



INNOVATIONS FOR SUCCESSFUL SOCIETIES

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Interviewer: Leon Schreiber

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SCHREIBER: OK, we like to write the case studies to make them a little bit more accessible. So if we can start with a little personal background, what you were doing prior to the Ebola outbreak and then how you initially got involved when it was clear that this was a big crisis.

WESSEH: *For the past ten years, I have been with the ministry, in charge of the bureau of vital and health statistics. My responsibilities cover monitoring, evaluation, birth and death registration, operational research and the health information system. Since 2006 I have had this position. In 2014, when we had the situation the ministry needed people from within that had capacity or that were committed to work to support the external people, people from different ministries, agencies and also NGOs (nongovernment organizations) and other partners, UN (United Nations) agency partners. So that is how they asked me to be a part of the contact tracing team, and Luke (Bawo) was the coordinator for M&E (monitoring and evaluation) research and health information system who would be the epi (epidemiological) component, epi in this sense means data management. So it is not in the true sense of surveillance but from the perspective of data management for the response.*

By profession, I'm a demographer. So that's it.

SCHREIBER: That is a good point that you raise about the distinction between contact tracing and epi surveillance because to a layman like me they could sound like they are in many ways the same thing. Could we start by just a bit of a general explanation of what contact tracing is and how it differs from the epi surveillance?

WESSEH: *Contact tracing refers to following of people who make contact with an infected person. So an infected person would be a laboratory-confined person. So when you are diagnosed and you are confirmed by laboratory results, then you are a case. Then you can only generate contacts. So you cannot have a contact of a contact; you can only have a contact from a case.*

SCHREIBER: I see.

WESSEH: *In this sense we are talking about a confirmed case. But you have still a category of cases but only confirmed case can generate a contact. So you have a confirmed case, meaning laboratory confirmed. You have probable case meaning that this person had a contact with a case and it can be established there is an epi-link. So a case that is linked to a case is a probable case. Suspected case meaning there is no history of having real contact, but you are presenting Ebola-like symptoms.*

So when a person appears to a clinic or health facility with say high fever, high temperature and probably they have diarrhea or they are bleeding but without any epi-link, meaning there is no history of them coming into contact with an infected person, they are considered a suspected case. But in a case where you are presenting (with symptoms) and you have history of a contact, then you are a probable case.

So we follow contacts from a confirmed case. So if you are a contact from a suspected or probable case, we don't follow you up; you are not considered a contact until that person can be confirmed.

SCHREIBER: So you would do the lab tests.

WESSEH: Yes.

SCHREIBER: If it takes two days or whatever, in that period you are not following contacts.

WESSEH: No.

SCHREIBER: Not until you hear back from the lab.

WESSEH: *Yes. So if there is a probable case that dies or a suspected case that dies before confirmation, you also take precautionary measures on their contacts because you cannot tell, you cannot rule out Ebola in this case because there is no confirmation that the case was either positive or negative. So in the process where they died before testing, you also list contacts and then follow up just in case. If they are alive, you don't really follow up. You want to take precautionary measures, so that they don't go out and then they start generating additional contacts.*

SCHREIBER: Okay.

WESSEH: *So the epidemiological or the epi-data grew—basically they were managing data and following up, gathering information from the county and reporting on the status of the situation. So that is the distinction between contact tracing and epi. But the name contact tracing also evolved over time, so at a certain point in time we had people doing contact tracing and people doing active case finding or case search. So they were still under the umbrella of contact tracing.*

So in this case because we had people migrating, contacts migrating and cases even running away, suspected cases or probable cases, we needed a certain group of people that would search communities and pick up those kinds of people. So they were there for immigrants or people who entered into a community to make sure that where they came from they were not a contact or they were not a case. They were also searching for sick people whom were in hiding or for secret burials. So we had active case finders and we had contact tracers, more or less doing the same thing.

But the contact tracer usually when a case is identified or a case is confirmed the case management group will have to list contacts, whether you are high risk or you're lower risk contact, you will be listed. That list is turned over to the contact tracing team and they do the 21-day follow up beginning from the date of confirmation or from the date of contact to the 21 days and then you're clear. So they have to go twice a day to investigate or ask people whether they were running a temperature or whether they were presenting and then report back.

SCHREIBER: Right.

