



Presidential Commission  
*for the Study of Bioethical Issues*

## TRANSCRIPT

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Meeting 19, Session 6  
November 5-6, 2014  
Salt Lake City, UT

DR. GUTMANN: Welcome back, everybody. We are going to move on to our second speaker for Public Health Emergency Response, Dr. Anthony Fauci.

Dr. Fauci is the Director of the National Institute of Allergy and Infectious Disease, the National Institutes of Health. This is a position Dr. Fauci has held since 1984. There, he oversees an extensive research portfolio of basic and applied research to prevent, diagnose, and treat infectious diseases such as HIV/AIDS and other sexually transmitted infections, influenza, tuberculosis, malaria, and illness from potential agents of bioterrorism.

Dr. Fauci serves as one of the key advisors to the White House and the Department of Health and Human Services on global HIV/AIDS issues and on initiatives to bolster medical and public health preparedness against emerging infectious disease threats such as pandemic influenza. He is the recipient of numerous eminent awards including the Presidential Medal of Freedom, and 38 honorary doctoral degrees from universities in the United States and abroad.

And for our purposes, very importantly, he is the spouse of our esteemed Commission member, Dr. Christine Grady.

Welcome, Tony. Thank you so much for being with us remotely, but as I said to Larry Gostin, you are even larger than life for us. So thank you for being here.

DR. FAUCI: Good to be with you.

So can I start off and give a brief presentation and then leave it open for questioning? Is that how we are going to do it?

DR. GUTMANN: That's how we're going to do it.

DR. FAUCI: Okay. So I was asked to discuss some scientific and potential ethical issues associated with this concept of quarantine that has been very actively discussed and disputed

over the last couple of weeks. And I think everyone in the room knows that this concept of quarantine is a very historic terminology, with the word quaranta, meaning forty, when it was first used in Florence -- excuse me, in Venice during the centuries of the plague, where ships that would come in would have to stay in port for forty days before the passengers were allowed to disembark into Venice.

Some of the misperceptions about quarantines is that it is sometimes used to be able to confine people who are ill or people who are suspected of being ill. Today, we use two different terminologies. We use "isolation" for people who are truly ill, and "quarantine" for people who you suspect are ill. So the discussion, really, for today is the right balance between the risk of the American public and the quarantining of health workers, particularly, and others who are coming in from West Africa vis-à-vis their rights, their own essentially human civil rights, as well as the unintended consequence regarding outbreak control.

One of the important issues is to just lay out very briefly the scientific evidence for why a person who does not have any symptoms is not a threat to transmit Ebola. And we have extraordinary observational data that argues in that case. I can go over a lot of it, but I can succinctly outline it for you in one single case study.

Mr. Thomas Eric Duncan, who was infected in West Africa, came to Dallas, and the only two people in the United States who have been infected were people -- nurses who directly put themselves into harm's way by caring for Mr. Duncan. Whereas Mr. Duncan's family members and friends with whom he was in personal contact in the apartment in Dallas, none of them have been infected nor have any of the ones who came into contact with the nurses subsequent to the time that they were infected. So the real question, and the dilemma, is do you put everyone in the same bucket who has been exposed or been travelling in a certain area, or

do you match the level of risk with the level of monitoring and restriction? So the CDC guidelines, which I had a role in putting together, tries to balance the stratification of risk with the monitoring, the public activities, and ultimately the restriction on travels. Probably you all are aware that there are four major categories of risk to a healthcare worker. One is "high risk." And a high risk is a needle stick or you're taking care of a person in a facility in which there have been many infections even though you are using proper personal protective equipment. The next is "some risk." "Some risk" means you're in close contact with someone who is symptomatic or you actually were in direct contact with a patient, but you were wearing proper personal protective equipment.

The next is "low but not zero risk," is if you either traveled to the region with no noticeable contact, or you are in direct contact with the proper PPE in a United States hospital. And then there's no risk at all.

Just for the sake of reference, I am "low but not zero risk" since I took care of Nina Pham, using proper personal protective equipment. So I'm in one of those risk categories. It's important that each risk category has a designation of how you monitor. There are two major -- well, three major types of monitoring: Passive, which means I take my temperature, evaluate my symptoms but don't tell anybody; active monitoring is I take my temperature, evaluate my symptoms, and report it to somebody; direct active monitoring is someone takes my temperature, questions me about my symptoms, and then records it.

