MRSA Action Group wants more. The activists are pressing scientists and public health officials to think before they speak. They also want journalists to triple check their facts on health stories before going to press. These activists also say more research is needed on how to treat the disease especially repeat infections. And the uproar forced public health workers to get out into the community and correct the record.

UNIDENTIFIED MALE: So, fourth, I want to make it absolutely clear that MRSA can affect all San Franciscans and that's gay, straight, bi, lesbian, queer.

JILL REPLOGLE: Among the experts who turned out to clear up misunderstandings and explain how MRSA spreads was Chip Chambers, one of the authors of the study. He says the controversy was a wake-up call.

CHIP CHAMBERS: In a certain way, we as investigators were a little naïve about the political impact, uh, that it might have.

JILL REPLOGLE: To try to limit that political impact and naiveté in the future, the University has formed a task force to develop better ways to present potentially sensitive research in the future. This is Jill Replogle for Justice Talking. [MUSIC]

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MARGOT ADLER: For the last few years, a number of disease scares have hit the headlines. Dr. Anthony Fauci is a good person to talk to, to get a better understanding of the impact of infectious disease today. Fauci is the director of the National Institute of Allergy and Infectious Disease at the National Institutes of Health. Welcome to Justice Talking.

ANTHONY FAUCI: Thank you. It's good to be here.

MARGOT ADLER: There appear to be multiple threats out there. For a while the fixation was on Avian Flu and when it would jump to human populations. There was a near panic a few years

ago over vaccine shortages. And the most recent threat in the news: extensively drug resistant TB. What's happening? Globally are we more vulnerable than we've been in recent times to some kind of killer bug?

ANTHONY FAUCI: Well, I, I wouldn't say we're more vulnerable. I just think what's happening is that we are seeing the evolution among microbes of something that really is inevitable no matter what you do. For example, there are microbes that, uh, really are not accessible to humans and when you do things like encroach upon rainforests or what have you, you get the possibility of exposure to new microbes that might be confined to animals. We know, for example, that at least 70 percent of the new emerging infections that we get over the last several years come from a jumping of species. We call them "zoonotics." They actually belong in animals but either by adapting themselves, mutating, or what have you, they can actually ultimately infect humans. The classic examples of that, for example, are HIV which is fundamentally an infection of non-human primates, uh, particularly chimpanzees. You get Avian Influenza which is fundamentally a bird, an aquatic bird, virus which can by mutations jump species. So there are many, many examples of that.

MARGOT ADLER: Are the big threats coming from re-emerging diseases that medicine had beaten back, like Tuberculosis, or are public health officials just as concerned about what's new?

ANTHONY FAUCI: Well, both. In fact, when you talk about emerging infections you should probably more accurately refer to truly emerging infections and what we refer to as re-emerging infections. Let me give you some clear examples. HIV is truly a newly emerging infection. We first recognized it in 1981. It was likely around in little dribs and drabs and blips, uh, decades before. But it truly is a new infection for humans. SARS Virus, not nearly as devastating — in fact, had a very short history for that one year a few years ago — is a truly emerging new infection. West Nile Virus in the United States is what you call a re-emerging infection because it had been around for centuries in Africa and the Middle East but reemerged in a new geographic location.

MARGOT ADLER: In preparing for this interview, I read that false positives are not so rare for bacterial infections. So what challenge does this represent for public health officials, especially when it comes to contagious diseases that also carry a stigma?

ANTHONY FAUCI: Well, it's a big challenge. But that underscores the need for what I had mentioned regarding having state-of-the-art, point of care type diagnostics that are standardized and that minimize this possibility of a false positive or even a false negative. We need three important things from a research standpoint with drug resistant tuberculosis. We need better diagnostics, quicker point of care, accurate, useable across the board. We need a new pipeline of drugs because when you get a multiple or extensively drug resistant tuberculosis, you want to have a larger armamentarium of drugs to treat them. And finally we need a vaccine that truly is an effective vaccine. There are a lot of other public health things that we need to do that we've mentioned but from a research standpoint we need those three things.

