

**CDC Ebola Response Oral History Project**

The Reminiscences of

Samuel T. Boland

David J. Sencer CDC Museum

Centers for Disease Control and Prevention

2018

Samuel T. Boland

Interviewed by Samuel Robson  
August 8<sup>th</sup>, 2018  
Atlanta, Georgia  
Interview 2 of 2

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Q: It is Wednesday, August 8<sup>th</sup>, 2018. This is Sam Robson here in the broadcast studio at CDC's [United States Centers for Disease Control and Prevention] Roybal Campus in Atlanta, Georgia, and I have with me on the phone Sam Boland. I interviewed Sam maybe a bit over a month ago about his experiences with GOAL and some other organizations in Sierra Leone during their Ebola epidemic response, 2014 to 2016. I'm really pleased to have Sam here. I think one of the last things we talked about in our previous interview before we had to end was the Partners in Health exposures that had happened. Again, it's something that I have talked about with some people here at CDC, including Oliver [W.] Morgan and Sarah [D.] Bennett and Mahesh Swaminathan, who were involved in kind of triaging the situation. Sam just gave me a really good summary of it just in general, what happened with the sudden evacuations of Partners in Health and—he didn't say it, but I'll say it—kind of botched transition of what happened with the patients who were in their care. I guess what I was looking for then—and I loved that summary—was a deeper look into what your personal experiences of that were. Like, Sam, if you got a phone call at one point alerting you to the fact—how you learned about it, and how you continued to learn about it and how it affected you on a personal level.

Boland: Sure, and please do butt in if I am repeating myself too much, but just for my own sake it might make more sense to start from what to me feels like the beginning of that story, and keeping in mind it was a couple of years ago, so I apologize if some details are lacking. But I did in the last month have the opportunity to speak with a few people who could help enlighten me to some things and corroborate some of these details. The basic story is structured around the important clarification that the Partners in Health and Maforki Ebola treatment center—they were called either Partners in Health or Maforki interchangeably, and Maforki is the chiefdom that the facility is in, hence the name—was the first Ebola treatment center to open up in Port Loko [District]. It was opened up with the collaboration of Partners in Health and the Ministry of Health and Sanitation, and one of the implications of getting that facility opened so much earlier than the GOAL or the IMC [International Medical Corps] facilities, which was commendable, is that the quality and the preparedness that had gone into that facility and the running of that facility was really lacking.

The case, what happened, came to the fore probably a couple of weeks before anyone else would have been aware of a problem. We had a patient in the Lungi area that had been picked up and had shown symptoms of EVD [Ebola virus disease], fever and a couple of symptoms, and she had been picked up by an ambulance and brought to the Maforki ETC [Ebola treatment center]. Very unfortunately, procedure had not been followed at the facility. They had a lot of staff rotations, though with that being said, everyone did, but one of the implications of this was there was a mix-up and instead of this woman being checked twice for Ebola, after her first negative EVD test—and the

first test was negative—she was discharged to the Port Loko Government Hospital on that basis. Now, procedurally, you would have waited seventy-two hours and done a second test because the reliability of the EVD blood test was not so great within the first day or two of an infection that was presenting symptoms. But that test wasn't waited for, and she went to Port Loko Government Hospital where Partners in Health was also supporting some of the day-to-day medical care, non-Ebola medical care happening at that facility. Through the discharge of this woman, who was ultimately actually EVD-positive, to the Port Loko Government Hospital, an American Partners in Health staff member who was working in the government hospital acquired EVD from this woman before she was ultimately actually discharged as essentially a terminal hospice patient back to her community where she then died and her body was swabbed positive for Ebola. So this woman had really been failed by several layers of mismanagement and misunderstanding.

But aside from the frustration and the very understandable anger that her family felt having done the right thing by informing the Ebola response architecture of her sickness and having her be picked up by an ambulance and tested, and going through all of the right ropes and procedures; putting that aside, which is obviously an important story, the implication of that was that a staff member did end up falling ill, an international staff member of Partners in Health. That staff member was living at a place called the IHP camp, the International Humanitarian Partnership camp, which was about one hundred fifty individuals living in an identified compound. It was a sort of temporary tent city. It had its own canteen, it had its own latrines and toilets, and about eight people would

share a big tent, and these were thrown up. I don't know of any others in the country, but this was thrown up in order to provide some accommodation in an area where there was a great need to have a lot of intervening individuals, because there was GOAL, Partners in Health, there was Public Health England, there was the Centers for Disease Control, although I think they mostly stayed at a different facility. But this camp was thrown up and this individual who was working for Partners in Health was living there, and he fell ill. Unfortunately, when he fell ill, as he had only been there for a short while, he actually decided not to report that and he went back to work, even though he was feeling ill. He went back to work, he collapsed at work, and I actually don't know whether or not this is now at the Partners in Health Maforki ETC or if this is at the Port Loko Government Hospital. I'm not sure which he was returning to, but he returned to his work either way and actually then collapsed at work, was brought back to the International Humanitarian Partnership camp by a colleague of his to rest. Still, there was no information that was provided or flagged with those who would ultimately be responsible for any kind of illness like this. And he felt increasingly ill the next day, went back to work again—and this is now from first symptoms on a Thursday evening, Friday morning I think is the right timeline, went to work, collapsed on a Friday, went back to work on a Saturday, collapsed again before eventually on Saturday evening, being evacuated as an individual to—I'm not sure where he was evacuated. I'm not sure if he was immediately evacuated from the country or if he was evacuated to Kerry Town, which is one of the facilities that expatriate or Sierra Leonean healthcare workers would be sent to. But either way, he was pulled out.

Unfortunately, still at this point, no one was actually informed about the fact that this man had been ill and had been living alongside one hundred fifty other people.

