

CDC Ebola Response Oral History Project

The Reminiscences of

Jill Morgan

David J. Sencer CDC Museum

Centers for Disease Control and Prevention

2016

Jill Morgan

Interviewed by Samuel Robson
October 3rd, 2016
Atlanta, Georgia
Interview 1 of 1

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Q: Hello, this is Sam Robson with Jill Morgan. Today is Monday, October 3, 2016, and we're in the audio recording studio at CDC's [United States Centers for Disease Control and Prevention] Roybal Campus in Atlanta, Georgia. I'm so happy to have Jill here today, part of Emory [University Hospital]'s staff, and we're basically here to talk about her experiences working with the Ebola outbreak of 2013 to 2016. Thank you, Jill for being here. If you wouldn't mind, could you tell me how you pronounce your full name?

Morgan: Sure. I'm Jill Morgan and, yes, I work in the Serious Communicable Disease Unit at Emory.

Q: Do you have a position title?

Morgan: I'm an ICU [intensive care unit] nurse by trade when there's no Ebola around, and so I work in medical ICU. I'm an RN [registered nurse] with a bachelor's in nursing.

Q: If you were to summarize your experience working with Ebola over the last few years in just a few sentences, how would you do that?

Morgan: Gosh, I think “fascinating” is probably the first word that comes into my head, and “challenging.” I think that it challenged us not just then to do the things we needed to do but now when I think of the new challenges of really taking on the idea of preparing our healthcare system for emerging pathogens and how we can actually make that work. It was exciting then and it’s sort of exciting now to look forward and think about what might be coming on the horizon.

Q: Could you briefly describe the role you played?

Morgan: Sure. So actually I was one of the nurses that has been taking call for just such an emergency for a decade. Our hospital, Emory University Hospital, is situated directly next door to CDC here in Atlanta and so in order for the CDC people, scientists and researchers to be able to play with all the sort of high-level pathogens, they’re required to have a place that their staff could go in case they got an inadvertent exposure. That’s possible certainly in a laboratory setting, although I think they’re extremely careful and have a great safety record, but also if they were doing research in the field and happen to contract something or potentially contract something that they were doing field research on. Our unit was started way back then with that idea in mind. So really more of a surveillance, we’re going to get somebody in, kind of see if they get symptoms. We expected this to be a fairly well patient that we were just going to see if they developed symptoms or not. We had been taking call, many of us taking call for years in preparation for that, and that required some annual training and things like that, but really was a

potentiality that this had not ever been expressed. We had a few false alarms over the years and that was about it.

Q: I think that is an amazing teaser for the rest of the interview. Is it okay if we back up a second?

Morgan: Sure.

Q: Great, awesome. Where were you born?

Morgan: I was actually born in St. Paul, Minnesota. But I've been down here—I went to elementary school and high school and college in the South.

Q: What did your parents do?

Morgan: My parents were both from Wisconsin. My mom was an elementary school teacher and my dad worked a bunch of different things. He actually got a degree in I think dairy science. Not an unusual degree in Wisconsin, but an unusual degree anywhere else, and then ended up in the electronics industry very early on and he ended up retiring from Panasonic. They raised five kids in the South. I don't come from a medical family, I don't come from a family that has any interest in most of the gross stuff that we do in medicine. [laughter]

Q: What did you get interested in through, say, high school?

Morgan: That's what actually started my career I think to a great extent is I was a candy striper back when there were candy stripers, and I was a candy striper in a little community hospital right down the street from where we went to high school and I just poured myself into that. I loved the experience, I loved being there. Then when I went off to college, I really just hadn't decided what I wanted to do. It felt like a natural thing to fall into nursing more than heading there with intentionality. So I did fall into nursing, and as my brothers are fond to say, after seven years of college I got a four-year degree. [laughs] But that's sort of the way it went and it was not something that—even in nursing school, I think there were a lot of people who wondered whether this was going to be what I would end up doing. Nursing school in general is sort of an unpleasant, sometimes adversarial environment, which is a shame because we need so many more nurses. But once you get out in the field, it's just been something that I've loved every minute of for thirty years now. This is my thirtieth year as a nurse.

Q: People said that they didn't have faith that this was for you?

Morgan: Yeah. I was still in that phase of my young adulthood where I was, I'm sure, not an easy person to give direction to, and some people would say I still am. [laughter] I think there's a history sort of in being compliant with nursing, that we follow rules and order and sort of respect a pecking order, and that's never been something that came very naturally to me. So yes, back then—and I hope nursing schools have changed a little bit

since then, but back then people who think outside the box were not necessarily welcome. It was not an easy thing to get through nursing school and I'm grateful that I did, but it was sort of in spite of some of my professors rather than because of them.

Q: Are there any particular instances that float to the top of your head when you think back?

Morgan: Not really. I remember specifically an older nursing professor, and I'm grateful that I don't remember her name because that would be a terrible thing to put on her now, but she said she really hoped that I dropped out of the program, that she just really didn't think that I was meant for this. It struck me so much then but probably even more so now because I don't think—I think I'm a little bit more of a rarity now to have somebody that has spent thirty years at the bedside. So many of our young nurses realize what a difficult job bedside nursing is and go on to do advanced practice nursing, whether that's as a clinical nurse specialist or a nurse practitioner or something, a nurse anesthetist, and I certainly understand that desire because bedside nursing has not gotten easier over the years. In fact, in many ways it's gotten more difficult. That's something that I certainly understand their desire, but for me there's still nothing more rewarding than helping patients and families through that really, really difficult time of acute hospitalization. That's still something that's very rewarding for me.

Q: Do you remember what year you graduated from nursing school?

Morgan: 1986.

Q: What happens then?

Morgan: I started out my nursing career in a little community hospital. Back then, and still I think to a great extent, we encouraged nurses out of school to get a little bit of general experience under their belt. Then I spent the next decade or more in a small community hospital in rural north Georgia working in their emergency room, and really learned a tremendous amount by the seat of my pants. I learned from some really good nurses, LPNs [licensed practical nurses] who could just do anything and were incredibly smart, and older nurses who could find IVs [intravenous therapy lines] in—seemingly in stone they could find an IV, and I was really grateful for that experience. And not just because it made me a better nurse in a clinical way, but also because working in a small town formed my idea of what good nursing is because we were so accountable for the care we gave. We were going to see these people at church on Sunday, we were going to see them in the grocery store, we were going to see them in the post office, so there was no anonymity. It wasn't like I can just sort of blow this situation off. You were going home and living with it and that really changed how I thought about my responsibility to my patients and their families, and I'm really grateful for that because I think that's made me a better nurse over the years.

Q: Yeah, just being able to envision yourself and all of your patients as people and as part of the community. That's incredible.

Morgan: Yeah. I remember specifically, in a small hospital, you get a bit of everything, and you don't have the resources that big city hospitals have. You don't have a trauma team or you don't have all these other resources at your disposal, and so when bad things happen, big tragedies happen, whether that's a huge car accident or explosion or whatever, you're it and you have to try to get those people in and packaged and out to where they need to be if they need to go somewhere else. Once, it was almost this time of year because it was trick-or-treating, and we had a child brought in after having been hit by a car. We were working on him, and this is in a very small, rural hospital, so when you walked in the emergency department it was like a big ward and so the only thing separating these cots or stretchers were curtains. We had a bunch of people obviously around this child as we tried to resuscitate him and a gentleman walked in the door and I instantly recognized him as working in the grocery store that I shopped in and he looked at me and our eyes locked and he said, "That's my son." I looked at him and said, "I know, and we're doing everything we can." I think it was really important that he knew that we were invested in his child, and his child didn't make it. But I think that we live in a world, especially now, where we understand that some people are privileged, right? We have Lexus lanes in the highway because, what, not everybody is allowed to drive on the same streets, and we have express lanes for people who have certain credit cards or certain IDs [identification] or whatever, and we understand that for the rest of us we're just sort of—we feel like in many ways we don't get as good of service because we're not the privileged few. I think that for me, working in those sort of environments really gave me a perspective that whatever I do, it has nothing to do with who you were outside these

doors. It's trying to get the best outcome for you and your family no matter who you are. I wanted that man to know that there wasn't anything we wouldn't do that was possible to make that situation better. I really think things like that have shaped my career in big ways.

