Strong Medicine Interview with Eric Goralnick, 21 March 2014

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MIRIAM RICH: This is Miriam Rich and today is March 21st, 2014. I'm here with Dr. Eric Goralnick at Brigham & Women's Hospital and we are going to record an interview as part of the Strong Medicine Oral History Project. So, could you begin by telling me a bit about yourself, your training background, and your professional positions?

ERIC GORALNICK: Sure. I am originally from Los Angeles, California. I went to the United States Naval Academy in Annapolis, Maryland, and afterwards, I served in the navy for seven years, active duty. And then, I was exposed to medicine overseas with corpsmen, we were providers in the United States military and had some exposure to the medicine, and from there, I decided I wanted to pursue a career in medicine, so I got out of the navy, I went to medical school. I went to medical school at Tel Aviv University in Israel, a program affiliated with New York, and then returned back to the United States and did my emergency medicine residency at the New Haven Hospital, and in 2010, I began working here at Brigham & Women's Hospital as an emergency medicine physician and instructor of medicine at Harvard Medical School. And my role currently

at Brigham & Women's Hospital is I'm the medical director of emergency preparedness, so I assist and I coordinate the preparation response recovery mitigation for all high-level disasters, including those resulting from human conflict, terrorist events, those resulting from information systems downtimes, weather events, and other sorts of disasters. We help coordinate the response for the 16,000 employees of Brigham & Women's Healthcare.

In addition, I'm the medical director for Gillette Stadium, so we do all the medical care for the fans and staff members at Gillette Stadium, for all the New England Patriots home football games and concerts -- over the years, there's usually five or six concerts, and I also do clinical operations, I'm associate clinical director, so I help manage and lead the day-to-day operations in our emergency department, where we see about 60,000 patients annually.

MIRIAM RICH: What about your experience in the navy or afterwards led you to be interested in medicine, and specifically, in emergency medicine?

ERIC GORALNICK: So when I was at the academy, I had one focus; that focus was to be a war fighter, and very focused, and I graduated and I got out there and each one

of my duty stations, either on board ship or overseas where I was deployed throughout Central and South America or going on a deployment across the South Pacific and into the Persian Gulf, there were different points where we had an opportunity to work side by side with physicians, with corpsmen, with dentists, and so it opened up a whole new world for me, and I saw what they did on a day-to-day basis and I thought it was an amazing career, and I became more and more interested. I started to volunteer in the emergency department when I was stationed in San Diego at Balboa Naval Station and I was bit by the bug. So once I saw that, I decided that's what I was going to do. I became very focused, and the first shore duty station I could get to, I was stationed an hour north of Chicago, at Great Lakes Naval Station, I was training recruits during the day, and at nights and weekends, I took classes. I took chemistry and physics again, and then took all those fun -- those Baccalaureate classes and applied to medical school.

MIRIAM RICH: What does a typical day for you look like here, inasmuch as we can talk about a typical day?

ERIC GORALNICK: The only typical thing about emergency medicine is that every day is a typical -- every day is different, which makes it so enjoyable and such a pleasure

and privilege to serve our patients and our community. So, a typical day in the emergency department is working a nine-our shift and working side by side with an amazing group of nurses, and technicians, and registration personnel and really working in a collaborative fashion to provide the best care for our patients. And the atypical aspect is when we have this sort of event, like a weather event, like a blizzard, responding to that and working together across our hospitals, [05:00] across Brigham & Women's, across Faulkner Hospital, and across Partners in our response to these sorts of events.

MIRIAM RICH: So before the day of the Marathon bombings last year, what was your disaster response scenarios and protocol like and how have they been developed?