Eventually, there had been some rumblings about something happening within Partners in Health, and on Monday the District Ebola Response Center where I was working was informed by the Partners in Health leadership that they had a staff member that had fallen ill, that they were going to be evacuating their staff, and unfortunately, I don't think it was until Tuesday that they had actually provided the information as to who the staff member was or the fact that that staff member had been living at this international humanitarian camp. So we're looking at almost five days between someone falling ill and anything much being done about it. I'm sure you can imagine that there was this unbelievable chaos associated with finally figuring out who this individual was and the fact that the international humanitarian camp was now really kind of a hotbed for Ebola contacts. The correct procedure would have been to quarantine anyone who was considered a high-risk contact, and because of the implementation of that policy in the field, there was quite a wide definition for what high-risk contact would be. It looked possible that as many as one hundred fifty other people were going to have to be contained at this camp.

The immediate chaos of dealing with this case was less about figuring out or even thinking about what was going on at the Partners in Health Maforki Ebola treatment center, but was really about the real urgency of understanding how to get staff who were at this camp to continue working. The clinical staff of the GOAL Ebola treatment center, they were living there; the Public Health England lab [laboratory], which did lab work for

the district, all of their staff were living there. There were a number of other agencies and organizations that had their staff there and we were dealing with a situation where those hundred fifty people really might need to essentially be locked in that compound for a period of twenty-one days, which would have completely destabilized the day-to-day operation of the response. I remember at that time, working for GOAL but really seconded to the command center, but in that sense, almost a liaison between GOAL and the command center. For example, one implication of this was that for a period of about forty-eight hours until this urgent situation—someone could get a bit of a handle on it, we had to keep the same clinical staff, that when the IHP camp had been temporarily quarantined for a period of about three days, we had staff that were at the Ebola treatment center when that quarantine was put in place. Those clinical staff, they had to sleep at the Ebola treatment center and they had to do something like four or five consecutive shifts because there were no other clinical staff available to treat the patients in the center because the other clinical staff who would have rotated out with them were currently being contact traced and investigated by the Centers for Disease Control and the World Health Organization back at the IHP camp. That's one small example. We had to start sending lab work to other districts. We really struggled to deal with incoming patients. Some patients had to be sent to treatment centers quite a ways away because there was not the necessary amount of staff to deal with those incoming patients and so on and so forth. There was a real sense of chaos, to the point that we had to find—one of the things I remember doing was running out and having to find something like one hundred fifty thermometers. We didn't even know where we were going to get them but we needed to give a thermometer to everyone in this camp because all of a sudden, we had so many

contacts, there was no way that we were going to go around and be able to check their temperature every day, which is what would be expected. Because we suddenly had all these people. So we had to go find a box of one hundred fifty thermometers and distribute them at this camp. We had to figure out how we were going to get food to this camp for three days, and eventually, the decision was made in consultation with the DERC [District Ebola response center] and the WHO [World Health Organization] and CDC that people who really could be considered low-risk contacts, they could go back to work as long as they were carefully monitored and so on and so forth.

Now, in light of dealing with the urgency of this staffing problem, what ended up kind of sneaking behind the radar, and there are really no excuses for that, was that the international staff had pulled out of the Partners in Health facility. They had been flown out of the country very urgently by their organization. Staff who had been all very high-risk contacts, because Partners in Health did not have a no-touch policy—now, I'm sure that others have spoken about this, but most organizations had a no-touch policy. You weren't allowed to shake hands or hug or dance with other people on the basis that if one of those people did become sick, you then yourself were protected, you were a low-risk contact, you could continue doing your work. That was either not a policy or not practiced by Partners in Health. There was almost a running joke that they were the ones out dancing and partying and so they all got pulled out. And what we did not at that time have the bandwidth to think about was the implication for the patients in the facility, and I remember there being an assumption that they have to be dealing with that. Surely, someone there is figuring out what is going to happen with those patients. They're

pulling their own people out, so let's concentrate on what is our responsibility: contact tracing and investigating all of these contacts at the IHP camp and dealing with the operational implications of this sudden quarantine. You know, that's their facility, let them deal with that and so on and so forth. It turned out that was an assumption, and it was an assumption based on an assumption, which was an assumption by Partners in Health that if they pulled out, that the local Sierra Leonean staff of the facility would liaise with the necessary people to get the patients in their facility transferred effectively, appropriately, and with all the requisite kind of paperwork and documentation and doctors' notes that they needed. That was very much an assumption by Partners in Health and very unfortunately, it was ill-founded. That was because the staff at the facility understood that as soon as that facility shut down—which was definitely going to happen now that Partners in Health was withdrawing, once the last patient left the facility—that as long as there were patients in the facility, they would continue to be cut paychecks. So they decided within their facility that they were not going to tell anyone about this until the last possible moment, which would provide them the longest possible number of days of employment.

I don't know exactly the day, but sometime in probably just twenty-four or forty-eight hours after the lockdown of the IHP camp, three individuals—at least two of them under the age of five, including an infant—were dropped off with completely wet symptoms, and they were sent at about midnight from the Partners in Health facility to the GOAL facility. Within about twenty minutes of them arriving, they had died. They had no documentation. They were thrown in the ambulance together, which was clearly an issue

for highly symptomatic and infectious individuals. They had no documentation, they had no paperwork, they had no nurse with them. There was no information whatsoever. There was an ambulance that showed up with three vomiting, diarrheal, bleeding under-five-year-olds, and they just kind of rolled out the back of the ambulance and were pretty much dead as soon as they did so. This in light of the chaos happening at IHP and the fact that the staff at GOAL were already really struggling, I'm sure kind of lends itself to the overall chaos of what was going on. It's really hard to describe how many different conversations and problems and needs they were addressing themselves simultaneously. And you throw into this, I think that there had been a very poisonous snake that had gone through the GOAL compound and at the same time, someone else had dropped off outside the GOAL residence who was very symptomatic because they thought that they had Ebola and asked to go to GOAL, so they ended up at the residence, so then there was this whole other chaotic thing on the side. Anyway, in light of all this, these patients roll out and they passed away very quickly, and this is clearly highly traumatic for a lot of individuals in the facility. There was no way of informing these children's families because we did not know who they were, and we eventually ascertained that this ambulance had come from the Partners in Health facility because these three patients really could not be taken care of by the staff that had been left—the local staff that had been left at the Partners in Health Maforki ETC. So shortly thereafter, and I'm sure there would have been some kind of response mounted to get to the Partners in Health facility to figure out who these patients were, where they came from, to confirm that they had been EVD positive—again, we didn't actually know. We just knew that they were very, very symptomatic, and to hopefully find out some paperwork and documentation about

who the families of these individuals were so we could reach out to them. Shortly thereafter, the command center, and this is now two, three, or four in the morning, started getting phone calls—or rather we do at home—start getting phone calls that the facility is being looted and—

Q: I'm sorry, I didn't hear you. The facility was being what now?