Q: What was the name of the small town?

Morgan: Cumming. It's not small anymore. [laughter]

Q: So where do you go after that?

Morgan: Then I eventually ended up moving back down towards Atlanta and back into DeKalb County where I grew up, and I live in Decatur, and I live right down the street from Emory. I continued working in the ER [emergency room] and then eventually moved out of emergency medicine and into Emory and have been there now ever since. For the last thirteen years I've been at Emory.

Q: When you came to Emory, was that in intensive care?

Morgan: I spent a year or just over a year working on one of their medical floors and then moved to intensive care.

Q: Who were some people that you met from Emory early on?

Morgan: So, fascinating because one of the nurses who was a nurse manager at the time who helped me get a job in ICU at Emory, also was on this Serious Communicable Disease Unit team, and they were recruiting nurses. Maureen Forier was a person who just took me in and welcomed me into the ICU and also said, “You’d be perfect for this.” Got me to volunteer to be on the Serious Communicable Disease Unit team. It was fortuitous in many ways, so I joined that just about the same time or just after I joined the ICU.

Q: We’re talking maybe 2004?

Morgan: Yeah, that’s about right. I think I’ve been with the team twelve years.

Q: What are some early things from the first few years on the job that—

Morgan: I thought it was fascinating. From the minute I found out what it was about, I was fascinated. I’m a big David Quammen fan who writes a bunch of sort of naturalist books, and I had read *The Song of the Dodo* and was really interested in island biodiversity, and in fact thought about going back, started my master’s and started thinking about the ethics behind how we pick and choose what species are worth saving. I thought it was really fascinating, and David Quammen influenced my ideas about that a bit, and I just found his writing so interesting. But clearly the master’s in what turns out to be philosophy was certainly not for me. I didn’t finish my—never wrote a thesis, and I

think people who know me would be surprised that there was nothing I ever got to the point where I said I just don't have anything to say about this. But it did help stimulate my thinking in many ways, and I turned out really enjoying a philosophy course that I ended up taking called Philosophy of Law, which is much more I thought really interesting because it was about justice and where our ideas of justice come from. So that stuff I've carried with me, but pretty much the rest of it I feel like—I just realized how much I like science and how much I like the idea that there is progress, we do move forward. I know if you're not in science it seems very random. We back up and we move forward, and part of that is how science is packaged for consumption by non-science people. You hear about a study about your diet or your exercise, this is good for you or that's not good for you. You know, why am I bothering to understand this because a year from now they're going to change their minds. And yet real science, hard science if you will, does move forward step by step. Sometimes there are steps backwards but we are building, and how much I really love that idea that we're moving forward. I didn't get in philosophy any charm in—people were arguing about this two thousand years ago and we're going to argue about it today. That did not hold any interest to me whatsoever. So yeah, I really discovered how much I like science.

Joining the Serious Communicable Disease Unit team, on our annual training, we'd get lectures from the infectious disease doctors, and they were really good at spinning the yarns behind some of the infectious diseases, using phrases like “the monkey died, we don't know why,” like when they're testing things or they're trying to figure out what somebody's exposed to. It's a bit of a mystery, and so I think anybody who likes the

leuth side of things, it's perfect. I also liked feeling like I was part of people pushing the edges of that. Not that I was doing the science, but that I was going to be at least the backup support for the people doing the science. Now, living in Decatur, I'm surrounded by people who work for the CDC in some capacity. I want them to know somebody's got their back. I think that's really an important thing, and I'm willing to bet a lot of people in Atlanta have never really thought about that, and I think that really came out when Dr. [Bruce S.] Ribner and his team agreed to take an Ebola patient. People were stunned. They were like, what the hell? Why are you bringing—how could you do this? And yet they had never thought, wait a minute, we have the CDC here already, what would happen if something happened over there or if one of their people got sick? I feel like we just had not done any self-promotion before that. But yeah, it seems important that somebody be able to take care of people who are handling or researching some of the deadliest stuff there is.

Q: Did you come to work closely with Maureen Forier?

Morgan: Yes. She's still there at Emory. She had to drop off the team because in order to be on the Serious Communicable Disease Unit team, you can't have a whole list of things. People, whether you have grandkids around or you yourself are ill or having something—a certain medication you're on can keep you from being on the team. She's no longer on the team but, yeah, she still works at Emory and she's still somebody that I just think is one of those salt-of-the-earth people.

Q: Who else have you worked with most closely over the last few years?

Morgan: Oh, my gosh. One of the advantages of aging in the medical field is that you get to watch brilliant people grow up. Dr. Colleen [S.] Kraft, who is now on the infectious disease team, I met her when she was what feels like a youngster and watched her be pregnant with her babies, and now she's touring the country—not touring, but she's an important person in all of this, and so I'm grateful that I've gotten to see people like that. I think our other nurses in our intensive care units have been supportive of us doing these things and may have a peripheral interest, but I guess I'm a little surprised always that more people aren't as jazzed by this stuff as I am. I think it's a small club of people who are sort of geeks for science in this way.

Q: Can you take me to that time in, I guess it would be 2014, when you were starting to hear more and more about Ebola? What kind of conversations were taking place?

Morgan: First of all, I'm going to give just a little bit of a dig at the federal government, and I can just use the federal government because then it's this nebulous impersonal thing. Our contract to support CDC had been on this year-to-year, pulling teeth kind of thing. There were many years there when people were trying to cut budgets and they didn't want the CDC doing certain things or didn't want to give them as much money as they probably need, to keep us all safe, by the way. But Ebola was starting and we were hearing a little bit about it in the early spring of 2014, and at that same time our contract to be on call to support the CDC was up for renewal and it was not renewed. We spent

from March until the middle of July with no contract, which meant nobody was on call. Now, nobody was on call, but certainly Dr. Ribner knew and Sonia [Bell], who was our program coordinator, knew that if somebody needed something, we would've been able to get a group of nurses together because we're nurses, this is what we do. But yeah, and I was incensed by that. I just thought this is so shortsighted and what are you thinking? In typical fashion, I really shouldn't—you know, they always say hold on to an email for a little while, or a letter, before you mail it. But I did not and I sent off a really angry letter to somebody in like the White House and said, this is ridiculous. We would do an annual training with the Department of Defense and they need backup and the CDC is right here in Atlanta and they need backup and what are you thinking? This is just crazy. I'm sure not having anything to do with the letter I sent, but probably having to do with the fact that they thought, holy crap, we're actually sending a lot of researchers now into these places where Ebola was by July, not just smoldering but really on fire in some of these places. And miraculously, here we got our contract back and then two weeks later we had a phone call.