MARGOT ADLER: And I gather the issue of the pipeline is pretty serious. Because I've read that while pharmaceutical companies have made great strides in drug development for treating,

although not curing, HIV/AIDS, many forms of cancer, heart disease, and of course, you know, we have pills for erectile dysfunction ...

ANTHONY FAUCI: Right.

MARGOT ADLER: ... restless leg syndrome. It's been really hard to develop drugs for contagious diseases. Why?

ANTHONY FAUCI: Well, I believe there ... it's a multi-faceted reasons but one of the ones that's the most troubling is the fact that there isn't really a financial incentive to do so. Uh, if a drug company, uh, has the option of making the hundreds of millions of dollar investment that's necessary to develop a new drug, it makes much more sense to get a drug that is useable by a very large percentage of the population literally every day for the rest of their lives or close to every day or at least regularly.

MARGOT ADLER: Speaking again as a non-scientist, why can't we simply recycle and bring back, you know, old school antibiotics. I mean if an antibiotic falls out of use, say, I don't know, like penicillin or something, will the bugs eventually become less resistant and you can use it again? Or is this forever?

ANTHONY FAUCI: Well, you say you're not a scientist but you said something that was quite insightful that [LAUGHS] scientists are actually doing right now. You're saying that there are many drugs that have been used in the past. They seem to be out of use now. We rarely use them. We actually realize that and are now, uh, funding at least two moderate to large size clinical trials in California to ask the question of some of the older drugs, those drugs from years and years ago that used to be effective against Staph. aureus. Now that we have methicillin-resistant Staph, can we go back and use those drugs that we wouldn't thought of using because we haven't used them for a long time? And see if they can actually come back and almost paradoxically be the next generation of drugs.

MARGOT ADLER: Dr. Anthony Fauci is the director of the National Institute of Allergy and Infectious Disease at the National Institutes of Health. Thank you so much for coming on our show.

ANTHONY FAUCI: You're quite welcome. It was good to be here.

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MARGOT ADLER: As researchers looked at resurrecting out of use antibiotics, public health leaders have been divided over a critical public policy question: What power should the government have when a disease crisis erupts?

UNIDENTIFIED FEMALE: In times of fear, in times when we fear disease, um, communities have frequently acted with very draconian, often ill-conceived, and frequently counterproductive measures.

MARGOT ADLER: Stay with us.

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MARGOT ADLER: This is Justice Talking, the public radio show about law, justice, and American life. I'm Margot Adler. Government has played a critical role when communities faced killer diseases in the past, but that history has been checkered. Some quarantines at the turn of the century to fight smallpox unfairly targeted minorities. Quarantine laws in many states have not been updated for decades. And what about less restrictive methods for preventing the spread of illness? Joining me to talk about these issues is Lawrence Gostin, the director of the Center for Law and the Public's Health at Johns Hopkins and Georgetown Universities. Also with me is Wendy Parmet. Parmet teaches public health law at Northeastern University. Both of my guests have written widely on how the law should respond to the threat of pandemic illnesses. Welcome both of you to Justice Talking.

LAWRENCE GOSTIN: Thank you.

WENDY PARMET: Thank you.

MARGOT ADLER: Larry, you have warned that our public health laws are dangerously out of date. You've helped update state laws that dictate when and how people can be quarantined in the event of a bioterrorist attack or an illness like bird flu. You've also advised the Centers for Disease Control on a proposal to expand their powers to quarantine people at U.S. borders. Larry, why do our public health laws need to be changed?

LAWRENCE GOSTIN: The bottom line is that most of them are very old and they were around well before modern threats of epidemics. And even before the U.S. Supreme Court had, um, developed its constitutional law relating to procedural due process. And so I think what we ideally want now is to have laws that give public health authorities all of the powers they need, a flexible range of powers, not just quarantine. And then to make sure that when they exercise those powers they do so for good reason and, um, provide fair hearings for those who are subject to compulsion. I don't think that compulsion is needed normally but occasionally it will be and we should be prepared.

