

CDC Ebola Response Oral History Project

The Reminiscences of

Pierre E. Rollin

David J. Sencer CDC Museum

Centers for Disease Control and Prevention

2016

Pierre E. Rollin

Interviewed by Samuel Robson
June 27th, 2016
Atlanta, Georgia
Interview 2 of 2

CDC Ebola Response Oral History Project

Q: This is Sam Robson, here today again with Dr. Pierre Rollin. This is June 27th, 2016, in the audio recording studio at CDC's [Centers for Disease Control and Prevention] Roybal Campus in Atlanta, Georgia. Thank you again, Dr. Rollin, for being here.

Rollin: Thank you for having me.

Q: Of course. I think today we'll really just be focusing—you know, last time we kind of did a more or less chronological account of your various experiences with viral hemorrhagic fevers in Africa, and today we'll really be focusing on the 2014 West African Ebola epidemic. Do you remember what you were doing immediately before getting the word about the epidemic and going to Guinea?

Rollin: No. I remember when I received the first call saying there is something suspicious going on and we got the sample, and it was from the Pasteur Institute in Lyon, and then also I got another call from Médecins Sans Frontières telling me we have something going on in Guinea. Then within two days I got an official email through the WHO [World Health Organization], I think, saying there is an outbreak of Ebola in Guinea that was confirmed the 21st of March, 2014.

Q: So what happens then?

Rollin: At that time I was acting branch chief because Stuart [T.] Nichol was somewhere. I don't remember where he was. So I decided I will certainly go to this outbreak because it was Guinea, and French speaker, and so I tried to round up people that will be able to come with me. We had this Epi Info database that we were trying to put in place, but it was all in English, so we decided to translate that very quickly, all the screens and all the questionnaires, and to have that quickly in French. So we had ten days to make it in French. I think even when we arrived there was still some misspelling and some mistakes here and there, but it was more or less in French. Then trying to get all the paperwork for the trip—so EOC [Emergency Operations Center] was not activated at that time, so we were doing the usual way to go to Africa, so you have to call the embassy or the DCM [deputy chief of mission], try to explain, unless you have a country office, which we didn't have at that time. I tried to organize that, tried to say I can come but I need an invitation. We cannot just land like that in Guinea, we need an invitation of the country.

And then, at that time—I'm trying to remember—I think Ray [R.] Arthur was involved here. Ray Arthur was making the coordination between CDC and WHO Geneva. So he contacted us, said, "There is an outbreak. I think you're aware of it. We can help if needed." He organized to have us deploy within the GOARN, the Global Outbreak [Alert and] Response Network. So when we arrived the first time, we were first trip—

Q: You said Rialto managed—

Rollin: Ray Arthur here.

Q: Oh, Ray, okay, gotcha. Sorry.

Rollin: Ray Arthur, yes. I think we arrived without a visa. We didn't have time to have a visa because to get the visa you have to have the invitation and the ticket, and you cannot have a ticket if you don't have the invitation, and if you don't have a travel order, and then that's all the vicious circle here to get the travel order. So we didn't have time to get the visa, so we arrived without a visa, but the embassy told us that they will be able to get us there and take care of that. We worked mostly with a person that was not the country office, but that was at CDC, therefore—[Marietou Satin], Marietou's initiative there. So she was the one that did all the help with that. So we got the letter saying "You will be received by someone at the airport, and [they will] help you to go through the customs and everything," and that was that.

The ten days was short to get everything ready and the team ready to go. In the team selected there were some French speakers, obviously, so from the branch we had Ilana [J.] Schafer that was involved in creating the VHF [viral hemorrhagic fever] Epi Info database. We had a guy that didn't speak a single word of French, and most of the time in Guinea during his trip he ate pizza and pizza and pizza and pizza and pizza, that was the computer guy that tweaked the software every night. So every morning we had a new

version of the software, looking at the bugs, at the change that we want to do, Eric. And then we had Craig Manning that was doing the health education and communication. He works in our branch, so we used to do that, and he speaks French. And the last person that came with us was Andrea [M.] McCollum from poxvirus. We worked with her before. She speaks French, and she was also very useful because of that.

Q: I've heard a bit about how there were initial difficulties in getting into Guinea. I don't know if you experienced any of that, with—I heard this in my interview with Dr. [Thomas R.] Frieden, where he talked about the regional WHO offices asking for paperwork for people from CDC, and Dr. Frieden—

Rollin: Oh yes, so that—

Q: —actually had to get involved.

Rollin: To get through the GOARN network, you have to be accepted by Geneva, and you have to have a medical exam, and there's a lot of paperwork to be done for that. It's useful to be through the GOARN, but it's also not very useful. Financially, it's very rewarding. We have to sign a contract, and we will pay—but we never touch it—in one dollar for the trip. We can have it in different installments if we want. So I asked for that, and I asked to have a copy of the contract because I want to frame it with a one dollar bill [laughs]. But at the end, it's just paperwork. We still had to wait anyway for the official invitation and everything. So it just added another layer of things but didn't really delay

anything in the trip. So when we arrived, the embassy chose a hotel for us that was very close to the WHO, so we can walk in. And we started to work with the WHO. We made our office in WHO and started to work there.

Q: So how did things proceed?

Rollin: So it worked fine. The main thing was to try to collect data. At that time there were a few cases in Conakry. There was a treatment center in Conakry run by MSF [Médecins Sans Frontières], and then there were more cases, much more than we thought, but there were more cases in the Guinée forestière. So Andrea went to the Guinée forestière. Ilana worked with the people in Conakry. We tried to go every day to the ETU to collect some clinical information and some forms and help to complete the gap. I think the next day we met the ambassador that invited us for breakfast, a working breakfast, at the residence. Then he told us what he knew, and we told what we knew, and we started—the cooperation with the embassy started very quickly at that time. It was Alex [Alexander M.] Laskaris, the ambassador at that time. He was really fantastic, the best person I ever met, because he knew everybody, had his access to everybody, and I think we worked the best. He provided us the politics and we provided him the science. He opened all the doors for us. So he organized very quickly a meeting with the Ministry of [Public] Health [and Hygiene], the president, Alpha Condé, and he really put himself—said, “I’m doing the politics, but if you have any question on Ebola you ask this guy.” It was really set up such a way that we were able to work very easily with everybody, knowing that we were “covered,” quote-unquote, by the ambassador. Then, during this

trip and the other trip, when we had any questions, he said, “Let me know what I can do.” Then he organized trips with helicopters to go in one place or the other with the grand imam, with the bishop, with the minister of health, with the coordinator, Sakoba [Keita], and everything was really organized by him that way, and it was really fantastic. He organized a meeting at the MSF center. MSF had some trouble with the Ministry of Health because it was not very well accepted. I don’t know why. They went up and down between the Guinea president and MSF. But he organized a meeting where you have the grand imam, the bishop, the minister of health, at the MSF treatment center. We had pictures, and there was film, with the sign MSF on the back, the people from MSF explaining everything.

MSF was easy for me at that time because I knew the leader from the treatment center. I met him before in Uganda and everything, so the connection was very easy with him. In fact, I realized there was no contact tracing organized, or well organized, and the contact tracers were not paid. I had no funds to do it, but by talking to MSF, they said, we have some funds. We can give you money. We don’t want to be quoted because we don’t want people to come and ask us for money all the time. So I was going there with a duffel bag, and I got cash, and I paid every day the supervisor of the contact tracers and organized that every day.

The VHF system was starting. There was only one computer at a time, so there was data that we cannot enter. Only one person can enter at a time. So the people from WHO and the Ministry of Health were entering that data during the day, and at night we were

correcting the data, entering some other data concerning the contact tracing, and so it would be ready for the next morning, and the next morning we would give them the new version. It was working. We used to work a shift during the day with the Ministry of Health and WHO, and a shift at night at the hotel, entering data and to do all of that. There was also another person speaking French with us. I'm blanking on the name [Meredith Dixon].