After taking call for ten years or so, you don't really think about what it's going to feel like when it actually is real. But I was working in our medical ICU and one of our nurse managers, really a critical care director, came up and said that they might be getting a patient. Dr. Ribner came up, and now, Dr. Ribner was the epidemiologist for the hospital at that point in time. He's a brilliant man but very funny and dry-witted, and he came up and Dr. Ribner and I are compatriots in other ways in that I believe in the formality of calling people "Dr. Ribner" at the hospital, and so whenever I call him Dr. Ribner, he

mirrors that formality and calls me Nurse Morgan. So, “Nurse Morgan, we need to get the department ready because we’re going to get a patient.” It was just sort of a stunning midweek kind of thing, and I was scheduled to go on vacation. That Saturday morning, a friend of my husband’s was going to come into town, we were all going to Mexico for a holiday weekend. So I immediately called my husband. I was like, we are going to be activated, I might get a patient, just need to let you know. My husband, incredibly supportive, also a geek for science, was like, “That is the coolest thing!” [laughter] No hesitation whatsoever. No hesitation whatsoever. Jump in, immediately thinking, my brain going back to my emergency room days of, okay, there are a thousand things I need to do, let’s prioritize those, let’s get down there and make sure the unit is set up and ready and we need to just get ready and go. Yeah, it was definitely a dive in, but quite the adrenaline rush and in a really good way.

Q: What kinds of things do you have to do to prepare?

Morgan: At that point, our rooms downstairs in our Serious Communicable Disease Unit—first of all, that makes it sound much more formal than it is because this is just an offshoot of another unit in the hospital. Yes, it has special air handling and things like that, but you don’t really know that to look at the unit. It’s a couple of patient rooms separated by an anteroom. Basically, just getting the patient monitoring equipment in that I would need, making sure the supplies and things like that were in there, that it’s been cleaned recently, all those housekeeping sort of things. And then doing my own little bit of research, if you will, about what should we expect from these people? What should we

expect, who are these people, and how sick are they? Because really, we knew we were getting this first patient. By then we had heard about a lot of deaths of healthcare workers in West Africa, so it was, okay, we need to do this right. Not just do it, but do it right. It was amazing.

Q: Were those things, making sure everything has the equipment it needs, etcetera, were those all written up previously or did you have to invent some of that?

Morgan: Yeah, we certainly had some protocols, but nothing like—really, the hospital made a very smart decision very early on, which was saying, gosh, we have clinical nurse specialists for all our other inpatient units; we didn't have a clinical nurse specialist that was part of the Serious Communicable Disease Unit because, again, it sort of had just been there on a back burner for all these years. But they brought the clinical nurse specialist from one of the emergency departments in our system over, Sharon Vanairsdale, and she immediately—Sharon's a bit OCD [obsessive-compulsive disorder], which is perfect for this situation because she was excellent at really standardizing a lot of things that had been left a little loose before and just getting everything in order.

Q: Like, for example?

Morgan: Some of the protocols, having things posted for donning and doffing, our PPE [personal protective equipment] and things like that. The other big thing that the hospital did—and again, this is the advantage of having the depths of a big university system is

that they brought over what's called the Environmental Health and Safety Office people. These are people that are responsible for keeping the rest of all the labs across Emory and Yerkes [National Primate Research Center] and things like that, keeping them all compliant and safe. We actually ended up making a change to our—the PPE we had practiced for all those years—we made a change right then in the forty-eight hours before we got a patient. Because when they looked at it, they were like, eh, you might be able to make it work, but we think this would be safer. Once they showed it to the nursing staff, we put it on and we're like, oh, this is so much more comfortable, this is so much better. So when Dr. Ribner and the folks from the CDC were saying, what are you going to do? I said, this is what we want to use. And Dr. Ribner said, you don't really have to use all that because remember early on, people said, it's just contact, you don't have to worry about the rest. But we really felt like these patients were sick enough we were going to have to be at their bedside an awful lot. So we went with the definitely higher level, if you will, of personal protective equipment, PPE, and much to his credit Dr. Ribner, whatever the nurses wanted he was going to support and so that's exactly what we did and I think that decision really kept us all safe.

Q: What was the little change that you guys made?

Morgan: It was really a change in the style of powered air purifying respirators and using them with a suit instead of with a gown. Just details for most people, but for us it let us feel like we could be in the room and at the patient's bedside. To me, this is really the crux of what I see as hopefully my purpose with these last few years of my nursing career

is that most of this personal protective equipment has been designed for use in laboratories, it's been designed for use in the chemical industry or people who are making the tiny, tiny little bits of your computers that need to be dust-free. We have all these pieces of equipment, if you will, and by equipment I mean the whole ensemble that we wear: gowns and gloves and booties and things like that. Or suits, like we call them Tyvek suits but that's not necessarily Tyvek, that's just become like a Kleenex word for them. But none of it, not one bit of it, was actually designed for what I do, and it shows. I am a cheerleader for the cause that nurses, bedside clinicians—whether they're respiratory therapists, nurses, nurses' aides, physicians—we need personal protective equipment that's designed for what we do. That's very different than a lab, right? A laboratory is not moving around. Using something under a hood is not the same. I think we need equipment more like we probably share a similar interest with people who do maybe the care of wild animals. No offense to patients, but they move around in unpredictable ways and that's exactly what children and chimps do, or non-human primates do. I think that we really need to think about approaching PPE in a very different way, but we didn't yet. When we first dove in to this patient, we had what we had and we made it work, and I think it was the right decision to make and I'm grateful that we were able to care for our four patients with Ebola virus disease successfully. But I also think there's still room for improvement there.

Our patients were all healthcare workers in one way or another who had no idea how they had contracted Ebola, so how am I any different from them? How do I know that it's actually my procedures and my policies and my adherence to those protocols that kept us

safe versus just being lucky? I'm sure Kent Brantley took care of more than four patients before he eventually got ill. I think we need to be very careful about making assumptions that we know it all at this point because clearly we don't. But I will say our infectious disease docs [doctors] cultured the room after we had treated our patients and we were successful in our protocols and our training and in actually our everyday actions in those rooms and the rooms were spotless. There was no Ebola left in those rooms, long before it was ever terminally cleaned or sterilized. So I do think we did things right and I'm grateful, again, for Emory and the resources they brought to bear that really made that possible.

Q: Can you talk about the arrival of the first patient?

Morgan: Yes, because it was so interesting. I can use his name because of course by now he's written a book and he's all over the news and he's a great guy and a great family. Dr. Kent Brantly had been a family practitioner OB/GYN [obstetrician/gynecologist] over in Liberia and sort of watching Ebola smolder in the surrounding areas, and then watching it come closer and closer to where they were in Liberia and eventually seeing quite a few patients in Liberia, lots of patients in what would be really desperate situations for anybody who's only used to Western or American high-resource medical centers. We're talking about cinder block building and tents and wards where patients were on cot to cot to cot basically. I think they put together the most reasonable protocols they could with the equipment they had to take care of patients over there, but then when he got sick, he and Nancy Writebol were both ill and they worked for two organizations that were

willing and able to fly them out of there. Through those phone calls with Dr. Ribner and the hospital and things like that, we agreed to take them.