MARGOT ADLER: Wendy, how do you regard the existing laws on the books, uh, to handle a crisis-level health scare? You know, will they do the job?

WENDY PARMET: Well, I agree with Larry that the laws are, many of our laws are very old, but I don't think that that necessarily means that they don't do the job. In fact, in all of the state's public health officials have powers to do the kinds of things that they need to do in those rare cases when compulsion may be necessary. My concern is that it's a little too easy to think that updating a law or clarifying a law, while it might be a good idea to clarify it, that that really has a big role to play in preparing us for the public health problems we may face.

MARGOT ADLER: Larry, the CDC lobbied for expanded powers back in 2005 and its proposal caused some controversy. The CDC wanted access to flight lists so they could easily contact

passengers if they sat next to a sick person on a plane. That worried some privacy groups. There were also some questions about whether people had proper means to challenge their commitment if they were in fact quarantined. You, you've said that you share some of these concerns but you also support the government having expanded power. So how do you strike a balance?

LAWRENCE GOSTIN: Well, the balance is the key. I mean, you know, we live in a society that has two sets of values and sometimes they're in tension. You know, one of them is our, you know, great libertarian, um, beginnings and enduring values of autonomy and liberty and privacy. But the other, I think, just as important is, um, the common good in making sure that we keep ourselves healthy and safe as a people. Uh, and so I don't think really, at least in my own mind, it's in dispute at all that the CDC needs to update its, its powers. The CDC's authority, as they call them, the quarantine regulations — but they really cover much more than that — are very old for, I think, probably the general counsel at CDC has recognized this for over 10 years. As you say, uh, a few years ago, the CDC finally at long last issued proposed regulations that would modernize things and they weren't perfect but they were far better than they do now. They had some due process where before they had none. But the sad part is that, uh, they've gone nowhere and since those proposed regulations we've, uh, not had any final regulations and there are none in sight.

MARGOT ADLER: Wendy, you express some concern, I know, about the CDC's wish for expanded powers. What do you see as problematic?

WENDY PARMET: Well, I think that there were several major problems with the regulations that were proposed back in 2005. And I agree that the current regulations don't say very much. First of all, they gave the CDC, really beyond flexible, rather extraordinary powers and they provided really no real significant, meaningful review at all. So that someone could be detained by an officer of the CDC who may or may not have medical training. There was no right of judicial review specified in the regulations. There was no guarantee by the CDC that people who are detained would actually receive, for example, all of the medical care that they might need to stay healthy under detention. So there were, they were deficient in a lot of ways and in addition to that when you read them you'd have to think to yourself how meaningful are they in any sense? Because there was no way that the CDC has the resources, what it needs to actually engage in the kind of effort that it seemed to be proposing.

MARGOT ADLER: Larry, do you want to respond?

LAWRENCE GOSTIN: I mean, Wendy's right to the extent that there should have been more due process than independent hearings in the bill. But first of all, I don't think that the powers that they were seeking were extraordinary. They were actually simply the powers that the Institute of Medicine had recommended that they attain. I was actually on that committee. The committee also recommended to the CDC that they ramp up their resources particularly in what they call "quarantine stations," but are effectively just places at airports and ports of entry to have much greater vigilance than there was. It was, it has been shocking the lack of vigilance that we have and the CDC agreed with all of that. They have now begun to plan and ramp up, um, their resources and human resources at ports of entry.

MARGOT ADLER: I think one of the issues that comes up here ... I think one of the issues that comes up here though is the history of, of these kinds of issues in the United States. And I'm going to guess, Wendy, that you would say that the United States has a history of abusing these powers. Um, so tell me a little bit about that history.

