Strong Medicine Interview with Stephanie Kayden, March 10 2014

Q: [00:00] All right. This is Jacob Moses, and today is March 10th, 2014. I'm here with Stephanie Kayden, in her office at the Brigham. And we're going to record an interview as part of the Strong Medicine Oral History Project today. So first, I want to ask, Dr. Kayden, do I have permission to record this interview?

A: Yes, you do.

Q: Thank you very much. OK, so, we're conducting this interview to create a permanent historical record of the Boston Marathon bombings, and their aftermath. We'll spend much of our time today, talking about your experience, what happened on the day, and the days, weeks, and months that followed. But we also want this interview to make sense to people who, decades from now, will be listening to it. So we want to first begin by learning about you, and what you do. So could you begin by telling me about yourself, where you're from, what you're doing now?

A: OK. My name is Dr. Stephanie Kayden. I'm an emergency physician at Brigham and Women's Hospital in Boston. I am from rural southwest Alabama, originally, but came north for my education when I was 15. I got a scholarship to a boarding school in these parts, and then stayed around here

for my education. Undergrad at Harvard, and then I went to New York for medical school, and gradually, made my way back up to Boston, where I now work as an emergency physician, and subspecialize in international emergency medicine.

Q: And what's your current title?

A: I am the Chief of the Division of International Emergency Medicine and Humanitarian Programs in the Department of Emergency Medicine at Brigham and Women's Hospital.

Q: And what attracted you to emergency medicine?

A: (laughs) I was one of those medical students who went through each rotation on the different specialties, and liked everything. You know, I would get to Obstetrics and Gynecology, and think, "Oh, this is wonderful, I love this." And then think, oh, maybe I'll do that. And then the next month would be Neurology, and I thought, oh, I love that, too. Maybe I'll do that. And then the next month would be surgery, and so, when it came down to it, I decided, a couple of things. Number one, I thought, you know, being from a small town in Alabama, we had only one doctor in our area of the county, for most of the time I was growing up. And so, going to the doctor meant you could go to this one guy, and he could take care of whatever was wrong with you. And so, it didn't really fit

in my idea of what a doctor was, to be so subspecialized that I wouldn't be able to handle anything that walked through the door. And I think that was one of the main components of it. And the second thing is that, emergency medicine, at that time, was still a relatively new specialty. And the opportunities there for the growth of the profession, and for bringing quality emergency care to people who need it, both in the United States and around the world, where it's, to this day, really an unknown specialty in many countries, it was very exciting to me.

Q: Perfect. Can you give me a sense of what your typical day is like?

A: Oh! Well, no --

Q: Is there a typical day?

A: There is no typical day. (laughs) So, one of the things about our life is that every day is different. So, if I am working in the Emergency Department, most of our shifts are in the evenings, nights, and weekends. So, usually, we'll be working at one of those times. To have a day shift is a relatively rare and wonderful thing, around here. But usually I would -- since I'm academic, I would come into the office, work on some research or projects. I have seven fellows that I'm teaching, either international emergency medicine or global health. And so, we would meet

together there. So, I might do that for the early part of the day, and then go into the Emergency Department, and work 10 or 11 hours, on shift. Emergency medicine is shift work. So it's sort of like being in a factory. You know, there's the 7:00 to 3:00 shift, and the 3:00 to midnight, and midnight to 7:00. And we have different shifts that pop up throughout the day, about eight different ones, to cover our Emergency Department here.

Q: Great. And I want to now shift to thinking about the marathon. Had you worked on a Marathon Monday before?

A: I have. I -- since I've been in Boston, I've had the pleasure of working on several Marathon Mondays. And, you know, usually on Marathon Monday, we don't quite know what's going to happen. It kind of depends on [05:00] the weather, usually. So, if it's a hot day, we'll get potentially dozens, or even a hundred patients who are suffering from heat disorders, or low sodium in the blood, because of the running, and there are those kinds of problems. If it's a cool day, we may get out of Marathon Monday without seeing any marathon patients. So it just depends. So we all kind of keep our fingers crossed.

Q: But it's an event that, under ordinary circumstances, you're already expecting something --

A: Right, exactly.