Boland: It was being looted, it was being sort of ransacked, equipment was being stolen from this facility.

Q: Oh my gosh, okay.

Boland: And again, this is only like a few hours after these patients were dropped off. We're still dealing with what's going on with—you know, how we're going to get people up to the GOAL ETC to help take care of people because all of the staff were locked up. So, at like three, four in the morning, now we get this phone call that the Maforki ETC is being looted. A few people go around in a car, and we realized that there were people running in and out of the facility, taking filing cabinets, taking tarpaulin, taking hospital beds. And I have to say in light of how much other stuff was going on, there was this moment where everyone who showed up to this kind of went, well, really not the top of our priority list. They already sent these patients who were violently ill, deathly ill over to GOAL, and this facility was going to shut down anyway, we've got more stuff to do, like whatever, let them steal it—until we realized two things. One of which was that a lot of

the stuff that was getting taken was potentially highly infectious. You could see people going in and out of the quote-unquote “red zone” of the facility, which is the area that people who were confirmed Ebola positive or suspect Ebola positive would be being treated. And they were pulling out mattresses and hospital beds and all sorts of stuff that really needed to be incinerated. The bigger problem was that we then suddenly realized that we had no actual record or paperwork to show that the three individuals who had been dropped off at GOAL exceptionally ill had actually been the only patients inside that facility. And at that point at four in the morning, it was really I think too dark to safely investigate that issue. But come daybreak, we were able to ascertain that there were still several people who were thankfully less sick than those who had been dropped off, but several very sick individuals still inside the facility who we were able to very carefully, and at frankly great risk to the people doing this who did not know the design or the layout of this facility, were able to arrange for several ambulances to come to take these people who were not confirmed but still suspect or probable Ebola-positive patients to the GOAL and the IMC facilities. And meanwhile, also ascertain that several people who had been in that facility in the course of the process of the facility being looted had actually—some who were healthy enough actually stood up and left, and so there were some patients who we never found. I obviously hoped daily that maybe they just had malaria, which would not have been unlikely, that they were fine, that they just went home. But because of the lack of recordkeeping, because of the lack of management, and the overall irresponsible sort of arrangement and what ended up happening at that facility, we had no idea who any of these people were. We did not know who was in the facility, we did not know who had been discharged from the facility, we did not know where they

had come from, and the command center had information about the patients who had been dropped off at this facility, but the documentation that had been provided in no way corresponded or matched with—or at least only did in part—the patients that had been dropped off at GOAL and those who had remained inside the facility. And we kind of just ended up in a situation where we really just had to shrug our shoulders and cross our fingers that the implications of this in terms of the disease spread would be contained and if not, we would deal with these new cases that were cropping up as we would any other new cases. As far as I know, thankfully, other than the woman from the beginning who had been sent incorrectly home who did end up dying and who did end up infecting a family member—the family member I believe ended up surviving—I believe other than her, and there was a national staff member who we suspect fell ill working with the American who had contracted Ebola who was not evacuated from the country, he was sent to treatment I believe at the Kerry Town facility in Sierra Leone and I believe he survived—I don't believe that we know of any cases that came from this. But broadly speaking, and I suppose not necessarily in sum, but regardless of the implications for the spread of Ebola, there had been a really clear and a profound failure of the individual patients that had been inside that facility. It was clear from those who had been dropped off at GOAL that not only had the transfer of those patients been hugely irresponsible, but the treatment of those patients had been nowhere near the quality that we had come to expect at that stage in the outbreak. And the fact that several people who admittedly were less ill but nonetheless still quite ill were inside a facility that had been not only abandoned but robbed thin and robbed dry of its equipment, and anyone who could provide information about these patients, about their treatment protocols, about their

progress, or about any potential diagnosis that they had received from laboratory results, had disappeared, and there was no way that we could provide people with the efficiency and the effectiveness of care that would have been possible had that facility not been so dramatically abandoned. That's really more or less my knowledge of that event, and there are other people that could provide further details into that. But I remember feeling on that basis incredibly angry and confused. I actually remember being at an event later where Paul [E.] Farmer stood up and spoke about how exceptional Partners in Health work had been in the context of standing up to fight Ebola and needing to walk away, knowing that if I stayed, I would probably stand up and try and say something and I didn't feel like that would have been productive for anyone. There was a real sense not only of lack of quality care generally leading up to this event, but through this event, the real abandonment of patients and of individuals in great need, and it was a really tragic story. It was probably the most evocatively painful event of the entire outbreak for me.

Q: Thank you, Sam. Thank you for sharing. As you can imagine, I have a few questions.

Boland: Sure. I don't know how much more I have to say but you're welcome to ask them and I'll remember as much as I can.

Q: For sure, and they're not very crystalized questions either. Some of them are just like, what? This happened?

Boland: Go for it.

Q: Okay, so back to the beginning. This woman who was discharged on hospice after being sent from—so she was in Maforki. After one negative test, she was sent to Port Loko Government Hospital. Is that correct?

Boland: Yeah, so she had light symptoms when—I was actually—unusually, I didn't go out to the field all that frequently. I actually was physically there when she got picked up in the field, and she was feeling ill but was still able to smile and was not seriously ill. As you said, was then taken to the Maforki Partners in Health Ebola treatment center where she had one negative Ebola test before then being discharged as undiagnosed sickness but non-Ebola sickness to the Port Loko Government Hospital. And from there, I believe it was the instance where the American Partners in Health employee contracted Ebola from her because the negative test was in error. Procedure would have called for a second test after seventy-two hours before discharge, but that never happened. She was eventually sent home when people could not ascertain what was wrong with her and told to go home where she would hopefully either get better or she would die, where she eventually did.