WENDY PARMET: Well, I think the history is very instructive and I think it instructs us that we have to be careful not to say that this is about civil liberties versus the common good. It's about civil liberties and the common good, and how do we have both? And how do we actually achieve the common good? The history shows us that more often than not, um, in times of fear, in times when we fear disease, um, communities have frequently acted with very draconian, often ill-conceived, and frequently counterproductive measures. We can go back and ... to quarantines that San Francisco imposed against Chinese Americans in 1900 when bubonic plague struck. We can talk about the roundup of women who were believed to be, many were probably, prostitutes during World War I but they were essentially detained in internal detention camps. And we can talk about forced involuntary vaccinations coming late at night with no information, no consent for people during smallpox epidemics. The fact is, is that in times of fear, it is all too frequent for public authorities to say they need to take tough measures to protect the common good. And often what that means is acting in a forceful and frequently ineffective but harmful manner to vulnerable communities.

MARGOT ADLER: So, Larry, it's not as if the government has never abused power.

LAWRENCE GOSTIN: No, but nobody supports those kinds of draconian historic things and no public health official responsible wants, certainly not the CDC, support all those things. I mean, you, you want to have safeguards. Of course you do. But that doesn't mean that you don't want to have power. Sometimes powers are legitimately exercised and so the answer to abuse is not to say, oh well, the government no longer has powers to protect us. The answer is that you have safeguards against it.

MARGOT ADLER: Larry, how do you respond to the critique that relying solely on the traditional quarantine approach turns a sick person into a criminal? That the people are more likely to comply with the law when they don't feel like they're being punished just because they happen to contract an illness.

LAWRENCE GOSTIN: Well, I don't think that public health laws should be punitive, uh, and I think that compulsion should be used as a last resort. But there are times when it's needed. I mean, the Andrew Speaker case that you referred to in the introduction was somebody who at the time we thought had extensively drug resistant tuberculosis. You know, getting on a plane, um, going to multiple cities and countries and, uh, endangering the public. So you want to have powers, um, you want to exercise them reasonably.

MARGOT ADLER: So you mentioned Andrew Speaker and I want to bring that up again. Um, and as most people know, since it was splashed all across the headlines for weeks and weeks and weeks, he tested positive for, uh, extensively drug resistant TB. He, uh, was tracked down in Italy.

He was told to stay by the CDC, then he got on a plane to Canada. He rented a car. He came back to the U.S. He ignored the advice. Uh, you know, he could have made others sick perhaps. Um, and it's easy to imagine that others could behave in the same way. So, Wendy, how do you account for somebody who doesn't abide by, let's say, a voluntary system that you might much prefer?

WENDY PARMET: There's no doubt that as far as we know he did not act in a publicly oriented manner. But I think we have to keep two things in mind. First, our government put a lot of energy into trying to track him down and eventually imposing the first federal quarantine order in 40 years on Andrew Speaker. But what we didn't have in place, and what I think we need are the systems for helping people who want to comply to comply. For example, the federal government claimed they told him, asked him to stay in Italy. But they couldn't figure out how they could get him safely back to the United States. According to Speaker, at least, he was afraid that he would be kept indefinitely in Italy and he just wanted to come home.

MARGOT ADLER: And also you could imagine that anybody given healthcare in Italy and healthcare in the United States would want to come back to the best hospital situation that he could. And that was sort of a reasonable thing for a man in his situation to do.

WENDY PARMET: Well, precisely. And the fact is that he fled, and when they started acting with force, he fled which shows, I think, precisely in some ways how the compulsory approach is often (not in every case) but is often counterproductive. And I think it's our job, those of us in public health law, to say to health officials we don't have a magic bullet. Our orders, quarantine, isolation, not that these are never needed but don't sell these to the American public as the answer for Avian Flu or TB or any other major disease. This is not how we solve our public health problems.

MARGOT ADLER: I want to let Larry in here.

LAWRENCE GOSTIN: May I respond?

MARGOT ADLER: Yes, absolutely.

LAWRENCE GOSTIN: Yeah, I mean, there's so much to say. First of all, I totally disagree with both of you actually that Andrew Speaker's actions were reasonable. I think they were quite unreasonable. He ...

MARGOT ADLER: I mean, they may have been selfish. But they were ... but I'm saying on some survivalist issue they were reasonable.

