CDC Ebola Response Oral History Project

The Reminiscences of

Francis A. Bayor

David J. Sencer CDC Museum

Centers for Disease Control and Prevention

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Francis A. Bayor

Interviewed by Samuel Robson
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Interview 1 of 1

CDC Ebola Response Oral History Project

Q: This is Sam Robson. It is March 27th, 2017, and I have the privilege of sitting here with Mr. Francis Abu Bayor. We're at Connaught Hospital in Sierra Leone in the capital Freetown, and I'm here talking with Francis about his part in the Ebola response for our CDC [United States Centers for Disease Control and Prevention] Ebola Response Oral History Project. Thank you very much, Francis, for being here with me.

Bayor: You're welcome.

Q: Can I first ask you, would you mind saying "my name is," and then pronouncing your full name?

Bayor: Yes. My name is Francis Abu Bayor.

Q: What is your current occupation?

Bayor: I've got a background in clinical training. I initially did community health in Njala [University]. It's a three-year course with a one-year—sort of [on-the-job training]. In that capacity, you can act as a medical assistant. For four years, I was working with the

Ministry of Health [and Sanitation] where I was in charge of the whole chiefdom, basically acting like a general practitioner. You see cases, you can manage cases; the others, you can refer. Currently, I am in medical school. I'm doing medicine, and I'm in the third year as of now.

Q: Thank you. If you were to tell someone in just two to three sentences, very briefly, what your role was in halting Ebola, what would you say?

Bayor: It started at that time [as a surveillance officer, i.e. a case investigator], but then I ended up acting as the local coordinator for surveillance during the response. I was basically handling all the hard-to-do surveillance, which then had to do with three key pillars: case investigators, people who were being quarantined, and part of the social mobilization. That was basically my role before I left.

Q: Can I now ask when and where you were born?

Bayor: I'm actually from the east of the country. My place of origin is in Kenema [District], but I was born in Kono [District] on the 19th of January, 1985.

Q: But you said you grew up in Kenema, is that right?

Bayor: I grew up in so many places, but I did the whole of my secondary education in Kenema and I spent part of the primary in the North, in Kambia [District]. Over the last

four to five years, I've actually been in Makeni, that's Bombali [District] to be specific. Probably because of the occupation of my dad, we used to move from places. He was a police officer, and whenever he [was transferred to a new duty station], the family had to go along. So I had to tour six or more districts in the country before I completed secondary and then university education.

Q: Was there a place that you liked best to stay as you were growing up?

Bayor: Yeah. I think Bo [Town] happens to be that place. It's the second capital. But for me it was well planned. Those basic amenities you may need are there. And the mentality of the youth in that part of the country, they are very academic. They admire people who want to push up with education. Those are aspects that are for me very, very motivating, because it's like the community pushing you to be what you want to be. So that would be the one town I would call—

Q: Gotcha. As you went through secondary school, I think you said that was in Kenema, right?

Bayor: Yes.

Q: What kinds of subjects started to really catch your interest?

Bayor: I started out strong in the science-related subjects, right from early [days in secondary school]. Then we had special offices in the school, which we normally call the career office. It's an office that follows students from the day you enter. They used to assess us on key areas and they would give you some advice that would encourage your improvement. Going forward, I felt the sciences seemed to be getting easier for me. So many who used to grumble with the sciences, and because they keep telling me you could be good at this, I think that was the inspiration. That was where it all started. Right from school.

Q: When you were graduating from that school, what did you think you wanted to do with your life?

Bayor: Already, even before I got to what you would call SSS 3 [senior secondary school, level three], that was the final stage where you sit through an external exam, I had already made up my mind that considering the foundation I built and my motivation to help others, probably I should find myself in one of the professional courses. Either doing engineering or some aspect of medicine. So that was where [it all] started. I felt the motivation I had, plus that of the academic background, I could take it to any of those points which for us was meant for—well, we say "good students." So I think that was where the motivation came from.

Q: Can you tell me again, was it Njala that you enrolled in immediately after secondary?

Bayor: Yes. I did the three-to-four-year course at Njala. They've got their medical wing that is stationed in Bo. Just like you've got COMAHS [College of Medicine and Allied Health Sciences] being part of the University of Sierra Leone, Njala too has got a medical wing. It's actually in Bo in the campus called Paramedical, [i.e., School of Community Health and Clinical Sciences, a branch of Njala University]. That was where the community health program was I told you about initially.

Q: Sorry, I think you did mention this briefly, but what made you choose medicine over engineering?

Bayor: Well, actually, I was in a class of very hard-working peers. I think I was fortunate to be part of that team because it is now the bulk of us are either engineers or in the medical field. And somebody I used to compete with most, we just resolved that we all come running to the same field. But I had that passion to go beyond just innovation or drawing things or getting things done, to even having an impact on lives. So I decided to go the other way. But the bulk of my class are actually in the engineering field.

Q: Did you enjoy medical school and the community health program?