Q: That's okay.

Rollin: It will come back in five minutes.

Q: We'll put it in the transcript, but what did they do?

Rollin: Yes, helping us also for the follow-up of the contacts and collecting the data and organizing the data. The WHO office was small, but it was completely reorganized to help us to enter the data, and they were starting to have meetings. One thing that was of use is there was no real health communication, neither to the healthcare workers nor to the general population. So, organized by both the US Embassy and Craig Manning with me, we started to go to the radio and appear in the talk show, making communications. So the ambassador was talking, and then I was talking, and then doing all of that. I also offered to the embassy to make a talk for all the expats there, to explain what was Ebola, what they have to fear, because they had a lot of questions. So I did that first, and then I did it a second time in French for the workers on the embassy [who were] not US

citizens, for the drivers, the cleaners. Craig Manning recorded me at that time with a small digital camera, and then he created a small movie with that, and it was provided to the airport, on the TV [television] on the internal circuit, and it's still going on. It's not very good because it was really created—not filmed in the right conditions, and created overnight in a hotel room, but it was there, and it's still going on. We should have changed it because they cut even the sound, so it's only the picture, and you can read a little bit in French of the presentation on the back. Could have been much better, but nobody did it, and it's still there.

Q: What were you sharing in those segments?

Rollin: How you get infected, how you protect yourself, what's the risk, what's the population at risk, what you should do to avoid it. The person coming with us was Meredith [G.] Dixon. She was an EIS [Epidemic Intelligence Service] officer at that time, and she helped us also with the epi [epidemiology].

Q: Are there any other talks that you remember especially giving?

Rollin: Yes, then I gave also a talk with someone from Pasteur Institute in Lyon about Ebola to the French community, then another one that I gave to—it was a small one—to the personnel of the British Embassy. Also, I started to be in the circuit and doing talks like that. I gave one, but that was in the second rotation. I gave two big ones that were interesting, one that was at the mosque, at the big mosque. It was just before the

Ramadan, so the grand imam had the imams from all the country that were there, so I presented something on Ebola and talked to them on Ebola with that. There was also an interesting one at the university for physicians and healthcare workers where there were several hundred people, and asking a lot of questions, even some I remember. Someone that certainly was eating monkey meat but didn't want to say it, but he was asking a question of how to prepare them, [laughs] how you do to be safe. I'm sure because he was eating some, but—that was a lot of questions at that time. That was during the second tour, and I started that to give a talk for the responders, for the people from the WHO, because also I realized that a lot of people were experts, supposedly, but didn't know anything about it and had their own ideas. So I started to do an Ebola 101 for the responders, and after that I did it in Mali, I did it in Uganda, I did it in different places.

Q: What were some common misconceptions?

Rollin: What the reservoir [was], [how] you get infected, the duration of incubation, how you make a diagnostic. It's really what are the main signs and symptoms. Not everybody had the same ideas, so then they end up being not very confident in the response or answers to questions that they had, and then they start to drift in different directions. I don't think that was good because then people were hearing different responses to the same questions, and that didn't make them very confident in what we were saying. The responders for Ebola at that time of WHO were okay. There was not yet the involvement of WHO AFRO [African Regional Office]. During the first rotation after that, WHO AFRO came, and that didn't work very well, but that was another point.

Q: During your second deployment, that's when WHO AFRO—

Rollin: Yes, so they decide—the second deployment was in June, July 2014, so that's where really Ebola exploded more or less in the three countries. So there was this sentiment of emergency. By that time, EOC was activated. WHO had declared [a public health emergency of] international concern for Ebola. So they were small people, but WHO AFRO decided, because it's in Africa, that they will take the lead, so they decided to create a hub in Conakry. They didn't have a lot of people that know really how to respond, but they arrived and they decided to push everybody to reorganize completely the WHO office and to put people in charge. Then they pushed CDC on the side at that time.

Q: This was in June, during your second appointment?

Rollin: I think it was in June, yes.

Q: And when you said WHO AFRO, is that the WHO representing the entire region or continent?

Rollin: WHO is organized as WHO Geneva, the main headquarters, and then there are five regions in the world. For all Central and West Africa, it's WHO AFRO in charge as the director. They're based in Brazzaville, in Congo, Brazzaville, and they've taken

charge. Like for the Americas, it is PAHO, Pan-American Health Organization. So there has always been some tension between WHO Geneva and WHO AFRO, everybody putting the blame on the other, mostly Geneva saying AFRO don't have a lot of competent people, which is true, but also Geneva wanting to keep the control because saying that you respond to an Ebola outbreak is good for the funding, is good for public relations. They prefer to have that in Geneva [rather than] leaving other people doing it. So there's always been that tension. Then at the country level you have a director, a representative of WHO in every country. This one is usually nominated by WHO AFRO. And it's true that you have, at that level, very valuable people. You have very competent people that are well aware of what's going on and good in politics with the Ministry of Health and everything, and you have some people that are there because they genetically are related to someone in the ministry, other ministry, and they're being bombarded as country director, and they're not very good.

The one in Guinea had a hard time to start, that he never had been involved before in an Ebola outbreak. So he had a hard time. But in my first trip I thought he was not very good, but when I came for the second trip I thought that he had improved a lot and really started to understand how to do it, and being more organized, and he was much better. But then he was pushed aside by all the teams that came from Brazzaville.

Q: Do you have a sense of why they decided to reorganize everything and kind of take control?

Rollin: I think it's the same thing that CDC activates EOC: it's to be better in control of the things, and to have some mechanism where you bring whatever you need, and also for political reasons, like everybody else, to show that they were doing something, because everybody starts to accuse them of not doing anything.

Q: Right. And you mentioned that in this kind of reorganization process that CDC got a bit sidelined. How did that kind of manifest?

Rollin: When AFRO arrived, they decided they were in charge and tried to push us and say, we have this new person [who is] going to be doing that and doing this and doing that. And starting already to say, the Epi Info VHF doesn't work very well so we're going to start a new database, we're going to start a new system, and brought some people that knew how to do a database but didn't have anything ready, so they had to go through the same process. So I complained and said we should not be there. I went to the country director of WHO and I complained. And he said, "Welcome to the club. Everybody's the same. I'm pushed also on the side." So I went to tell them and say that CDC was there from the beginning, we like to work with everybody but we don't like to be put on the side, and they said they didn't care. So now I responded the way I needed to respond; I said, "Do whatever you want." I talked to the US ambassador, and I said, "I need to talk to the president about that."

On that day there was a lot of traffic. Traffic is always bad in Conakry. I arrived and the ambassador was not there, so I was just one-on-one with the president. So I explained

what's going on and said, "I don't want CDC to be sidetracked and put on the"—in French we say the *strapontin*. When you used to go to the movie theater, you have seat, seat, seat, seat, and at the end you have folding seats to get extra things on each side. So I said, "I don't want to be on that folding thing, I want to be on the table." He said, "That's perfect, and I will tell that." And that night Dr. [Luis G.] Sambo, who was the director at that time of WHO AFRO, arrived at the airport, and I think the president went to greet him at the airport and told him straight, "What's going on with CDC? I want CDC on the table." He blasted him a little bit about that. The next day, when I arrived to WHO, everybody was saying, "What happened? What did you do?" [laughter] We got [unclear]. I said, "You told me I can do whatever I want. I did it. Welcome." And then by that time it was CDC at every sentence: "CDC will help us to do that." We were going to work together. It was back again a big, happy family.

Q: Was the VHF database then continued to be used?

Rollin: They continued to work with it, and it still had problems, so we made some improvements so several people can work together on the same database. It was never completely perfect but it was good enough. And then the problem was the size of the outbreak where we used to have smaller outbreaks, so each case report from every patient had two pages, and people were not filling the fields, so they said the system doesn't work. It doesn't work if you don't put data in, that's obvious, but if you put data in—so after that, they reduced the case report form and any works. But in Guinea, they used it during the complete outbreak. That was the problem with the Epi Info here. They didn't

have enough people to follow and improve at the same time that thousands and thousands of data was coming in. Making the change was quite difficult.