WESSEH: *So basically that is the function of the contact tracing.*

SCHREIBER: In that monitoring they would take the temperature every day, twice, right? Or how did it work?

WESSEH: *We did not introduce temperature taking from the onset because we thought we were going to expose them and we didn't want to expose them further. So they were asked—.*

SCHREIBER: In terms of stigma when you say—.

WESSEH: No, no, exposing them because we never had the infrared thermometer so that you could stand at a distance and get the temperature. Also, we didn't want them to have contaminated temperature measurement instruments that would expose them.

SCHREIBER: So you couldn't do it because you didn't have the tool there?

WESSEH: Yes, that was one part. When we had the tool, there was a debate on whether we should use it or not. It would also give wrong readings if the battery was not correct and so on and so forth. So actually it was based on observation and history. So you go and ask questions. You have a questionnaire to fill in. If it is no, no, no, you leave. But you also observe if their eyes are getting red or they are weak. Then you can recommend for further investigation. So then the investigation team will come in.

SCHREIBER: Case investigation.

WESSEH: Case management will come in and do further investigation.

SCHREIBER: I see.

WESSEH: But because our contact tracers were not very trained, we didn't want to expose them that much.

SCHREIBER: If we go back to the early period, I mean the challenges were immense in the beginning. You mentioned some of the people running away, hiding things. So you had this distrust, this disbelief going on in the beginning. Could you describe some of the early problems that there were in contact tracing when this thing was just coming off the ground?

WESSEH: The issues with contact tracing are not unique to contact tracing because contact tracing doesn't work in isolation. It is a whole response. So the response works together as a team. So if you have lapsing in one component of the response, then definitely it impacts all of the response. So for example, case management. Case management did not have the capacity to admit people into ETU (Ebola Treatment Unit). There were no facilities, so in that case the whole response was paralyzed because if you cannot move sick people, definitely, there is no need to do contact tracing because you are doing contact tracing so that when the person starts to present you can move them or you alert the case management team to move.

SCHREIBER: Right.

WESSEH: So because there was no infrastructure, ETUs or facilities to isolate these people, there was a big problem with contact tracing. A typical example was there was a case in New Kru Town where the team went because one of the family members was running a high temperature, they were presenting. The contact tracers went there. They alerted the system that looked—we need to move this person; this person is presenting. They called; we said there is no bed. For days. The person died. The mother got sick. They called. We said there's no bed in the ETU. The mother died. The father got sick. They called; there was no bed. The father died. So what happened? The family became very annoyed and aggressive because all they felt that the Ministry of Health was concerned about only moving the bodies and not moving sick people.

So in fact the contact tracer didn't want to even go there because what was the aim? Many days they would come and say why should we follow up sick people when you cannot move them? There was no justification. There was no answer because our goal: they enter, they follow-up so that you can isolate them when they are sick but when they are sick you cannot do anything. Why go to them and embarrass the persons. So it was a big challenge of us moving people.

So case management was an issue because, first, we never had facilities for isolating and moving sick people. Second, we had insufficient ambulances to move people. So we would have ambulance running there and there, so they could not move people.

Again, the issue of investigation. You needed a lot of people to do all the investigation to give us the list. If we don't have the list, or we have an inconclusive list, then we cannot follow up with people. So if you give me five people, I'm going to investigate, I'm going to follow up five people. If there are ten and you only gave me five or two, I don't have the correct idea of how many persons made contact because you investigated. So it is based on an investigation and following up. If there was a problem with the investigation it means that they're impacting my part of the response.

Burial teams could not move dead bodies because there was community resistance for burying in communities. Two, because cremation is alien to our tradition in our community, people now do not want to go to ETU because they will be cremated when they die in an ETU. They want a decent burial, so because of that they would hide a sick patient or, if they were presenting, they would not disclose that they are because they don't want to go to any ETU and be cremated if they die. So that impacted us a lot. That is only from the case management component.

The next one was quarantining people. How do you quarantine whole families? They would have to go to look for their daily food. So when you say you have to stay indoors and don't make contact with your community or the population, it means that you have to find their food. If you can't do that and they say look, I have to break the quarantine, what do you do? You cannot arrest them. Because the arresting officer is afraid of those you'd arrest.

SCHREIBER: Even if you found someone to arrest them.