Q: Is it correct to say that—okay, first of all, you actually did meet her at one point or see her.

Boland: Right at the beginning when she was picked up. I was physically there when the surveillance officer did an investigation of her. I remember having a conversation with that surveillance officer at that time, on exactly the basis that she did not seem to be

acutely ill and there was this question mark of does this or does this not check the right boxes to suggest that she would need to be collected. She had been only about one hundred fifty yards down the road from a house that had been under quarantine for quite some time, and I think that on that basis, there was a decision made between me and the surveillance officer to say, better safe than sorry, I think that it does make sense to pick this individual up. So yeah, I was physically there was she was collected.

Q: Can you tell me what she looked like?

Boland: Yeah, she was young. It's hard to say how old she would have been but she was probably like twenty-two or twenty-three. She looked very healthy. I remember she was sitting down on sort of a concrete step when we came across her, and I remember at the time feeling very welcomed actually by her and her father, who had been the one who had called us. It was very unusual to feel that sense of welcomeness, and what felt to me, though how much this is projecting is hard to say, what felt to me like trust. She was incredibly open about the sort of symptoms that she was having, which included bloody stool, which was definitely a red flag but could be caused by a number of other things. And she wasn't particularly upset when we said that it made sense to bring her in. It turned out actually that her dad, and maybe the reason that she had herself been okay and very transparent and open with us, was her dad was the head of the local Ebola response task force, so it kind of makes sense on that basis that they had been so open about calling, they called really early, they did everything they needed to do. When we went there, she was sitting on that step looking reasonably healthy. She was a young, fit

woman, clearly not feeling great, but there with a big, healthy family, and it didn't feel consequential when I was there because I didn't know what would end up happening. We had just come from this quarantined house down the road, which was very different. That house had been in quarantine for more than a period of three months because they kept having cases come out of the household every couple of weeks, and that twenty-one-day quarantine kept being re-upped and re-upped and re-upped. In light of seeing her, a healthy, very beautiful young woman, having just come from a house that was really so traumatized and so desperate, kind of felt like well, probably no big deal, better safe than sorry, but this does not feel—this did not feel noteworthy. And we had seen someone at the first house who had been incredibly ill inside their quarantine, so we had already called the ambulance, and I remember feeling and talking with the surveillance officer at that first house, the quarantined house, thinking wow, I would be shocked if that person does not have Ebola, like there's another case absolutely. Then coming to this woman down the road and feeling the complete opposite, going, this is definitely a sort of false-positive and there's no way that this is going to materialize to an Ebola case. And the reverse was the truth. The person at the first household had a bad case of malaria and the woman who everyone thought was almost certainly fine did end up having Ebola.

Q: Thanks for talking about that, that even for you at that point, it seemed like maybe she didn't have Ebola. But as you mentioned, there were protocols in place and the protocol was to test twice. Do you know for sure that that's what the protocol was at the Maforki ETU [Ebola treatment unit]?

Boland: That was a very clear, like WHO [World Health Organization] treatment guideline, so that wasn't just a facility-to-facility procedure. That was very much a national expectation that you would have a second negative test after seventy-two hours.

Q: That makes sense. I guess I'm just asking you to confirm this for me. My understanding is that the earlier you catch an Ebola case, the fewer symptoms that have manifested, the more likely a person is to be saved. Is that correct?

Boland: Yeah, absolutely. Had she been held at the facility and had she then been found to have a positive Ebola test, she was in probably the best possible case scenario for overcoming her illness. As you know, there is no real identified treatment for Ebola other than treating symptoms, trying to prevent bleeding, hydration replacement and so on and so forth. But definitely, she was in a good position to be healed, as good as anyone could be, which again, still meant that she was at great risk but definitely had a real fighting chance that she never really had the opportunity to have.

Q: Right. Another thing that strikes me is that once she is sent to the Port Loko Government Hospital and is presumed not to have Ebola, that there was contact with her that led someone else to being exposed and in fact got Ebola. It seems crazy to me that in a situation like when there's Ebola in the country, no matter what you think you know about a patient, that you would abandon your infection prevention and control practices on a presumption that someone doesn't have Ebola.

Boland: I very much agree with you, and I remember that we had long conversations following this event about how to most appropriately manage very sick individuals within a facility. A complicating factor is that anyone who was discharged from an Ebola treatment center was given a discharge certificate. So when she was discharged from the Maforki ETC and referred to the Port Loko Government Hospital, she will have held with her a piece of paper from the Partners in Health Maforki ETC that had the stamp of the district medical officer, who—he had to stamp all of these discharge certificates, but the reality was they were all stamped in an office and then distributed for the facility at the point of discharge to complete the remaining signature. The basis of that was that the clinical decision for each individual patient was from the facility, not from the DMO. He just needed to sanction the legal document. So she would have held a legal document, a signed document from the Maforki ETC saying that she had been tested for Ebola, that that test had been negative, and therefore, that she should receive treatment without people being afraid to come near her or to touch her or to engage with her. But to your point, even that aside, in the context of the Ebola response and the context of particularly the Port Loko area where we were, it is nonetheless surprising that basic IPC [infection prevention and control] procedures would not have been followed because chances are pretty high that had they been, even with an Ebola-positive patient, you really should be okay. I think that probably what happened, and I am conjecturing, I know that she would have shown up with one of these documents and I know that the treatment she was receiving was from someone who had only been in the country for a period of one or two weeks, something like that. It was a very short period of time, and I think that those two

things combined just really did not lend themselves to resilient or appropriately cautious IPC.

Q: Did Partners in Health have many staff who were in-country and treating people who they believed were not Ebola patients or even survivors, who were just contributing to the normal healthcare system of the country?

Boland: Yeah, I do know that they did. I wish I could give you a little more specifics. I do know that they had a formal arrangement with the Port Loko Government Hospital for providing non-Ebola care. I do know, but only from this being told to me with no real detail underneath it, that there was a big question mark about the quality and the reliability of that care, but nonetheless, they were there trying to help out as best they could. I also know that Partners in Health, one thing that they did do is have a kind of community outreach program. So they did have staff beyond the Ebola treatment center staff, and that conformed much more closely to what Partners in Health is known to be good at actually, because that would have been mobile teams, community teams, going out and providing education and perhaps some very basic medical care, though I do not know whether or not they were doing the latter. So yes, they had other staff. They had staff that were working in ostensibly nonclinical roles. They had some clinical staff working in non-Ebola roles. I don't know actually the true extent to which that was true. I can only speak to what was going on in Port Loko District, which had the Port Loko Government Hospital, the Partners in Health Maforki ETC, and then some community outreach programs that they had as well.