Q: I've heard that one of the difficulties is that it generated a lot of paperwork, and that sometimes that could get really confusing.

Rollin: Yes, but the main problem I see with it, which is not politically correct, is that you can run an outbreak with a very small case report form, half a page, but then if someone from EOC want to run a model or present something comparing the duration of incubation and the phase of the moon and the age of the grandfather and the age of the doctor, make a nice model with that, it doesn't work because you don't have the data. There is this conflict between what you need for responding and what you need for internal use and politics, and that doesn't work together very well. So that's not resolved, and there is a lot of question that—the problem is there is no other system. So people say you can use [Microsoft] Excel spreadsheet. Well, Excel spreadsheet is the same thing: only one person can enter at a time, and then it's very easy to screw up the complete spreadsheet by someone sorting but not putting back and saving and replacing. So there is no real problem, especially when you have so many cases. So we run previous outbreak with spreadsheet, and, in fact, having this full outbreak in 2012 with spreadsheet that pushed us to switch to VHF because we thought it will be better. Well, it was not completely ready for the outbreak. There is some caveat. But I think it's still the best thing. But people have to fill the form. If you don't fill the form, you cannot make graphs with the data. You have no data. So that's still there, and it's still being used in some of

the three countries for that. We're going to try to make improvements as soon as we catch up with all the backlog, improvements for the next outbreak.

Q: Right. I had a couple questions on the tip of my tongue. Let me try and retrieve them for a second. [laughs] Sorry. Oh, okay, I remember. What I was going to ask: I've heard, speaking with Martin Meltzer, the modeler here at CDC, about people—you know, when a response happens, there's a need for information and a push to share information with the public. And one thing he described is often getting the question, "How many people are going to die?" Is that kind of pressure something that you saw with the database?

Rollin: Not in the field. You have this pressure—

Q: Not in the field?

Rollin: —here, or in Washington, or in HHS [US Department of Health and Human Services], or maybe in the US with the press coming up, but in the field you don't have that kind. Yes, say, "How many are going to die," but nobody knows how many people are going to die. My view of the model, which Martin will not like anyway, but I told him also, that if the modeler was so good they would all be millionaires or billionaires because they will play in the horse race and they will win all the time, and that's not the case. So the model is valid for a model. I personally don't trust, don't believe the model that he put in place, because I think going to 1.4 [million] cases is something that will never happen. It will be riot and stopped before that. Dr. Frieden will say, "But the

models say that if you intervene early you're going to go down," but in my view you start on false assumptions, which have a value, because that's how CDC got the money. That's how everybody got involved, because you cry wolf. But I don't think it's based on real things. It's just based on, what if I got the six numbers and I got the \$330,000,000 of the big game that is on the board? Yes, it will happen maybe one time, but how many million times it will never happen? So it's just—it's a nice exercise. Now, if you want to go from that to real things, it's a little bit different.

Q: I hear that. One thing that you've said, you know, if people are not putting the data in that you don't get anything. Were there issues with data collection early on?

Rollin: There's always issues with data collection, plus issues with data management and correction. If you recall on the paper, or you recall on the computer, you can make mistake. So on VHF there was some routine that allowed you not to enter data so the date of deaths cannot be before the date of onset, things like that, but there were not all the controls. But there is some data that still needed to be verified for validity of the data, and the main issue could be the way the US record months and day compared to the real world, where it's day, month, and year. So when you arrive on the fourth of March, and the fifth of March, it could be the fourth of June instead of the sixth of April and things like that. So there is a mistake like that that can be done.

There is also some of the data missing where, for example, the outcome of the patient—the patient died or survived, and if he survived, when he was discharged from the

hospital. But usually the form is collected at the beginning and goes back, and nobody goes back with that form to the treatment center and says, “This guy, what happened to him?” If you don’t do that, you end up with a lot of people for which you don’t know what the outcome is, or you don’t know how long they stay in the hospital, because you don’t have this data. So in Guinea, during the first trip and during my second trip, I had people going every day to the treatment center in Conakry to collect this data, and also to exchange data. The people in the treatment center, they’re doing that all day long. They have really very little contact with the outside. So it’s good to share what’s going on outside, and they share what’s going on inside, and then you have a better connection with the team. In order to do that—but you have to be on the job and not saying, “Okay, it’s collected, I don’t have to worry about it.”

Q: Right, that makes sense. I heard a rumor that at some point there were people that didn’t want to be at the computer late at night plugging in data, and that you yourself, Dr. Rollin, would stay up quite late inputting data into VHF during this outbreak. Is that right?

Rollin: That’s right. When I was there, I didn’t have any people not wanting to do that because I’m doing that also. I don’t have a problem and I can have short nights. I don’t have a problem with that. So I’m quite sure that happened, but not when I was there. I do that. But I enter a lot of data. I know how the system works, and I did a lot of work with VHF at the beginning, entering data, doing some of the first sitreps [situation reports] that were produced at that time were with VHF and doing that. So I did it a lot. I spent a lot of

nights doing it, yes. Other people, maybe they didn't want to do it after the fact, but not when I was there.

Q: No, I can see how that would make sense, because you know the system, and so you can probably do it much faster than somebody who doesn't.

Rollin: Yes, I can do it faster, but also I think when you're the team lead you're supposed to lead, so you're supposed to show how things work, you're supposed to be there, and being there. So I always did that in my life, so I keep doing it, and I like to do it. Now, if people don't want to enter at night, in my view they can take the plane back home and stay home.

Q: Yes. I'm going to switch tracks just a little bit. When we were talking about Bundibugyo, you mentioned that the CDC relationship with MSF got a little strained. Is that something that you had to work on repairing during this epidemic, or—

Rollin: No, we did that, and during Bundibugyo it was mostly the fact of one or two persons from CDC and one or two persons from MSF. At the same time, with the same one or two persons of MSF I had no problem in frequent communication, and not that. But CDC got these black eyes by having this bad relation. MSF is not the easiest group to work with because they're strong, they know what they're doing, and they really don't care about the other. They also don't like government in general, and the US government maybe in particular. And to help them, like I say, we just bombed the hospital, so that

made the relation better. They don't like government, so they like to work in their way, but they're very nice to work with if you don't try to direct them. If you work with, that's fine.

Q: Do you have any other memories that you'd like to share about your time, your first two deployments in Guinea?

Rollin: No. Obviously, the second was more difficult than the first one, because the first one we arrived, we put in place a system, we had the impression that it works, so when I left and it was Jim [James A.] Zingeser that was a team lead at that time, and Mike [Michael H.] Kinzer I think maybe. Yes, Mike Kinzer also was there. It seemed that it was nearly finished. So it finished nicely. It was not finished, but it had the impression that it finished nicely. Then it restarted, and the second time it was more difficult, and then we started to have an idea of the reticence in the Guinée forestière, why it was so difficult. Then we had WHO, and then we start to have—I think the EOC was starting to be there. I don't remember exactly when the EOC was activated the first time.

Q: In Atlanta or in Guinea?

Rollin: Yes, in Atlanta.

Q: In Atlanta it was, I think, not level one but activated in July, early July, like July 9th or something like that maybe, and then level one on August 6th, something like that.

Rollin: There were obviously more questions from the outside, so it's always nice if they can let you work your job there and not having that many conference calls and talks to fulfill the politics. I understand it's necessary, but it's taking a lot of time. Now, I think the second time—I have to look in my data, and I will send you this data. But I got a phone call from Guinea telling me—and that was certainly through the ambassador—that the president wanted to talk to me, and he wanted to have some affirmation. So I got his secretary first, and then it was counsel, and the next day I got the president asking me what he should do. I tried to explain the different steps that we have to do for responding to an outbreak, and he got lost, so he said, “Put that on paper.” So I worked overnight, and the next morning I sent him a document, and that was very well— so he followed, more or less, the things that we say, and it was very good for Dr. Sakoba there because Sakoba started to be attacked by other members of the government, saying that he was not doing the right things, and what he was promoting—and I didn't talk to him at that time—was exactly what I was saying in the document. So that gave him a boost, and he was always very nice with me since that, because I saved him by saying the same thing that he was saying.