WESSEH: *So it becomes difficult. He is not a criminal to say look I can go and handcuff him. Also, you cannot make contact with someone you want to arrest. So definitely the arresting officer does not want to arrest. So the family or those in quarantine would say, "Look, we have to find food to survive. Being a contact doesn't mean that you are sentenced to death." So definitely providing basic sustenance for them became an issue. How do we get the basic things, get water for them, and get foodstuff for them? Just to get something to keep them for the 21 days, for a month, was a big issue.*

SCHREIBER: But that wasn't the work of contact tracing to deliver the food, right?

WESSEH: *Yes, it was not their work, but to say I need to come every evening to meet you here. I need to come every morning to question you. It means that the contact must be there.*

SCHREIBER: Yes.

WESSEH: *And to have them be there waiting for you and to be isolated from other people means that you have to give them things to keep them home. So those are things that impacted contact tracing directly. So it made it difficult for us because if you have a family to follow up and the family is hungry and they don't have food, there is no way you'll meet them there because they have to go and get food. So those are things that affected us.*

The other issue was people were moving from place to place because of fear. This whole distrust and disbelief that Ebola was not real, that it was a political making, that it was politics, also affected the whole response. Resources for us, financial resources, to have a lot of field workers to follow up thousands of people—.

SCHREIBER: Also contact tracers to go out in the field.

WESSEH: *Yes, it was a challenge. How much do we compensate them? What do we give them to make sure they do what they're supposed to do? It was work. So you follow up for 21 days. You have to be there and give report. So those are things that actually impacted the system. So the response team worked if all of the teams were working. If you have facilities to move patients to, if you have a good case investigation team that can document properly high risk contacts and low risk contacts and provide details, how they make contact, then it solves the problem partially. Then you have good people and committed people who are motivated to follow up and if you provide their daily sustenance so that they remain confined to their homes, you solve the problem. But if you cannot do that then you face a big challenge for following up with people.*

SCHREIBER: It is a good point that you make about these external factors that were impacting your work. Then you mentioned that getting good people would be one internal thing. So then I'm curious about how you went about actually finding people to work as contact tracers and giving them some training. So practically how did that work?

WESSEH: *We made one commitment in our response that contact tracers and active case finders or case searchers were not going to parachute.*

SCHREIBER: Were not going to?

WESSEH: *Parachute?*

SCHREIBER: Parachute?

WESSEH: *Parachute means you lift people from this community here and drop them.*

SCHREIBER: Okay.

WESSEH: *Contact tracers were recruited from within their own communities. So when we have a contact in a community then we trigger the recruitment process for active case finders or contact tracers. So if there is no contact or case in this community, definitely we cannot recruit contact tracers or we cannot deploy.*

SCHREIBER: I see.

WESSEH: *Because there is no way you can leave from your community to go to another community to contact—.*

SCHREIBER: Was that done in the beginning though?

WESSEH: Yes.

SCHREIBER: I get the idea that that was one of the problems in the beginning.

WESSEH: *No, no, it was not a problem in the beginning. We didn't parachute anybody. We decided that. Because we want them to have access to the community. We want the tracer to have access to their home. So when they live in a community, they understand the community and they know the community, they can find the way out. So when we say John Brown lives within the New Kru Town community, it means that if you are a resident of New Kru Town, you are capable of finding that person although we never introduced you to that person. The effort for gaining access is minimal. Because what we were paying them was very little, we didn't want them to incur transportation costs.*

SCHREIBER: How much was the compensation?

WESSEH: *Fifty US dollars, 75, 100.*

SCHREIBER: For 21 days?

WESSEH: *No, per month, whether you work or not.*

SCHREIBER: So the amount depended on the region?

WESSEH: *It depended on location. Apart from Montserrado, the policy was that you pay \$50. Within Montserrado, you pay between \$75 and \$100, and the reason was that in Montserrado we had more educated people than any other county. Schools were closed, so we hired university students or even university graduates as part of the response team. We had teachers as part of the response team. There were some of these workers. So we thought it was fair to give them a little higher than just \$50.*

In the other counties or in the rural community, we were using community health volunteers that were already there but were not paid for community service. So we thought that it would be good because this was a job to do follow ups of someone for 21 days. Because if they don't do that, if you don't motivate them to do that, it means that you are going to have a problem. You don't want to move very ill people. So you want to pick them as soon as they start to present.

That is why we did not increase the money because we know after Ebola we still need these community health workers to provide community service.