ERIC GORALNICK: Seventy-eight times we drilled over the last five years prior to the marathon. These drills encompassed table-talk drills where essentially a group of individuals, stakeholders, sitting around a table talking about a scenario saying, "Miriam, what would you do next? Eric, what's your next step here," and walking through that and responding to that and planning. In turn, after table talks, we actually do walk-through scenarios or live exercises where we actually walk through the events as they would play out, so everyone can learn their roles, learn

what they need to do, learn what the next steps are so that when the events actually occur, we've actually practiced, just like Michael Jordan shooting baskets, or Tiger Woods playing golf; we practice over and over again. This helps us learn the basic tactics that we would do in response to these events, because every one of these events are unpredictable, and every one -- the initial response is of shock, so we really need to rely on those skills that you don't have to think about, initially, the first steps to get things going, and then guiding others through that initial response. So with regard to the types of exercises that we did, we did them as individual divisions, as departments, as across departments, across hospitals, and across the city, and we've tried to do these drills working closely with our colleagues, our fellow first responders, including emergency medical services, law enforcement, state and city police, public health, and other first responders so we could learn and trust each other so when marathon day came, we could all act together.

MIRIAM RICH: And how do you develop those exercises? What sort of information or expertise are you using?

ERIC GORALNICK: So we rely on developing what's called a hazard vulnerability analysis, which really is based on history, looking retrospectively and then prospectively, at

what threats or events had occurred in the past. For example, we have a lot of weather-related events here. We've had four big snows here in the last month, and we got to think what's the response and how we plan for these types of events, so that's going to occur more frequently than some weather-related events due to heat, for example, for the most part. So we would consider that -- rank that higher on our hazard vulnerability analysis, and therefore, think about drills that would simulate how to respond to a blizzard, if they shut down the MBTA, for example, which has happened a couple of times in the last several years. How do we respond? How do we take care of employees, families, patients? How do we feed them? How do we house them? How do we provide medications for them? So that's one way that we think about it, by doing this HVA, hazard vulnerability analysis, and ranking all of these. And then, we focus on our top priorities from a hazard vulnerability analysis and try to simulate drills, reenacting those types of events.

MIRIAM RICH: Great. So let's talk about the day of the marathon last year. How did that day begin for you?

ERIC GORALNICK: So the day began, we actually -- I huddled with my colleague, Barry Wante, who is an emergency manager here, and we opened up our emergency operations center, as

per our protocol, which is located in the main building at 75 Francis, and that's the central unit for any type of response that could affect the hospital. We activate all of our communications gear and we rounded in the emergency department, and we talked to staff about the potential types of things that would come, really focused on typical marathon-related injuries, dehydration, blisters, bruises, these sorts of things. The year prior, if you remember, was quite hot, so we actually got a lot of runners in there with dehydration, some elite runners that need a lot of fluid, some need a lot of care, some were admitted, so we were ready for that. We had ice baths, we had a lot of things ready to go and we went out and got people ready to go. And that was the beginning of the day. That was around 9:00 a.m. or so. Afterwards, communicated that across our various departments, here's the plan for the day. In addition, the Boston Athletic Association provides us a booklet that outlines these types of injuries, and we provide that information [10:00] to all of our staff that are working for the day. So that's how our day began.

And then, our role, what we do here at Brigham, is we actually provide medical care for team Brigham, which is a group of about 150 or so runners that raise charity funds

for Brigham & Women's hospital. Some are Brigham & Women's employees, some are patients, relatives, etc. And at the base of the Prudential Center, in the Boston Sports Club, formerly the Fitcorp, we take that over, essentially, so we set up and we get ready for those bumps and bruises and dehydration, and we've got typically a few residents, nurses, myself, and we've been doing this for the last several years, and when the team Brigham folks come in, we're there and we take care of them. So, I went down to the Prudential Center and we continued our operations and preparation gear.