Q: The next part of the story that kind of struck me was when she was so sick that she was discharged to hospice, like back into the community. Again, they didn't think that she had Ebola, but such a big lesson of Ebola was that the sooner that you get someone out of the community where they're more likely to transmit, the better, right? So the ongoing practice during an Ebola epidemic of discharging very sick individuals to hospice, to their home, seems questionable to me.

Boland: I agree. Again, I think it was predicated on this belief from the certificate that she held that whatever she was sick with, it wasn't Ebola, that she was really sick and let's maybe send her home with maybe a course of antibiotics and some antimalarials. We'll throw what we can at her and hopefully, that'll get her better, but there's nothing else we can do for her here, so she might as well go take those medicines at home surrounded by family. It may have been—I don't know if she was discharged on the assumption that she would not recover, so for me to say she was discharged on hospice is perhaps unfair. I think maybe a better way to put it was she was discharged to complete treatment at home, or they decided that she was ill to the point at which she would not recover and it would be best for her to pass away at home. I can imagine and foresee both of those things occurring, but provided she did end up having Ebola and did end up dying, there was no way that she wasn't becoming progressively more ill. So she definitely was not sent home on the basis of her recovering. I guess that is appropriately somewhat of an assumption of mine. All I do know is that she was being treated at facility for which she not recovering, she was not getting better, and for whichever reason she either chose to or

was sent back home to her community where she actually received—funnily enough, it's really kind of a good anecdote for—just a confluence of everything going wrong. Not only did she get sent home where she died at home, because she had a negative certificate for Ebola, she was then buried by her family who felt that they could safely conduct an at-home burial because of the fact that she had this negative discharge. And before that, she was actually treated by a local traditional healer. So I mean, it was absolute chaos when she went home. In the course of digging through the investigation thereafter—I'm rambling.

Q: No, you're not. This is really important. I was about to ask about the family. Do you happen to know if she transmitted to others during that care or that burial?

Boland: It's a really good question, and I would need to go back and look at some notes to know if that was true. Off the top of my head, I think we might have gotten real lucky, and I don't know of any off the top of my head. However, the other sort of side point is I'm not sure that we would know, and part of the reason that I say that is again, going back to this idea that her father, who had called us, was the head of the Ebola response community task force for the area, which was Lungi, right where the airport is. It's a fairly big town, and his daughter—he had done everything right. His daughter had been taken by an ambulance. She had been discharged, found to be Ebola negative. She was then sent back with an Ebola-negative certificate. And I remember him very understandably coming back to the command center and saying look, I and no one I can convince is going to cooperate with you guys anymore because not only did we do

everything right and she still died, but in the process, you then put me and us and my family and some of the people of my community at risk because we assumed everything was okay provided the negative discharge certificate. So we had a good probably six weeks or something thereabouts in the Lungi area, which was like I said, a very kind of epidemiologically difficult area—and there was a good six weeks where we couldn't get the time of day from anyone, and I don't blame them. I think that the decision of people there to really close off the outside response off the basis of this particular story was more or less reasonable. Was it sort of data driven? No, it was anecdotally driven, but nonetheless, I guess at the least, I understand it. Like I said, I don't know of anyone in particular that did end up becoming ill and getting Ebola from this. I do know that it was highly complicated epidemiologically from the traditional healer that had come and from the burial that had happened, and I do know that we got no information whatsoever from this area for some time, so it's possible that people did get sick and we just weren't told, but not that I know of.

Q: This is just a side note, but were you there long enough that you actually saw after that period of intense distrust, a rewarming of relationships and a reengaged readiness to be sharing info [information] with the international community?

Boland: I think that what ended up happening—or not I think, I was there thereafter.

What ended up happening in the Lungi area was that there was another cluster of cases. So after this, about six or eight weeks later, there was an identified cluster of cases that came up and it was in a different part of the town away from this family that had been so

traumatized by this experience. Because of that and because a positive case got flagged up in that other part of town, and I think also as an aside, because of the strategic and political importance of this town from the point of view of the president, who became more or less directly involved with dealing with the Lungi outbreaks because of the presence of the airport there, the international community more or less had an excuse to go back in, and I think through this other case that was somewhere else in town, was almost by default not invited back in but kind of had to come back in. I think through that, and at the point at which the president became involved and engaged the paramount chiefs and local leaders, people did kind of back off and started engaging. Though again, even then I remember it being really difficult. It was luck more than anything that we found that positive case that got the Ebola response back into Lungi and working again.

Q: Thank you. Switching gears or moving on a little bit, such an important part of this as you have described is just the lack of communication between Partners in Health and GOAL and IMC. That Partners in Health was basically withholding this important information that one of their American volunteers was ill. And it took more than a weekend for them to actually communicate meaningfully that that meant something for you guys. Were there clear rules in place regarding communication between your agencies?

