Strong Medicine Interview with Brien Barnewolt, 2 May 2014

BOTELHO: [00:00] OK, this is Alyssa Botelho, and it is May 2nd, 2014. I'm here with Brien Barnewolt in Tufts Medical Center, and do I have your permission to record?

BARNEWOLT: Yes.

BOTELHO: OK. Great, so, sort of the first part of the interview, we get into talking about the day and then the year after, is to just get a sense of you and where you're from. If you could maybe describe where you grew up, where you went to school, and how that led you here to Tufts, that would be great.

BARNEWOLT: My name is Brien Barnewolt, I'm the chairman for emergency medicine at Tufts Medical Center, in the Floating Hospital for Children. I've been here since 1992, so quite a while. I grew up in California. I'm a native Californian transplanted to New England. I trained in Chicago, did residency in California, and I came to New England to follow my wife, who did some subspecialty training in pediatric radiology, so that's how I ended up here.

BOTELHO: Got it. And do you currently hold any other positions?

BARNEWOLT: I'm on a lot of board and committees and various sorts of things, but this is my primary job, my primary role in life is here, yes.

BOTELHO: Got it. And what does a typical day look like for you?

BARNEWOLT: A typical day, there is no typical day for me. It can be working in the emergency departments, seeing patients in any number of different areas that we see, could be a day like today where I'm meeting with you, having started the morning with MedFlight on their board, and talking about that organization, which is owned by the Consortium of Teaching Hospitals in Boston, to any number of different activities, teaching at the medical school. So there is no same day.

BOTELHO: Got it. OK, so have you worked on Marathon Monday before?

BARNEWOLT: Have I ever worked on Marathon Monday before?

BOTELHO: Mm-hmm.

BARNEWOLT: Yes, sure.

BOTELHO: And what does a typical Marathon Monday look like at the hospital?

BARNEWOLT: A typical Marathon Monday for us is a busy day. It's usually a fun day. People work really hard, we see a lot of patients, but it's a holiday in Massachusetts, so we have a lot of fun, celebrate the marathon runners. We're

pretty close to the finish line, so we always get a lot of people coming in and plan for that. They're usually a fun group of people to take care of, and the people like to work on Marathon Monday.

BOTELHO: And so if you could talk about Marathon Monday last year, sort of if you could describe how the day began, and when you knew something had happened.

BARNEWOLT: On that particular Monday, I wasn't working in the emergency department. I was about an hour away. Unusual. We usually are in town for that particular day, but that particular Monday, we decided not to decided not to be, and we'd watched, with my wife, the marathon on television, and then were going about our day, and I was in the backyard doing something, and walked in right when the explosions went off, and the television was still on, so I saw the smoke and knew that something was happening. My wife had gone off on some errands, and looking at the events on the screen, you could tell that there was something that was happening, and I kept reaching for my pager, wondering why it wasn't going off yet.

BOTELHO: And if you could sort of describe sort of the communication that you had with your team, or just the involvement that you had on that day, even though you were remote. If you came back, or if you were fielding lots of

calls, if you could describe sort of the rest of the afternoon.

BARNEWOLT: Right. So the day had started off really busy in the emergency department that morning, and we always know what's going to happen during the marathon. In the afternoon, it's going to get busy, and it's going to stay busy all the way through midnight, so we like to start off with an empty emergency department, or decant as best we can. So I'd already been in touch with the people working in the emergency department early in the morning, and it was unusual on that particular day, because we had a lot of people who were boarding in our emergency department, which is a little bit unusual on that holiday, but we were greatly impacted. And so I was working with our team, making sure that everything was being done to get the patients out of the emergency department in anticipation of our normal onslaught of patients that would be oncoming. We always activate our emergency management operations for that day anyway, just as an exercise, and also just to take care of the large number of patients coming through. So we'd already had several phone calls, [05:00] really to just to kind of take care of business and make sure things were moving along, and how to best plan for that. And then at about 10 to 3:00 when the explosions hit, I waited a

couple of minutes. We do have a sophisticated paging system that alerts people when disasters happen. The one thing that happens sometimes in the wounds department when a disaster occurs is that a lot of people either rush to the emergency department, or they start calling the emergency department. And so knowing that, I didn't want to be one of those people calling my own department, knowing that they were probably figuring out what was happening and starting their own activation process. And I was very confident that that was going to happen. I didn't really need to tell them to do it. I knew that they would be doing it, and I knew that my phone call would just stop them from doing that, because they're going to take my phone call. So I waited a while longer. After a few minutes, the pages came through, and there was some conference calls that took place early on about the nature of the event. And we had an internal discussion here about the planning for the incoming patients. So the emergency department was doing their thing already, and this was really more planning about the institution as a whole. How would we secure the institution? Would we lock down the institution immediately or not? How would we direct the flow of patients as they came? Where we would put visitors? Where would we put extra people, and that sort

of thing. So it was a lot of planning right up front. Even before patients really had arrived here, to a large degree. We didn't get our first patients here at Tufts until maybe about 20 minutes after 3:00, and that was a surprise for us. We are just about one mile from the finish line. But eventually they did come. So we had maybe a little bit longer time to anticipate than maybe some other people did.