And then, from the Prudential Center, from the Boston Sports Club, it's actually inside the mall, so we didn't actually hear anything initially. What we did hear is essentially a ton of people come running into the Pru, coming into the gym, yelling and screaming, and one person said that there's been several people shot. So we weren't sure exactly what was happening. I was there with three nurses and eventually a resident physician had shown up, one of our residents. But I went back to the front desk of the gym and tried to figure out what was going on; we didn't have any information at that time, and I went to security. At that point, we locked down the glass doors

that go out to the street on Huntington Avenue, and weren't letting anybody in that wasn't affiliated with the team or had an identification. And then, I ran through the mall because everybody else was running away from Boylston Street, identified with security that the threat was from Boylston, and then found a police officer who said there had been two explosions. So I went down to the second site in front of the Forum. Was there and evacuated very promptly because they thought that there was another improvised explosive device, or IED, so I went from there back, got together with our nurses and staff, got in the ambulance and went back to the emergency department and then assumed my role to support our incident response during the disaster. What I can do also is just tell you the perspective, at least initially, from the response in the hospital and then lead up to that point, too.

MIRIAM RICH: Yeah, that would be great.

ERIC GORALNICK: Yeah, so at 2:49 that day, we had 66 patients in our 55-bed emergency department. We have 44 operating rooms, we had 30 active operating rooms at that time with surgeries. So when the first explosion occurred, as part of our protocol, Barry, the gentleman I mentioned earlier, listens to his fire and EMS, emergency medical services, radio and heard the initial calls and went down

to the emergency department. He huddled there with our nurse in charge and our attending physician, and there, they went down the checklist and made decisions as far as an activation of our Code Amber. Code Amber is our hospital disaster response system, and what that Code Amber does is several functions.

Number one, it alerts everyone within the hospital system in rapid fashion what's going on, so it communicates that there's an issue, a disaster.

Number two, it holds people in place from going home. Remember, this is about 2:50, a lot of change-of-shift occurs about 3:00, people go home, operating rooms shut down, so it holds people in place.

And number three, what it does is it builds capacity. When I say it builds capacity, that means thinking about if you're a 55-bed emergency department with 66 patients, we've got to find a way to move some of those patients out of that emergency department, whether they be discharged, whether they be admitted to go to regular beds, to intensive care units, and same thing with the operating rooms. Somehow, we've got to decide are we going to

continue these surgeries, or open capacity in these operating rooms because we're going to get a big influx of patients. That's the aim of a Code Amber, at least initially.

And so a Code Amber was called. [15:00] And what that does, again, is promote those three functions and so, in that emergency department, the various attending physicians, residents, nurses, build that capacity. They discharge patients that could go home. They got patients upstairs in concert with internal medicine residents that came down, got signed on to these patients, telling them what test studies needed to occur, and got them upstairs. And in addition, we had stories of individuals coming downstairs, like a neurology fellow who had a patient that took that patient by the stretcher and pushed that patient upstairs to a bed and continued their workup.

Dave Gitland, one of our leaders in psychiatry who heads our emergency medicine division of psychiatry, he came downstairs, he had identified eight patients that were borders or waiting for beds, psychiatric beds, which is a real challenge in emergency medicine, trying to find beds, psychiatric-dedicated beds throughout Massachusetts, for

example. He came down and ensured that four patients went up to our surge pod. In addition, he helped facilitate getting four patients to other acute psychiatric hospitals so we built capacity there.

So while these teams were getting ready downstairs, another key role that was identified was the triage that was led by one of our fourth-year residents, initially, and then our director of EMS, and they prepared.

Now, I'd like to highlight a couple actions of individuals. One individual, Stephanie Kayden, who is one of our attending physicians, and Stephanie has done a great deal of humanitarian work overseas, and so she's seen these types of things and learned from experiences like Haiti, so she thought back to those events and reflected on those and that was helpful that day when she prepared. She'd also participated in one of our mass casualty incident drills two years prior that simulated almost the same thing, a bombing in downtown Boston, and the types of injuries that we would see from that.

Barry, the emergency manager that we had talked about earlier, he reflected on the types of drills that we had

done, in particular, thinking about events like in Mumbai, where there were individuals that after initial explosions, they went after the first responders, they went after the hospital. So with that, we worked in concert with our leadership and security and locked down the hospital, preventing individuals without identifications coming in and out, because we had become a target right after those first events.