Q: -- out of the ordinary?

A: So, in -- in the city of Boston, every Marathon Monday, the -- all of the first responders in the city, so the city government, and the police, the fire, the ambulance companies, and all the hospitals, use that day as sort of a practice disaster drill, if you will. All of the disaster response forces are mobilized, and our disaster preparedness officials, even here in the hospital, are mobilized on that day. And they are ready to go, even if nothing happens. But it's -- they sort of use this real-life event as kind of a practice drill. And so, on Marathon Monday, our Director of Disaster Preparedness was in the Emergency Department, just monitoring the situation, and seeing if we would get any patients. And so, I was chatting with him, from time to time, as we were doing our shift that day. But in large part, on that Marathon Monday, it was -- it was a pretty normal day. I had the day shift, one of those rare and wonderful day shifts, and things were just plodding along. It was busy, as Monday is the busiest day in any Emergency Department in the world, and so, we were ramping up and just starting into an afternoon of being terribly busy.

Q: Why are ordinary Mondays the busiest day?

A: (laughs) That is a good question. For many reasons. I think, if you think about it, there are a couple of things that happen. Number one, all of the people who have been sort of sick over the weekend and thought they could probably make it through, now Monday comes, they have to go to work, and if they find they're so sick they can't, then come to the Emergency Department. Also, I think there is sort of a phenomenon in nursing homes, where there is the weekday staff, and the weekend staff. And the weekday staffs tend to know the patients just a little bit better, and so something might have been brewing over the weekend, and when the Monday morning nurse comes in, you know, Mr. Smith is not looking good, and then they come. And also, there is a lot of elective surgeries that happen on Monday, and so, what that means is that the beds in the hospital begin to fill up on Monday in a way that they were a little bit empty on Saturday and Sunday, from these elective surgeries, and that means that when we admit patients from the Emergency Department, they can't go upstairs, which is -- [and that's a] -- admitted patients then having to stay in the Emergency Department, waiting for a bed upstairs to be ready. That's called "boarding" and it's the number one cause of delays in Emergency Departments around the world,

no matter where you are. So all of that seems to kind of come to a head on Mondays.

Q: So on this Monday, Marathon Monday, 2013, now, you mentioned you were working the day shift. And how else did the day begin?

A: So it was a normal day. Being Marathon Monday, we had all gotten -- we get, by email, little briefings, reminders, how to treat these heat-related illnesses, and what are protocols are, in case we have a lot of marathon runners come in. And so we were all geared up for that. But really, we weren't getting anyone from the marathon, because it was a nice, cool day that Monday. It was great running weather. And so it began like any other Monday. And it was even surprisingly routine. And I remember thinking that we would probably get out of this marathon, you know, without any extra marathon patients, and it was going to be a smooth Marathon Monday, and, because, you know, if we get runners, they may start coming in as early as about noon, and then if we are going to get a lot, they're -- they've started to arrive by about 3:00 in the afternoon, because of when people finish the marathon. So, at about 2:30 that day, I was chatting with our Disaster Preparedness Director, a gentleman named Barry Wante, and he and I were kind of laughing, and sort of congratulating

each other that it seemed that we had gotten out of yet another Marathon Monday without there being any big disaster.

Q: So, when did you first know that something had happened?

A: About 20 minutes later. We got a call over the ambulance dispatch phone. So, Boston, like many cities, has a centralized ambulance dispatch and medical control system that we call CMED, and that system links to phones that have speakers in every emergency department [10:00] in the city. And when we are expecting an ambulance in, you'll hear a call on CMED, and then the radio goes off, and you can hear what's coming in. And so, about 10 minutes to three, the radio turns on, and we hear one brief announcement, that there have been two explosions near the finish line in Copley Square. That was it. That was all the information they had to tell us, and so that's all we knew. But, based on that piece of information, we figured it was going to be bad, and we instantly began implementing our disaster plan, which started with emptying the Emergency Department.

Q: So what does that entail, emptying an emergency department?