BOTELHO: And during those conference calls, if you discuss as openly as possible some of the most important decisions that you made and who else was involved in those calls.

BARNEWOLT: I don't remember every single person. I remember one of the more important, I think, discussions that we had regarded were we going to lock down the facility, and I think initially -- and it almost occurred at the end of the phone call. The decision was not to do it. I thought hard about that, and I didn't think that was the right decision. And so I suggested that we actually lock it down immediately, and we talked about that a little bit more, and we subsequently did lock down the institution, creating just one entrance on Washington Street for us. And I think that that was probably an important decision to make. Internally, the conference calls that I had with the emergency department, again, talking to the folks who were

in the ED, they were doing everything that they really needed to do. We had drilled this many, many times, and they were pretty well skilled in doing it. A couple of off-site physicians were driving in to take care of problems as well, and to help out. So we ended up having a lot of personnel that were available. And like many other institutions, too many people at times. You get to a point where it's just impacted with people who want to do good and want to respond, but difficult to manage. At one point -- we have a bullhorn for this, and our emergency department is not the largest one in the world, and you would never pull out a bullhorn to talk with people in it, but we have it and we used it.

BOTELHO: To sort of direct people in certain ways, or...?

BARNEWOLT: Direct people, right. So there are times -- when these things occur, you don't know what you're going to need five minutes from now or 10 minutes from now. You can anticipate, but you're not certain. So you need some space, that's for sure, and you may need some additional people. So having what we term the "labor pool," knowing where the bodies are, and you can draw upon that labor pool is important. There are only so many computers in the emergency department, only so many phone lines in the

emergency department, so kind of streamlining those things are important.

BOTELHO: And starting from around 3:20, 3:30 or so, how many, roughly, patients did you see and what kinds of injuries or problems did you encounter the most?

BARNEWOLT: So early on, we saw penetrating trauma patients, and patients who had been near the blast [10:00] and had severely injured limbs. None of the patients that came to us were -- ever lost their limbs or were in danger of losing their limbs. Oftentimes when traumas occur, disasters, patients will arrive in waves, and the folks in the emergency department knew that. So as the first wave of patients came through clearly with some traumatic injuries, serious injuries, injuries that would need to go to the operating room, those patients were not critical enough that they had to be moved to the operating room immediately. And knowing that sometimes, in the second wave, more critical patients can arrive, the surgical team actually held onto some of those patients for a while. We knew they needed to go to the operating room, but they didn't need to go immediately, so let's wait and see what happens with the second wave of patients. The second wave of patients for us never happened. We didn't have a second wave of patients. We really had that first wave of

patients, and so after a period of 20 minutes, 25 minutes or so, the patients that needed to go to the operating room were taken up to the operating room and taken care of by our surgical teams.

BOTELHO: Do you have, roughly, an estimate of maybe how many people arrived in that first wave, or...?

BARNEWOLT: Well, there was eight patients that required surgical care, and I think by the end of the couple of hours, we had taken care of 19 patients, with an assortment of injuries. And then through the rest of the day, and into the evening hours, late evening hours, patients would trickle in, who were just walking in with various sorts of injuries, oftentimes hearing injuries and burst tympanic membranes and those sorts of things.

BOTELHO: Let's see. And you sort of touched on it, but just in case you wanted to add anything else, if you did seem to allude that you followed your disaster management plan that had been in place already from even before that Monday began, but if you -- if there were any actions that deviated, perhaps, from that training plan in the spur of the moment that you wanted to highlight?

BARNEWOLT: Again, I think that the sheer volume of people that respond, you know, that was a deviation, and having a lot of those people in the emergency department was a

deviation. There was an event that occurred about 4:30 or so for us that was unique to us, in that we had to evacuate our emergency department. So I was driving in at that point in time, and calling in periodically to find out what was happening, and I got very close to the emergency department, and one of the people who I was talking with said, "You know that we're evacuating the emergency department, right?" And of course I didn't know that. How would I know that? I was obviously very curious about additional detail. So what had happened is that we continued to operate as an emergency department for other things, so the community didn't stop getting sick, and people didn't stop having problems because this was ongoing. So we had to care for those patients as well. And with the arrival of all the patients, we also had an arrival of a huge number of law enforcement personnel, DEA, FBI, Boston Police, Alcohol Tobacco and Firearms, you know, all kinds of people, just a slew of law enforcement who were in the emergency department. And another patient had arrived who wasn't related to the marathon at all. She had an altered mental status. She wasn't really capable of giving much of a story, and she was placed in the examination room, and a well-meaning registrar brought in her belongings and put those belongings in her room. At