LAWRENCE GOSTIN: Well, not even that. I mean, they were selfish and they were unreasonable. I mean, he, he got on a plane, um, to leave the United States knowing that he had tuberculosis. He wanted to go on his honeymoon. He then went to three or four different countries to, evading people. Came back into the U.S., got through the border. He in my view is not at all, uh, public spirited or reasonable. I do think that if you have a person like Andrew

Speaker that is acting selfishly, that it's a reasonable thing for the government to do is to use some compulsion to make sure that he doesn't endanger others.

MARGOT ADLER: Wendy, you've said that, um, the traditional approach to curbing disease has been to assume that we must trade liberty for security. And I guess I, I want to end by asking both of you; aren't there some times when we do have to make that trade? I mean, I'm imagining, uh, oh, I don't know, a scenario of lethal contagion on the streets, you know. In moments like that, don't we have to expect less liberty? I'll start with you, Larry.

LAWRENCE GOSTIN: There's a little bit of truth in both what Wendy and I have said. I mean, I think that one should see, uh, liberty and privacy and autonomy not only as an individual interest but as a part of the common good because we all want to live in a society that's free and fair. But I think undeniably there are times, whether it's compulsory vaccination or other areas where there are trade-offs and it's no sense, um, denying that they exist.

MARGOT ADLER: Wendy?

WENDY PARMET: I think Larry and I agree that there are times when individual liberty needs to be restrained for the public health. I think, though, what's important and where we disagree, is in thinking about how central that dilemma is to the issues we're confronting today. Is that the main issue that we need to have our laws in place to be ready, willing, and able to restrain individuals? Or is the main issue today, how can we use our laws to improve and enhance the synergy? And I think we both agree that we need both but where we disagree is about which is mission number one right now.

LAWRENCE GOSTIN: I think that's fair.

MARGOT ADLER: Wendy Parmet teaches public health law at Northeastern University. Lawrence Gostin is a professor of global health law at the Georgetown University Law Center. Thank you both for being on our show.

LAWRENCE GOSTIN: It's a pleasure. Thank you.

WENDY PARMET: Thank you.

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MARGOT ADLER: Government action may come well before the need for quarantines if one group of healthcare providers gets its way. Some experts on infectious disease say we can't count on the marketplace alone to prompt the development of essential new antibiotics.

UNIDENTIFIED MALE: We're asking pharmaceutical companies to make new drugs yet not use them unless absolutely necessary. That doesn't help their bottom line.

MARGOT ADLER: And an author defends the science of vaccination against the claims of its critics.

UNIDENTIFIED MALE: It's very easy to find data points when you go on the internet that support these ideas. And it takes a lot of investigation and a real kind of scientific frame of mind to understand, uh, you know, why most of these theories don't have anything behind them.

MARGOT ADLER: Stay with us.

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MARGOT ADLER: [MUSIC] This is Justice Talking where we make the connection between law, justice, and American life. I'm Margot Adler. It's estimated to cost between 100 to 800 million dollars to develop new antibiotics. It's an expensive enterprise for pharmaceutical companies and they are deciding to take on those costs less and less. Only five new antibiotics have been introduced since 2003, according to the Infectious Disease Society of America, or IDSA. That's less than half the number developed in a five-year period in the 1980s. Dr. Donald Poretz is president of IDSA, a physician, and a clinical professor of internal medicine at Georgetown University School of Medicine. Welcome to Justice Talking.

DONALD PORETZ: Good afternoon.

MARGOT ADLER: I don't think most Americans realize, I didn't realize, that the rate of development of antibiotics is decreasing. At the same time we need them more. Diseases are becoming more resistant. So why is there so little research and development?

DONALD PORETZ: The fact of the matter is more and more bacteria have become resistant to antibiotics. Therefore one would hope that new drugs would be developed that could be used to treat these resistant bacteria and we've approached and many people have asked pharmaceutical companies to develop these new drugs. But paradoxically we want to save the drugs for the times we really need them. So in a bizarre way we're asking pharmaceutical companies to make new drugs, yet not use them unless absolutely necessary. That doesn't help their bottom line.