If you think of these different bombings, Al-Qaeda, for example, works in fours. So there were two explosions, and if you remember, there was a third at about 3:30 that day, and that was at JFK, and we didn't know what that was. We didn't know if that was another explosion, fire, who knows. It turns out it was a fire that was totally unrelated, but we didn't know if we were going to get more patients or we were the next target.

So, the first patient arrived in our emergency department around 3:08 or so. Those patients then were rapidly triaged to the different pods. We have four pods in our emergency department. Each pod has about 15 beds or so, and from there, these patients were assessed by teams of physicians, nurses, technicians, other providers, and each

one had a trauma survey which occurs from head to toe to assess for those types of injuries. While this was occurring, there was a secondary triage team composed of an emergency medicine physician, a trauma surgeon, orthopedist, and anesthesiologist, medical director for the operating rooms, Hugh Flanagan. They rounded in the various rooms, identified patients that needed to go to emergency surgery, actually identified -- overall, there were nine patients, and they classified them in several categories, patients that had life-threatening injuries, patients that had limb-threatening injuries, and patients that needed the operating room.

The first patient went to the operating room at 3:36. So about 28 minutes after that initial event or the initial patient arrived, that first patient went to the operating room, which was quite remarkable.

And individuals like Hugh Flanagan, our medical director of the operating room, he thought back to a drill we had done several years prior that simulated two aircraft colliding at Logan Airport, and during that drill, what they did is they practiced getting patients directly to the operating room from the emergency department, so bypassing our peri-

anesthesia care unit, or PACU, and that's what they did that day. They got patients directly from the ED to the [20:00] operating room and didn't waste any time.

While all this was going on in the emergency department, the story played out across the hospital. Around the operating rooms, Dennis Sullivan, who was one of the nurses in charge around the operating rooms, he works closely with Hugh Flanagan, he thought back to the drills he had done as a major in the Army, about a particular drill in Honduras and need for forming a labor pool and working on a gang supply. So he formed a labor pool and they staffed eight operating rooms in approximately 10 minutes, and we were able to take patients on in a rapid fashion.

So again, throughout the hospital, the story continued. People flocked and came down to the emergency department to try to help and assist, and so there was a lot of teamwork, a lot of collaboration to take the best care of these patients.

MIRIAM RICH: So it sounds like a lot of people, you described them drawing on their past experiences, either in other mass casualty situations or drills. Was there anything about this day that was sort of unanticipated by any of the

previous experience or drills?

ERIC GORALNICK: Sure. It's interesting. In many ways, we can call this a predictable surprise, and when we talk about predictable surprises, in this case, we have a massive influx of individuals that come down to the emergency department because they know the action is in the emergency department. And in our emergency operations plan, which is a several hundred page document that's online and available for staff and we do training with them, it outlines that our labor pool area is an amphitheater away from the emergency department. Human nature is to go where the action is, so we had a lot of people come downstairs, and we actually had to use our own security team to redirect individuals in order to ensure there wasn't too much overcrowding and to ensure that we were focused on caring for those patients as they came in. We saw 40 patients in all here at Brigham & Women's, again, nine going emergently to the operating room.

Another predictable surprise is the challenge of information technology. When we get 40 patients, that means that we take on a lot of patients in a short amount of time. We got 23 patients in the first hour. Every one of our patients, when they come in, gets a band and a name

that's unidentified as a string of numbers, and that reflects on our virtual tracking system, which is on our computer screen, that shows that identifier, until they're identified. Some are eventually identified with their driver's license or whatever it may be, and some are not until family members show up or we engage social work, which helps coordinate, try to find, and make the connection, and identify these individuals.