that point in time, while we had secured the facility, we weren't searching people's bags, a lesson that we learned. And so one of the police officers noticed that there was this bag, unidentified, with a patient who really wasn't conversant, and questioned the contents of the bag, and had it been searched. Nobody could verify that the bag had been searched. And at that moment in time, that's it. We were done. We're evacuating the emergency department. That's a hard pill to swallow to a team of emergency personnel who are into their elbows caring for people. Now you're being told, not asked, but told to get out of your own emergency department. But they did. And they evacuated the entire emergency department in a period of about five minutes. We set up another emergency department in what we call "the atrium," a central large lobby space in the middle of our hospital on the ground floor.

BOTELHO: [15:00] Not a place that you would normally care for --

BARNEWOLT: Never a place that you would normally care for patients. But we did that. And then they went on; all the patients were evacuated, with the exception of one, that one patient who had come in who we really couldn't communicate with. She wasn't allowed to leave the room, not knowing what her intentions were or what was in the bag. So law enforcement brought in a bomb-sniffing dog,

and the dog went in, and the dog indicated that there was something in the bag. That was another hard thing to believe. And you have to remember at that point in time, there were various reports of other explosions occurring, controlled explosions occurring, various packages throughout the city. There was something that had happened at the JFK Library. Nobody knew what was involved at that point in time. So everybody was pretty much on high alert. They took the dog out and they brought the dog back again, and it turns out that this particular dog, when it detects the scent of an explosive, it sits. It sits down. So it had sat down the first time around, and it sat down on the second time, too. So people thought that this was a serious threat, and the next thing that happened was that the bomb squad was called and they brought in a mechanical robot, and I think they ended up x-raying the device, and there was nothing in it. It was a false alarm. But it did require us to evacuate our emergency department, and spend about 45 minutes in a completely different setting.

BOTELHO: And you touched on this too, but, did the awareness or the presence of news media, whatever that be, you know, TV, tweets, this or that, did that have a bearing on decision-making of the hospital? Did it sort of affect your work in

any way? There was a lot of crazy press happening that afternoon.

BARNEWOLT: Yeah, there was. That's actually how we got some of our initial information were -- I think everybody had somebody who was close to the finish line, and people received tweets and text messages that something had happened. So we clearly knew that something had happened. But we first found out about it on television, just like a lot of people. Before any EMS radio traffic or anything else, we saw it live. We use social media here to actually combat some rumors. So when this bomb event happened, there was rumors out there that a bomb had gone off at Tufts Medical Center, and various sorts of things. So we had somebody who was actively working with social media, giving out factual information that, no, a bomb had not gone off, and then when things were all clear, that no bomb was found, and Tufts Medical Center was open and taking care of patients, and everybody was safe here. So that was a tough thing to deal with, but social media really helped us quite a bit there. The other thing that was really important for us, early on our news manager had the presence of mind to gather up the staff, really in the very first minute or two that this happened, and said, "You know, I want you to take a minute, and I want you to call

your family and let them know that you're OK." And that was important, and afterwards, everybody said, you know, how important that was, both to the family and to the worker. So she knew that they couldn't work very well if they didn't know where their family was, especially if they were anywhere near the finish line. And likewise, the family would be concerned about whoever it was that was working in the emergency department. So that quick little communication put everybody at ease. People were able to do their job. And that continued use of social media kind of throughout the entire event was very, very helpful in kind of squelching rumors.

BOTELHO: Great. And did you use any new technologies that day?

BARNEWOLT: New technologies? I can't say that we used any new technologies. No, I wouldn't say we used anything new. The social media component and the things we just described, you know, I think that that was novel, and we had never done that before to that extent. The hospital had a social media presence, but I'd say this was really active information management with social media in a really good, a very helpful way.

BOTELHO: Got it. Did you have any communication with other hospitals in Boston? Do you guys collaborate in any way with other institutions?

BARNEWOLT: We do collaborate. The distribution of patients is done [20:00] in a pre-hospital sort of setting, as it turns out. We all receive pretty equal numbers at the end of the day. A lot of that was probably by chance, but there's also a pretty sophisticated web presence that everybody can talk to one another, can find out what's happening, keep the phone lines kind of clear. So yeah, there is a lot of communication amongst the hospitals.