MARGOT ADLER: Your organization, the Infectious Disease Society of America, has called the rise of antibiotic resistant infections an epidemic. IDSA says the United States government is not doing enough to battle a decline in antibiotic research and development. And it's called on the medical community to come to the rescue. So how has the government failed?

DONALD PORETZ: Well, I'm not sure I'd call it a failure but maybe it was recognized not as important a problem as it's turning out to be. Regardless of the reasons, we do need to spur on efforts for new antibiotic research and the development of new antibiotics. We, therefore, the Infectious Disease Society of America, have worked in conjunction with other groups to try to develop potential legislation that would allow and encourage pharmaceutical companies to develop these new drugs. For example, the STAAR, S-T-A-A-R, Act which is Strategies To Address Antimicrobial Resistance, is a comprehensive bill that is being introduced in both the House and the Senate. To encourage the tracking of resistant bacteria through a central office in the Department of Health and Human Services in addition to making all available facilities including the CDC, the NIH, the Department of Agriculture, have access. So everyone knows all about this resistance that's occurring all over the country and indeed worldwide. And at the

same time, we're trying to pass the legislation which will allow and encourage pharmaceutical companies to develop these new drugs perhaps spurring them on by giving them tax breaks, tax incentives. And increasing the length of the patent for these drugs.

MARGOT ADLER: I've heard that you've called for the medical community to sort of lead a grassroots effort and pick up where the government left off.

DONALD PORETZ: Well, the Infectious Disease Society certainly is cognizant of the problem of drug resistance. ID doctors, infectious disease doctors, have to take a leadership role. We call it antibiotic stewardship, if you will. But I think those doctors who are trained in infectious diseases, who understand the problem of using and not using antibiotics, and to use them appropriately, are going to have to stand up, and teach other physicians and healthcare workers when drugs should be used, when they should not be used. How long they should be used. And to just oversee the usage of these very potent drugs.

MARGOT ADLER: What about the public? Is there something that all of us should be doing to combat drug resistant diseases?

DONALD PORETZ: Yes, I think not only physicians and not only Congress but individuals and the public need to be educated about antibiotics. Antibiotics are wonderful drugs. They're lifesaving drugs. But we now know that too much of these drugs, and particularly these drugs given for inappropriate reasons like common viral infections, can cause significant harm. So I think we need to continue our teachings and discussions with the lay public.

MARGOT ADLER: Dr. Donald Poretz is president of the Infectious Disease Society of America. Thank you so much for coming on Justice Talking. It was a pleasure.

DONALD PORETZ: Thank you very much.

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MARGOT ADLER: Besides the struggle to keep antibiotic drugs effective and available, modern medicine is taking another hit, too. There's growing resistance in the American public toward vaccination. Arthur Allen is a journalist and he spent years researching the impact of vaccines. He's the author of "Vaccine: The Controversial Story of Medicine's Greatest Lifesaver." The book explores the history of vaccination and the new mistrust of vaccines. Welcome to Justice Talking.

ARTHUR ALLEN: Thanks for having me, Margot.

MARGOT ADLER: Arthur, signs of public skepticism about vaccination keep cropping up. Recently we've heard a lot about a claimed link between vaccination and autism. One medical journal reports that a quarter of American parents now question whether they should have their children vaccinated at all. You write "dissent has led us to a point where vaccination might be said to be in crisis." Why is it a crisis?

ARTHUR ALLEN: Well, I think that there's a number of reasons for skepticism. Um, there's, I think, trust in the government is at a fairly low level and the government is, in one form or another, what the body that mandates that we be vaccinated. The diseases that vaccines target, um, for the most part have kind of slipped off the radar screen. That's because of the success of vaccination. Many of these diseases just aren't with us anymore or they're with us in ways that aren't easily perceptible to a lot of parents. Um, and then, so parents don't see the reason to get their children vaccinated. They don't see the urgency of it. And then once one of these viral messages of vaccine harm gets out there, like that vaccines cause autism or asthma or something like this, it's hard to defeat. Because it's very easy to find data points when you go on the internet that support these ideas. And it takes a lot of investigation and a real kind of scientific frame of mind to understand, uh, you know, why most of these theories don't have anything behind them.