One of our big concerns, my big concern personally, was I didn't know how much they had heard about what was going on over here. Sort of famously, people were up in arms, as I mentioned earlier, "how dare you bring that to Atlanta, why would you bring that to Atlanta and potentially expose an entire city to something for which there is no cure?" Because they didn't realize we had this unit and we felt very safe and all these things were already in place. But because I was worried that Dr. Brantly would be afraid himself, that he was being brought in but were we going to be afraid of him, are we going to be resentful of being put in this position? The first thing I did when we set up that room was we had a big whiteboard in the room and I put the names of the care providers that were going to be taking care of him and I said, "Welcome home, we are glad you're here." Because I really wanted him to feel like we were there willing and able to make him better. I didn't even know what that was going to take yet but I wanted him to know that there was no hesitation on our part despite what anything might be going on in the news. Of course, as it turns out, Dr. Brantly had not heard anything about what was going on in the news. It was a very good thing. And he got there and we were there to receive him and I was in the room. He walked out of that ambulance in his own—they had basically placed him in personal protective equipment to contain anything that he might have on him in the ambulance and in the flight over, and he walked in the room and we went about the business of getting him doffed basically, getting all that stuff off of him. And while he was lucid and speaking to us and we were able to have conversations about

his medical history and everything else we do for patients when they first come in, as it turns out, over the next couple of weeks we realized he didn't remember that. He didn't really remember coming in. I think he and our other patients were actually more ill than they had realized themselves. If you think back to the last time you had the flu, that first day can be sort of just a blur, and I think that's exactly where they were, sort of in that stage where they were ill and not thinking completely clearly. But yeah, he was just such a nice human being.

Q: Even at first?

Morgan: Even at first. Even at first, yeah. Not for a second—I think especially knowing he was a medical missionary—you know, I grew up in the South, I grew up in a religious family but I'm not very religious myself. In the South, you get used to sort of being condemned to death or eternal damnation on a regular basis. It's just what Southerners do to each other. One of the first questions you get asked if you live in a small town or a rural area or even some urban places I'm sure is, where do you go to church? If you don't have a suitable answer to that question, then people will assume you're going to Hell, which is okay. [laughs] But I was a little concerned that Dr. Brantly would also—you know, patients can put you in awkward positions unintentionally because they need to pray, they want you to pray with them, and that's fine and I'm certainly able to do that but I'm not—that's just not a thing that's real comfortable when you're trying to do your job. I didn't know what he was going to be like, and then his whole family got here. I mean, this man has a big family, his wife has a big family, they are wonderful, wonderful

people, but there was a lot of mention of God's working His—you know, this is all in God's plan. So I just had to poke at Dr. Brantly. He's just a great guy. He's got a great sense of humor and so he would never swear or never even have a cross word. When his lovely wife, Amber, would want to be talking to him but he was busy doing something else, I'd say, "And Amber says get off the damn phone." And he'd look at me like, she did not. I know, but we just have to poke you a little bit. [laughter] He turned out to be a genuinely kind human being who I think intuitively understood that while he was a physician and is a physician, in his role here he was trying to be a compliant and easy-to-take-care-of patient, and of course he was. It was good. It was good. It was a great experience.

Q: Can we rewind for just a second? In the years that you were working with the Serious Communicable Disease Unit before Kent Brantly, had you had other patients?

Morgan: Never. We'd never had another patient. We had had a patient that we had to get in that got observed for a few hours, but never one that stayed even more than that. Me personally, I had never had another patient. So yeah, it was dramatic to suddenly be here and then not only did we get Kent Brantly but twenty-four hours later we were going to get Nancy Writebol. It got big fast.

Q: Had you been still working at the bedside?

Morgan: Yeah, still working in ICU the whole time. So really didn't have any impact on the rest of my life. I would take call on days I wasn't working and that was all fine. Then, somebody had to cover my ICU shifts while I'm downstairs in the Serious Communicable Disease Unit and so, yeah, we just went all in. They basically replaced me at the bedside upstairs in medical ICU and I spent all my time taking care of these folks from really the 1st of August until I think it was after Thanksgiving or near then before we finished. It was months on end of really living in PPE and being immersed in this.

Q: Nancy arrives twenty-four hours or so after Kent. What was that like?

Morgan: It was really interesting. I was also there, the nurse receiving her, and she was—Nancy's a little older than Kent and she was ill and so she got brought in on a stretcher and we did take all of her stuff off, layers and layers. She was I think quite concerned and had a conversation with Dr. Marshall Lyon in the room very early on that I think she really felt like she was probably just being brought back to the United States so that she could die here, which is when you think about it, just a devastating thing, being in that mindset. She was much more quite, much more reserved, and I think really feeling the effects of not being well. She was swollen, uncomfortable, and had a fever, and just miserable. Unfortunately also for her, she had been in Liberia with her husband and he was in quarantine, so he couldn't even come see her because he had to be watched for the twenty-one days. They're a very close couple and I think that was really hard for her to not have her primary support right there. We tried to basically be as supportive of her as

we could be and sort of bring her along and convince her that we were going to be able to get her better.

Q: How do you do that?

Morgan: I think that that's a bunch of little, tiny steps. It's not any one thing you do but it's the, okay, I need for you to help us. I need for you to help us turn. I need for you to help us—we're going to spend more time sitting up today. I know you don't feel like it but let's sit on the edge of the bed. And then it starts, and the more you do that, then it's okay, wouldn't it be nice to be able to walk to the bathroom? Wouldn't it be nice to sit in a chair? All those little tiny things, and this is what nurses do across the world in the ICU is we do—it's like a combo career of cajoling and coaching and a little bit of drill sergeant of, no, this is how it's going to be because sometimes you really have to encourage people in a stronger sense because some people give up. Some people don't have the energy or it hurts to get up and move and things like that. Yeah, we do a lot of that in our normal careers. I think this was just a natural fit to do that with Nancy and really sort of—you know, we had sort of a famous thing with we gave her a pedicure and somebody brought in nail polish for her poor little toes and lipstick and things like that because everybody's got their own thing of what makes them feel better. Just getting up out of bed is not always enough. Yeah, I think those are just step by step.

With Kent, he had all the personal drive in the world, but we got him things like TheraBands, which are those big stretchy things so he could try to get some muscles

back. Then famously we put a Nerf basketball hoop on the back of the bathroom door and he played basketball against our nurses in their PPE. And he's quite tall, so he had a little bit of an advantage over some of our staff. [laughs] It was fun. It was interesting because we were living with these folks basically. These were our only two patients, unlike the ICUs that we all normally work in where we might be assigned one patient one day and somebody completely different the next. These were our folks, so we just lived with them and it felt a little like being at summer camp. You just come in in your t-shirt and shorts or jeans and change into hospital scrubs or paper scrubs and then put on your PPE and spend the day like that and then go home and do it all over the next day. It was a very good bonding experience not just with the team, which was very important to our success, but with the patients and their families because they were basically hanging out all the time.

Q: Can you tell me about bonding with the team?

Morgan: Yeah. I think this is really an important point, but I think it can be hard to make it happen. We needed this team to all obey the protocols. There can't be anybody who says, I'd like to do it better this way. Because it's reliant, the success of it is reliant on me watching you, knowing what you're going to do, knowing that you've done it in the right order. You can't have much variability there. And yet Emory's team is made up of staff from all across our hospitals, so by and large these were not people I had ever worked with before. And like a lot of older nurses, I can be kind of cranky, and I was not so sure that these youngsters were going to be willing to do the really hard work. I don't mean

that people are lazy, but I mean that by the time we had patients who were very ill, it's easier to let a patient lay in bed than it is to get them out of the bed. It's easier to let a patient be in one position or direct their own care than it is to do that sort of coaching and cajoling and pushing and things. But nobody gets better in bed, and so my phrase is getting sick is easy, getting well is hard. Doing that hard work. And yet every day I was so impressed with these young nurses who not only put aside any thought of them having a personal life of their own for three months but just stepped up and did the hard work every day. They were fantastic. Getting to know them, getting to work with them was wonderful, wonderful, really restored my faith in young nurses.