Bayor: I think that was the reason why I'm here. Because when I did the course in Njala, I had to mind the whole chiefdom. And with the three or four years' exposure I got, I felt like I could give more. But then I felt limited. That was the motivation that drove me back. Some of my friends felt, you've already done four years in the university, you will

be in the field, you are working. Why go for another eight or more years? But the motivation was stronger than, the negatives that were coming up, probably because I had already gone there and I started doing something that I wished to do way back in secondary school.

Q: What year was it that you graduated from Njala?

Bayor: Two thousand eight. I came here four years later, 2012.

Q: In those four years, were you doing that community health work?

Bayor: Yes. I was actually manning the whole chiefdom, and basically, my job was to see patients, decide which one needs referral to the hospital, which one should be cared at that level and managed, and primarily act as a surveillance person so that if there is any unusual condition, I should be the one to detect that in that chiefdom as soon as possible and then ask for an appropriate response. Basically, that was what I was doing over that four years. And some part into the third year, the office in charge of managing all the other facilities. Because our district level you had the management team that was in charge of the facilities. They felt that I was doing too much for that chiefdom, and they needed that knowledge to roll over to the other chiefdoms. So I was asked to come and join the team in Makeni, and then scale over those experiences to the other chiefdoms. Because they had thirteen chiefdoms, and I was only working in one. When I came down

to the district, I could now go to the thirteen chiefdoms and [unclear] I feel I was doing in that chiefdom. Over the last four years, that is what I was doing.

Q: So when they had you, it sounds like you were advising the other chiefdoms. What kinds of direction were you giving them?

Bayor: Actually, they brought me to act as a district surveillance officer then. And in that capacity, it's like they will be detect the cases in those communities, but then they will have to communicate to you, and then you will now have to mobilize the district on how to respond to those cases. That gave me the opportunity of going to all of the thirteen chiefdoms instead of only the one where I used to be. Probably that was the reason why they had to bring me over. In that process, I had to do some managerial [tasks] and to act as focal person in other programs like malaria. So it was a learning opportunity for me.

Q: Are there some experiences doing that that really stand out when you look back?

Bayor: Yeah. Our program is being funded by international agencies like the Global Fund [to Fight AIDS, Tuberculosis and Malaria]. So there was a time when there were difficulties in handling some of that information. But because I had worked at the facility level and I knew how those reports would be generated, my boss at the office felt that though I was brought in for surveillance, I could be helpful with areas like the malaria work. So because of that, I became interested in data. [With my clinical background plus the data analysis skills I developed over the years, it gave me the opportunity to look at

data from several angles.] That was the reason why my initial entry pointing to Ebola was the data side. It was only later that the clinical aspect became known.

Q: Sorry, I'm writing some of this down.

Bayor: No problem. [laughter]

Q: So, in 2012, was it, that you came to Freetown to start medical school?

Bayor: Yes.

Q: And you were doing that when Ebola happened I suppose.

Bayor: I was, yes.

Q: Can you tell me about when Ebola started circulating in the region and your experience of watching that happen and watching it come to Sierra Leone?

Bayor: Yeah. Actually, before the infection started here, it had already crossed over to Liberia somewhere in May of 2014. I was doing my Pre-Med 2. We call it Pre-Med 2 here because in Sierra Leone, the first two years is sort of an introduction. It's only after that that you will now start the actual years. So if somebody says he's going to be [doing

medicine for six years, it means he came in directly from college with a first degree, not from high school].

I was in first year when it all started. I think for us here it was somewhere around April, going down to May. But because it was in the [far east, far from places like the capital, it seems it wasn't taken that seriously]. Because I could remember even in the Freetown, people felt they were just making up stories and it wasn't even something they should be worried about. But I have been in the system when we've handled some few outbreaks. I was in Bombali when Lassa fever was a concern. They've never known Lassa fever. They've got their own opinion about Lassa. So when I heard about Ebola, and coincidentally the doctor who was in charge of those viral conditions then, Dr. [Sheik Umarr] Khan, I had worked with him as a student. So I knew that it was serious. But honestly, those are the days when it was in the far east. It wasn't taken seriously. We were having lectures on hand washing and the others were neglected. It was only the latter part of the academic year, that very year, that we realized it was getting out of hand.

Q: I'm sorry, I want to interrupt you because—can you tell me a bit more about your involvement in Bombali in that Lassa fever situation, and also getting to know Dr. Khan a bit.

Bayor: Actually, I'd been in surveillance a while. One benefit I got was a training with the CDC program. They used to come, and there was a year when they came and they started training surveillance officers on field epidemiology. It was called FELTP [Field