BOTELHO: And that day was sort of communication as normal, you were in touch with the other hospitals during the couple hours after?

BARNEWOLT: Really through the -- I think through the web sorts of things. We were all pretty busy, and we were all pretty stretched. So the clinical care teams were doing everything that they needed to do. The administrative teams were taking care of administrative matters, and then you kind of mentioned the other components of media. I mean, at some point the media just really came down on everybody, and it was huge. You know, I think if you talked to most media members of the hospital staff that dealt with media, they'd tell you they'd probably never seen anything like that before, and a lot of people got very little sleep over the course of the next week. But it started a couple hours after the event, and then

crescendoed, and it really took off in the next day or two. Just people from everyone and from around the world were here. And that became a difficult thing to control sometimes.

BOTELHO: And maybe we could talk a little bit about your reflections, especially as director over the past year. Maybe if you could talk about some changes that you made in the year after, in the weeks after, if you could just offer some thoughts on Tufts' emergency response, sort of in the wake of a crisis like that.

BARNEWOLT: Yeah. A couple things. One is -- and a lot of people have commented on the management of the electronic medical records when you have a big influx of patients, and how it can be a little bit challenging, and everybody was challenged with that one. So that's tough. And ways that you can streamline the influx of patients and identify them. So different people have different ways of identifying patients who can't communicate. As it turned out, all of our patients could communicate. We could talk to them, they could tell us their names and all their identifying information. So we didn't really have that particular problem. But if you use a Jane Doe one, Jane Doe two, Jane Doe three, that becomes a little bit problematic when you have a lot of Jane Does. Not too many

people use that system, and we don't. The other way that clinicians communicate sometimes, and it can seem a little bit shallow or impersonal, but we do it, and that's the patient in room three with the laceration, or the patient in room seven with the headache. It's sometimes easier to remember a patient by what's wrong with them or what the issue happens to be. Well, that day, you couldn't really say the patient with the leg injury, because everybody had a leg injury. There was no way to communicate that way. You had so many patients that sometimes it can be confusing. So just ways in which you can identify patients and keep track of them a little bit better, I think is what a lot of people have been working on, and us included. And then control of the people who are responding, the security of your environment. The best-laid plans can kind of go astray, when people really have great intentions. We know that. It's happened before. It's a pretty well-documented sort of thing that occurs, but you know, I think that we learned from this one and would be a bit better next time.

BOTELHO: Great. I think that you've pretty much covered all of my questions. I mean, if there are any particular changes in IDing, or in evacuation, or workflow plans that you just wanted to say in detail before I let you go, and you could add those, or add any other thoughts that you'd like.

BARNEWOLT: Again, even more about the control of people surrounding that kind of event. You know, when you're in a lockdown situation and [25:00] the institution has controlled entry to the institution, it affects the entire operation of the institution, and that's a hard thing for people to deal with. These sorts of events affect people differently. For some, you know, the response is going to be delayed months later, days later. For some, it won't affect them. They'll push it in some place in their mind and they don't think about it. And some people who are never involved in the event on the front line, but maybe here, it affects them severely. You never know how an event like this is going to affect somebody. And so having the appropriate support services for everybody throughout the entire institution, no matter where you were on that day, I think has been an important one. And as you went through the anniversary process, you know, this same sort of thing. Everybody has a different sort of response, and they deal with it differently.

BOTELHO: Did you do anything on the anniversary day? Was Marathon Monday this year especially high-spirited, or...?

BARNEWOLT: It was pretty well-spirited, yeah. We had a good time. I was there the whole time, and we set a record, actually, for the number of patients we saw. It was even

more patients than last year. But we had a great time. I think the patients had a good time as well. It's the way that the Boston Marathon really should be. You know, the anniversary happened about a year before -- or a week before the race this year. And yeah, there was some remembrance things, and we participated in city events, but again, every individual deals with it differently. For me, I tend not to go to large events like that. That's just not my particular cup of tea, but I know other physician friends who have gone to all of them, and it's very important to them. So, you know, I think that that's good.

BOTELHO: Great. That's it. If there's anything else you'd like to say. Also, if there are any documents or anything that you felt would be important to the history that you wanted to donate, you can get in touch with Jeremy or me, and we could add those to our archives.

BARNEWOLT: Yeah. There is one other thing that I think occurred that strikes me now. We've talked about the outpouring of people who wanted to help in our own community here, and certainly in our region, but we had cards and letters and gift baskets from across the country, from all over the place. Things would just show up from an emergency department in Texas, some place in California, a place in Iowa, cards from a school in Idaho. I mean, just an

enormous amount of outpouring from the nation. It was really something pretty special.

BOTELHO: Amazing. Thank you.

BARNEWOLT: Thank you.

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