It was also important because this is so interdependent. My safety and wellbeing depends on you having done his correctly. Not just correctly, but that you can't have contaminated something that I should be able to assume is clean, right? You can't just see where somebody's touched with Ebola, so if they left Ebola germs, viruses, particles on a doorknob or the doorframe or the handle of the sink, I would have no way of knowing that. So my safety, and therefore the safety of my whole family, everybody I interact with, is really balancing on this idea that we're all doing the same thing the right way every time. So I say, in this chain, there was no room for a weak link. Can't have a weak link. I think part of that bonding was created because we were sort of thrown into this and so it forced it upon us in some ways. But I think this is the bonding that under the best of circumstances is like the military looks for in the people who do their weekend service, or companies that rely on a team of people to go out and do anything, or a fire department. Those people have to function as a team, and so that was certainly true for us and I think

a real bonus prize to this was feeling like you're a part of something bigger than yourself and not just a cog but an important part of that. That was great because that's not always what nursing is good at making you feel like.

Q: If it's okay, I want to come back to the guidelines regarding the PPE. Were any of these guidelines you had in place, these protocols, related to things CDC had put out there?

Morgan: Sure. Yes, the CDC issues guidelines and we try to at least read them, and if we don't follow them, then we need to have a reason why we're not going to. The CDC guidelines were exactly that. But I think it was interesting because the CDC guidelines—this is where science sort of can leave you flatfooted a bit because if you say that something like Ebola requires contact isolation, that means you shouldn't come in contact with somebody's blood or body fluids. Well, that sounds reasonable, right? That's perfectly reasonable. And that would be great if blood or body fluids just sort of stayed where they were. In a laboratory, you might have blood in a test tube or on a slide, in a cup if you will, under a hood in some sort of piece of equipment, and so they are contained. Your worry in a laboratory setting would be if somebody inadvertently touched it or broke a test tube or poked themselves. But that's not what nursing is. For us, we had to look at these patients and realize that their blood and body fluids were going to sort of erupt out of them at unpredictable intervals, and that we couldn't avoid interacting with them. Even the Environmental Health and Safety people, when they first came up and we were talking about room etiquette, if you will, how we were going to behave in

the room, they said, just leave a three-foot perimeter around the bed that you don't enter. We're like, what do you think nursing is? [laughter] Here we were, in a room, needing to help a patient up out of bed, and if you think about where that puts your body in contrast to their body, basically we're helping them up, which means a large portion of me is in contact with them. And then, what are we helping them up to do? It might be to sit on a bedside commode. Here we have what looks like a large plastic office chair with a commode bucket underneath, and these people were not strong enough or didn't feel well enough to make that transition by themselves which means we were right there with them then. It's terribly embarrassing for these patients. They're having nausea, they're having diarrhea, a little bit of vomiting but mostly diarrhea, and if you can imagine the horror of having that much diarrhea—we're talking about liters and liters and liters a day. Not just the volume of putting out that much stool but also needing to get up to the bathroom fifteen times a day and feeling incredibly weak. None of us want to have somebody in the bathroom with us when we're feeling that way. It's horrible. It's just a terrible idea, and yet for nurses, this is what we do. We have no hesitation, this is our job, we get it. But it did bring up this idea of look, avoiding contact with this is not so easy in that situation. If Ebola is present in their sweat, if it's present in their urine, if I'm standing right next to them and they're having this explosive diarrhea—we know there are studies that say our toothbrushes get contaminated in our bathrooms and hospital studies that say there's things like *C. diff* (*Clostridium difficile*) on the walls. If all those things are true, how can a nurse be in that room and not be contaminated? We felt really strongly that contact was not wrong, it was just incomplete. So we ended up wearing the entire ensemble as if we're going into something that would be airborne or something like that, because of our

close proximity. It's like standing right in front of somebody who's sneezing. You're like, okay. That's essentially the position we were in. I think that was a really important call to make early, and my one regret is that I think we didn't do a good job of explaining that. I wish now that we had spent some time getting that message out to all the healthcare workers, not just here at Emory but across, just saying, this is why we made these decisions, this is why you see us in a different suit than maybe the CDC is talking about. Because I feel like had we gotten that message out earlier—I still feel guilty for Dallas because I feel like had we been able to say, look, Ebola doesn't drill through your intact skin, right, they're not carrying little jackhammers or something. But because it takes so little virus to make you sick and because these patients can be so wet—wet in so many ways—you need to have these precautions, and that the most important piece of any precaution you put on is taking it off carefully so that you leave whatever's on that stuff somewhere else. And I feel like that's where now we're stepping into the role of saying, look, everybody's got to be ready for whatever's coming next. It may not be a viral hemorrhagic fever, we may not be talking about diarrhea next time. We may be talking about people coughing and sneezing and having just that whole sort of Alka-Seltzer commercial of fever, I can't rest, stuffy head thing. We have to be ready for that. What does that mean? I love the idea that as part of NETEC now, the National Ebola Training & Education Center, that we can take the lessons we learned from Ebola and really say, how can we make the care of patients who could show up anywhere—how can we make that safe for healthcare workers? How can we keep these outbreaks down to the smallest number of people possible? I love the idea of trying to help that happen to make healthcare safer for all those brilliant young nurses and everybody else who's out there. I

think if I can do just a tiny, tiny bit of that, then that's the best thing to me that came out of all of this, except for the lives of our four patients.

Q: When you made those changes, recognizing that you're going to have to have some contact with them, did you ever feel like was—was there ever pushback from CDC?

Morgan: Not that I felt personally. I heard about it. We heard the stuff that got said on the news, that any hospital should be able to care for these patients and things like that. I never felt pushback from anybody because I think we had such a supportive team that really kept us insulated from a lot of that. I've since heard that there was some—not pushback that you shouldn't do it but maybe the—nobody wanted to scare people. There was already this crazy stuff on the internet about I'm trying to source PPE for my family, and people wanted to buy stuff just for their own use. Again, what they were missing was this message of it doesn't matter what you put on. How are you taking it off? That's the key. I said then, I said in Dallas, and I'll say again now, the CDC needs more nurses. They need more people who do this for a living because I really feel strongly that we have something that can really be helpful to them. No matter where an outbreak is happening, we're really good nitty-gritty, fine detail—you don't get what nursing is about, you don't understand what it's like to be at that bedside. I think that that was a message that was missing. Yes, in theory it's all contact, you're good, nobody should be touching anybody else's body fluids, keep that in mind in all of your life. [laughs] Accept it doesn't work that way.

Q: How did you feel taking care of patients with such a virulent disease? Was it scary?

Morgan: Early on, I wasn't scared. Inside my PPE, in fact, I think you feel a little bold because you feel completely separated. It's like if you've ever needed to do something gross at your house, you put on a pair of gloves and you're like, I can touch anything as long as I have gloves on, whether you're cleaning out the drain trap or something, things you would never want to touch normally. That's sort of how I felt in PPE. It was like, I can touch anything because I know nothing's getting through to my skin. But I think early on, because I hadn't built that rapport with the team yet, all of that's in its infancy, I thought long and hard about what would happen if one of us got sick. Now, that informed a couple things. One is I am a middle-aged woman with no children. I felt really strongly that if somebody was going to be at a higher risk level, I wanted it to be me and not one of my twenty-something-year-old, beautiful newlyweds who might be wanting to get pregnant soon, or anything like that. So I said to these coworkers, if you don't feel like you can stick them, if you're worried about sticking them for labs, anything, just holler. One of the rest of us will go in because the last thing you want to do when you're not feeling confident is go in to somebody with Ebola with a needle. So that was one side. It definitely made me feel like I needed to be even more protective of these wonderful coworkers.