SCHREIBER: I see. Just on the recruitment side as you mentioned. I'm curious; would the case investigation find a team? Would case investigation find the case essentially and then call you? Would you send people from the Ministry of Health to find contact tracers?

WESSEH: *So we had supervisors for blocks or for regions. So if you were a supervisor for Bushrod Island, for example, or for this block, if there is a case, you alert us to recruit somebody and brush them up, and then you can do that. For some communities, we did that. But for some of the counties they were already there. So when they have a case they just recruit automatically those people that they know are community health workers to do that.*

SCHREIBER: Those volunteers you mentioned.

WESSEH: *Yes. So from the beginning when Montserrado started having cases, what we did was we brought people from various communities and trained them and exposed them. Red Cross was paying the volunteers because Red Cross had volunteers already in the community before Ebola. What we did was we trained those people in contact tracing and they were already doing it. So just in case the ministry could not trigger recruitment, they would do that.*

SCHREIBER: Okay, Red Cross people.

WESSEH: *Yes, Red Cross volunteers, the international Red Cross. So the county health team also brought us names of their supervisors that we trained so that they can also find people from within a community and then also when there is a case then they can just start that. They can give them the brush-up training.*

SCHREIBER: I see.

WESSEH: *Then at a certain point in time we bring them and train them. But financially it was not prudent to just train people from communities that would never see a case and then you continue to pay them because as long as you expose them you have created an expectation for them that at the end of the month they would have something. So you didn't want to do that with your small resources. So you wait until there is a case and then you do it.*

SCHREIBER: So what was in the training essentially? How did you develop the training? What actually did you put in there?

WESSEH: *At a certain point in time, we standardized the training. When we were sending people in the counties to train people, contact tracers and county health team, we had standard training. So it was about case definition. Basically talking about Ebola and then the case definition and how to report. So we had the reporting instrument; we taught them how to report the various responses. For example, if the contact was by the dead body, it means that you have to have a certain number, say number one. If men are sleeping in the same room then you have a certain number.*

SCHREIBER: I see.

WESSEH: *On the form. If, for example, you work in the same environment that would be—so from there you can determine high risk contacts.*

SCHREIBER: I see.

WESSEH: *If the contact was somebody who attended a funeral, then you are a certain category. So it was grouped into a system of categories, of which I think there were six or something.*

SCHREIBER: Number one would be the most contact number.

WESSEH: *Yes, highest risk.*

SCHREIBER: Number six would be less, maybe just working in the same space.

WESSEH: *I can share that with you.*

SCHREIBER: Yes, that would be great.

WESSEH: *So yes, who is a contact and who is not a contact. So with Ebola, if I made contact with someone who became confirmed, I'm a contact. But my friend or my partner cannot be a contact to me because I'm not sick.*

SCHREIBER: Yes, I see.

WESSEH: *We had to distinguish that; my association with a contact does not make me a contact.*

SCHREIBER: So it is quite technical.

WESSEH: *Yes. So those are the things you have to explain so that you don't have a lot of people or everyone becoming a contact in a sense. So you have to distinguish that. Then tell them what to do and what not to do. So for example you cannot go into a contact house and sit at the table or sit in a chair to talk about that because you don't know who has sat in that chair. You don't want to expose a contact tracer. So basically we would say at least stay outside and invite them and then talk to them because you don't know whether their home is contaminated. So you have to go and fumigate the home to be able to be safe. So you don't want anyone entering because you don't know where they have touched or who has touched the tracer. So those are things you tell them. You cannot go to a contact house and ask for water and they bring the water to you in a cup. You want to safeguard against those kinds of things. In the training you tell them things, risky things that they should not do.*

SCHREIBER: Around what time was it standardized?

WESSEH: *I would say before the peak.*

SCHREIBER: September? August?

WESSEH: *July, I would say July.*

SCHREIBER: So now you have—I mean you have a way to recruit people. You have a way to train people. Now you mentioned the peak comes and now it is really intense. You have—I mean I don't know how many people were actually contact tracers at the highest point.

WESSEH: *There were various numbers. If you request they give you sometimes 10,000 or 5,000.*

SCHREIBER: But it is safe to say between 5 and 10,000?