Epidemiology and Laboratory Training Program] and I was a [beneficiary]. After that training, with the knowledge we got, when we went back, something funny used to happen in the district. The people there had got this mentality that it was witchcraft or black magic, so people will die and probably they have blood oozing from their nose or their ear, and they will say maybe he was shot in the head with black magic. But when we went back with the knowledge we got from that CDC training, we decided that now that we knew that these were the signs of Lassa, and people are presenting with these, probably it's a misconception. Maybe out of curiosity, let us try a sample or two. Coincidentally, the DMO [district medical officer] that was there then had worked in Kenema. We know Lassa to be in the east. It was not known to be in the north or even the Western Area. So he too was curious, and he said, it makes sense for us to take a sample. That was when we actually realized that those dead that are associated with black magic had something to do with Lassa. In fact, the team came, they did some trapping of the *Mastomys* [*natalensis*] rat, and realized that eight out of every ten could actually be a potential carrier. I think going forward, it was agreed that Lassa is no longer an issue of the east, it can now be of the north or even of the west. So that was around 2010. But then because the knowledge was there and we had started earlier, it was contained in a very short time. Also, within the same period, we had a cholera outbreak. 2010. So the CDC folks also came in. Primarily, within Bombali, my job has been surveillance and giving support to that of the [unclear] with the data-related aspect. With regards to the doctor I told you about, when I was reading my medical program in Njala, Kenema was one of the referral hospitals for final-year students. I went there. I spent over three months with him. Actually, that hospital is well organized such that they have even got the facility of

bringing in students from UK [United Kingdom], from US, who come to understudy the way they work, especially with regards to the Lassa program. And they had very interesting facilities. That was where I was exposed to study medicine, where you can have your case here being presented to somebody in the UK or in the US, and then you will discuss and they will all contribute to how you manage such a case. So that was how I met him, Dr. Khan. He was very helpful. I think for some of us worked with him, we were able to learn so many skills. He didn't believe in "watch me do it." Rather, he would ask you, do it under my supervision. So we acquired so many skills from him. I think it was a big loss to the nation. He was a young man, for him to depart that early.

Q: Thank you so much for going into that a bit. So your day-to-day during that time was really surveillance work, was—

Bayor: Surveillance.

Q: So that means that your day-to-day is involved with data, mostly?

Bayor: Because of the link between surveillance and data itself, I unavoidably—you can't be a surveillance officer without having the data aspects because you can receive the reports, you can go to the field, you can collect the information. But if you do not put them together, and not allow that data to be transformed into information, you won't be able to take appropriate action. So it's as if the driving surveillance brought me into the data issue because you go, you do your clinical things, you collect the information. But

then when you compile that and then produce something, you will notice that the [data] will be telling you what to do going forward. So it's like my clinical skills taking me to surveillance and surveillance unavoidably leading me to data. That was how it all started.

Q: Thanks so much for describing that. I was interested in how you described the community thinking immediately that Lassa was the result of some sort of witchcraft or something like that. Does that mean that you also were involved in helping to try and counter those ideas?

Bayor: Yes.

Q: Like some community education kind of thing?

Bayor: Yes. Actually, the office where I was brought over had a component that had to do with social mobilization, and their primary job is to receive information of interest. What we were doing then as surveillance officers was, if we go and collect the information, we come back, look at what we collected, and see the units that can come in and take action. For example, if there is a potential outbreak, we will go there, get the data. First, we also want to know, is it because of people's perception, or people not doing their [unclear]. And it turns out there is that gap in information, then it would be like the surveillance team telling the social mob [mobilization], this is the gap, design a message against this. Sometimes we can—if it's say, measles, we want to know whether it's because they were not vaccinated; if they are a vaccinated, why is it still showing up?

Sometimes you can even tell the team in charge of immunization, we call them EPI, Expanded Programme on Immunization. We can tell them, maybe you need to look at your cold chain. We've got fifty children with measles, and from our data, over forty percent or over ninety percent of them are immunized. So if the immunization was done accordingly, they shouldn't be coming down with measles. So it's like you sitting there, having information that you can provide to various units to work. Basically that was what we were doing. That is how surveillance was helpful to us.

Q: Perfect. Thank you so much. Sorry, I wanted to—when you said that, that kind of lit up in my brain. So you were describing how at that time, there were people in Freetown who didn't think that Ebola was a big deal because it was out east. Can you take it from there again?

Bayor: Yes. Actually probably, it was not only in Freetown, probably even in the far north. I think the south didn't have much of that. Probably the sentiment, but what I know about the South, probably because of their drive for education. People there can think out of the box and they can look at things in a different manner. For me, probably that is why I'm passionate about Bo. But then, moving towards the west, people actually were arguing. It was not done secretly. They would sit down in bars, in public places, saying this thing is just fake, this is just money making. And even in Makeni, there was a time when a rumor was going around that they had contaminated wells and that was the source of Ebola. So a lot of misconceptions and I think that was probably because most education wasn't done then, or maybe people just decided not to trust the story that was

coming up. Because they were hearing so many other stories that, for me, probably because of my background, that was why I was unable to accept those stories. But then, knowing where they are coming from, knowing that [unclear], you could tell. For somebody that can read and write, if we are in the greater majority, I don't think that would've been an issue. But it was, and it was public. People didn't believe until it actually reached part of the Western Area here. That was when they knew it was serious.

Q: Do you remember those conversations happening around you with people you knew? Were you engaged in those personal conversations?

Bayor: Several. In fact, it just doesn't happen among people who you would have felt were saying it because they didn't go to school. They were very educated folks whom you expect much from. They were also [unclear]. Because if you could meet a university graduate or a degree holder telling you that this thing is fake, it's just a means of making money—you could know that it was a concern for me. It happened within lecture halls, in public places, with people I knew and respected. They were all saying it was fake. And probably because I was a little affiliated with the medical team, they would say, you guys are all part of the deal, so no wonder you are in support. So that was hard. People didn't take it serious.