Q: Can you describe more about your relationship with Dr. Sakoba, and any moments you might remember?

Rollin: Sakoba is very nice. I don't know how he can be still alive after all these outbreaks, because he's been on the deck since the beginning of the outbreak. He was

director of the surveillance before, and so he had contact with all the prefectures that called him. And there is no real surveillance organized, except if someone has something, has a phone number of Dr. Sakoba day or night and call him all the time. He had a network of people calling him, but not calling someone else, calling him all the time. He's always being there, and always having these calls and these things from everywhere. In addition, so he had the outbreak that is starting to explode in the country. In addition, he had the president that called him day or night, and you cannot put the president on hold. You have to tell him exactly what you think and what you want to do at that time. So just a lot of pressure. And his health is not that good, but he's still there, and he's still ongoing. So I really admire him.

The other thing with him: on stage he's fantastic. He can say jokes. He knows everybody. He knows the trick of everybody. He knows the bad side and the good side of everybody. So with journalists, when he's in good shape, he's really fantastic. Every Saturday we had a press conference that was organized at the maison de la presse, and on that press conference there was always Dr. Sakoba, the minister of health, the minister of communication, then the MSF representative and a WHO representative and a CDC representative. So we're all online, and then we have journalists asking questions that are sometimes tricky, sometimes clearly completely wrong, but you have to do that. He's fantastic at shutting down some stupid questions, and having all the rest of the room—it's really very, very good, and very strong. I hope that we're not going to let him fall when everything is over, that we'll still be around and support him.

Q: Absolutely. In between a couple of your times in Guinea, you're in Ghana for some meetings. Can you describe what was going on there?

Rollin: There is a group of public health organizations that are under the African Union political group. They have a section that is health. So there is a group like that. They organize meetings with mostly the ministry of health and the secretary of health of every African country. And they tried to put something in place, but they badly organized it, but they want to be aware. So I was invited to that meeting, and also, same thing, the first session I realized that all of the ministers there, nobody had a clue about Ebola, nobody knows anything. Then it was really valuable. Again, I proposed to say, I can make a presentation in French or in English on Ebola 101, and we can restart. And it works well, also, and we're very happy to have that.

So I went to that meeting. And Ghana, I'd always been interested because they do a lot of glass beads, and I'm collecting glass beads, so I thought it was a good way to get some glass beads. [laughter] And I came back with a lot of them, but that's fine. But I didn't have time to go to the place where they make them. Next time.

Q: I'm not surprised to learn that, after we talked last time about your collection.

Rollin: Collection. So it was nice. And I did also a presentation when I went to Ghana at the US Embassy for a few locals. There were very few people because they thought they

were far away, and they were not worried about it, and it started to be the vacation time, so a lot of people were back home. But I did a presentation also at the embassy there.

Q: And shortly thereafter—let's see—it looks like you spent most of your month of September in Liberia.

Rollin: In Liberia, yes.

Q: Can you take me through that time?

Rollin: Liberia started to be bad at that time, during the summer, with a number of cases going up there. I was in Liberia with Frank [J.] Mahoney that was there, that I didn't know before, and I really liked to be with him. He's really down to earth, and very good. Then when both of us arrived, we saw that the relations between CDC and WHO were not at their best. WHO, again, the local director was a guy that I knew from a long time that was a bit too old to respond to that type of outbreak, so he was moved away, and there was someone that came, Peter [J.] Graaff, that was coming from more the emergency side of WHO, not really the infectious disease. Peter Graaff is very nice and we had very good contact between Frank Mahoney and that. So we tried to organize that and see what could be done, and then we had several people from CDC deploy in different areas, try to reorganize that.

Just when I arrived, the first person that was at ELWA 2 [Eternal Love Winning Africa Hospital's second Ebola unit] at that time, MSF, was the same guy that was at Conakry, so directly I had a very good connection with MSF, and he works fine. The lab was run at that time by two people, one from CDC, but mostly NIH [National Institutes of Health], and it was Heinz [U.] Feldmann that is the director of the NIH lab in Montana that I know from—he came twice here for a long period of time at CDC, and I knew him for a long, long time. So I had a very good connection with him. The main thing was to try to organize or participate a little bit to the organization of the burial team and the burning at that time of bodies close to the airport, and discuss with them. But most of the things was the discussion with WHO, and tried to organize regular meetings, and not having WHO on one side and CDC on the other side. I think it worked well at the end. Everybody was more working together. That was fine.

That was the time, also, when the US Army arrived there. The first deployers were a group where you had physicians and logisticians, and it was headed by two-star General [Darryl] Williams that was there, and they were at the embassy there. I worked with them to explain what to do, and I made another presentation for them and a presentation for the US ambassador, and then had a special presentation, just the general, the chief medical military guy, just to discuss what should be done and how it could be done and how they can help and everything. I remember making a joke about the general, saying he was a chicken because he was afraid to carry Ebola specimens in a helicopter. I said, "You're going to go to war and a box scares you." We had a lot of problems. They didn't want to

carry specimens, and so we said? You're just a chicken. A big guy like you?" But he was very nice.

Q: How did he react to the joke?

Rollin: Oh, he liked it. He liked it. He was a nice guy.

Q: That's good.

Rollin: I'm sure he's still a nice guy, [laughter] but that was good. One thing I deplored at Liberia is knowing the relation that we had in Guinea directly between CDC and the minister of health and the president. We didn't have that in Liberia. There was some connection with a minister time to time, but it was well planified, organized. It was not at will, like we used to have. And, at least when I was there, there was no meeting with the president. Everything went through the ambassador. It was Ambassador [Deborah R.] Malac at that time. She's now in Uganda. That was keeping things a bit closer. I think we could have certainly proposed other things—I don't know if that would have helped—directly if we had access, but we didn't.

Q: Can we talk more, in more detail, about your suggestions for the burial teams?

Rollin: Yes, so when it started to have this burning the bodies, that was a mess, unacceptable for the population. So I suggested to her and I sent her an email that maybe

what we should do—and there is also a problem. In Monrovia, where most of the people live, it's very low, so you have water coming up, so even in places where they buried people, it's difficult to bury people because you have the water just there. So I said, you should do like we have in Normandy, or in the US: create this big cemetery where you put the cross, or stelles if it's not a cross, in line. You can see it from everywhere, and that will serve as a memorial for the population. During the outbreak it will help to take care of all these bodies, then after they can go to that place, and that's wherever it was hospitalized from, the family. But it didn't get any traction. I don't know if she offered that to the president and the president said no, or she said no. I don't know. I never heard anything about it after that. I think it was really bad.

Q: When you say “her,” you do mean Ambassador Malac?

Rollin: Yes. Besides that, I was not really—so that started to be, again, politically correct. Not very impressed by the team deployed there at that time. Either the young or the team lead. I think the team leads were not really connecting with other groups, they were CDC for CDC. Then the younger people didn't seem very interested, except, what can I write? I need to do an MMWR [Morbidity and Mortality Weekly Report] because it's this, I need to do this, more than responding. At least, the first team when I arrived, there was a lot of change when I was there, so the new team after that was much better, but the first team was not really good in responding, and that's my view. That's my story and I stick to it.

Q: No, of course. And we will, of course, edit some of this before it comes out, but I want to ask—

Rollin: I'm not shy to say it, because I think it didn't work well, but—

Q: And given that, I think that's really useful to have some of this down so that, you know, CDC can learn from its history. Would you mind—who was the team lead at that time?