WESSEH: *Yes—no, more than that. If you add active case finders you get 15,000.*

SCHREIBER: So 15,000. How do you now make sure that the contact tracer is actually doing that job correctly? You mentioned supervisors but I'm curious about the monitoring side. So how did you—what mechanisms did you have in place to know that if there are ten or twenty contact tracers in this community that they are actually doing their job?

WESSEH: *So they have different line supervisors. For example, the Red Cross had contact tracers in most of the counties and they were reporting to them because they from an institution.*

SCHREIBER: Right.

WESSEH: *They had their own way to monitor them. They were reporting to their supervisors. One thing we also discovered; in terms of consistency, there was a fragmentation because the Red Cross was not paying our standard rate; they were paying \$5 per day to the volunteers because they said that was the arrangement before Ebola.*

The second thing was the volunteers were working only for five days, Monday through Friday. We said no, you cannot follow up a contact and leave two days out, Saturday and Sunday. It has to be the 21 days. You have to go there Saturday; you have to go there on holidays. You have to go there because you don't want to leave room for the contact to become very ill and then expose other people. So we have to do that. But they were supervising and then we had technical meeting to provide updates.

In the counties, they had their own arrangement, so usually they would have a supervisor, a district supervisor that they would report to. He would follow up.

SCHREIBER: So using the existing framework.

WESSEH: *Yes. In the counties you had district supervisor that they would report to. A district surveillance officer who recruited them would have to say look, I have a case here and these are the contacts tracers that are following up and submit this information to the county. So he would be responsible to report on them.*

SCHREIBER: Okay.

WESSEH: *They would also send us the list of people they are following up on. In Montserrado you had the zonal approach; you never had districts. You had several zones; you had four zones, seven zones and so forth. So you had the zonal supervisor or the district officer, also supervising these people. So what they would do is at the end of the day they would collect the forms and deposit them with the coordinator and the coordinator then brings them to central administration.*

SCHREIBER: Was that Dr. (Moska) Fallah? Was he the—?

WESSEH: *No, Dr. Fallah was higher up. So you had zonal people.*

SCHREIBER: In the counties you used the district surveillance officers and in Montserrado you used the supervisors for those four zones.

WESSEH: *Yes, for the seven zones.*

SCHREIBER: Okay, was it seven before and then it became four?

WESSEH: *I think it was four first and then became seven; because there were four districts.*

SCHREIBER: So essentially you had a database here. Would that go to Luke Bawo then?

WESSEH: Yes.

SCHREIBER: I see.

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- WESSEH: Because of Montserrado's system, it would go to Montserrado, and then Montserrado would share.*
- SCHREIBER: Okay.
- WESSEH: Because each county was managing their own system. So they would report to Luke.*
- SCHREIBER: Then if you wanted information you only went to him to find out how many contacts are we tracing?
- WESSEH: Yes. Sometimes I call the county people and ask and say give me the number of contacts that you are following up. They can give me that. I would compare with Luke and say, for example, in Bomi County we have ten cases. We have 100 contacts. So we have to make sure that we are consistent and saying the same number. If he has a number that is different from my number then we have to call and verify and see what is happening. If they are sending it, they also copied me on the exchange.*
- SCHREIBER: I see. So was the Liberian Red Cross your main partner in contact tracing?
- WESSEH: No, it was not the main partner. They had field workers in most of the counties. The lead in Montserrado was ACF (Action Contre la Faim). Traditionally ACF was running a nutritional program but because of Ebola they could not do nutrition so they asked the donor to reprogram the money for contact tracing. I think the second or third training we ran in Montserrado was from ACF. That is how we seconded Dr. Fallah from ACF to lead the contact tracing piece.*
- SCHREIBER: In Montserrado.
- WESSEH: In Montserrado.*
- SCHREIBER: And in the districts who were some of your key partners there?
- WESSEH: We had Global Communities supporting. We had UNFPA (United Nations Population Fund)-UK. We had the World Bank paying; we had WHO (World Health Organization) paying—.*
- SCHREIBER: But I'm talking about the people physically working with contact tracers.
- WESSEH: WHO (World Health Organization) was there.*
- SCHREIBER: But also Red Cross?
- WESSEH: Yes.*
- SCHREIBER: One final question on the training side and the kind of system side. Were all these organizations using the same training materials at the end of the day? If ACF or Red Cross or the ministry was training people they would basically—?
- WESSEH: Most of the training was done by MOH apart from the Red Cross—the first set of training done for the Red Cross was with us along with WHO. What we did was to train and then turn over for financing and supervision. So, for example, in Montserrado ACF had supervisors that were obtained to monitor these people, but they did not really train them. We trained them and turned them over.*

SCHREIBER: I see. So roughly speaking would you be training most of the contact tracers that were in the field?