So if you're a provider working in the emergency department and you see 23 tiles on your screen on your virtual tracker that all say unidentified 123456, or a slight change in the numbers, it has the potential to create a lot of near misses, because that number is how we track them from location to location. That number is how we track the types of blood tests they're getting, the results. That number reflects how we track the diagnostic imaging, the CT scans, the x-rays, etc. so you can imagine if you're looking at these numbers and you look at an x-ray, how do you distinguish between one or another. It's not like looking at Smith and Jones. So, we learned from that and worked hard to solve this issue by July 4th. We had a clear target. July 4th is another day that we refer to in Boston as a planned disaster.

A planned disaster is a mass gathering event. About a half a million come -- people come down to the Esplanade on July 4th to watch the fireworks, and we have to be ready to go in case there's another response or event like that. So we focused and formed a team to look at best practices around naming conventions and tracking patients during disasters and we redid our naming conventions so it's much clearer.

In fact, because of some limitations on our computer system, it does have UNID, unidentified, at the beginning, but then it has a state name or a color, so it's a Unidentified California, or UNID California, and it will also say male -- M or F for male or female, which helps distinguish -- which is very important in transfusing blood, so we solved that issue, but continue to work on menu lessons learned from the event. Those are two of the big ones.

The third one, I would say, is social media. Social media is a game-changer for disasters. [25:00] There's an article that was published out of Boston Children's and they looked at the firehose or the Twitter feed from the event and you could see that we rely so much on traditional

news sources, and there are many, many more tweets before traditional news sources started to tweet, and in fact, Alison Sullivan, who is our emergency manager at Brigham & Women's Faulkner Hospital, she first heard about it through Twitter, and that's how she responded, went down the emergency department, did a similar activation to what Barry started here on the Brigham & Women's side. So we got to think about those challenges on how we can leverage social media, how do we distinguish truthful information, real information from false or fictional information, as we move forward, but it can be a really invaluable tool.

MIRIAM RICH: Are there sort of special privacy concerns that the explosion of social media has brought for you guys?

ERIC GORALNICK: Sure. Interestingly enough, we did not -- we didn't receive the two suspects -- either of the two suspects. Now, on the Friday after the event, there was a manhunt. Starting Thursday night, there was a manhunt and then one of the suspects was killed during the pursuit, but he was initially transported to Beth Israel-Deaconess. And shortly afterwards, pictures of him were on the internet at the hospital from the trauma bed, resuscitation bed, and so that's one of the big challenges. Number one is clearly revolving around these high-impact events, managing staff around patient privacy, one of the -- and social media, and

so one of our challenges, really from our perspective, we didn't deal with the -- the suspects that day, but the day of the marathon, how do you manage releasing information about patients while trying to protect their privacy, and families are trying to find out about them. So we do the best that we can to manage that scenario with Boston Public Health, with Boston Emergency Medical Services, with the city and state government officials to try and -- to try to do the best we can to help connect families with loved ones.

MIRIAM RICH: What about the presence of more traditional media? Was the -- how aware were you, first of all, that there are extensive media coverage going on and what was it like to be providing care as you were part of a media story?

ERIC GORALNICK: Well, we have an outstanding public affairs team led by Erin McDonough, senior vice president for public affairs, and she was on the scene in the emergency department from the beginning, and with that onslaught, we were very focused on ensuring that we would get one message to the public and we had one voice at that time, my Chairman Ron Walls, who was the voice for the hospital for all media, initially, and was providing some reports. So we focused on care of the patients, and then there was a

dedicated position and administrator that were working with local media and managing that aspect during the event.

Now, over the course of the week, eventually, we had some press conferences with patients, with various providers, and help provide the information to the public in a responsible manner and protecting patient privacy.

MIRIAM RICH: So on that day, was there a lot of collaboration and communication between different medical institutions in Boston, and if so, what was that like?