Q: So what happened next in your experience?

Bayor: Because of my link with surveillance, when the outbreak became worse, the university had to reconsider closing up. Because the risk was if a case comes into a lecture hall and students are interacting, they all will be exposed and potentially they can take their infection to various places. I felt there was no need staying back. I needed to go back to Makeni and keep myself busy, but actually, during holidays, I did go down there to assist the team, returning when we resumed lectures, I came back to Freetown. So I went, and that was how my involvement started. Because then, there, they had also started reporting cases. It was just a few, but by then, they had already known that it seems this thing is no longer a joke. But just like I said, because some people didn't believe that it was real, they were not doing things according. There was a village that was almost wiped off because they didn't do things the way we expected. In this village, because they said it was not real, they didn't report any sick individuals to the facility that was there. They had a PHU [peripheral health unit] in that town. A health facility that should assess and do appropriate referral. What they were doing was, if somebody in House 1 is sick, they will come and assist to take care of that person. Probably, the individual passed off. They will even do the burial. So they were coming from different places. I think because of people not believing that this thing is real, some villages were wiped out almost completely. But then, I started—when I actually went there, because I didn't know much about the disease, it was scary, I didn't want to go into my usual surveillance. So I first started by looking at the data that was coming. That was how my entry into surveillance started.

Q: How were you getting access to that data?

Bayor: Because I had been part of the team and they knew the experience I had with surveillance, and it had been a routine that during holidays, I would go there and assist them. When I showed up, they immediately wanted me to join the team, but I felt the best way to start was to look at the data and see where it's coming from, who are involved—probably that would give me a better way of entry instead of going into something that even those who were on the ground were scared of, who are not interested to be part of the response. I felt for me coming from a gray zone at that stage, I'd already left them doing the work. I didn't know how the whole thing was going, and maybe starting from that point was safe enough for me. So that was how I went into the data aspect.

Q: So what did you do with the data and what did you see?

Bayor: Initially, we didn't have a proper system wherein we could follow the information right, of course, because I was telling them that over time, we want to know the cases, a person, a place, and the time. That would be very helpful. But then, within a short period when I arrived, the first set of CDC folks also came in, and they were highly interested in the data. They needed somebody to team up with them and ensure that every record moving from the district was kept. The DMO then who was the head of the response team, the district medical officer felt that with the little experience I had, I would be in a better position to help. So I and that team that came actually started the first set of records that was followed. In fact, going forward, our database was transformed into Epi Info. We were using Epi Info to do the inputting for suspected cases, confirmed cases, and

even people that were quarantined. With that, analysis became very easy. Then we could tell who were involved, which sex has been affected. The communities are reporting more of the positive cases. It was very helpful when we actually had the software.

I went in, and within that very month, the first CDC team came in, and that was when we started the data input. That team and the local team that we met was very, very helpful because then, the results would come in, and there is a positive client, but we'd be arguing. Where is this client coming from? Because the labeling then was a little—not okay. So we decided that we needed to introduce a unique code. Later, that code was copied by every other district. And because of that, we didn't miss any cases because even if you had the same name, you come from the same community, your code will always be unique to you. So when you were positive, we know even if ten people have got the same name and the same village, they will never receive the same unique code. So that innovation that came from the CDC team and the local staff was very, very helpful. Because of that, our district was, right through the response, considered as one of the best. I would go on to say the best, but—[laughs] That was the recommendation we got for some of these innovations. But basically, that was how I came into the response, through the need for data, especially the increase in demand that came from the CDC team.

Q: So it sounds like one of the issues with the data at first was that it was not easy to determine if two reports were about the same person or not.

Bayor: Yeah.

Q: Okay.

Bayor: Sometimes you can have one report, but then because two people share the same name, you will now be wondering, to whom does this result belong? And the risk there is if you give the result to somebody who is negative, which means you missed a potential case and there is going to be a huge spread out there. So that was what brought up the unique code, which for us was BOM [i.e., Bombali, just an abbreviation to help ensure that samples sent to the lab were easily identified], and numbers were followed. That was very helpful, because even if we don't know your name, because the code has been assigned to you, we will know the result is yours.

Q: Can you tell me about some of these people from CDC who came in?

Bayor: Yeah. I think the very first set of guys that came in, one was—we used to call her "Allie." She came with a lady whose background was from one of the—I think the South African countries. A Zimbabwean. They were the very first set of folks who came. Dr. Jessica, Dr. Sam. I think the one that was very good to us, Dr. John, John [T.] Redd. He came in at the time when we really needed to get things done, and fortunately for us, [laughs] he was on top of the situation. I think a lot of us were a little demotivated. But then when he came in, we seemed to be motivated again because he was interested in

results. He was interested in results. We felt we could give them to him. So there was a long list of them, but then, the very first team that came and his team were very helpful.

Q: So Dr. John, was he part of the first team or no?