A: Ah. Well, it entails and unbelievable effort on the amount -- on our doctors and nurses, both in the Emergency Department and throughout the hospital. So, what that

means is, when we go into this emergency protocol, we know we are going to need these beds for the incoming victims. So, the normal rules sort of don't apply. What we do is, if you're healthy enough to go home, or to be sent upstairs to the Internal Medicine Clinic, to be seen, then you instantly are -- we just pack you up, and off you go, and say, "I'm sorry, but there's an emergency situation, and you have to go see your primary care doctor, or go upstairs to the clinic." And so, those are -- that's where people with -- you know, who've come in for rashes, or minor sprains, something like that. If you are sick, and you were in the Emergency Department to get a diagnosis -- maybe you're waiting on a CAT scan, or something like that, for your abdominal pain -- those people, if we know they need to be admitted, then we admit them straightaway, under a special protocol, and we just send them upstairs. Kind of, "Ready or not, here we come." It's not a completed case with a definitive answer, but we tell them also, "We're going to take good care of you, but up you've got to go."

So, our 54-bed Emergency Department was full that day. Every bed was full by just before 3:00 p.m. on Monday. And in 18 minutes after we got that call, the Emergency

Department was virtually empty. And that can only happen if you have staff, both in the Emergency Department and throughout the hospital, who know this emergency protocol, who, when we say, "Gotta empty," they start taking the patients. It was a remarkable thing. We had internal medicine residents, so trainees, and doctors who had just heard the word -- maybe they were rounding on patients, and the patients' televisions were on, and they heard that there was a bombing. They came to the Emergency Department and said, "We heard that we were going to get a patient admitted. Don't even bother to pass off, we'll just grab Mrs. Smith and we'll take her upstairs." And they did that. It was -- it was truly remarkable.

One of the most remarkable things that happened along that line was that, on that day, we had six patients who were waiting on psychiatric beds. Now, the psychiatric beds are not located in a Brigham hospital, if you need inpatient psychiatric care, because you're suicidal, or have a major psychiatric problem. You usually have to wait on one of these outside hospitals to have a bed. And so, unfortunately, as it is in Massachusetts, the way it is everywhere, these beds are in short supply. So these people often will wait, you know, 24 hours, sometimes more.

And so, we had six of those patients; they're very hard to place. Our emergency psychiatry team -- Dr. Gitlin and Dr. Shaw -- came down. They called in favors, and made phone calls all over. And they even got our psychiatry patients out, and admitted to these facilities, who did them the favor of taking them, in very short supply. So, by the time the first patients started to come in, we actually had the space available that we needed, which was phenomenal, which was great.

Q: So, emptying the ER is sort of the first step.

A: First step.

Q: Once that's done, what else do you do to prepare, when you're not sure yet what you're preparing to do?

A: (laughs) Well, the second thing we do is, we activate the Hospital Disaster Emergency System. So, within a hospital, and you may see on the movies sometimes, they call it "Code Blue." Code Blue, typically means that someone has stopped breathing, or their heart's stopped beating, and they need emergency medical help. There are other codes. Code Red means that there's a fire, or smoke somewhere in the hospital. In our hospital, when we need to indicate that there's a disaster going on, that's called a "Code Amber." And so, from the Emergency Department, we initiated the Code Amber call. When a Code Amber is called, it's

announced overhead throughout the hospital, and the leaders of the hospital will receive pages on their pagers, letting them know that a Code Amber has been called.

The Code Amber does a few things, but most importantly, it stops elective surgeries from going into the operating theater, meaning [15:00] those who can wait, that's not an emergency right now. It also calls the hospital's Incident Command Disaster Response System to the command center. So, there's a room on the second floor of our hospital that is usually used as a conference room. And it's lined with cabinets all around, and it looks like a normal room. When a Code Amber is called, the cabinets that line the room are opened, and each one -- and they turn into work stations. There's computers, there are telephones; there are vests, there are manuals; and there are actually televisions in that room, and it becomes an Emergency Operations Center. And so, the chief nurses, the head of the hospital, the Chief Medical Officer, and people like that come -- public affairs, and media consultants -- they come to that room, and they, as a management team, make the plans for how to operationalize the disaster. So while we are doing this clinical stuff in the Emergency Department, they are preparing the entire hospital -- security, and they're

looking for, will we need extra food, or is our staff going to have to stay overnight? What does it mean? They are doing that at that level in the Emergency Operations Center. And so, when we activate the Code Amber, all of that starts to happen automatically.