ERIC GORALNICK: That collaboration started long ago with organizations like the Conference of Boston Teaching Hospitals, COBTH, the Longwood Medical Area group, all those groups of various coalitions, Boston Coalition, we work together and train together, and learn from each other. So during the event, we worked in coordination with the Medical Intelligence Center, again, that's coordinated through the Conference of Boston Teaching Hospitals and other public services, to help facilitate if there was issues around supplies, logistics, things like that.

One thing that was extremely helpful, and really one of the key successes from this event, was a remarkably even distribution [30:00] led by Boston Emergency medical

Services, to distribute the patients -- critically ill patients and others throughout the various hospitals during that day's events. In all, 264 patients were seen at 27 hospitals.

MIRIAM RICH: OK, so um, can you talk about what uh, maybe the week after um, the -- the day of the bombing, was like? How long did it take for things to sort of return to normal, and what were some of the lasting effects?

ERIC GORALNICK: Yeah. So, it was 102 hours from the bombing until the suspect was caught, and that was a long week. Again, after the initial event, and throughout that day, there was a lot of uncertainty, and in fact, Brigham had one of the initial suspects; it turns out it wasn't a suspect, but at least for the first half a day, so we had a lot of focus on that, a lot of media attention -- a lot of social media attention from that event, and that was one aspect, and we focused on our patients. But when that marathon ended that day, our marathon began, as far as caring for our providers -- not only the patients, but providers, and we had individuals, again, nurses, physicians, housekeepers, technicians, administrators, you name it, see things that day that they never expected to see. So we engaged, very early on that evening, Monday night, to help and assist and facilitate debriefs with

providers across the board.

I spoke to my colleague, my former vice chairman, Richard Zane who had my job prior, which was medical director of emergency providers here at Brigham, who is now chair of the University of Colorado in Denver, and actually, he had been chairman there for about two months and then, the Batman movie theater shooting occurred in July of 2012, where James Holmes went into a movie theater, shot, killed, and injured many, and I spoke to him that night, as my chairman did also -- I spoke to Rich and said, "What's the most important thing that we do?" And he said, "Debrief, debrief three times as much as you think you need to," and that's what we did. We focused on debriefing, and these debriefs took the form of tactical debriefs; they took the form of psychosocial debriefs. So depending upon the audience, we ensured that we had fully-imbedded mental health experts, psychiatrists, social workers, our employee assistance program, to be there at various briefings throughout Tuesday, Wednesday, as the days continued, to stand up, offer their services, identify who they are, and that was a great step forward to extend out to our providers, beyond an email. And we also had our employee assistance program call every single provider that was

working that day to check in with them. So again, really, a team effort to get out there, to get the work out there to communicate with individuals, say, "We're here and we support you, and we're here for you as the days go on." So that really began that night and continued throughout the next several days. We formed a senior leadership across the hospital, a wellness committee that really engaged the various activities over the next several months to support our staff and continue to be there and be available for individuals. So that was one aspect.

On Wednesday, we had a bomb threat in the afternoon. Over the course of the week, my understanding was that there were over 100 bomb threats throughout the city. You know, tensions were high, and there was an individual that drove over in a vehicle. He had some suspicious things, a gas can and some wires, etc., in the back of his car, and a bomb threat was activated by security; 45 Francis was evacuated. Naturally, we had state -- Massachusetts State explosive ordnance disposal EOD teams there very shortly, and within half an hour to 40 minutes, we were able to clear the site and let people back in the building. [35:00] But people were tense. This was on Wednesday.

And then Thursday night, Thursday night was the beginning of the pursuit and into Friday morning. Friday morning, we were informed, around 5:00, 5:15 in the morning, that there was a city-wide lockdown and we were locking down the hospital. Throughout the week, we had individuals from the city and state police armed and patrolling around our hospital. We had enhanced security precautions throughout the week, but on Friday, everything got shut down, the MBTA, no cars could drive through the city. So we had to get in and activate our Code Amber again and decide what steps we needed to do to provide, again, for our patients, our families, our staff during this event. And just like we talked about with the blizzards, that came into play because we had done this. So although the scenario was slightly different, we were familiar with at least the first steps, and then we worked through the next steps as the day progressed. But again, it was a long day until 7:00, 8:00 at night and people were pretty tense.