Boland: The communication that should have occurred was not necessarily between agencies but with the command center, or DERC, and that was very clear. There was a clear directive that anyone who fell sick with anything—actually at all, it didn't even

have to conform to Ebola symptoms—had to inform the district command center, who would then send out a surveillance officer to ascertain if that person met case definition for Ebola. And if not, they were free to go on their way. If they did, then they would be collected by an ambulance, sent to one of the three Ebola treatment centers, where they would wait for two negative tests before discharge, or if one was positive, receive treatment. There was very much an expectation and, in fact, a law—a national law—that if one was ill, one had to alert the local authorities through the 1-1-7 call system, which would be rerouted to the geographically appropriate command center, to the DERC. So in a sense, there was no horizontal communication between, for example, GOAL, IMC, and Maforki, but that conversation and any communication was very much expected through the command center as a feedback mechanism for expressing who were the patients you had, how were they doing, what were their results that were coming through—though that information was also coming sideways from Public Health England who ran the lab—when you were discharging them, and definitely if any of your staff members fell ill. A lot of agencies chose to deal with some of that internally because I think really pejoratively that agencies felt that our whole point is to be here to deal with the Ebola outbreak, so we are well placed to identify if someone is sick with Ebola symptoms, so we'll deal with it until it's really clear that they're really ill and then we'll flag it. I think that a good example of that actually is this case. When this individual fell ill, one thing that we did for every single person who tested positive for Ebola in the command center in the closed evening briefs, was to throw a slide up for every case saying this is the patient, this is what we know about them, these are the contacts that we know that they have, this is the number of contacts that we've been able to follow up on, these are the

number of contacts that are missing, and it was basically a case slide for each individual that had tested positive. Inside the command center, we threw up a case slide for the American who had fallen sick, as we did every other case. Man, I can't explain to you the vitriol that we received from the Partners in Health employee that was there that had not yet been evacuated because we had thrown up—you're throwing up patient information, you're throwing up Partners in Health information, this is privileged data, etcetera, but the same individual had been sitting in this meeting day after day after day as we brought up this information about Sierra Leoneans. I'm not saying whether or not there's a good conversation to have around maintaining confidentiality in the context of an emergency like this. I think that there is a real conversation to have about it, but there was definitely a pretty deep hypocrisy of feeling that the Sierra Leoneans, they definitely have to call 1-1-7 if they're sick. If we're sick, we're a big group of doctors. Like I'm not a doctor, I can go to my doctor colleague, or if I am a doctor, I know what Ebola looks like, I know what the symptoms are, I'll call myself in if it ever gets there but I'll try and treat myself at home first. Again, I'm rambling, but there was definitely a distinction between those two things.

Q: You're not rambling at all. In fact, my next question was going to be about speculating whether the delay in communicating this info to the DERC was due to ideas about the patient confidentiality of international health workers. I like how you've brought that up and problematized it as a double standard, that we can know everything about a Sierra Leonean but if one of ours is sick, then that's a private matter. Wow.

Boland: That was absolutely a double standard, and it couldn't have been—I mean it was clear as day, and I often bring that up, that particular moment, as an anecdote when trying to explain to people some of the complexities of the international/national divide. But yeah, there was very little semblance that—yeah, we were all in this together, but there were very different expectations for what was an appropriate response to someone falling sick internationally and nationally. On that note, the American Partners in Health employee who fell sick, he was flown back to the United States. The Partners in Health national employee who fell sick ended up in a Sierra Leonean treatment center with a radically different understanding of what quality care meant. There was absolutely an institutionalized division between what it meant to be sick as a white international individual or a black Sierra Leonean.

Q: I think I might be guilty of something here because I hadn't completely internalized that it wasn't just an American who got sick but also there was a national Partners in Health Sierra Leonean staff who fell ill. Do you know if that individual who was treated then in Sierra Leone—do you know what their outcome was? Are they alive today to your knowledge? Do you have any idea?

Boland: It is a good question. My very vague memory is I do believe that that individual did survive after receiving treatment in Sierra Leone. Because of the context of the emergency, that individual was identified as Ebola positive very early and hence, that probably contributed to their wellbeing and their recovery. I do not know for sure whether or not that person survived. I can say for sure that they would not have received

nearly the same quality of treatment and the probability that they would have survived would have been much lower compared with had they been pulled out and back to the United States as the American had been.

Q: Switching gears just a little bit again, what is up with this Partners in Health not having the no-touch policy? I've understood that to be part of a nationwide campaign to educate all people and Sierra Leoneans, who are conceived to be people who love to touch and hug, not to do those things. Do you know why? I know that's a question for Partners in Health really, but do you know what motivated the lack of that policy on their part?

Boland: I really don't. Again, I should preface it, they may have had that policy. What I can say is that they definitely did not engage in it, and like I said, I thought nothing of it when I first arrived in Sierra Leone. But yeah, I remember there being this quiet, kind of joking, making fun of but not in a mean way the Partners in Health folks for how much they'd be up dancing and so on and so forth. I think part of that was almost like jealousy, because all of the other organizations were sitting back in their chairs, not able to shake hands with people. You'd be at a gathering of people and the Partners in Health people would be off on the side swing dancing and shit, and I remember just feeling that that was very strange. But I think to try and be as reflective as possible about my own biases here, I think at the time, while that seemed irresponsible, there was no law against that. I also think that in a very stressful environment, I can very much understand the desire of people to reengage with human contact like that. It was really challenging, exceptionally

challenging, and stressful to not have that human touch while one was there. And I think there was also this kind of biased idea that yeah, that's clearly a bad idea, but also our no-touch policy is clearly kind of overwrought, it's kind of overdoing it, and I'm sure everything would be fine, because you have to go in assuming that everything's going to be fine because if you really think that there's a real genuine risk of becoming infected, then I think you're in a very difficult position in terms of maintaining the strength and stability that you need day to day to keep going. I guess ultimately, there is a good balance, and that good balance is to not be too worried about it as long as you maintain these policies. For better or for worse, and ultimately for worse—at least that pattern of behavior did end up becoming really damaging. I don't know why that seems to be less ingrained. What I can say—I'll kind of sidetrack for a moment—what I can say and what is corroborated by the one article I have seen written about this failure at the Maforki ETC was that there was systematic mismanagement of the Partners in Health staff, that there had been a complete dearth of actual managers. It was a very horizontal structure where like let's send some doctors out, they can deal with this, they can come up with their own structures, their own management. They can coordinate things as they wish, but no one's technically—there's one person who's technically in charge, but beyond that, it's just a big group of people who are going out to help. Our organization, it was like a military endeavor. We had clear chains of command. It was highly structured. There were very obvious line managers who would observe you and make sure that you were doing what you were told. And we did fire a few people for behaving in such a way that could have put themselves at risk. In our organization, I remember people getting kicked out. So I would say yeah, part of it was just kind of, people are people, and I guess everyone

thought it was probably fine. Part of it I do think was the organizational structure that they came with, the same organizational structure that led to clinical mismanagement. Operational mismanagement within the treatment center I think meant that there were very few people to really put their foot down and say, you can't do this, you can't do that, there just wasn't the hierarchy to make that happen.