WESSEH: Yes.

SCHREIBER: Even if they worked for other organizations?

WESSEH: *Yes. The other organization was only providing financial support. But we were doing the training for them, the ministry and WHO.*

SCHREIBER: I see, so those were the key training groups.

WESSEH: Yes.

SCHREIBER: The other thing that I find very interesting in the story is—you mentioned that at some point you have the active case finders then coming into the picture. Around what time was that and can you maybe elaborate a bit on what active case finding was?

WESSEH: *Active case finding came about as a result of West Point. Most of the communities were reporting cases, but West Point was silent. So we could not imagine how New Kru Town would have cases and West Point remained silent because it is the same ethnic group, it is the same group of slum communities; they have the same behavior pattern and so forth. We didn't know until the commissioner of West Point came and said, "Look, there is something happening. I want you to go and investigate." That is how Dr. Fallah went in. He realized there were big issues in West Point and they were even burying across the river and we did not know.*

After one day, two days, he went there. There were a lot of cases and he came to me and said "Look, we have to do something about West Point."

SCHREIBER: Was this before the quarantine incident?

WESSEH: *Yes, before the quarantine. That is why I brought about the quarantine. So what we did was because we never had the capacity to move the people, we talked to the ministry people and we said look, we'll use the school to move the patients because they had a lot of patients, people presenting. We were hoping we would train people; they went for case management, and we were opening a temporary holding center. Then the holding center started. The first day I think they had almost twenty people. The second day the place was overwhelmed.*

When the place became overwhelmed, then something happened. The guys decided to go and steal the things that they were bringing for the patients. That is how the patients—they provided us, those that were managing them ran away and part of them ran and got scattered. That is how it became a big concern and all of the international wires picked it up. That is how the government decided that okay, since you are in, you will remain in. You cannot contaminate the other people. That's how the quarantine came about.

One of the bargains to open this thing up to improve was to have people within the community to do active case finding. That is how Dr. Fallah proposed the concept of active case finding. We would work with community leaders, and they would recruit from within their own community; we would train them, and then they would look out for sick people, they would look out for night burial or secret burial. They would look out for people coming in the communities.

So three major things. They would look out for sick people who were hiding. They would look out for secret burial, and they would look out for people who are coming into the community and document and report them. The active case finding was more or less a team to give us information. They were finding cases.

When they would find sick people they would report whether it is Ebola or not, they would report and say in this home there is a sick person. Then we can do the investigation and find out.

SCHREIBER: So if an active case finder finds someone that is sick he would essentially call Dr. Fallah—.

WESSEH: *The investigator.*

SCHREIBER: The case management team would come in.

WESSEH: Yes.

SCHREIBER: But you mentioned—I can imagine, if you have a community where people clearly are resisting the government here, now you have people essentially looking at what they're doing and reporting it, didn't that create a lot of push-back from the community saying why are you spying on us?

WESSEH: *No because they are from the community. It is like a reconnaissance. They are from the community. The people who come in to investigate are also from the community.*

SCHREIBER: I see. So then I guess the question becomes, how do you convince people to become active case finders?

WESSEH: *How do we convince them?*

SCHREIBER: Yes.

WESSEH: *It was not about convincing people because people were out of jobs and they wanted something to do. So you are creating jobs for them. At the end of the month, they would have something in their pocket. So you were creating a job for people.*

SCHREIBER: So they also got the 50 or the 75?

WESSEH: *Yes, they were paid.*

SCHREIBER: Same rate as the contact tracer.

WESSEH: *Yes, they were paid; it was not a voluntary job.*

SCHREIBER: It seems like a big incentive in that situation.

WESSEH: Yes.

SCHREIBER: At the end of the day when active case finding was up and running, was it mostly in Montserrat?

WESSEH: *Yes, mostly in Montserrat.*

SCHREIBER: What is your sense of the breakdown? Would it be 50% passive contact tracers and 50% active case finders in Montserrado or how was it?

WESSEH: *We had a lot of active case finders because UNDP (United Nations Development Program) was paying like \$100 and WHO was paying. There were two donors, UNDP and I think WHO.*

SCHREIBER: That funded active case finding.