Rollin: The team lead was Jordan [W.] Tappero and Athalia [S.] Christie, and I knew Jordan because he was a country director in Uganda when we had the outbreak, but he was—and maybe the credit I can say, there was a strong pressure from Atlanta at that time to be more responsive. Or to do whatever. But I thought both of them had very little contact with the rest. It was not a coordinated response. It was WHO are doing their things, CDC was doing their things, MSF were doing their things, but there was no connection. And we tried to restart. I told them that in Guinea, one thing we did, usually we had this Saturday press conference, but after that we had a meeting where just four people—there was WHO country office, Dr. Sakoba, the head of MSF, and the head of CDC at that time, just to discuss between us some big orientation, big things what the others were planning to do, just to organize. And with Frank, we started to do that with WHO, tried to have a non-official side meeting where we tried to understand who was doing what at that time. That was not something done before, and I don't know if that happened after that, because at one time the plan for me was to go back to Liberia, but to

be the safety person for the MMU [Monrovia Medical Unit] for the Commissioned Corps lab, but two or three days before I was hijacked—

Q: Wait, what did you have to do?

Rollin: —to go to Mali.

Q: Oh, to go to Mali, gotcha. Did you ever meet with President [Ellen] Johnson Sirleaf?

Rollin: No.

Q: No?

Rollin: No, no. That was not something—

Q: Didn't have the access.

Rollin: No, we didn't have the access. The ambassador has connection with that, but not me. I think Frank stayed much longer there, so I think he had contact one or two times, but very rarely, when in Guinea at least I had—for every tour, I had two or three times with the president.

Q: Didn't you also make some suggestions regarding burial in Guinea? Or was it only in Liberia you were focused?

Rollin: No, it was only in Liberia. Guinea, we never had the same problem of number that Monrovia had. I made some suggestions with the way the body wash was done, tried to get more—so I had several contacts in Guinea with the grand imam of Conakry, but also with the mufti. The mufti is the person who decides to see if—it's like the Supreme Court—if the interpretation of the Quran is correct. So we had the problem during the second trip that the Ramadan was coming in, so during Ramadan, Muslims cannot drink or eat during the day, just at night but not during the day. And there were a lot of Muslim healthcare workers at the treatment center, and they cannot survive without drinking. So I want to have a blessing from the imam saying, okay, because of the role—because I know that in Islam, if you're a traveler, pregnant woman, if you're sick, you can have dispensation. And at that time they said, okay, you're not doing it, but either you're paying a tax, a penalty or whatever, or you're moving, you stay an extra week during Ramadan, when it's over, just to catch up whatever the number of days that you have done. So I knew there were that, and I want to have that in writing so the workers from MSF can do it and not being blamed by others, saying, "You're a bad Muslim, you're not respecting that." And so I didn't succeed for that Ramadan to get the right document in writing, but I know that for the following one they had a letter saying "I'm allowed to do that," signed by—so that allowed me to discuss with Muslim administration of Conakry to try to change that, and then asking them if you wash the body with bleach, is that okay or not okay? And it's okay, so they can do that. So trying to reduce the risk for people

washing the body because we can say you should not, but they will do it anyway, so you have to have another solution.

Q: Do you have some sense of whether those conversations impacted the response?

Rollin: Impacted a little bit maybe in the way people were thinking, because the people, either the grand imam or the people from the Muslim hierarchy at the mosque, were passing messages on the Friday prayer and saying, okay, you can do that, or you cannot do that, it's bad. So that has certainly an impact on the response. And I think, like I certainly said last time, my theory in Guinea that they had less cases and less transmission is because of the Muslims and the way they handled bodies and the way they responded, and I think that has an impact.

Q: Thank you. We should also move to the domestic sphere at some point here. After Liberia, you get called to Texas, right?

Rollin: Then Texas happened. When I left Liberia, I discovered that after journalists told me, I was in the same plane that Mr. [Thomas Eric] Duncan, the guy that went to Texas and developed his disease there. I was not seated by him, as far as I know. We were tested three times for the temperature before taking off, so he was not sick at that time.

Q: You took the same flight at the same time as Mr. Duncan?

Rollin: Yes, in the same plane.

Q: Wow.

Rollin: But it was just—I didn't recall it, but I had an interview with a Canadian journalist in the afternoon—I was leaving at night and said, "I'm leaving tonight," and then that journalist called me after the Dallas story and said, "You left on that day?" I said, "Yes." "So you left with Mr. Duncan." I said, "I don't know it, but if you say so." So I was in the same flight.

Q: And you were probably on your way back to Atlanta, and he was on his way to—

Rollin: On the way to Texas. So I was, I think, in the same flight to I think it was Amsterdam, it was KLM [Royal Dutch Airlines], yes, to Amsterdam, and then I went to Atlanta and he went to Dallas.

Q: Gotcha. So how do you get involved in Dallas?

Rollin: So, Dallas, the first time I was involved was—so EOC, there was that rumor, oh, there's something going on in Dallas, there is someone sick, and then we got the specimen here, we confirmed was positive. So there was a conference call at EOC, and there were a lot of people from hospital infection that were around, and they say, "We have a conference call. We're going to go in the small room." So I went with them in the

small room. I followed them. I remember there were not enough seats, so I sat on the floor, against the wall, like I do usually. They were talking and at one time I wanted to ask a question and the one at the phone looked at me and said, “Later on.” Didn’t say anything, but made me understand that I have to leave the big boy talking, and I can ask a question at the end. Okay, sure. And then the same person at the end of the—so they were talking, and there were a bunch of experts. None of them have ever seen an Ebola case or been deployed, but they knew everything. They’re from CDC. So they’re talking, and at the end the person that told me to stay on my side looked at me and said, “Who are you?” So I said, “I’m Pierre Rollin from VSP [Viral Special Pathogens Branch].” “Do you have any questions? Do you have any questions?” [laughter] “No, I don’t have any questions. I think you answered everything. This is perfect.” And they went—and the first team went there. Then, whenever, ten days later, there was the nurse that was infected. Then I was told, you’re going straight. So I went with Mary [J.W.] Choi. She was in EIS at that time. She was in Guinea at one time. Who else? It was else—communication was Dave Daigle, and then we met some other people from NIOSH [National Institute for Occupational Safety and Health] there.

I arrived at the hospital, find the hospital quite deserted. It’s a nice hospital. There were very few people there. At that time, the index case had died, and the nurse had been moved from the emergency place to another place. In the emergency, there were still some suspected cases. Or maybe the first night. So I arrived, let’s say two o’clock in the afternoon, and I went to the emergency, and I started to talk to the people, and I think maybe one nurse was still there before being moved to the other ICU [intensive care unit]

that they created. I started to talk to the nurses and said, “Do you have any questions?” They had plenty of questions, and I stayed around. I think I went to bed, it was two o’clock in the morning. I stayed all the afternoon, all the night, more or less, with them, and asking questions, and helping them to dress, undress, and talking to them. Then they said there’s other people that have questions, so I went to the rest of the emergency group and I talk about Ebola, how you get infected and all the stories. So it went well. The next day there was the rest of the CDC team that were mostly involved in contact tracing, for all the nurses that were there. So we said, well, we have to be sure that all the nurses are protected. Because I realized when I stayed the first night that they didn’t really know what to do, and they were not really trained or supervised or anything. So we had to do better.

I think maybe Mary Choi arrived the next day, and we designed however they can dress, and then we went to the place where the first nurse was and we decided that they were not really supervised to do anything properly. They were trying their best but they had nothing. So we went inside the ward, dressed and went inside the ward to see what was done, what could be done. And then we say, we’re going to change everything. We changed the way—because they were entering and getting out from the same place. We’re going to change this, we’re going to change that, and we’re going to do that. I started to stay, so there was always someone inside from CDC. So it was myself, Mary Choi, and then other people from NIOSH that were there, but I spent quite a lot of time. I beat my record of not getting out, staying dressed, without even going to the bathroom for twenty hours, and staying there. So we changed that.