MIRIAM RICH: Yeah, in situations like that, where you're drawing on sort of previously enacted protocol, how closely are you following sort of protocol exactly, and how much improvisation does there need to be?

ERIC GORALNICK: Yeah, as one of my former commanding officers used to say in the navy, "The plan goes out the

window as soon as the first shot is fired." So, the checklists or job action sheets are critical because in many cases, we emphasize what's called an all-hazards approach. Regardless of the event, the initial actions are very similar. Identify who's the incident commander, who is the operations section chief, who is the logistics section chief, etc., who are the different players through our hospital incident command system that are going to respond, what their roles are in this response, and how do we move forward, how do we give briefs at regular intervals, what people's jobs are in between these briefs, etc. So these job action sheets are incredibly helpful, initially, and after we kick-start that initial plan, then we can start to think about innovation and adapting to the specifics of that scenario.

We found that just going de novo without those job action sheets leads to some confusion, and it goes back to the development of the hospital incident command system. Are you familiar with that?

The hospital incident command system is built on the incident command system which is a system that was developed in California. This was developed in the 70s,

after a series of fires in Northern California, where there are several different firefighting agencies that responded to these large brush fires in Northern California, and there was a lot of chaos because they were having difficulty communicating across their various silos, across their various departments, in coordinating effort and really leveraging that effort. So afterwards, through some of their after-action work, they developed an incident command system, and this incident command system is a system that for any type of event, it standardizes a chain of command, where it clearly identifies various positions and roles, what the responsibility of those roles -- for the people in those roles is and what authority they have, and it establishes a reasonable span of control for a reasonable group of individuals that will report up to that individual, and likewise for them to report downwards, ads to, and ensures a standard way of communication, getting rid of acronyms and using normal communication across various agencies. So, it started with fire and spread to police, law enforcement, and spread to emergency medical services, all of your first responders, really based on military chain of command.

And then, the East Coast didn't adapt it until 1982, when

there was a crash in the Potomac River, a jet crash in the Potomac River, and again, that's right between DC and Virginia, lots of confusion, chaos, lots of different agencies responding, so they looked to the best practices of ICS on the west Coast and that spread.

And then, in the early 90s, [40:00] in Orange County, California, it was '94 or so, they began to take the ICS form and then develop the hospital incident command system, HICS, it was called HICS, at some point, HICS, and hospitals began to adapt that. Because if you think of a place like Brigham & Women's Healthcare, there are 16,000 employees, two hospitals, multiple ambulatory clinics, how do you go from a very matrixed organizational structure with many clinical departments, providers, etc., to a very streamlined, linear structure that can make decisions in a rapid, effective manner and communicate that out to that group. That's why you've got to go from this matrix to a ICS-like structure during these types of events.

MIRIAM RICH: And given the -- the challenges of doing that, do you think the protocol and training you had in place was -- was it where you wanted it to be? Do you think, like, you know, this hospital in Boston, in general, was adequately-prepared for the events of that day?

ERIC GORALNICK: We were ready. You think about these types of -- these types of events and no matter how many times you practice, nothing is going to be perfect. We thought about this event and afterwards, maybe it's based on our personalities and what we do, (chuckle), but we think about -- very rarely do we think about what we did well, and we focus on opportunities for improvement, and this was really worth more than 10,000 drills. So there are so many things that we learned from this experience. We did a lot of things right, and there's a lot of work to be done, and we continue that work throughout the day.

MIRIAM RICH: OK. So now that it's almost a -- a year out and you've had so much of a chance to debrief and to sort of think about what went right and what could be done better, has your perspective changed on it, compared to your perspective in -- like in the days right after or the weeks after?