WESSEH: *Yes, they were paying them. There were more than contact tracers because they were in each district, political district.*

SCHREIBER: It also sounds like you didn't have to wait for something to happen.

WESSEH: *No, no. They were there; they were just there. If they found a contact or there was a case, then they would call. If you don't want to recruit a contact tracer, you make them a contact tracer. So they follow up until after the 21 days. They stay and become active case finder. So instead of having two persons, you can just use the same person to follow up.*

SCHREIBER: I still want to push you a little bit on where you get the right kind of people. Do you identify community leaders? What kinds of things were you looking for in active case finders?

WESSEH: *Outside Monrovia I said we used people who were already there. The community workers who were there, trained to provide community health services like family planning distributors, vaccine distributors, TB (tuberculosis) program people, and so forth. So they were there and they know the community. So it was just about giving them a new name. These people are contact tracer instead of community health volunteers. In their response they are contact tracers. So yes, it was very simple.*

In Montserrado, we used the supervisors that were already there. We had health supervisors. For example, even after Ebola, they are supervisors. So for Bushrod Island, there is a health supervisor that goes around in the community—that monitors the clinic's performance and reports. Before Ebola, most of them were surveillance officers.

SCHREIBER: I see.

WESSEH: *So they became case investigator or part of the case management team during the response. When they found a case then they would recruit somebody, train them and alert us and say okay, we have a case here and now we'll have people to follow them up.*

SCHREIBER: Okay.

WESSEH: *That is how it happened. We could not bring everyone to Monrovia or everyone to the Ministry of Health to train. We could not go into a community just to train one person and organize a big training. They were clinical people and they were already trained in Ebola response, so they would just administer the training and then give us the number and say okay, with this person, we have a case and it is confirmed. This is the case. These are the contacts. So we need two persons to follow them up.*

If, for example, the contacts are in different communities, then we know that and say look supervisor, there is a contact from this case A that you need to assign a contact tracer to. For the active case finders, Dr. Fallah would work with the community leaders to identify people from within the community to do active case finding. So the number was around four to 5000 of them.

SCHREIBER: For contact tracers, how many contacts would you assign to one person, just roughly speaking? If I was a contact tracer I'd have to go to ten houses a day?

WESSEH: *It depends. It depends on the location. You could have twenty contacts from one home. So if you have twenty contacts from one home, he can do that. If you have forty contacts from three homes he can do that. It is just about visiting those three homes.*

SCHREIBER: So there wasn't a set template for—?

WESSEH: *No, there wasn't. But in the cases where we started having maybe two contacts here, two contacts there, three contacts there, then it means that we can apportion a zone and say maybe he can do ten average, no more than that. But basically you find a contact from a home of ten persons or fifteen persons or five persons.*

SCHREIBER: As you look back at the whole evolution of the system, what do you think were some of the real key things? We discussed those problems in the beginning right? What do you think were some of the key things that helped you turn this thing around?

WESSEH: *What helped us turn it around?*

SCHREIBER: Especially from the contact tracing. That's the key thing here right, to break the transmission?

WESSEH: *I think it was the turnaround time from the response team. When the response team became responsive then we started gaining confidence. The people started gaining confidence. Also survivors—the issue of having not a death sentence but a second chance that yes, if you went to the ETU, if you reported in time there was a chance of survival. So it was the entire response.*

Also a dignified and safe burial, when we aborted cremation, also paid a big role. We also had a lot of improvement in case investigation. We were moving in time to current quarantine families. We had more people, experienced people now documenting well. We had the facilities to move people. So whenever you call in less than 24 hours you can move a sick patient.

We had more burial teams than before from just I think two or three to almost eight burial teams working day and night, running two and three shifts. So yes, if there is a death they can move them within 24 hours. Before it would take more than 72 hours to move a dead body.

SCHREIBER: Was that an average figure—you brought it down from 72 to 24?

WESSEH: *Yes, to 24 hours.*

SCHREIBER: About what time did this begin working?

WESSEH: *It was around November.*

SCHREIBER: I just want to ask you about—we spoke a bit about the data side but just so I have it clear—also I've spoken to some of the data people and it seems that this also really started working around November, that they really could with confidence say this is the data, these are the amount of cases, et cetera. What impact did that have on your work, making it easier I guess.