Q: I think this informs my next question, which was the staff who remained in the Maforki ETU with those patients in order to continue collecting a paycheck, those were local Partners in Health staff, is that correct?

Boland: Yeah, it was kind of a slightly muddled arrangement, though on paper it makes sense. They were—I believe Ministry of Health and Sanitation selected staff.

Technically, were they Partners in Health? Where they Ministry of Health and Sanitation? I'm not entirely sure. They were certainly being paid through Partners in Health, who were kind of supporting them to be there. I don't know technically who they fell under. I think technically, they fell under Ministry of Health and Sanitation, but as supported by Partners in Health.

Q: Right. I can very easily imagine a scenario where Partners in Health would want to shift blame to local Sierra Leoneans for what happened, for failing to get these people adequately transferred, when in fact their actions are a result of a more systemic problem that I think you were describing with management.

Boland: Yeah, there were systematized management failures that resulted in not only the unnecessary infection of both a national and an international healthcare worker, but also at the least, temporary abandonment of patients. I in no way ascribe any kind of blame to national staff for the decisions that they made. I actually think that it's entirely understandable, in the context of—in a vacuum, would I have raised my hand and appropriately arranged transfers for these patients? Sure. I think that most people who are thinking in a vacuum would think that that's of course what you would do, but you're not working in a vacuum, you're working in a really complicated environment with a lot of very desperate people. Those desperate people may be patients, they may also be your employees. This is the first time that they've seen fifty bucks in their entire life. I ascribe no kind of guilt or blame to the national staff. I think that ultimately, Partners in Health assumed the managerial and the technical responsibility for running the Maforki ETC. The arrangement that they had with the government was that the government would provide national staff to do things like to be hygienists, to be cleaners, to work on decontamination and incineration and so on and so forth, and I think that when you take that responsibility, you fully take that responsibility and you are accountable to the structures you put in place and the ways in which you're able to maintain rigor and resilience and good clinical management within them, and they completely failed.

Q: I just also wanted to amplify one fact that you made which was looking at—sorry, I'm echoing, that's weird. I'm going to take off my headphones for a sec [second]. Which was looking at how those three little girls arrived at the GOAL ETU without any paperwork and that when you tried to trace who they were and then you tried to trace

who the remaining patients in the Maforki ETU might have been, that the records didn't seem to match what your evidence was of the actual people, right? So I guess I just wanted to confirm again that among the things that were mismanaged was also the actual paperwork around these individuals, the recordkeeping that you would think is vital for caring for them, right?

Boland: It is one of the things that I do remember vividly. There was none. I mean, maybe there had been clinical notes and Partners in Health in their evacuation decided that that was sensitive information that they needed to take with them, or what, I have no idea. But there was nothing.

Q: Okay, so what's it been like sitting with this? Maybe that's not the right word, maybe you're not sitting with it. What have you done with this experience?

Boland: I have kind of sat on it. Every once in a while, I catch back up for drinks with some friends from the field and we spend a good forty-five minutes venting about it, and every time it gets a little less painful to talk about. I think it feels significantly political that I think no one quite felt like they could raise their hand and blurt out to whoever would listen about it. There had been that *New York Times* article which kind of deflated a little bit of the anger there, and did call Partners in Health out on some of their failures, though not nearly to the extent that they really happened. And sort of less meaningful but nonetheless somewhat cathartic, I've written about it a little bit, though nothing that ended up being published, but some form of writing that I'm kind of sitting on.

Depressingly little in the scheme of what feels like something that needs to be talked about.

Q: Why does it feel like it needs to be talked about?

Boland: I'm not a lawyer, I'm not a clinician, I am one individual who was aware of this instance among a number of others who are more senior than myself. But to me, it seems like criminal negligence. I think that it's a really key anecdote and instance of not only the failure of an intervention, but real clinical harm being created by one without any sense of accountability for the ramification and the implications of what ultimately materialized. And I think that it in some ways speaks to the worst of what the field of humanitarian response and public health interventions can bring. I think that if we don't highlight them and we don't talk about them transparently and we continue to try and shove them under the carpet, then I'm not sure that ultimately there is going to be sustainable trust, either within the people who work in that field or among the people that that field attempts to help, and without that trust I don't think that there is a sustainable future for the ability to engage communities and to really get the best outcome for populations of people. That all sounds very highfalutin, but I do believe all of those things and I think that on that basis, nothing can happen without transparency and I think that that was lost here.

Q: I'm going to move on to kind of wrapping up I think our conversation about your broader experiences too in Sierra Leone. Is there anything that you think you have left to say regarding what happened with Partners in Health?

Boland: No. I'm sure one or two other random little details would come out if we did keep talking about it, but I'm trying to make sure I only speak with you about things that I've corroborated with other people, and I think if we do keep talking, it kind of gets into some things that I think I remember but I'm not entirely sure and so I think that that's all good.

Q: That sounds totally valid. So, can you tell me about—we had talked about Kambia [District], and how it was so different from Port Loko. Tell me about wrapping things up in Kambia and wrapping things up with your time in Sierra Leone altogether.