The flipside of that is my husband and I already had our wills done. I knew that everything was in place should something terrible happen. This really still chokes me up, but I did not think I would have been able to ask my coworkers to care for me if I got sick

because that would've thrown everything up in the air, right? What did we do wrong, where did it happen, how did it happen. And not knowing that just like our patients didn't know how they had gotten Ebola, I really felt like there's no way I could put these beautiful young people at risk. So I thought, okay, I can start my own IV, I could self-isolate, I just didn't think that I could do that to somebody. I think that I would have—I'm grateful that I never had to make that decision. But yeah, I don't think I could've done it. I don't think I could've done it. I would rather—it's easy to say—I would rather have died of Ebola than risk getting those people sick. If our system broke in some way, first of all, I wanted it to be me that that happened to because again, I just felt like I was the person that was the least indentured, if you will, to the future. Not having kids at home and not having people that are reliant on me for all those other things. I love my husband, but still. [laughs] But yeah, I just don't think I could've done it. I feel like Kent Brantly and Nancy Writebol and certainly Ian Crozier came to us, and by then certainly I believed much more in our system and the ability for us to keep ourselves safe. But early on, before I really had that one hundred percent faith, I felt like I couldn't have risked those coworkers. I'm glad I never had to make that decision.

Q: It's very interesting to me because I mean, of course, you don't want your patients to feel guilty. For Kent or Nancy to be worrying about infecting people in their lab [note: meant to say their rooms in the SCDU]. But when it comes to you, yourself, you have that worry.

Morgan: Right. Well, and also because it would've meant that something went wrong. That, to me, it's easy or it's easier for us to think, good grief, with all the horror of trying to do PPE in a place that's ninety degrees and one hundred percent humidity and you can only tolerate your PPE for fifteen minutes at a time, none of us were surprised that over time somebody would get exposed. So I think that was absolutely natural. But given a temperature-controlled environment, air conditioning, food being provided, the best PPE I could imagine, having all those things at our disposal. If then we can't do it right, then what? So I think it's a little different. But you're absolutely right. We know that our patients did in fact feel some guilt, not so much about the care that we were giving them here in the United States, but about the fact that their coworkers that they worked with day by day by day over there were not able to get that same treatment. And that's where it goes back for me personally to that idea of some sort of privilege in healthcare. Like a lot of people—and I hope more people—I believe that at least the fundamentals of healthcare are a right and that we should be providing these to more people, not fewer, and that—so yes, I felt like if it were possible, I'd bring over any healthcare worker to the United States and try to give them that kind of care because good grief, these are brave, brave souls. Going over there and being willing to risk their own health and safety to make the world better, the least I can do in my air-conditioned, PPE-rich environment is take care of them. I've said all along I didn't ever feel like we were the heroes. We were the ones that were just supporting the heroes, and I still absolutely believe that's true.

Q: Can you tell me how things progressed with the first couple of patients?

Morgan: Yes. Kent Brantly was moderately ill and he had a lot of virus in him—at least what we thought was a lot of virus until we met Ian Crozier—but basically we were just caring for him, and a lot like somebody with a bad case of the flu. A lot of diarrhea, sort of a gastroenteritis kind of thing, and it let us really get used to this idea of caring for these patients and getting used to our protocols and all that stuff. I'm really grateful that basically Kent and Nancy paved the way for our sicker, sicker patients. I'm not dismissing the nurse from Dallas that we cared for who was lovely, but she was never quite as ill as our other patients and so therefore she was a lot of fun and people enjoyed interacting with her and it was a privilege to take care of another nurse. You know, we tried to get her pajama pants to wear because who wants to just wear a hospital gown, and things like that. But it felt like it all ended up to be preparation for that final patient. Dr. Crozier just decided that he had to test us, and he did. He challenged every assumption we'd ever made about what we would or wouldn't do. He challenged every assumption about how we could do our staffing and how long you could stay in your PPE because it was exhausting. He was as sick as any ICU patient in any medical ICU anywhere in the country, critically ill, needing life support. And that's what we did. So yeah, it was a great—Kent, Nancy and Amber [Vinson] made a great warm-up for Dr. Crozier.

Q: Can you talk about Dr. Crozier coming in?

Morgan: Yeah. Dr. Crozier is a funny, funny guy. He's also a big guy. Here he comes walking in, ambling in, and he's super tall. My husband and he are about the same height, so for me it was not like this gargantuan thing, but for some of our nurses who were

significantly, like more than a foot shorter than he was, it's just a lot to handle. Hospital beds are not terribly accommodating for people that tall, so just getting him in, and then he was very febrile and it would seem like he was making complete sense and then he'd say something and you're like, hmm, this man is not one hundred percent here. He was already a little delirious with fever and illness.

Q: You don't happen to remember anything he said, do you?

Morgan: Yes. He started pushing—he started bossing people around, especially our Black nurses because, of course, he was ordering them around as nurses in his clinic in Kenema. It was so funny. I mean, it's funny in retrospect but sort of frustrating at the time because he was sort of being still Ian Crozier, the doctor over there. We had to keep reminding him, no, you're here in Atlanta and we are taking care of you but you're not bossing us around. It was just—and I hope he doesn't remember any of that. I hope that all this is lost to him except in stories that we now tease him about in the retelling. But it was evident pretty quickly that he was going to be very sick. The second day he couldn't remember anything that had happened the first day, and the third day he couldn't remember anything that happened the second day. He really got—we just watched him get sicker and sicker in front of our eyes. Again, he has a lovely family. He has a family that they did all the right things. They brought in photographs and they set up his music that he liked and they talked to him the way we would like all of our patients' families to talk to them. A calm, reassuring voice. And they're just fantastic people. But we weren't sure we were going to be able to save him. He was that sick.

This is where here at Emory, the physicians who staff our Serious Communicable Disease Unit are infectious disease doctors by trade and so nurses, people who work within the hospital system, will understand that typically infectious disease doctors are consultants. They're the ones coming in for some targeted visit because you have an infection or to give advice on the right antibiotics or whatever. They're not the ones directing all your care. So we had consultants who were part of critical care and nephrology and all these other things that would come in and give their advice, but really the day-to-day critical care was handled by this team of ICU nurses from across the system. Neuro [neuroscience] nurses, surgical ICU, CV ICU—cardiovascular ICU, medical ICU, wherever they were from. So when Dr. Crozier—we were giving him lots of fluid to try to replace all that he was losing. Fluid never goes exactly where we want it to, right—we want it to stay in your vasculature, inside your blood vessels. But instead it's making his feet get swollen, he's getting more and more short of breath. We're watching these things happen and we had a conversation with these infectious disease doctors and said, look, you guys don't want to intubate him because you're used to all the infections that intubations bring about, so that's your worry. But we're used to taking care of those patients. You've got to trust us. He needs to be intubated, like, get this done. So, again, we did some just-in-time training. We brought in anesthesia, trained them in PPE, we walked through it with them sort of in a mime dance in another room just to make sure everybody knew what steps were going to be taken. High-risk procedures for everybody because you want to make sure you're not going to contaminate your environment more and there are a lot of fluids that can be present in these situations. We

put in a central line, we got him intubated, and that really made us feel like, okay, now I can support his breathing, I can support these other things; that's the best position moving forward for me to make sure that I can keep him moving in the right direction. And then his kidneys failed. So we put in a vascular access catheter. Again, high-risk procedure, lots of blood sometimes because it's a big, big IV, and it all went well. It was a challenge because not only was it a tremendous amount to take care of at the bedside in a very small room with all these pieces of equipment, but also because Dr. Crozier is so very tall there was no extra room in any of these things. So I'm stretching my neck back because the breathing tube was basically hubbed at his mouth, he's so tall, in order to be in the right position down in his lungs. We worried every time we turned him that we were going to dislodge this breathing tube. That man still owes me a drink I'm sure. [laughter] But no, it was a challenge in almost every single way. He pushed all of us in every single way. The day Obama came to the CDC, President Obama came to the CDC, I'm sure that Dr. Crozier was just feeling abandoned, that many of us had come up here to have an opportunity, no matter how brief, to actually shake Obama's hand, and so he decided to act out that day and he had a tremendous amount of cardiac arrhythmias and we really did not know if we were going to make it through that one day. He's a devil, he is a devil. But yeah, he came through it, and greatly to his credit he's continued to work to understand more about what happens to your body during that whole episode and why some people live and some people don't.