WESSEH: *I would not say data impacted much in our work because it was the case management that provided the information to every one of us. So when they started producing good data, good information, then we could follow up the right people at the right time. So if you give us the right number of people and the right information—for example, if you said this person made contact one day ago or two days ago, then we are careful. But if the person made contact a week before and then started, either he did not make a contact or we're following up sick people and we have to be careful. Then one day or two days' time he will become sick.*

SCHREIBER: So the speed with which they find—

WESSEH: *We needed to know in time to be able to respond.*

SCHREIBER: I guess also around November that started happening quicker.

WESSEH: *Yes, most of the things got in place around October or November. They became very improved in November.*

SCHREIBER: I guess I should ask you for some final reflections. Some of your personal reflections maybe. If you would talk to someone in a similar situation five years from now what would be some of your direct advice on how to manage this aspect of the response?

WESSEH: *I think the first approach would be to have facilities to move people. There is clear evidence; after we had the facility, we had almost four or five different clusters of infection, but we were able to manage them because we moved all of the confirmed cases and even the high risk people there. So even if they are there and they became symptomatic, it is not spreading. So you need to have first the facility.*

Second, you have to have the capacity to investigate and do good documentation. Because of the additional hands of experienced people we have, now they can move in and go down and do a proper investigation and be able to identify where they made contact and give us a comprehensive list of contacts to follow. Sometimes if you have at least a hundred, but you're missing the one person who is the dangerous person—so getting the right person, the contact, is important. It is not about the list of people; it is not about ten or a hundred people, that means yes, you did a good job, but it is about finding the right high-risk people that made actual contact. So if you have people who can really, really document and investigate well, you can improve the response.

Communicating is also very, very important. How do you communicate to families? How do you communicate with patients? It is very key. From the onset, there were a lot of mixed messages that only one out of ten cases will survive. So a 90% fatality rate, which was not encouraging for people to go to ETU because it was like a death sentence. That changed.

The issue of animal to human transmission that was preached. It was not the essential message for the people. The major spread is human to human, it is not a bat or animal or something. So how many persons, of all of the people that died from Ebola, how many persons made contact and were infected by animals.

SCHREIBER: It might just be the first ones.

WESSEH: *Maybe not even one. So the message was human to human transmission; that is the emphasis. Not animals. Because if you start to put a lot of messages and people believe one is not true, then they discredit other messages. It has to be to the point.*

I think having resources is important. Even currently we don't have a response budget; we don't have an emergency budget. Even with all of the turmoil we have been through, all of the difficulties, there is no budget line in the government budget. In our country they say this is—I mean if it is there, I haven't seen it. They say that the Ministry of Health is the response budget. If you have another outbreak, what do you turn to? You cannot take immunization money and respond. It is committed, earmarked money. You have to put an emergency budget there so the system can utilize it if the need arises.

So basically those are the things. You need to have hard-working people who can work 24 hours. You need to generate the public confidence and interest.

SCHREIBER: You just mentioned one thing now that makes me want to ask you—the case investigators, when they were identifying contacts, were they doing that just by asking the sick person basically?

WESSEH: *From the onset the case investigators were not epidemiologists.*

SCHREIBER: Okay.

WESSEH: *They were just clinical people trained in just routine surveillance. So some of the documentation was very poor. When we started having experienced epidemiologists in country working with them, then we started seeing the downward trend because they would do a better job to say what happened and what the source of that infection was. It is not about seeing the person sick and the result came positive and they say this is a contact. How did this contact become a case?*

SCHREIBER: Right.

WESSEH: *It is very important. If we miss the link then you don't go anywhere, so you have to find the source case. That is what happened. When they started to define the source case and started to see the linkages and investigated properly and saying this case is the one generating this case because they had the chain of infection. They were able to mark and document the chain of infection. But in those days, from the onset, it was like just reporting that Mr. Y has it and maybe he went to a town or city and that was all we knew about it.*

SCHREIBER: Right.

WESSEH: *So the details were not there.*

SCHREIBER: Was that mostly because people weren't asking the right questions it sounds like?

WESSEH: *Because they were not trained. They didn't have the capacity to do it like a real epidemiologist or case investigator. Yes, they could do their best.*

SCHREIBER: That was essential for starting the whole process; that was the trigger essentially for you to come in also.

WESSEH: Yes.