So, that was very helpful, because what they can do, is they can manage the hospital beds, because in times of great emergency like that if we need to, we can discharge people from inpatient beds, if you're pretty much healthy enough to go home, we can discharge you immediately, to make room for the sick people coming in. So, all of that was very important.

There are security protocols that happen, and on that particular day, there was pretty quickly a decision to lock down the hospital, and not let anyone in or out, because of course, a bombing is a little bit different than other kinds of disasters. If there's a train derailment, for example, typically that's an isolated event. You don't expect that there's going to be one train derailment, followed by another train derailment, followed by another one. But in a bombing, you're not sure. And, you know, by its nature, it's a terrorist event, and a lot of times,

these terrorists will bomb in clusters, having two or three, or four bombs, right one after the other. And so, you can't be sure when it's going to end. And that was one of the things that we were dealing with that day. Of course, there were two bombs, right next to each other, within seconds. But we didn't know that there wouldn't be another and another and another. And so, as, even as the day, the hours grew on, it wasn't clear exactly when to stand down all of this response that we had done.

Q: So -- (clears throat) excuse me -- how did you -- how did you first know that it was a bombing, and how did that affect this decision to lock down?

A: Well, our Director of Disaster Preparedness, this gentleman, Barry Wante, who is a former police officer, actually a police chief, who now works full-time in our Emergency Department, just doing this. He prepares us, he trains us, he trains the whole hospital, he works with the city. He has a lot of buddies on the police force. And so, he was making special calls to try to figure out what exactly was going on, because of course, he and I needed to decide, do we have to decontaminate people? Is this a biological attack? Is it a chemical attack? Is there going to be radiation in these bombs? We had to quickly

make that decision. So he was trying to find more information.

And so, I think it was just before the first patient came in that we got word that it was likely a bombing and probably intentional, as opposed to, say, a pipe bursting, or something like that. And then, as the first patients came in, it was pretty clear what was -- what was happening. We got... Three of our first patients came in just a few minutes after we got word, and you could see that there was some shrapnel in some of the wounds, and that was not what you would expect if it had not been intentional. But it looked like it was going to be a busy day, at that point.

Q: Can you give me a sense of -- of your role, and the role of your team, in responding to those first patients who were arriving?

A: Sure. So, on that day, I was the Senior Emergency Physician, working in our Emergency Department. The Emergency Department is a large one. And it's split into three parts. We call them Alpha, Bravo, and Charlie. And I was working in the Alpha part of the Emergency Department, and that's where, on a normal day, we see trauma patients. So we have special rooms, called "trauma

bays" that are a little bit larger there, and that's where most of the most severely injured patients would go, on a normal day, and that's where they went on this day also.

So, you know, because word of this explosion got out, we very quickly had volunteer doctors arriving from all over the hospital. Some of them were critical to our response, like the trauma surgeons, for example, and the orthopedics, neurosurgeons. And some of them [20:00] just wanted to help out, but where a little bit less necessary. So my -- my primary role, actually, was not in direct patient care, but I -- I became the leader and the organizer of that Alpha trauma part of the Emergency Department. So we quickly -- so it was an organizing role.

So as people came in, I showed them where to go, and we assigned one of our doctors to do triage. Triage is a word that means "sorting." And so, as the patients were coming in on the ambulance, he would have a quick look and say, "OK, you are severely injured, you go to Alpha." Or, "You're less severely injured, you go to the Brava or Charlie pods," and he would sort them that way. And so, I assigned him to that role. We were making a list of patients, as best we could, because they were coming in so

quickly. And then, as the volunteer doctors came in, we -- what we needed in the Alpha part were trauma teams. We needed multiple trauma teams. A trauma team is a collection of a fully qualified trauma surgeon; a junior trauma surgeon; someone who can put a breathing tube down, so that's either emergency medicine or anesthesia -- we used a lot of anesthesia folks on that day; a nurse; and a helper -- we call them a tech, like an orderly. And so, it's about five people that you need.