I had a very good connection, and we had, all the group, a very good connection with all the nurses that were there. Because I had a lot of questions. They had nobody to answer the questions. So I'd be there asking questions, and when we were staying inside we were helping them to clean the floor, to disinfect, what to do if you do this, what you do that, and then when someone was getting out, so we put a script and say, you wash your gloves. So there was no possibility of diverging and doing something wrong. You wash your gloves, then you remove your apron, then you wash your gloves, then you do this, then you wash your gloves. They were following a strict script, and before they were going in there was also one of us on the outside doing the same thing for dressing people, so be sure that they don and doff properly for that. Then we had a good connection with the safety group at the hospital, and we found for the trash that they were stocking the trash in one of the rooms, all the waste, and it was not well done and had difficulties. We discussed with the safety group from the hospital, and we created an extra room with plastic covers, with zippers and everything, to put all the trash containers, and then tried to reorganize that. So I spent most of the first week—

So then the second nurse arrived—there were two nurses—and we stayed there until the two nurses were medevacked. I think that was very hard because the nurses at the beginning felt that they were not supported, not advised properly, and then they were accused by everybody of not doing their job, and that's why they were infected. And then when the two sick nurses started to be better, the hospital pulled the plug and then medevacked the two patients. The two patients were already on the right convalescent

track, and they were moved away. The nurses had the feeling that they were, again, blasted, said, you cannot do your job, we're going to remove the two. And when they get well and they were discharged from Emory [University Hospital] or Bethesda, Emory and Bethesda got the credit, not there. And I say as a joke that when the one that went to NIH, Dr. [Anthony S.] Fauci, just laid his hand on her and she survived—well, she was already getting better and she would have survived. But it's because he was there and the impact of his hand did the job. So it was very bad for the nurses there.

We had a fantastic relationship at the end, so everybody was watching somebody getting out, so I was the last one to come out when everything was clean and before the final disinfection. Everybody came out, and I watched the last one and did the screen for the last one, and I was the last one to get out, with nobody watching me, but I think I know how to do it. So I came out that way. And then there were some—so we wore the proper positive pressure mask, so it's a shield with a mask around, and at the end there were two nurses that had "I Heart Pierre" on the thing. [laughter] We had fun because when you have nothing to do during the night, and you have your two patients that are sleeping because they're getting better, so I think the only thing I need to do and I don't know how to do yet, I need to learn how to do the moonwalk just to make people laugh in the intensive care with the patients. I still need to learn that for the next outbreak. It will work fine. [laughter]

But we had a good connection. We didn't have such a good connection with the physician side of the hospital, first of all because I thought they were never there. They

didn't show up. They were doing by phone. And it was not very nice. So then, when the two patients were out, we disinfected everything and we did the training classes for the healthcare workers. We did three or four sessions, and we trained one hundred and whatever how to put properly the PPE [personal protective equipment], how to remove the PPE, and, again, my general 101 Ebola, and then that, and it works well.

I had some bad time with CDC home at that time because CDC changed recommendations and the guidelines for donning and doffing. To send group of hospital infection [workers] that went to Dallas and didn't do anything for the hospital infection, in my view, we're changing the recommendation but never consulted with us, and we were doing the training after the fact on the script that—and suddenly we discovered and said, if the final draft of the guidelines are going to be published tomorrow, do you want to have a look on it? And said, well, damn it, we are involved here. We should have known that before because then you're going to have a new guideline that is different than what we see for training the people and everybody's going to look stupid. CDC's going to look stupid. I don't care if I am looking stupid, but it will be bad. Finally, the version was not that different to what we say. There were one or two small things. That was okay, but there was no real coordination.

The things with Dallas keep going. That's for the history. Maybe that's going to be a file and the director only could open it. [laughter] But so when there were all these lawsuits against the hospital, the doctor and CDC were afraid to be involved, because we had a team early, and they had to send a second team. That doesn't look good. So when we

tried to publish the data, so Texas published something, and then the group from hospital infection wanted to publish something, and for the small story is Dallas told them, if you publish that, we're going to publish another article saying that you're wrong. So they pulled out the article. Then we wanted to publish what we did, just the response, not the political part—what we train, how we train, and what we did. And it was put on hold by CDC, and we had arguments with the hospital infection group that they didn't want us to publish, and finally, only one paper was published. It was our paper. So that was good. And Dallas was okay with that. We had order from the hospital, and—but the hospital in Dallas, the medical side was not very good. They were not present. And that was night and day when I arrived in Washington [DC]. So when I came back from Dallas, I sent a nasty email with some detail.

Q: To who?

Rollin: I didn't get any answer to that nasty email.

Q: To who?

Rollin: Because of FOIA [Freedom of Information Act], I think. But I thought, okay, they're not going to invite me again for going anywhere.

Q: Oh, you sent the email to Dallas Presbyterian?

Rollin: No, to here. And two days later I arrived to work here and I got a phone call in the morning, “You’re leaving at noon. You’re going to New York. There is a case in New York.” And then it was not noon. So I said, “Noon—I need to get at least a suitcase with a few things.” So I rushed home. I live in Gwinnett, so it takes me some time to get there. Make a suitcase, let my wife know. She works here, but okay, I’m leaving, I’m going there. Then it was delay, delay, and finally they say, you’re going to take—the White House is sending a plane, a small plane, a small whatever, Jetstream or whatever they call that. I said, that’s great. Which terminal is that? Because I don’t know where you get it. [laughter] And it turned out not to be a terminal but a place north of—the same airport, but there is some building north of the airport where you have these fancy people traveling. So I traveled in the fancy plane with Rima Khabbaz and David Daigle, again. I like that kind of plane. You don’t have to worry. No TSA [Transportation Security Administration], no line, nothing. You come in, you go up, and you go down. That’s very nice. I can see why people get used to it, if someone wants to pay. And then I went to New York, and that was heaven.

Q: How was it so dramatically different?

Rollin: So clinicians were there twenty-four/seven [twenty-four hours a day, seven days a week]. The complete hospital was behind the team there, so the head physician is Laura [E.] Evans, and then [unclear] still an emergency physician. I don’t know what she is, but she’s very nice, very open, spent twenty hours a day there during all the hospitalization. When she was not there, there was another physician just there. All the nurses and the

people were very dedicated. All the administrative were behind and helping. I'm sure everybody got two extra pounds of fat during that hospitalization because we got cookies, sandwiches, coming from every ward in the hospital in Bellevue to support our morale. There were, again, people from the administration always there. "Do you need anything? Can we help for this? Can we help for that?" It was really, really fantastic. I knew Craig Spencer, the patient. I knew him from before. I met him once before. I knew that he was inside, and he knew that I was outside, but I didn't try to go inside the ward. I didn't dress. I helped people tweak a little bit the way they were putting the PPE and what they could do or not do, but they were doing that perfectly.

Q: How did you know Craig Spencer?

Rollin: Because he was in Guinea at the beginning of the outbreak, so I knew—

Q: Right, with MSF.

Rollin: Yes, he was MSF there. So I went there, and I stayed on the side, and I just said, "If you need any advice, I'm here. I can do that, and I can be here and help advise." So I spent a lot of hours there, day and night, because I always liked the night shift in the hospital better than the day shift. The night shift, people are completely different. They work more quietly. There are less people in the hospital. There is no administration around, usually. But they're always forgotten. When you do training, you do training during the day, so you're missing always the people at night. Even when I was a

physician and worked in the hospital, I always liked nights because I liked the people at night. So in Dallas I did the same, and here I did the same. Being at night, to see the people at night, that feels sometimes a little bit aside. So I stayed also day and night, spending at the hotel, was not that far, so doing that, and it went very well.