ERIC GORALNICK: Absolutely. Again, I don't think I slept for like two weeks after the event because I was thinking about what we could have done better. All in all, we were -- we were fortunate -- in the worst of situations, we were fortunate, and our response was world-class, but again, we've got a lot of work to do because every scenario will be different, and we've reflected on that. We've done

several after-actions (inaudible), both those debriefings. We discussed the tactical psychosocial debriefs, and we prioritized, based on threat, again hazard vulnerability analysis, based on frequency where we thought our greatest weaknesses were, and tried to address those weaknesses in a prompt fashion. So we continue to drill, and drill, and drill, since that event, and those drills have been, again, large-scale, small-scale, some announced drills, some unannounced drills, getting people to learn, again, what their roles are, initially, during these responses, and we will continue to do that and learn from each other. And we've worked hard, not only as a hospital, but as a city, to get ready for this year's event.

MIRIAM RICH: Is your perspective on this, as a healthcare provider and an administrator, different than your perspective as sort of a lay member of the Boston community?

ERIC GORALNICK: Well, I consider myself a Bostonian first and a doctor second…

MIRIAM RICH: Right, right yeah.

ERIC GORALNICK: Um, you know, it's -- that's hard to say. I was fortunate to help and be trained to be able to help on that day, and certainly, none of us are immune to the stresses that were associated with that day and the

response, so I certainly have that perspective of someone working in the field, working in the emergency department during the response, and having the privilege to -- to serve the community on the day that we were particularly needed. So, it is a -- it is a slightly different perspective, but I will tell you that I couldn't have been prouder of our community, especially that day, being side by side in the street with others who had likely [45:00] minimal to no medical training who were helping others who were injured. And you can see, from their response, that this was a community effort to help get these people to the care that they needed, and that's what really makes me proud.

MIRIAM RICH: Yeah, that's great. Yeah, I was sort of thinking about when you were saying that there was both tactical and psychosocial debriefing. That's sort of like what it must be like to have the sort of dual roles where you're thinking about what this means, you know, for how hospitals responds, but also presumably thinking about what it means, you know, for yourself as a Bostonian.

ERIC GORALNICK: Mm-hmm, mm-hmm.

MIRIAM RICH: It seems like it would be an interesting um perspective to have.

ERIC GORALNICK: Yeah, it's -- it's like I mentioned at the

beginning, I'm from California originally, and you know, and served in the navy, and there's a certain esprit de corps in the navy and collegiality and you got that from everyone that day and that week in Boston, and really, everyone was Boston Strong and we feel it. We continue to feel it all the time as we prepare for these types of events, for April 21st this year.

MIRIAM RICH: Can you talk about what -- what kind of preparations, if any, are happening for this upcoming marathon?

ERIC GORALNICK: We are preparing -- we've had multiple meetings, as a city, across various organizations. We plugged in as within -- within our healthcare coalitions into those meetings and preparation. We've got several exercises, a large table-talk drill occurring next week here, and that's a city-wide drill, in addition to some table-talks occurring here and unannounced drills for our staff so we can prepare them for that day.

MIRIAM RICH: Great. Well are there any other stories or thoughts you wanted to share related to this?

ERIC GORALNICK: This event was a game-changer for us all, not only as a city, as a state, as a country, and in the end, it's all about our patients. We were able, as -- our healthcare organization was able to provide care, Brigham &

Women's Hospital, for 40 patients, and that care was provided by our team in a very collaborative effort, and I couldn't be prouder of that care that they provided together, and their care was provided by our city, not only by medical professionals, but bystanders, as we mentioned, and the care that was provided by law enforcement, EMS, fire, so as we move -- as we move forward and we think about, you know -- what the most important lesson learned from this was, is that it's a team sport, and working together, trusting each other, moving forward together is how we got through this event and how we'll continue to move forward together and prepare for other events.

MIRIAM RICH: Great. Well thank you very much.

ERIC GORALNICK: Thank you, Miriam.

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