Bayor: No. He was probably around the center of the outbreak. He wasn't part of the first team, he should have been probably the third. The third team, because they were coming in batches. They would come for four weeks and they would be gone. But then he came as part of the third batch. He actually came for a second time. Initially, he came as a surveillance officer. He went back, and then the second coming was now in a different capacity. I think the last time we saw him, he was now the country director for CDC itself. I wasn't surprised because the impact he brought, and the rate at which he grew within the system, I knew it was related to what he was doing. Probably that is why—it wasn't as if the other CDC folks weren't doing much, but if you go back to the district and ask for one CDC staff, that's the name you will hear because probably he came at the time that we needed somebody who could think out of the box.

Q: You've described that a couple of times, that he came in at a time where you really needed to get things done, where you needed original thinking. What was the situation that you—what was the problem that you needed to solve?

Bayor: He met, and we'd already introduced the database, but unfortunately, there was a huge backlog. So many cases had already been seen but were never entered into that

system, and we needed to get that done. But then, we only had one laptop. So the issue was, how can you work from different sources and match? First, there was an issue of, who knows any method that we can do inputting from seven or more laptops and match them together? We couldn't solve that issue. He was able to handle that. He was hands-on-deck. It's as if, if we had 150 forms, basically they were in pairs because okay, Francis, you have fifty. Fifty for me, fifty for the other staff. Because we actually needed that data at that stage. We needed to know what has happened, where we are now, and what we should do going forward. That was a huge, huge challenge that he was able to resolve.

Second, we had an issue of getting our teams to the field, because they needed resources, they needed fuel. Two or three times, we were delayed in people going to the field to investigate cases. And the unfortunate thing is if you do not get there early and investigate a case and decide that this one should be isolated, it may be a huge miss at the end of the day. So they found that he was also able to come in and assist us with the resources we needed such as fuel, such as [collaborating] with other institutions to help us with the motorbikes. Those things were badly needed at that stage because these are stages where we've already got our guys with enough knowledge to actually hire out cases. But if they did not get there on time, they would not be able to isolate a potential case from people who might be infected. So those are some of the challenges we had. And maybe that was why I said he came at a time when we needed him most, and he was able to settle those things. Those things were very helpful to the district.

Q: You mentioned one of the things was partnering with other organizations. Can you describe that in a little more detail?

Bayor: Yes. WHO [World Health Organization] is very, very active, and along the line, the Ministry, with direction from the presidential office, decided to introduce—we were calling them command centers. It was a [unclear] structure purely to handle the Ebola-related issues. So the support we were getting from the CDC team, that of the WHO team, and this team that was sent up by the government, because there were NGOs [nongovernmental organizations] that are handling data-related issues. So all the activities were now forwarded to that command center. At that stage, that was where we actually had things well organized because then we now had a surveillance team that was only doing surveillance, we had a quarantine team, and social mobilization—before then, a single team would move in and do the investigation, do the isolation, quarantined, handle social mob. When those structures were now established, it's like everybody knows what he or she should do. The surveillance team moves in, established that these are who needed to be isolated. The quarantine team moved in, identified those who should be isolated. Social mob, they would come in to counsel them, talk to them and give them the reason why they should observe that twenty-one-day period. At that stage, when we got all those units on board, that was when we really knew what to do. Because initially, it was like, we are doing everything. We could decide to go any way. Which for me wasn't good enough information.

Q: Thank you, that's a brilliant description, and I appreciate your description of what Dr. John did.

[break]

Q: I appreciated your description of John and the ideas that he brought and the energy that he brought. Do you also have some personal memories of him that you wouldn't mind sharing?

Bayor: Yeah, there are. Actually, since that hour when we met, he has been a mentor to me. We've met on three or four more occasions. What I believe in is, you really need to work hard and there is nothing you can't touch except if you choose not to work hard. But in our society, there are times you can be frustrated for doing the right thing. And unfortunately, you can even be frustrated by the person who should be encouraging you to do more. So to have somebody who really knew what should be done and what—was a big motivation for me. Personally, he was a friend to me. He was my motivator and mentor. Before we met, I was already in medical school, but one thing I used to tell him of late was that he had changed the way we handle things. The way I used to do things, my opinion that certain things couldn't be achieved except you go out of the box. He actually changed me to a great extent. The first two years before I met him, I wouldn't say my performance in medical school wasn't good, but honestly, the last years since we met, because of the way he was doing things, being organized, managing time, what I did was I copied that from him and I took that to the classroom. And honestly, it has been