Q: All of this sounds just so emotionally intense, but I know that you have dealt with it your whole career. Can you talk about that? Was this different somehow, the emotions of this?

Morgan: For me, I'm emotionally invested in all my patients. I believe in it. I don't believe in keeping that professional distance. First of all, when I'm in, I'm all in. If I'm there with your family member, your mother, your spouse, your daughter, your whatever, I want you to know whatever they need, that's what we're going to do and that I'm all in. I believe in engaging families and really having an informative conversation with them so not only will they understand where I'm coming from but I will understand where they're coming from. This was just that same situation to me in a microcosm because I had this one patient and I had his family. Where the family room is down in our unit, basically to walk in or out of the unit, I was passing by these people. Every time you come or go, they're at the edge of their seat hoping for word. It does become one of those things where you feel just as much of an obligation to and a responsibility towards these loved ones. If it doesn't work out, that's an additional burden. But when it does work out, it's just this group of people that are so grateful for everything you've done. For me, part of what has made me love my career this whole time is that emotional investment. It's exhausting, yes, absolutely. I go home, my husband knows that there are days I just don't want to talk about it. There are days all I can do is talk about it. It is emotionally draining, and yet it gives you just as much. It's that feeling of, again, being part of something bigger than yourself. Sometimes that's a big team and sometimes it's just you and that

mother or that spouse and that patient and you're just in their little private circle for a short period of time, and I think that's a privilege.

Q: Can you tell me about Dr. Crozier getting better?

Morgan: Yes. Oh my goodness. Dr. Crozier started to improve, and we finally got him off the ventilator and we finally got him off dialysis, and that man was sure that he was well. I told you before that he's really tall, and he was just certain that he could get up and move around like he was one hundred percent. And he walked like a drunk sailor. I mean he was this—oh my goodness.

Q: Swaying back and forth—

Morgan: Swaying back and forth, not steady on his feet. He had so many close calls of falls. In fact, one of our nurses actually contributed in a small way to Dr. Crozier's—to a shoulder injury he got while he was in our unit because Dr. Crozier was going to basically take a header and this nurse grabbed him and saved him from falling. But he also used our shorter nurses like crutches, so two of them would help him walk and he'd just lean on their shoulders. But he always thought he could do more than he could and so part of your rehab [rehabilitation] is, okay, as long as I can keep you safe, let's get up big boy, let's see you walk. And he would stagger about. He was fine. That was the physical side of it. In a wonderful way, his family was such a big part of his rehab because they did, for instance, play his music, the music he liked. We had a wireless speaker set up.

And have pictures up in the room and things like that. But also, every day his mother would come and read a poem to him. There's a poem written for him by his uncle who's a poet in England I think. Then when Ian was improving, and I told him that story. I said, "Your mother's been coming every day and reading this." So we got a copy of the poem and had him try to read it to his mom. It's very common for ICU patients, especially when they've been as sick as somebody like Dr. Crozier's been, to have what we call this ICU delirium and to be deconditioned. Being weak, very common, being a little not right in the head is very common. It just takes some time for that to wear off. But he also had this sort of double vision and he was having trouble with some of his word finding and things like that, and so this became sort of part of his therapy of trying to communicate and getting up, and that daily interaction with this family, he started to parrot some things that got said. One of our physicians used a phrase which I think is now a meme somewhere which is "ain't nobody got time for that," which I think is from a woman who is sadly outside of an apartment fire or something and she made this statement on the news and it got replayed all over the place. But Dr. Crozier picked up that "ain't nobody got time for that" and he must have said it twenty times a day, sometimes appropriately, sometimes inappropriately, but it was just funny and it was one of those things that just, you know, physical therapy? Ain't nobody got time for that. Ordering my dinner tray? Ain't nobody got time for that. It was just a funny, funny thing. I think all those sorts of interactions really helped restore him back to his very smart and funny self.

Then it was just a matter of we had no choice but to rehab him because no rehab facility would've taken him. This is the other part of this that nobody's thought about ahead of

time. There are no pre-published discharge criteria. That is something you're going to work out with public health. When are they going to let them go? How healthy do they have to be? How negative do they have to be, for how long? Somebody like Dr. Crozier probably would've benefited from being in an acute rehab situation where they could work on his physical strength and work on his speech, work on everything else, and we had to be that for him, which is a little bit of a stretch role for us ICU nurses. But it worked quite well and he was able to go back with his family to Arizona. Even that is difficult. Who's going to transport him? We thought he was safe enough to let out of the hospital, but that's not enough for a lot of transport companies. They're like no, wait. We're talking about Ebola? No thanks. Nobody wants to take that risk. So getting these people back where they belong is tough. Even trying to get into that van that took him away from the hospital, he just had to challenge me one more time and try to fall right there at the end. I was like, you think again, bub. He and his brother—his brother Mark helped me get him in the car and send him off. It was a wonderful, wonderful way to be the nurse that sort of started and finished his care. It was great. It's really good knowing that we still have Ian Crozier in the world because he's a good guy.

Q: What kinds of things did you guys talk about, you and Ian or the previous patients?

Morgan: I don't really know now. It seems funny that you can't remember those conversations, or that I can't. We talked about families and kids and situations, you're at their bedside for so long, but I couldn't tell you that I remember any single conversation that much. It's just sort of the time you pass like an awful lot of other situations where

you're just sitting and talking to somebody. And maybe that's best because it should just be that we are just passing time with them. I think it was hard more so with Kent and Amber Brantly because even once he started to improve and she knew in her heart that he was going to make it, then she wanted to be able to have a private conversation with her husband. Here she is with a nurse on one side of the wall and a nurse on the other side of the wall. There was no privacy. It's very hard for them. We were feeling kind of awkward like, okay, I don't really want to be listening to this but how can I pretend to give you privacy? That was kind of strange, and obviously they made it through it, but I think it would be very hard as a spouse to be able to feel that way about your loved one, that you couldn't have a conversation like that. But when Kent Brantly graduated from the Serious Communicable Disease Unit, we put him through quite a bit. One of our nurses, Josia [Mamora], brought in some—I don't know anything about perfumes or aftershaves or men's cologne, but they brought him in something really good smelling because he was going to get to hug his wife and kiss his wife for the first time. He had to take a shower, put on clothes that had never been in the unit before. We made sort of a pathway with these clean things so he wouldn't be stepping anywhere on anything until he got out of the unit. We took his wedding band and we decontaminated it and giving it repeated scrubs with these antiseptics, and I handed his wedding band back to his wife and I said, "When he comes out you can put this back on his finger." To watch that hug, to see those people who are clearly so in love, and such nice people, and to have been through that emotionally for them, to then end up being able to hold on to each other just in this dimly lit linoleum floored hallway of a hospital was just wonderful. Makes it all worthwhile.