MARGOT ADLER: Certainly in the early 20th century there were, uh, a pretty high number of people that died from smallpox vaccines.

ARTHUR ALLEN: Uh hmm.

MARGOT ADLER: And I remember there was a wave of contaminated polio vaccines in the '50s that killed children.

ARTHUR ALLEN: Uh hmm. Right.

MARGOT ADLER: So there were some harrowing cases, uh, in which, uh, the fear of vaccination seemed justified. So is it different today? Is there better regulation? Or better science? Or both?

ARTHUR ALLEN: All of the above. I mean, there's much more stringent regulation, much, much more stringent. I mean, Jonas Salk's new polio vaccine came out in 1955. The regulatory body that reviewed the vaccines that were sort of being developed while the polio trial was going on took two hours to consider the data. Nowadays, it takes two years or more, you know? And, but it's kind of interesting, because 50 years ago people were willing to take these vaccines, the polio vaccine that came out in '55, the measles vaccine that came in '63, that vaccine, several versions of it were extremely toxic. There's just no way that anything like that would get on the market now. So, I mean, there have been scares and there are unforeseen consequences, um, of vaccination, and that's why it's important to have a really good safety system. And I think the current one is pretty good. It's certainly much better than any other place in the world. But that's not to say that it couldn't be better. And people demand more because the diseases are not, they're not seen as serious as they were before. And the new vaccines are against disease ... we now have a vaccine against chicken pox which almost everyone, you know, knows is an innocuous disease. You know, is it having any impact on other immune conditions? I mean, if you vaccinate everyone against chicken pox, is there some part of the population that getting chicken pox as an infant boosts their immune system in a way that's healthy? I mean, these are questions that I think people are starting to ask.

MARGOT ADLER: By the 1960s, a lot of the early mistrust of vaccinations had disappeared. You've dubbed this period the "golden age of vaccination." Jonas Salk was a national hero for his polio vaccine introduced a handful of years before. During this time very few doubted the benefits of vaccines. What had happened to change earlier fears?

ARTHUR ALLEN: If you look at the history of medicine, uh, I've heard, I don't remember the reference but somebody said once that the year when, uh, medicine started doing more good than harm is like around 1920. So prior to that, basically, you know, most of the tools that were in the medical armamentarium, you know, did more harm than good. So then in the '20s we get medicine against diabetes, we get insulin for diabetes. We start to get vaccines that work in the '20s and '30s that are safer. The smallpox vaccine got safer. You started having a diphtheria antiserum. Then you had antibiotics, sulfa drugs, then penicillin in the war. And in the war our troops were heavily vaccinated with very experimental vaccines. And as it happens, you know, they were the sort of the healthiest army that's probably ever, that had ever gone into battle up to that time. So you come out of the war with this feeling of confidence in technology including medical technology. And that extends, you know, with polio which was this tremendous fear in society which we whipped. So then there's this, there's this willingness and readiness to be, to use the latest, the newest form of this medicine. Whatever medicine throws at us. Whatever the drug companies throw at us. Give me more.

MARGOT ADLER: I'm reminded, you know, I'm reminded of an ad from that period of time, you know, "better living through chemistry."

ARTHUR ALLEN: Exactly. Exactly.

MARGOT ADLER: It was absolutely the slogan of the time.

ARTHUR ALLEN: You hit it ... you hit the nail on the head. I mean, that's the idea. That's ... today no one says that except in an ironic sense.

MARGOT ADLER: What about the claims that children today are over-vaccinated? Um, throughout childhood children now get, you know, umpteen vaccinations. And one of the arguments that I've often heard in connection with the autism argument is not that there's a particular ingredient in the vaccine but that the sheer number given to a very small body is too much.