I had a few arguments with [CDC's] Hospital Infections [group] again. It was funny because one guy who was there started wanting to direct me, "You have to do this, do that." I remember one time I went from the New York Department of Health, I went to the hospital because they asked me to do something, and he heard about it, and he called me and said, "What are you doing?" I said, "Well, I'm going to the hospital." "I didn't tell you to do that." "Well, you haven't done your lesson yet. I'm not listening to anybody. I'm doing whatever I want when I want." "You should have asked for that." So I went to complain to Rima, that knew me, and didn't say anything. After that, then Rima and Dave Daigle were just laughing and say, "We were wondering how long you're going to be working together." [laughs]

Q: This was a CDC person or a hospital administrator?

Rollin: CDC person. CDC person. But he works fine, and I think this guy is insecure and full of himself, but I didn't care. He was complaining that there at the hospital, "I'm tired of seeing Pierre all the time there." Well, it's funny, just invite me to do a presentation. So I started to do a presentation, again, for the clinician of that, and then the lab won a presentation, so I did— I ended up doing four presentations in Bellevue [Hospital Center]

for different groups that wanted to hear about it, and then they invited me later on, a few months later, to go do a grand round. So I think they liked me. But it was really nice.

One afternoon I think I was walking back to the hotel and I got a phone call from Dr. Frieden's office that said, "We have a problem in New Jersey with a nurse there that's been hospitalized and isolated. You may be going to be asked to go there." Okay. And then I walk another block, and I got another phone call from Dr. Frieden's office, "You're going there in the next hour." [laughs] "Aye-aye, sir." So I round up Mary Choi that was there also and I said, "Let's go to New Jersey. We're going to see"—Hickox? What's her name?

Q: Kaci Hickox?

Rollin: Yes. "We're going to see her." I understand why she was not happy. So we arrived there, and so we visited, and they were very happy. "Oh, she's isolated there." We went to see the isolation place, so it was the first floor of a building that was not really occupied, so it's like here, and they put some tents in the middle of that room, and then it was very cold because the healthcare [workers were] using hazmat [hazardous materials] suits, very heavy things, so they were hot inside, so the room was very cold. She had a tent. She had a bathroom that was like a camping bathroom, not very nice. She cannot see anybody, and she started to complain because she was not sick. She had no reason to be there. And I think they made a mistake to let her with an iPad, and she started to connect with some friend journalists, and she started a mess. But she was right. So we stayed, I

don't know—so when we arrived there it was maybe 8:00 pm. We stayed until 4:00 am, and then we went back to New York.

Q: I'm still kind of unclear: what were you helping with there?

Rollin: I think the office here wanted to know what's going on, and what was there, so we went quickly that way to see the clinician, if she was isolated, not isolated, what was the condition, and so we stayed until four o'clock in the morning, and then we took a taxi back to New York, and I went back to the Bellevue Hospital. But Bellevue had this team really very cohesive, and one of the reasons is they had, a few years before, something that came through New York, and they had to evacuate in the middle of the night Bellevue. All the intensive care units are on the seventh, sixth floor, whatever, high. They had no power anymore. The emergency power crashed. So they had to get all the patients through the stairs with the people that were ventilated, with some people going there, and evacuated the complete hospital that is quite a big hospital. So that created good link between people, and they were all together.

But that was a funny thing, and, for example, Craig at one time wanted to exercise, so the hospital provided him with a bicycle to put in his room. So he was isolated, but he was bicycling. And then he wanted to play music, so one of the chief administrators came and said, "I play guitar, and I also have a banjo. I know that you want a banjo." So they brought him a banjo, so he was playing. The room has a camera and an audio system for the support, so we had the Ebola tour banjo that was done. It was really nice. Then I met

Craig after that again, when he went for the Grand Rounds, and we went to dinner together. Then he came for a meeting recently at Emory, and I had him on the phone, and I had Laura Evans, so it's a really good team.

And I met, doing that trip in New York, I had one or two meetings also with the New York Department of Health, and there was an epi [epidemiologist] there that I knew because he came to Gulu with us, Scott—Scott, Scott, Scott—I forgot his last name [Harper] that is working there. Then New York Department of Health asked me to go one night to make a talk in the health community that was close to where Craig was living, because he was [there during his] incubation, so they wanted to know a little bit about that. So I went there and answered questions to the neighbors, to the people living around, and it was nice again.

Q: What kind of questions were you getting?

Rollin: Oh, what the risk is. I went to bring something, because at that time his wife was in quarantine in his house, so the neighbors had brought in food, or was there any risk of doing this or doing that, or having these people crossing. But he had a very good connection with his neighbors, so there was really no real problem of any kind. But in front of Bellevue was a circus with all the TV and radio.

Q: And after New York, you go to Mali, is that right?

Rollin: So after New York I was supposed to go to Liberia for the MMU, and then Mali started, and again I was hijacked and sent to Mali. I really enjoyed Mali. So there was no US ambassador there. There was just a DCM because the ambassador was changing, and there was a little bit micromanaging—a lot, more than a little bit. So when I went there I asked Ambassador Laskaris to send an email to his colleague in Mali and say I'm going to go to Mali. Give them the word that I can help in a few things. So I went to arrive in Mali. I was not the team lead, I was an advisor. The team lead Jeff [Hanson] is the country director in Ethiopia, and the good thing is he's a very good guy, and he was a Peace Corps in Mali, so he speaks the local language, and he liked Mali. So we did a lot of good things with him. The response was good. The team of epi's from CDC was very good.

Q: Why were you called there in the first place?

Rollin: Because I speak French, and I think Dr. Frieden was concerned that Mali was a new country with new cases, and the outbreak is extending, and that. Mali started with an imam at the border with Mali and Guinea that was sick, went to Bamako, was hospitalized there, and died there, and then there were two or three generations after that. All the CDC team was really great there. I arrived the first day. I go see MSF to just say I'm here if you have any questions, if you want to know anything. I can help. And there were people that I didn't know, and they looked at me and said, "Who's that guy?" They were quite cold. Okay, fine. I just offer help. I got a phone call in the evening, said, "Pierre, you come! We didn't recognize you, and you have to come back, and we want to

see you!” I guess they didn’t know me, but they called, whatever, the boss, and they said, “Yes, this one is okay, you can deal with him.” So after that I had good contact. I did a presentation and on and on, always the same, always the same thing with them.

But the team was really good. I always travel. I have a hard drive where I have all my data. I work with this hard drive, so I have data from all the previous outbreaks, all the documents, all the forms, all the things, so I can provide things very quickly to everybody if they need something. I did also, for the response, an Ebola 101, also. Part of the lab at that time was done by NIH, based at the University of Bamako, and I met, again, Heinz Feldmann, so the connection with the lab was correct and no problem with that. And so we went to the different places in there. I met a cousin of mine that I hadn’t seen for forty years that was working in Mali, so that was good on the personal point of view.

Q: Who was that? What were they doing?

Rollin: He works at an electric company there, been there forever. But it was nice to meet family. The art in Mali is fantastic. Bought some beads and some other things there. But the funny part with—it’s not Ebola related, but—with Jeff is he knew people there, and I said, “There is this photographer in Mali that is very well known called Malick Sidibé.” There was another one called Seydou Keita, but he’s dead. But Malick Sidibé used to have a studio, and there are exhibitions all over the world of him, of black and white pictures that he took. At the beginning, it was with I don’t know what kind of equipment, but at the end he got the Hasselblad prize, and he got a nice Hasselblad, and he’s doing

that. So he said, “Oh, yes, I heard about him, but I don’t know exactly where it is.” So we took a driver, and we went there.