amazing for me. These days, I can handle studies. Once in a while, I can be out there to help with other district jobs. It seems I'm doing all those things and I'm still excelling academically. Sometimes, I also shared the fact that we met and the way he was doing things. For example, when they were there, they had to ensure that the data was in there, they had to ensure that the lab results have come back, they have to ensure that the surveillance officers have got the necessary logistics to go out. They still have to go to the treatment units, they needed to attend meetings. I was seeing, one person, well organized, getting things done, and I felt it's a learning opportunity for me. So basically, he was like a mentor and a friend. I think the things I learned from him have changed the way I do things, and it's my dream, that when I will be done in medical school, I will probably [unclear]. It would be opportune to work with the CDC. Because I think the people who have come from there who I have worked with, even before the outbreak, right from 2010, right through the Lassa and cholera outbreak, they have been very motivated. Then because we spent some time with them, we are in the same office, maybe that was why I got to see the other side of them because the other folks who were coming probably were only for a short time. Overall, the impact he had on me and the team was wonderful. And because I was the head of that team, I was just appreciative of him. Because I went there, the team was on their own, I only went in as a data person, and then later my surveillance teams showed up, but then with all those skills, you won't be able to do much if you do not get the support. Because he came in and the support actually came. He, to a greater extent, helped me to achieve that dream of mine, which was to make our surveillance team a very good team. A solid team. That was why I think me and my colleagues back in Makeni are very grateful to have met him. His hard work

was so much that one of the surveillance team members called me, and he said he had got a request from one of the chiefdoms that our friend that was working with us, they think he should be naturalized as a Sierra Leonean. And I told them, hmm. An American to become a Sierra Leonean citizen. But actually, that chiefdom will have gone down the drain if the motivation he brought wasn't there. We had to argue with the paramount chief, and he told us the only team that I can accept is to crown your friend as one of our local chiefs. He was adamant. And we said, we haven't got any option. However, we need his consent. So you could just see the impact he had not only on us, but even stakeholders out there who knew when he started and they saw a sudden change. They wanted to know, why the improvement? Yes, the Ministry was [unclear], other people were doing theirs. But they realized that there are also people who were out there in the field who were making the move. So even without us telling them, these stakeholders picked some of them, and he was one. The other lady was from WHO. The two of them were really, really active. I think he could still remember that lady. She is also an American. Maybe it's part of the American dream. She is Allison Connolly. They were together almost—I think they came together around the same time. And in our daily surveillance meeting, they normally used to bring the ideas, and sometimes their ideas wouldn't want to agree. We would have to say, okay, let us ignore this for now, come tomorrow. But then, the two of them were so, so helpful, and I don't know whether it was a coincidence. That chiefdom—the lecturer is here. That chiefdom picked the two of them.

[interruption]

Q: Okay, and we're back. Francis, you had just been talking about something that the district did for Dr. Allison and Dr. John.

Bayor: Yeah. Actually, like I said earlier on, the request didn't come directly from the district team. It came from people in these communities whom we were working with, because part of their job was not just to coordinate issues in the office. They also used to accompany us going to the field. Back then, because we had thirteen chiefdoms, we had placed our surveillance teams into groups. Sometimes, if they have difficult cases that they come back and inform the team, the CDC or WHO team will want to go and join the investigation and assist and see how difficult it would be to [unclear], because sometimes, when we had positive cases, the first question that will come will be, what's the source of this infection? We know Ebola is a contact disease, so somebody can't just be positive. We need to know where the individual got the disease from. And because our team, they weren't totally trained, they weren't professional, so they had difficulties. That was how Dr. John and Dr. Allison had to come in. Because they used to go to the field. So it's like the communities knew them because they were very frequent, and when the entire outbreak came to an end, they started asking after them, they were saying, "Where are your colleagues, the ones who used to come here with you people? We want to see them again." But we used to tell them, they come on a rotational basis. It was only—I think the two of them stayed a little longer because Dr. John was going and coming back in different capacities. So the request actually came from them, and then we were a little doubtful. We felt maybe they wouldn't buy the idea. But then we had to communicate to

them because it wasn't coming from us. It was coming from the community. So that was how it happened, and both requests came from the same chiefdom. Maybe because the other was a lady, they felt we needed a man. That chiefdom, like I told you earlier on, had it not been for those interventions, it would have been a big, big issue for them. They felt that there was nothing they could do. They couldn't give them money, they couldn't probably ask them to come and stay. Maybe the only thing they could do is—and that's a very, very huge honor for you to be crowned as a chief. Even us, the local people, cannot be given that opportunity easily. Giving that to you is like giving their all. We knew the gravity of that, but it was not our decision, so we had to communicate with them, and we are lucky that they agreed and consented because it's like the community thinking that we will do all our best to convince them. So if they told us, "We wouldn't be able to go," or "wouldn't want to be engaged in that," it would have been difficult for us to pass through those communities. But at the end of the day, we too are very much proud because we knew what they did, and further the community is now acknowledging that in that special manner. I think it was only a feather in their cap. We are so happy for them, and I think that was why those events will be part of our memory probably right through life.

Q: Were you there those days when—

Bayor: I was there when the lady was crowned, and for the captain, being a friend and a mentor, I was in trouble that day. That was the day I had to write my anatomy exams. The only thing I told him was, "I think I have to give my all to this exam because that is the only way I could tell you how grateful I am." Again, another coincidence. That

academic year, we did three subjects, I got three distinctions. I was so happy, and I said, maybe this is compensation to my friend for not witnessing that crowning ceremony. I had to share this with the team. Maybe that was just me knowing I will not be going there because of this exam, and so the only thing I have to do is to give it my best. I wished I was there. But then, my colleagues were there. The impression I got was it was really fantastic, and I think I was satisfied with what I had from them and even from Dr. John himself.