And so, I was gathering those teams together, and assigning them to rooms in Alpha, and telling them to get ready in there, just like a regular trauma team, on a regular trauma day, but we needed many more, obviously, than we would on a normal day. So instead of one or two teams, which would be what we typically do, we had five teams ready. Five or six, depending on the time, ready to accept patients, at any time. And so, organizing the teams, letting them know what was going on, letting them know what we thought we were getting in next, was a big part of what my job was. As the volunteer doctors came down, I would assign them to rooms. Orthopedics, I knew that there was a severely injured person who needed an orthopedist in a certain room, I'd say, "OK, you're in room 14." You know, neonatology

came down -- they are the only pediatricians in our hospital, since we're physically attached to Children's Hospital. So when we had a pediatric patient, I -- they came down to help us, if I knew [inaudible]. And so I was sort of directing traffic, organizing, leading the Alpha part. That was my job that day.

Q: So the operations of an emergency room -- I mean, this was a -- this was an extraordinary event, in some ways, and in others, emergencies are part of the daily routine of the Emergency Department. So what part of this day, what -- you know, was it sort of a scaled-up version of -- of what ordinarily happens in the department?

A: Well, so emergency physicians, when they are trained in their training programs, we are all taught these disaster response protocols. Things like field triage, and how to manage a scene, and the incident command, and we all have an idea of what needs to happen. Because these events are fairly rare, we don't get to live them out very much. And that's where the training comes in. What we do is, we hold regular training drills. And so, those -- the emergency physicians are always part of that. So a lot of our emergency physicians actually on that day, were taking these organizational roles, because there are other doctors in the hospital who can be the doctor, but there are very

few of us who know how to run this kind of a response operation. And so, that's what we were doing.

I will say that, it was a little bit lucky that I was there, because I have experiences in managing disasters in my international work, responding to international disasters, and refugee crises, and things like that, that some of my colleagues didn't have. So, while it was a very active, crazy day, and I hadn't lived through anything quite like that in the United States, I had done that kind of quick triage and organizing and all of that in other countries. And so, I was able to sort of click into that mindset, pretty quickly, which I was very thankful for.

But people in general, I think the doctors that came down, were very helpful. They were eager to -- to be given a task, to be told what to do, so that they could feel useful at a time of great chaos and a lot of questions.

Q: So -- so what are you thinking, what are you feeling, when responding to a disaster, a mass-casualty event that's taking place, not in some distant country, but right in your own back yard?

A: Well, you know, there were a couple of things I was feeling. One is, you know, how are we going to organize

all of this? There -- is one of the things, we have -- hundreds of doctors were coming to help, and we -- we had a lot of patients. It was a lot of crowd control. So you're thinking, on a [25:00] moment-to-moment basis, what's the next thing we need to do? What's the next thing we need to do?

But, you know, a big part of me was thinking, you know what? This is not -- not going to be the hardest disaster day I ever have, because, I'm like, the situations I've faced in the past, in Haiti, and rural Pakistan, in the mountains -- I knew that the people who were coming, who were injured here, would get world-class medical care. They just would. And we had all the help, and all of the resources that we needed for these people. And so, I thought, this is -- this is probably going to go all right, in the end, for these poor people, who have been the victims of this horrible crime, because we've got everything we need here. You know? In the moment I needed them, 20 trauma surgeons ran into my Emergency Department. And that's never happened, internationally. When you -- you know, internationally, when things like that happen, what you typically have to face is, there are not enough people, there are not enough resources, there's not been

enough training, and the folks that come in are probably going to die, and there's nothing I can do about it. And I did not have that feeling at all here.

And so, it was actually really reassuring -- to me. And I think that that's one of the reasons why I thought that my experience was probably pretty lucky, because I know that my colleagues, for most of my colleagues, they have never been involved in anything like this. And it's really scary, the first time you do this. You don't know what's going to happen, and you don't know what the normal should be, and what it should feel like, and what's going to happen to your patients, and can you help them? Those are questions that most people are trying to grapple with, even in the moment.

Q: Were those questions that you were grappling with, the first time you responded to a disaster?

A: Oh, yeah. Absolutely. I think that, you know, when you first respond to a disaster, it -- [26:51]

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