ARTHUR ALLEN: One thing, point I'd like to make is that you most often hear that from people who three years ago were saying the MMR vaccine causes autism. Mercury preservatives in vaccines cause autism. They were wrong. Lots of science was done and it showed that that isn't the case. So now those same people who are convinced that vaccines cause autism are looking for another target. And now the Jenny McCarthy's, people like that who are just sort of giving this blanket, um, putting the blame on vaccines in general. And I think ...

MARGOT ADLER: But you don't buy ... you don't buy that that's possible? That we are giving more vaccines to children and, and in fact we are giving too much?

ARTHUR ALLEN: Um, well I don't know what you call "too much." I mean, each of ...

MARGOT ADLER: Well, you go to a doctor and you get four at a time, you know. I mean, that's happened in a lot of doctor's visits.

ARTHUR ALLEN: Right. Well, I mean, from the point of view ... I mean, I'm not an immunologist. But the immunologists who I've talked to say that getting four shots with the amount of, you know, antigen, the amount of stuff that provokes your immune system that's in four shots is not a big deal. I mean, it's ... the amount of antigen that's in those shots, all four combined, is miniscule compared to the amount of antigen that you get when you have the flu or when you have chicken pox or when you have any infection. I mean, it's a small amount of stuff. So is the fact that it's four different kinds of stuff significant? I don't know. I don't think there's any real evidence that it is. It gets to our gut somehow, the idea we're sticking these kids all the time. I mean, in my view you have to get past that and say, well, what's too much? I mean, is it, which of them would we remove and decide, okay, we're going to let this disease take its course? Would we remove Hepatitis B? Well, we've reduced the number of Hepatitis B infections from 300,000 to 200,000 a year. You know what Hepatitis B does? It causes, you know, cirrhosis of the liver. It causes a lifetime chronic disease that can kill you. Would we get rid of the HIB bacterial vaccine which came in around the same time as the Hepatitis B? That's completely gotten rid of a very common form of childhood meningitis. So...

MARGOT ADLER: So you believe basically that it's much more serious to have this, this fear of vaccine, that we're imperiling ourselves in some way by that?

ARTHUR ALLEN: Yeah. I mean, I think it's ... you know, just as a journalist and a writer and sort of an observer of the daily scene, I think it's really interesting. Because I, I do think there's a point at which you just, it's hard to stomach an infinite number of vaccines. So we have to figure out some way around that. And, you know, what a lot of people talk about is putting all the vaccines in a common, in different combination vaccines. But I think that's actually a bad idea because if there are safety problems with some component of that, how are you going to sort out which, where the problem came from?

MARGOT ADLER: What do you think it would take for people to regain confidence in vaccination?

ARTHUR ALLEN: I unfortunately think that right now we're in a kind of a dynamic that's going toward less confidence for a while and it's entirely possible that it won't be turned around until there's an epidemic of a vaccine-preventable disease. I mean, which is kind of a horrible thought but entirely possible. I mean, we have every year, you know, little outbreaks of whooping cough in this country. They're often in pockets of population that don't vaccinate regularly. We have a little bit of measles but not very much. I think if vaccination levels get to a certain point, with the measles vaccine in particular, we could start having serious measles outbreaks and those could be very serious. They'd be more serious now than they were back in the day when everyone got measles because, uh, little kids don't have any protection against measles now until they're vaccinated because their mothers aren't passing along antibodies to them. And so the last time we had a measles outbreak in 1990, a serious one, a lot of babies

died. So I, I don't know. Is that what it's going to take? I'm not feeling real positive about the approach that the public health authorities have taken so far in terms of assuaging public fears. But on the other hand I don't, I don't know what you can tell them to do because they're going by the science and that only takes you so far in a rhetorical battle which is largely what this is about.

MARGOT ADLER: Arthur Allen is the author of "Vaccine: The Controversial Story of Medicine's Greatest Lifesaver." Thank you for coming on Justice Talking.

ARTHUR ALLEN: It's been a real pleasure. Thank you.

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