Q: Can you tell me what has happened since Dr. Crozier discharged?

Morgan: Oh my. Well, he has been like a bad penny just coming back every now and then because of repeated other issues, but hopefully all those are getting behind him now. So we did see him a few more times as a patient, and now of course, he and Dr. Brantly both have been part of our ongoing education of the nation and the hospitals that have stepped up to be Ebola treatment centers, or now, emerging pathogen treatment centers. And Nancy Writebol has been back on this campus to speak to the student body, the nursing student body, just this past summer. We stay in touch with those folks and I'm glad. It's interesting, like with 9/11 [September 11th, 2011], a lot of people thought it's so memorable, the date, where you were, all those things, but if we'd had repeated attacks, of course—what if 9/11 was just one more day when bad things happen? It would be terrible. I think a lot of us feel that same way with these things, that these people were so special to us and we remember so much in detail about their care but if it had just become the part of an epidemic, then that would've been something very, very different. In some ways I'm really grateful that they're memorable because they were just this episode. But they were an episode that I hope is sparking a new conversation in this country that is long past due. We have trauma networks so that everybody knows within a state or within a region that if you have a patient that needs more care than your hospital can handle, you have these agreements with where those patients go. And we need to have that same thing for infectious diseases that if you recognize, you can isolate a patient, you can make the right phone calls, that we should be able to move those patients up the same sort of chain.

That's in its infancy now, but I think that it's a real step forward because as David Quammen says, as everybody who works around the idea of zoonotic diseases, we are living closer and closer to where animals live. We are interacting, we are living in densely populated spaces, we travel quickly all around the globe, and that is a recipe for disaster. It's going to be really interesting to see what comes next. It's not going to be zombies. It's going to be something probably far less dramatic but in its own way much more devastating, whether it's a flu, whether it's an upper respiratory, whether it's another viral hemorrhagic fever. It brings with it its own kinds of devastation, and we're seeing that with Zika, which is not something we would treat in our unit because the transmissibility person-to-person isn't there as a risk in a hospital setting. But we're going to see communities devastated by the birth defects that Zika is bringing with it. I think it's going to be really interesting to see what's next and I hope that we are going to be able to keep healthcare workers safer. I don't want Dallas to happen again. I don't want nurses to feel like they're at risk again. I want them to know what PPE to choose, when to put it on, and most importantly how to take it back off. I hope that that's now where my career is headed, is doing that and making the world safer, making nursing safer for all those people out there.

Q: Does that mean a lot of work with NETEC?

Morgan: Yeah. It means that we're working with NETEC, we're also—so NETEC is doing educational conferences. We're trying to do this sort of training, simulation labs, all sorts of things to get people used to the idea of when you need to wear something and

what you need to wear and how to wear it and how to take it off and how it feels to do some regular nursing jobs with that stuff on. That's one big piece. I also hope that hospital won't—and I say hospitals mostly because inpatient places are where we already have a problem with transmissibility of infectious diseases. We've all heard now of MRSA [methicillin-resistant *Staphylococcus aureus*], this sort of staph infection that is bad. We've now got other pathogens that are resistant to a lot of antibiotics that can wreak havoc on people. We have *Clostridium difficile* that kills people, and how bad to die of a diarrheal illness in these days in the United States. It should be sort of criminal. All those things have a bunch of people, a bunch of very smart people working on them, but we are missing this piece. That to me is this piece of, what are the nurses wearing when they go in and out of these rooms? Do they know why they've got certain things on? Do they know how to take them off? Are we making sure that they're not carrying those things room to room to room? Until Ebola hit, no one had checked my technique, so I could've been the one creating these outbreaks in a hospital. They're hard to trace but how do you know it wasn't me? Now, I think that we're spending a lot more time really trying to have those conversations and look at saying, we need equipment that was designed for us, for what we do in a patient room, and we need to sit down and have a new conversation with nurses about why PPE is important, and that's tough because we also teach nurses that the patient's health and safety is paramount, and where that conflicts it's going to be interesting. Right now, you walk into any intensive care unit and if a patient pops off the ventilator, they cough themselves, it comes disconnected, it looks like little plastic tinker toys, there's going to be a nurse somewhere in this country that jumps up and runs into that room with no PPE on to reconnect that patient because it's

the right thing for the patient, but it's the wrong thing for that nurse. How we balance those two things is what we have to deal with moving forward.

Q: What did caring for these patients and being involved in the Serious Communicable Disease Unit, what has it meant for you?

Morgan: Oh gosh. I think for me it's taken a bunch of the bits and pieces that I've always been interested in. I love teaching. I love teaching new nurses but I love teaching. I just think teaching patients, teaching families, teaching everybody is sort of a natural way of having a conversation. And now, the idea of being able to teach people something that's significant, like really important to your safety, is a great opportunity. I'm really grateful. I'm grateful I got to know these patients. Again, they're just such gems of human beings. But I think that it just let me enter a phase in my career where I could really put together a lot of the things that I had gathered in my skill basket as I've aged and so I'm really grateful for that. I feel like that's been a wonderful opportunity that I wouldn't have had if Kent Brantly hadn't come down with Ebola. So yeah, I think that's—again, if I have anything left in me to give to the nursing profession, it's going to be trying to make it a little safer moving forward and I think I would be able to end my career on a really high note if I can do that. So yeah, NETEC certainly, working with the people that do things here at the CDC, developing an app [mobile software application] for PPE and—

Q: You're working on that with people at CDC?

Morgan: I'm not working on that but we're sort of reviewing it with them and trying to give them some feedback about it. In fact, that's going on right now. But also the people at the national—there's sort of a PPE testing lab. Really trying to inform that next conversation about what PPE should look like. I want more of that. I want to push more for a national conference, if you will, about what it is we actually need at the bedside, and making sure that we get that. So yeah, it's all good.

Q: Thank you. Jill, is there anything that we haven't gotten to that you'd like to help fill in?

Morgan: I guess the only thing I'd like to say is more of a broader picture of this, and that's that in this case, somebody chose to bring Kent Brantly back to the United States, but that's likely not the way the next emerging pathogen is going to arrive here. If you haven't thought about that already, you need to think about that. What would that look like in a small town? What would that look like in a crowded city? Who's prepared? How do they get prepared? Whose advice are they listening to? I'd like to think that this experience has made hospitals more aware, but every clinic, every doc in a box, everybody including the CDC have had to rethink our approach, and I think we came off amazingly lucky with this. The tragic death in Texas—I'm sorry there had to be even one death, but I think that the fact that it never got any further is a testimony to how quickly people can mobilize the right things, and I don't want to rely on needing to mobilize a whole lot next time because I think all these things should be in place. Just like you pay your homeowner's insurance and you have a smoke detector and all those other things.

It's for the what-ifs. I hope you never have a fire in your house, but if you don't have a fire for a year, are you going to get rid of your smoke detector? No, of course not. That's sort of the way I feel about this whole preparation.

Q: Jill Morgan, thank you so much for being here. This has been fantastic.

Morgan: Thank you. It's such a pleasure. I never tire of the whole topic, obviously.

Q: What's it been like talking about it?

Morgan: Oh, I like it. It reenergizes me and it makes me think back on some of the things that I haven't thought about for a while, and I just feel so, so fortunate to have been able to be part of this whole process and I'm just grateful.

Q: I'm grateful that you came here today. Appreciate it.

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