Boland: Sure. It was not that eventful really, barring one particular moment. The context of the outbreak had been such that arriving as I did in late 2014, early 2015, at the peak of the epidemic in the epicenter of the country in Port Loko, and dealing with a hundred, hundred fifty confirmed cases a week but definitely three or four times that, and then even by sort of July and August when I'm up in Kambia, we're dealing with one case every couple of weeks tops. I suppose I had also seen it as part of my responsibility while I was there to hand over the management of what I was doing to Sierra Leonean individuals. The vast majority of what I had been doing, I really worked with Osman Barrie, who we've talked about, and he really took on the role that I had been playing in

trying to continue coordinating surveillance. In a sense, there was this almost like twiddling of thumbs, with the exception of trying to get people paid. That became almost like a full-time job when I was able to offline some stuff to Barrie. But what it did mean was that the chaos at the beginning of the outbreak had really dramatically changed to almost like the doldrums while you're just waiting for those last cases to trickle away. The real exception to that was—I think it was the second-to-last case of Ebola, or the second-to-last cluster of cases in the country. It was in Sella Kafta, which was two towns, Sella and Kafta, which were immediately adjacent to one another in Kambia. I forget exactly the timeline off the top of my head, it would have been probably mid to late July or perhaps even mid-August, something thereabouts, when the Sella Kafta cluster unfolded. There had been this decision at that point—I think there was one case at the time followed by two or three more who had acquired Ebola from that one individual. The town of Sella Kafta essentially was entirely quarantined. Now, I think there's a big conversation to have about whether or not that was appropriate, but what it did mean was that there were nine hundred people in one town, and it really did feel like the last hurrah of the Ebola outbreak. From what we could tell, in every other district there was nothing. I remember looking in Port Loko, for example, at the board where we had written down how many days it had been since the last case and seeing forty-two, which is two incubation periods, plus something like thirty-five or something. It had been like seventy-five, eighty days since we had had a case. In Kambia, we had this last hurrah. We had nine hundred people in quarantine. What I was able to do just before I left was go out to this community and to be there when they discharged the community. Two or three houses, the two or three that had those secondary cases, remained in quarantine. But there

was what felt like a global celebration in this town when we went out, and eight hundred sixty out of those nine hundred people got released from quarantine all at the same time. People were playing music, people were dancing in the streets, people were cheering and singing, and it was just the most heartwarming sense of accomplishment and a really, really profound and wonderful way to tail off my time in Sierra Leone. Because what wasn't true in the end, but what felt like at the time, was that this was probably it, and I had been there from the worst of it, though I'll preface that by saying I do think that my colleagues who came before me in late 2014, early 2015, by far had the hardest experiences. But I came from the worst of the epidemiological curve really down to the very end, and it was a celebration. I bought a goat and I had someone slaughter that goat and we had a goat roast, and all of the people from the command center and all of the different groups in Kambia came around to our house. We had probably forty or fifty people over for a really chill party. And the most heartwarming thing, even in light of the quarantine release, was that both Osman Barrie and the head of the swabbers—the individuals who would take samples from dead bodies—who I had been somewhat successful in getting paid through my efforts that I had previously referred to, independently decided to gift me these paramount chief's outfits. Which was a really emotional gift because they do have some cultural weight to them. And as far as I was aware at the time, that was kind of goodbye. I had this party, I was given these really meaningful gifts to me, this sort of sign of respect and friendship, and almost like to me, felt almost like family. And then I left, and I had something like a week before I was back at class, at university in Chicago, back at school in my fourth year of university of my BA [bachelor of arts degree]. It didn't feel too terrible to move away because I moved

away under the more or less accurate belief that the Ebola outbreak was more or less over and I had been able to stay there through the last of it. I ended up writing my college BA about what I considered to be a lot of the successes and failures of the Ebola response. I then ended up coming to do my PhD at the London School of Hygiene and Tropical Medicine in public health and policy on a more specific element of those successes and failures, and that gave me the opportunity to go back to Sierra Leone. I'm actually going back in about a week as well, and I can go back and sit down with the people like Tossin, people like Osman Barrie, and this time just sit down with a beer and screw the no-touch policy and hug them, and that's a really, profoundly positive experience for me to be able to return there. Going back to Sella Kafta, going back to the command centers, I walked back through the GOAL Ebola treatment center, which is now completely overgrown. It's trees growing out of the middle of it, it's almost dystopian, but it feels like so many years have passed, even though it was just a couple years ago. So I continue to make the Ebola outbreak part of my life through my research and through my work and through my travels back to the country. That has been a great voyage for me to continue to see the country and the people I worked with and to see the country move on in some ways, to see the country not move on in others, and to be part of the process of concluding that conversation as much as is ever going to be possible.

Q: Sam, thank you so much. I was going to ask you to speak about your current work and you just knew to do it. [laughter] I guess what I always ask people at the end is if you have any other—two things. I guess it's a two-parter. If you had any other vivid memory that you'd like to describe that I haven't prompted for that means something to you,

and/or if you have a final reflection that you'd like to give on your time on the Ebola response.

Boland: I think that in the grand scheme of the entirety of the Ebola outbreak, we could talk for days about the different stories that really shine for better or for worse, and there are a good number of them. But putting those aside, I think that one thing I really want people to remember, and something I continue to feel today, is that for all we do talk about the failures, whether that's what felt like sort of managerial failures by Partners in Health and the Maforki Partners in Health ETC; or whether that was the difficulty of working politically in Kambia; whether that was the difficulty getting WHO on board as quickly as we really needed to—I think that what does need to be remembered is that the Ebola outbreak did end, and it ended a lot later than it needed to, and people did die who did not need to on that basis, but a hell of a lot of people survived based on the concerted interventions, both by people like myself, by international humanitarian workers, but also and much more importantly, by national Sierra Leonean Ebola response workers and communities themselves who really stood up to take charge of their own sort of proverbial destiny in relation to this outbreak. I think that it's really important that we do continue to talk about and hem and haw about the ways in which we could have done things better. But I also think that it's really important that people understand how much good work was done, and I ultimately feel the utmost privilege for having been able to witness both sides of that coin and to really feel that the world did something good in a complicated and roundabout way, as it only ever will. But to feel that in the context of that emergency and having one goal together, people did become much closer, and I think

that overall, trust was built, not lost. I think overall, people became better at what they did, not worse, and I think that it kind of gave me hope for people being able to do this effectively in the future. I was really grateful to be there, and I'm really grateful to continue the conversation, whether it's through my research or through conversations with friends or through conversations with you, and ultimately, that's really where I leave it. I'm glad to have done it, I'm glad to keep talking about it, and I look forward to continuing the conversation wherever that conversation does come from.

Q: Thank you so much, Sam, for that, for your willingness and readiness and your sense of mission to continue talking about it. It's a huge gift to CDC Museum [laughs], what you just said, and I think to people who are going to be able to access and learn from your experiences. I hope that I can meet you in person at some point.

Boland: I look forward to it.

END