Q: I wanted to go back to something, and this is something you said earlier. When the CDC people first came and you started to use Epi Info, the hemorrhagic fever database, was that a smooth transition? Was it easy to do?

Bayor: It wasn't. It wasn't because like I said earlier, there was a huge pile. There was a gap in knowledge. People were not using this—even the normal—they were using, more or less, paper. The information comes to them in some form of paper and it's filed. So to move that from paper all into a computer, first you needed to give them the knowledge, they needed to be willing and determined to do it, you needed to go back and do the backlog. And that was a time where we now started having just confirmed cases in the fifties. You could throw in one hundred or so samples, and then fifty or so come back positive. Then you have to ensure that before the results are back, that information is already in the system. The only challenge then was because we needed to catch up with the old data that had been processed, we needed—in fact, sometimes we even had to go to certain communities just to find out because they were missing information and we

needed to get our data [unclear]. But when we finally succeeded in getting that up-to-date, and with the support we were having from the other teams, it was smooth. There was a time when it was such that you could even be in one corner, you can access the database, you can do your inputting. We only had a password to it so that only people who needed to access the data could because we didn't want anyone to come in and just read that data. But before the Epi Info, there was no proper recording. Upon the introduction of the Epi Info, the challenge was going back and showing that all that information that is kept in files is inputted, and then the human resource to get that done. Such that in fact, the CDC had to hire some staff whom they paid just to give support to us. Because we were working on the side of the Ministry. But then [unclear] two more because we needed to catch up, so they had individuals whom they paid. Those guys, again, were very helpful because now we have somebody whom at least could coordinate the inputting because that's his job. After that stage, the transition was tough and we expected that, but going forward it was smooth and that data was very helpful to us all.

Q: Thank you very much for that. Can I ask, throughout your Ebola response, do you remember any instances where you were able to apply lessons that you had learned from dealing with Lassa?

Bayor: Yes. Probably knowing the fact, the way it could be transmitted, it's the same, and the fact that both of them are very virulent, they could kill somebody if care is not taken. So those are very good learning opportunities. The experience that we got from that one and the fact that Ebola itself was something else made us very [unclear] our guys. There

were times where we couldn't compromise a time. Any surveillance officer had to adhere even to a simple dress code. We did agree that if you are going to the field, there is a way you should be dressed. Even though you are a surveillance officer, we don't expect you to go and come in contact with the cases, but we expect you to be a little dressed. Like people who want to come with some sort of easy-wear with their feet exposed.

Q: Like sandals of some sort?

Bayor: Yes, we didn't allow those. In fact, again because of the support we are getting from these teams, they did provide a special, some sort of a—those foot-wears were good enough because even if by coincidence somebody throws up and the vomitus came in contact with you, you would be confident that it will get in touch with your skin and you may not be infected. So the knowledge you got from the Lassa outbreak and the information we got over time from WHO, CDC on how Ebola is able to be transmitted, the precautions to take—those are all very, very helpful. We are lucky that though the people that are coming in will say we are foreigners, back then, they were a little firm with us, especially the lady because sometimes the men, they may tend to do it nicely but ladies will be very much firm. Allison was one of that type. If she sees you in that manner, she is saying you won't be part of—because every Monday we have a briefing meeting before going out—you will not be part of that meeting. You have to go back home. Either you stay home for that day, or you go back and get the agreed dress code. And I think that was very good because it was only our team that didn't get any casualty, right through the exercise. We had colleagues on the other end who we were victims.

Even ordinary people who are just going there to find out what activities you are doing, fine. We used to call them contact tracers. A few of them became victims. I wouldn't say negligence or so but maybe for us because of the people who had [unclear], they didn't just see us as people who are working them, but they saw us as part of them and they did their best to ensure that we are fine. I think that was very helpful.

Q: So what do you see for your future? Are you going to practice medicine, or are you going to continue with public health in some way?

Bayor: I think it's going to be a mixture of that. That was in fact the drive that brought me. I didn't just want to go into public health without a solid clinical background because I felt—my passion is to read epidemiology going forward. I don't want to be involved in research data, medical related. I felt, though I've got some medical background then, I didn't just think it was good enough to take me to that level that I want to be. So going forward, when I shall have completed, I will still want to maintain some of my clinical practice but with that aspect of public health coming in. Maybe that was why the match between me and most of the doctors coming from CDC seems to be in agreement. Because if you know what is happening in the clinic, and you want to do some investigation, you will be better placed than you just coming from the other end and not knowing what is happening in there. So that was the drive. That's my wish.

Q: Is there anything else that you'd like to share, like a memory or a reflection, before we conclude the interview?