We arrived to the studio, and it’s just one—we call it a studio, it’s just a small, one room. And he’s not there. “Oh no, he’s retired, I’m his son.” It was the son doing the pictures. I said, “Well, we’d like to do like everybody else: a picture of us in black-and-white and that.” So the studio, you have small stairs and then you have a background. It is a fabric typical of Mali. The same fabric you can see in pictures that the father took in the sixties, seventies, eighties, and they’re all there. So you go there, and the guy says, okay, puts you like that and like that and like that, and you have picture in black-and-white, and then they provide you the contact. It’s done with the Hasselblad, so it’s six-eight, so you have the contact, and then you choose the one you want. So we said, “We want this one, this one, and this one.” And then you come back weeks later and you had the quick thing. I said, “Your father is still alive?” “Oh yes, alive. If you want, we can go and see him.” I said, “Definitely we want to see him.” So we went to see him in his home, and he was old, and he had vision problems, but he signed the picture, even if his son did the picture, and he showed us old things that cost millions, or not millions but hundreds of thousands of dollars, that he has in his house. We had picture with him, and we talked with him, and he died a few months ago. There was a big article in *The New York Times* with his death. So we had that. And then music in Mali is very good, so we went to a studio where they were doing recording, and we got a bunch of things. It was really, really nice. Mali was nice.

The response went well. There were only a few generations and it stopped. I was involved in the contact tracing because there was some problem with some family. They asked me to go and try to solve the problem with this family. So went there the first day. They left me in the sun, standing, and they were in the shade, and they were complaining about this and this and that. “We asked you to do this and that.” Okay, yes, I discussed it, did that, and came back the second day and asked them, and then figured out what was wrong, what they didn’t like. It mostly was the kids were expelled from school, they cannot go to class. So, okay, I bought a bunch of drawing material and books and schoolbooks and gave that, and they were happy. So after that I was in the shade, and with a seat in the shade, and the family was happy and discussed with that. But I had a lot of good interactions with different families and connections.

Then, the person sick of Ebola, one of the persons gets well and he has to be discharged, so I help MSF to make the connection with the family and stay at night when they discharge that person and give some advice to some of the MSF personnel and train. Mali was a good success, but it was—again, a good team. The embassy was micromanaging, so didn’t want us to talk to the press, but then after three weeks there they realized that nobody was talking about the US government response. So I said, “You told us we can’t, so we don’t.” “Oh yes, you can.” So the last week, I had a presentation every morning and afternoon through the different things. We did something with Pascale [Krumm]—I’m really bad with names.

Q: It’s okay.

Rollin: Here for training of the imam. We had several sessions of imam training again there. It was a really good response, a good team of CDC in the field, a good connection with the different groups, with WHO, and it works very well in Mali.

Q: As we look over your entire response—actually, I shouldn't ask that. What I should ask is: how does your involvement in the Ebola epidemic continue after Mali?

Rollin: After Mali, I went to Guinea twice this year. I went in the spring, and it was nearly finished. I went so often in Guinea that I went two times with my wife, also. She's a physician and French, working here. So she helps. One of the trips, she did the connection with MSF, so she was going to MSF every time, and the second trip she was connecting the different laboratories in Guinea. We didn't have any involvement in the lab in Guinea, and we tried to coordinate that, which was quite difficult. But I knew everybody in the lab in Guinea, so she helped to coordinate all of that, so that works well. I went back in the spring, and she was with me at that time, also. That's what she did the lab part.

At that time, it was really nearly finished. There were no more cases in Guinée forestière, but there were cases in the Guinea—the Basse Côte between Conakry and Sierra Leone there. Then we had several trips with the ambassador and helicopter again, and doing some training. There were Muslims in that area, so we went with the imam, also doing that. Then we had also one time in the fall of '14, but also one time in '15, Dr. Frieden

coming. It's difficult, I would say, when Dr. Frieden traveled. It's very organized, and timely. And it takes—more or less everybody is involved in his response there, to be sure that he meets everybody. His time is limited, so he had to be minuted. But that's quite hard.

Then I went more recently in Guinea for the last flare that they got with sexual transmission, in March I think it was, '16. Then the other two deployments I had were California, where we had a Nigerian lady that was infected in Nigeria then recover, then become pregnant and deliver in California, so everybody was scared of something happening and nothing happened. But so I went there, also with Denise [J.] Jamieson, and then there were the people from California, from the LA [Los Angeles] Department of Health.

Then I went to Texas again because one of the two nurses got pregnant after the fact and delivered. It was quite weird, and that reinforced me of my view of that hospital in Dallas because we were invited but they put us in an office, and we stayed in the office. I haven't seen the lady, nor the—

Q: The child?

Rollin: The child, or even the OB/GYN [obstetrics and gynecology] department. In California, we were in the room with the baby. I collected the sample and the placenta and I recorded it and did that, but in Texas, no.

Q: Okay. Todd, do we have more space on the tape still?

Todd Jordan: Got about nine minutes on this one.

Q: Got about nine minutes? Okay.

Rollin: So one thing I did in Guinea I don't know if I talked about is working with the cartoonist.

Q: Yes, please. Let's see—

Rollin: When I arrived the first day in Guinea, in 31st of March, '14, when I changed money at the hotel, at the small bank, there was a local newspaper with plenty of cartoons of Ebola, so I bought the newspaper from the guy in the bank and most of the cartoons were made by a guy named Charlie. I asked the guy at the embassy if I can contact him, and then I contacted him, and starting to do—we did some t-shirts with him funded by the CDC Foundation. We did some t-shirts, we did some stickers. And then we asked him to draw some cartoons of the different signs and symptoms of Ebola to use in health education. We brought him with MSF, so he did a drawing of the treatment center to pass a message. I have all these drawings because I bought them with my own money, so I kept the originals and then we used it for the rest.

Q: That's really fun. [laughs] As you look back on all aspects of your involvement in the Ebola response, is there anything else that we haven't gotten to that you'd like to talk about? Any moments?

Rollin: No, I think it was a huge outbreak. I was very happy when I was in the field. I was very disappointed when I was here. I spent a month and a half at the EOC. It's hell. The politics are so huge. I remember after my second tour I came back and there was this org [organizational] chart of EOC, and there were plenty of boxes, and four small boxes at the bottom saying Mali, Guinea, Sierra Leone, Liberia. I said that there was a mistake, that the thing was upside down, and I was told that I need some rest. So it's very disappointing for all the political aspects. I think we could have done better with less politics, but I can understand that there was that politics here that was very high. I was interviewed in Guinea by the guy from CNN, Sanjay Gupta. He wants me to say that Ebola will come in the US and wipe out the US, and I said, "No, it's not going to happen." He was very disappointed because I didn't go that way. But I saw him one time after that at the airport in Atlanta, and I went to talk to him, and I reintroduced myself, and I said, "You remember? You told me that? Never happened." "Oh, it could happen." "No, never happened." [laughs]

On the personal point of view, I really had the impression that everything I'd done for twenty years went to trash in front of me, so all the things we did in the branch, all the preparation, all that, nothing applied. We had plenty of new people from CDC that reinvented the wheel. Nothing's going to be like it was before, so the next response to the

outbreak will be done by an EOC-like, not by the branch. So on the really personal point of view, I didn't like it. I didn't like what went to it, what happened. I'm told it's a new CDC, it's a new normal, but I liked the old normal much better, and I don't think it's good. I think it's too much politics and less science. But I'm the old generation, so meteors are coming and dinosaurs are going to disappear. And it's just—I'm very grumpy and sad about Ebola and the way it is now.

Q: Is this related to the new Ebola-Affected Countries Office?

Rollin: Partly yes, because I think when they will have no more money to do what they're doing, they're going to jump on anything, Ebola, everywhere, to justify their activity. So I don't think it's good for the branch in the long term. We used to be able to do everything. That's how I was trained. There is no way I can train anybody else to do the same thing now, because the same thing doesn't exist. So I think at the branch level we lost the battle. Ebola killed us, but I'm the only one grumpy. Everybody thinks it's perfect, and that the new CDC will be much better. Okay. Good luck. But for me, it was really disappointing to have all these new experts that just learned how to spell "Ebola" without misspelling explaining what to do and how to do it. Well, new CDC.

Q: New CDC. Any other thoughts before we cut you off?

Rollin: No. No.

Q: No?

Rollin: I'm grumpy enough.

Q: Okay. Well, I very much appreciate—it's been a pleasure listening to you, Dr. Rollin, and very educational, and thank you for spending the time and energy for this.

Rollin: You're welcome.

END