So right now when we look at the different risks that I mentioned, high, some, low but not zero, and zero, in fact a high risk has direct active monitoring and there are already restrictions in that high risk group. So functionally, if I had a needle stick or if I was in an Ebola treatment unit in which several of my colleagues got infected, I would not be able to freely

travel on a plane or in a subway or in a place where there's a lot of people. I think people don't fully appreciate that; that, short of a bucket of total quarantine, there are some categories that CDC categorized that already have the functional equivalent of a quarantine.

And then you go down the list with less monitoring, less restriction. So to give you an example, I am low but not zero risk. Someone watches me take my temperature every day, they record it, but since I'm without symptoms, I have absolutely no restriction on my travel. However, if you were to put me in the bucket of quarantine, which some states would do, I would not be able to travel on a plane or on the metro here in Washington, D.C., which, as you can see, there really is what I call kind of Draconian one way or the other; either all in one bucket, no matter what you quarantine everyone, which some states want to do, versus letting everybody out on their own, which I think would be equally inappropriate.

So let me just close by making just an observation, that I think if you are going to be talking about ethical issues, if you want to use that word, or common sense issues about quarantine, you have to ask yourself are you quarantining a group of individuals? In this case all healthcare workers and all people who come from a region. Are you doing it based on scientific evidence or are you doing it to alleviate public fear? And my conclusion has been that a blanket quarantine for all healthcare workers, as well as people coming from that region, is much more based on alleviating public fear than it is on scientific data.

And the unintended consequences, I think, are real. A good example is that in the American Society of Tropical Medicine and Hygiene meeting that is taking place in New Orleans this week, that the state of New Orleans will not allow any healthcare workers who have been in West Africa to attend the meeting. And those are the very people who you want to attend the meeting to be able to bring back their experience and share it with their colleagues. So

I'll stop there and be happy to answer any questions.

DR. GUTMANN: Great. Thank you.

Let me start with a question where you left off to ask you to elaborate a bit. Is there any evidence, actually, that it alleviates public fear? Here is my concern about not following the science: The science doesn't tell you per se what to do. But if you don't pay attention to the science, you're likely to do the wrong thing. So here is my concern about that. If you quarantine, despite what the science says, then what is it that's guiding public fear? Anything will create public fear. So I don't even see how the quarantine quells public fear.

The next thing you need besides a quarantine is you have to close all the borders. And the next thing you do is you're afraid of people who have the wrong color skin, and we are back in the dark ages. So is there any evidence?

We are all with you on why -- overreaching on the quarantine. But I'm wondering if you are actually conceding too much in saying it actually quells public fear. Because if the public are amorphaously fearful because they don't know what you need to know about the risks here, I don't see how a quarantine in itself is going to do the trick.

DR. FAUCI: Well, I agree with you. I mean, there hasn't been a study to say if we quarantined all these people would people be less concerned? The governors who are instituting the quarantine are saying that they are doing it because they absolutely want to take no chance whatsoever, implying that, A, scientifically there really is a chance and that they are getting to the "is there a zero risk"? And there is never a zero risk.

I think you can make an assumption that if people, particularly people who are not particularly well informed, knew that every healthcare worker that came back would be quarantined for 21 days, that they would feel more comfortable getting onto a subway or onto a

plane. That's an assumption on my part. But again, I'm not yielding that because I don't think there's any scientific justification whatsoever to do a blanket quarantine. But I can't --

DR. GUTMANN: Why don't you say, besides that there's not scientific evidence, what you have also said, and this is for the public record, of what's lost when you put a quarantine in. What, that we need to contain this epidemic, do we lose when we go further than is necessary?

DR. FAUCI: Well, I have articulated that many, many times. I mean, what you do is there's a major disincentive on the part of health workers to go and volunteer their services if there's an automatic 21 days out of action. And as we have said many times, the best way to protect Americans is to completely suppress the epidemic in West Africa. And one of the ways it is being suppressed is on the basis of our volunteers going over there. And it looks like even now, with the decrease of cases in Liberia, that's in large part on the basis of a lot of volunteers, people who are going over there.

DR. GUTMANN: Thank you. Questions from Commission member Dan Sulmasy.