Bayor: I think there was one scary moment during the outbreak. A colleague of ours was sick, and again, that is where the leadership of Dr. John stands out because a lot of the other colleagues that were around, they panicked and didn't handle the issue well, but we are lucky that he was around. This guy was experienced in signs related to—I will say Ebola, because then, malaria-related signs we have seen as Ebola-related. He is one of our key surveillance officers who was in the office the whole of that day. He had been experiencing this weakness, he didn't tell anyone. What he did was, he talked to the guy transporting samples for the lab, and his blood was collected and sent. We didn't know, because routinely, it would have been a surveillance officer getting a form ready for him. Because he was part of us, he made that form and the sample went. It was okay because then, CDC had already designed the research that we can get our results that very day. We used to throw in our results and we would have to wait for forty-eight hours or so, but with the new speed that came, they found that we were having access to vehicles, field samples could be sent in the morning. And there was a CDC lab in Bo then who could receive back our results soon. The result came in the evening. We saw the name, but nobody could claim that I prepared the form. We needed to know that it was him. It was penned in—actually, it was in red, what he said, not to that extent that he could declare the results of the Ebola [test] positive. All of us were in that office, including the CDC staff. That very day, the guy was helping us with data inputting, he was in touch with us. Everybody panicked. Fortunately for us, Dr. John was around. The other colleague was a WHO staff [member]. He was from—he had a Russian background. He was so shocked that when finally the whole thing was resolved, he in fact decided he was going back.

[laughter] But fortunately for us, Dr. John immediately arranged for a second sample to be collected that very evening, and he was able to persuade the guy to be isolated. I think if he had panicked then, maybe all of us would have just taken the back seat, thinking we are exposed, we are infected, we wouldn't have got a way around that. I think that moment was one that—it was scary that day. But these days, we meet and share that, [we] just laugh about it. And we needed a leader that day, and fortunately for us, we had one. Otherwise, I don't know whether that would have destabilized us. And it happened to people who really were handling the outbreak at that level. Because it was, we are on the side of the local team, they are on the side of the external team, so if those two teams for any reason tear apart, we would have been in a mess. But that one is an event. I can't describe it in a better manner. I wish there was a video of that event that day. [laughter] Because it was like, everybody running helter-skelter, thinking, I've been exposed, Ebola has been out there, finally it has come and we were in touch with it today. But we are so grateful to God and to people we had around us that day. The guy is still there. He is now a key staff in social mobilization, and he is very helpful. He [studied] public health, and he graduated two years back. So this is when I go back to Makeni, I will say, it seems as if you may have beaten Ebola. The further you are tested, your result came pending. Maybe you were actually exposed. Unfortunately, we haven't got those facilities. But left with me, I think a guy like that, you need to take some samples, find out what really happened. Maybe he was actually exposed and by chance was able to develop immunity against the disease. But it was a very, very scary moment.

Q: I know you need to rush back to class, but was there anything else you wanted to share for the historical record before we end?

Bayor: I think I've said it all. All I will say is I only hope the CDC that has been introduced for Africa could be as hardworking and as focused as the one in the US. Because I was reading through and it had [unclear] WHO, CDC Africa. Because to me, this team has been very, very helpful to us; not just sending persons in, but even the knowledge they have been giving us. Because had they not been giving us that knowledge, people of course wouldn't have known and probably wouldn't have even established that Lassa fever could not just be associated with the east. Because when people normally hear Lassa fever, they will tell me, no, that one has to be in Kenema, or that one has to be Kailahun [District]. But because of that knowledge that we got from them, we came back, and that knowledge was very, very helpful. So for me, if that partnership will be sustained such that agencies back here want to act in the capacity of bodies like CDC, we just learn from them, because they have been in the system for a while. I'm sure going forward, our country will be really good. When I did that call with CDC, one strong recommendation I did in the research work was that if we can institutionalize some of those calls, like in Sierra Leone, we don't train epidemiologists. Yes, we do some public health, but I think there are some things that should be introduced into our curriculum because those teams really make us better prepared. If not, the conditions will be there, we wouldn't be able to do much.

So in my opinion, the support they've been giving us not only in human resources but even improving on the knowledge of people has been very, very helpful, and I have been a beneficiary of that. I went there as a mere student assistant, but because of that background I had from them, I ended up being—my position was so big that I was saying, no, you shouldn't give me this position. This position is not going to change anything. I think the only motivation I have is I know those experiences that I've got and the people I've met, the changes they have made in my life, it's just a start. That's why I appreciate CDC, their staff. They are special. I think that is what I will say.

In my district, there is a chiefdom where even the local people, even Sierra Leoneans, they don't go there easily. The CDC staff went down there. Those are some of the motivations I got. One of the doctors that came on, Dr. Jessica, she went as far as—we call [unclear]. In the first place, you have to go across the ferry, there is no network. It's an old chiefdom, very big, very, very much. We started having two or three Ebola cases from that chiefdom, and we all panicked because we knew this area. We knew everything beyond, that we will be in trouble. Even where some of our doctors can't go, she went there and she stayed there, and she was very helpful to our guys. Those are motivations we got from that team. I think those are days we will never forget. We still remain very appreciative of them. Their names will always be in our memory. There is a long list of them. I will not go through that, but I think that is what I want to end with. We will always remember the CDC team, and I'm sure going forward, those of us who worked with them and the knowledge we've got, we will use that to impact lives. And we will

always make reference to the fact that it was with their support that we got this knowledge.

Q: Thank you very much, Mr. Francis Abu Bayor.

Bayor: Thank you. You're welcome.

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