DR. SULMASY: Thanks. It was very helpful. I wonder, though, if your sort of case report is a sufficient sort of scientific justification for the sense that there is no risk. And I know you said there are data, and I just wondered if you could expand a little bit for the Commission on what sort of scientific basis there is for assuring the public that there is no risk of transmission during the pre-symptomatic period. What sort of data do we have? What sort of mechanistic understanding of viral transmission do we have that would help? If you could go into that.

DR. FAUCI: Good, yes. Let me answer the first part. I never say "no risk." There is no such thing as a no-risk society. The risk is vanishingly small. Probably less than if you walked out on the street and got hit by a car. But it's not "no risk." And that's where the CDC, I think,

has gotten into trouble, because they say "no" and they get called on that. But they are not doing that anymore. They are getting to the point of saying that the risk is so small as to be almost unmeasurable.

If you look at the kinetics of virus in a person, you start to get virus right about the time where you develop clear symptoms. But the viral level is so low that it needs multiple cycles of PCR to prove it's positive.

When you get into the symptomatic stage where you are vomiting, have diarrhea, and are prostrate and you can barely get out of bed, that's when the viral load is so high and healthcare workers get infected. So the data that it is really very, very unlikely to be transmissible at a time that the person is without symptoms, there's a lot of epidemiological data on that. And I gave a couple of examples of Duncan's family who was in the same apartment with him.

If you go back to the 1976 and the 1995 Kikwit epidemics in the Democratic Republic of the Congo, it was very clear that household members, the only ones who got infected were those who directly took care of the person; touched them, changed their clothes, took care of them. The people who were living in the house who did not have direct contact did not get infected. So there's an extraordinary amount of epidemiological observational data that you don't transmit unless you are not only symptomatic, but really symptomatic.

And that gets back to Spencer. Everybody knows Craig Spencer, who is now a patient at NYU. He said he felt a little achy, without a temperature. That's when he went bowling, went to a dinner, et cetera, et cetera. Even then, his viral load was likely so low that there would be no way he could transmit it. And as you are going to see in the people that he has called that are being followed, it's very unlikely any of them would get infected except possibly his fiancé, who would be in a high risk group. But people that he had dinner with and then bowled with,

there'd be virtually -- I wouldn't say no chance, but an extremely small chance that they would get infected.

DR. GUTMANN: Thank you. Jim Wagner.

DR. WAGNER: Actually, Dan covered my question. So I'm happy to yield the floor to someone else.

DR. GUTMANN: Stephen Hauser.

DR. HAUSER: Hi, Tony.

DR. FAUCI: Hi, Steve.

DR. HAUSER: You had mentioned that there was a declining number of new cases in Liberia. Could you expand on the trajectory and epidemiology of this outbreak, whether it has any surprises for us thus far based on what was known about the virus previously? Apart, of course, from the size of the outbreak.

DR. FAUCI: Well, it was not a surprise when you go back retrospectively, Steve, and look at it, that with the porous borders and the extraordinary dysfunctionality of the healthcare system, that for a while we had an exponential increase in cases, predictably in Liberia.

Right now we, the United States, have focused much of our efforts with the disaster-assisted relief team of USAID, the CDC, NIH's people and the Department of Defense have really had a major impact, particularly in Monrovia, in making the real number of cases go down. What we are concerned about is that in the outskirts, towards the borders in Liberia, we may see a second wave.

Simultaneous with the situation going down in Liberia, we are starting to see now a sharp rise of cases in Sierra Leone. That is likely because we are not putting as much resources, and Sierra Leone is sort of the purview of the U.K. as opposed to Liberia, which is the purview

of the United States. And that's the reason why now we probably need to start shifting some resources to Sierra Leone.

DR. GUTMANN: Tony, let me ask you, since you have such a wealth of knowledge and expertise on what we did well and not well with regard to the HIV/AIDS epidemic. This is beyond the quarantine now, I'm asking you to go. But since we have you, what are some, for you, of the most striking lessons that we should learn from what we did well and not so well with HIV for public health emergencies like Ebola moving -- as we move forward?

DR. FAUCI: Well, I have an observation but I don't know whether it's what we did so well or not so well. But I can't help but reflect in the very early years when I first got involved with HIV, literally a couple weeks after the first cases, we had a growing insidious horrible epidemic and very few people were paying attention to it. Here, we have two cases in the United States and we have essentially immobilized everybody, including the president of the United States, who told me personally he is spending more time on this than he is on ISIS. So it's really a very interesting dichotomy of effort and concern.

But the lesson learned is you've got to keep educating the public over and over again. I mean, the idea of the famous doorknob question: Can the bowling ball that Craig Spencer picked up transmit the infection to someone who used the bowling ball? I remember, on Ted Koppel's Nightline, arguing with someone that a gay waiter in Greenwich Village who has a cut on his hand and puts a plate in front of you and you have a cut in your hand and you pick up the plate, can you get HIV from it? And the answer is theoretically yes. Will you? Absolutely not. So it's that kind of education.

DR. GUTMANN: Thank you. And just speaking of that, we thank you for being out there on the airwaves and so on, because it is obviously taking a lot of your time, as well, in the

educational mission. And we joke here that I may have seen you more often than Christine in recent weeks. We won't delve into that. But Jim Wagner does have a question.

DR. WAGNER: Tony, thank you again for spending your time with us. Say a few words, since you mentioned the obsession with two patients infected in this country and all of this conversation about how it is we best protect ourselves, say something about the balance between defense and offense. If quarantine and isolation are defensive measures -- and it seems to me this is a bit different from HIV in that we have a furnace which is blazing with burning embers that are flying or potentially could fly around the planet. And yet I don't know that the American public is as concerned about that. Another way to ask the question is between our no, low, some, and high stratification of risk, what is the best way to get our entire nation in the lowest rungs of that stratification of risk? And how do we communicate that?

DR. FAUCI: Well, I mean, I would answer the question by saying you could absolutely get to the point of no risk whatsoever for anybody in the United States merely by turning off the epidemic in West Africa.

DR. WAGNER: Amen.

DR. FAUCI: And that's it. We just are looking in the wrong place. So next week I'm going to be testifying with Secretary Burwell and Tom Freeman about the President's request for \$6.188 billion to be able to essentially help put out that epidemic in West Africa. That's the offense in your defense/offense.

DR. WAGNER: Thank you, Tony.

DR. GUTMANN: Do you want to say something about a possible rider to that of a travel ban, and how to respond to that movement which is clearly not only afoot but running hard in this country?

DR. FAUCI: A travel ban is the easy way out. It doesn't -- I mean, we have clearly experienced that when you try and do travel bans, the people that are going to want to get here wind up getting here anyway through different means.

One of the problems with a travel ban is that one of the ways that you can suppress the epidemic in West Africa is by keeping West Africa economically, politically, and socially whole so that they don't collapse. And if we really essentially block all travel, they have a real hard time maintaining their own capability of suppressing the epidemic. Because if we ostracize them, other countries will follow very, very, very closely, and then we are going to wind up having a very difficult situation of economic and other issues there that are going to make it that much more difficult for them to do that.

So travel bans, you know, take a look at the data. So in the months of September and August, 36,000 people went to the airport in the West African countries to get out. Seventy-seven of them were not allowed to get on the plane because of health reasons. Of those 77, none had Ebola. Most had malaria. So there isn't a major influx of people who have Ebola trying to get into the United States. Quite frankly, Duncan was an unfortunate fluke. But there are not a lot of people who are trying to get into the United States who have Ebola. So I don't know what we are going to be accomplishing by a travel ban.

DR. GUTMANN: Thank you. One final question, Barbara Atkinson. And then I know you have to go, Tony. This will be the final question. Barbara.

DR. ATKINSON: I thought you might want to say something about influenza and vaccinations, just for the record, because I think there's a scare of vaccinations in the country, and that might be more important.

DR. FAUCI: Well, I actually think that's a great question. I try to insert it when I get

asked by others. Look at the numbers. Two people were infected with Ebola in our country. We don't have a vaccine. We don't have therapy. Anywhere from four to 30,000 people die each year from influenza; 200,000 get hospitalized, \$27 billion in economic cost. And we don't -- everybody who should get vaccinated doesn't get vaccinated. So this is probably a really good shout out for everybody who needs to, which is everybody over six months of age should get vaccinated with influenza vaccine.

DR. GUTMANN: Thank you very much. Our shout out is to you, and thank you for all you are doing and for what you have presented. And we may very well call on you again as we move forward with our report. Hear, hear.

DR. FAUCI: Okay. Happy to do it. Thank you. Good to be with you.