First, I would like to express my sincere thank you for the opportunity to be here on this very auspicious occasion to commemorate what happened a year ago. I also sincerely thank all of the leadership and members of the Japan Medical Association (JMA) for having made it possible.

Today, many of the things I will have to say underscore what the three presenters prior to me had to say while adding a somewhat different perspective. The perspective I will be looking at is that of the world of medicine and public health—medicine as represented by the Greek God Asclepius, and public health as represented by the Goddess Hygeia. When we think of medicine and public health, there are many definitions. We, as physicians, practice medicine, and that is taking care of individual patients. We, as public health practitioners, take care of populations. There are distinct differences between these two, especially when it comes to disasters and public health emergencies, in terms of what our roles, responsibility, and missions are.

This symbol, represented in Fig. 1, derives from the first code of medical ethics published by the American Medical Association (AMA) in 1847. Today, I read the code of ethics of the JMA, and, although different words are used, they say essentially the same thing. We, as physicians, have three obligations; we have obligations to our patient, to our profession, and to the general public or public health.

I want to take you through to a very brief overview of some of the significant events of the past 10 years. The world has certainly seen many significant events in that period of time. When I show an image of an airplane flying into two skyscrapers, people immediately say, “9-11.” But it is not 9-11. It is an advertisement from the New York Times Magazine in 1961 placed by a group of businessmen who did not want the twin towers built. They were concerned about the dangers of an airplane crashing into the towers.

In reviewing these events, I want to cover some lessons learned. And in many places, I will use quotes from William Shakespeare. I do so because, whether you are affected by one of these events or responding to one of these events, it is first and foremost an exercise in humanity, and many of the reflections of Shakespeare years ago are still true, today. In reference to the image I just shared that portends the events of 9-11—’What’s past is prologue’ is certainly fitting.

Lesson no. 1: We cannot forget what has gone before us. If we forget the lessons that people before us learned, then we will have to re-live them. To some extent, we re-lived those of 9-11—because people said, “Who would ever think of a plane being used to fly into the Twin Towers?!”

The next event I mention is the Anthrax attack in America. This was very personal for me, for it began in Miami where I was a public health director. It was an extremely disruptive event. There were only 20 cases and several deaths, but the economic impact was tremendous. Afterwards in studying the event, the one thing that became totally clear is, if we are ever
going to be ready for bio-type events, we need to be prepared beforehand. If you are going to be talking vaccines, antibiotics, or antivirals, you better not give them a day too late, or, in the words of Shakespeare, “Better three hours too soon than a minute too late.” And, if you don’t have countermeasures pre-positioned or have means of getting them distributed quickly, you will be too late.

This picture (Fig. 2) was taken at the beach of Banda Ache, Sumatra about a week after the tsunami hit earlier in this decade. “An overflow of good converts to bad” is all too apt (Shakespeare, Richard II). The picture shows a collection of wheelchairs being sent over by the aid organizations to help in the relief. However, there was very, very little use for wheelchairs—and, they did prevent the deposition of needed supplies since it took up the needed space. It underscores, we must be coordinated in our response.

This (Fig. 3) is a cover of the first publication of our journal, Disaster Medicine and Public Health Preparedness (DMPHP), showing a view of the Super Dome in Louisiana, USA. Hurricane Katrina was indeed a devastating event, and there were many, many lessons learned. The most important lesson has to do with volunteering. Medical people tend to volunteer when these events happen. That is not always good. When you have an elderly neurosurgeon showing up unannounced, in an area where he is not
licensed to practice, without the facility or equipment to practice, he becomes one of those people that have to be taken care of, not one of those providing care. As an outgrowth of all the experiences we had, we developed the circle of Ready, Willing, and Able (Fig. 4). The first step is educating healthcare providers so that they know what to do. Secondly, you have to have a system to deploy them. The third step is to evaluate their experiences when they are deployed. And finally, we will close the circle by translating that experience back into education and training. So now, “The wheel is come full circle” (Shakespeare, King Lear).

The cover of the June 2009 issue of the DMPHP shows a picture of one of the tent communities in Muzaffarabad after a powerful earthquake hit Pakistan on October 8, 2005. Again, an event that had many lessons. One lesson in particular that I thought was proven every effective—and it’s something Hurricane Katrina had taught us—was the ability to make decisions and take actions. “Talking isn’t doing. It is a kind of good deed to say well, and yet words are not deeds” (William Shakespeare). Katrina was marked by inability of governments, local and national, to make critical decisions in a timely manner. When the earthquake occurred in Pakistan, decisions were made quickly. As a result, thousands of lives were saved.

The next picture is from the cover of the March 2009 DMPHP issue, taken in Mumbai, India—a terrorist attack. “All the World’s a stage, and all the men and women merely players; and one man in his time plays many parts, his acts being seven ages” (William Shakespeare). The lesson here is that the people who respond to an event when it first happens are the people who happened to be there. Amongst the professionals that are there, you may need a neurosurgeon or an orthopedist, but you may get an epidemiologist or dermatologist. So, when we think of our training, we need to be sure that they are specialists who, in times of need, can be generalists—and, our generalists, in time of need, can be specialists.

We are all familiar with H1N1 influenza, and I will not dwell on it. But I will recommend a book, The Great Influenza, to any reader interested in this topic. The one lesson that comes out loud and clear is that, we are no more ready today than we were in 1917 for a pandemic. You may look at me and say, “Oh, no, now we have vaccines.” What good does a vaccine that takes 8 months to produce do, if you have a virulent infection that is assisted by air transportation or other means? We need to do better in our vaccine production. We need to cut 8 months to 8 weeks—and technically, it should be feasible.

A picture of an oil spill, which occurred off of our coast, made the cover of the October 2010 DMPHP. Basically, what we need to learn from this incident is, that collectively, as a people, we need to make decisions together internationally and globally if we are to going to protect our people and our environment.

We already heard about Haiti from other presenters, today. This, to me, represents one of the most important lessons “’Tis not enough to help the feeble up, but to support them after” (William Shakespeare). Showing up and taking care of the wounds and putting on casts and leaving—that does not help a society return to where it came from. We need to have a long-term perspective if we are going to be effective in disaster response. “To do a great right, do a little wrong” (William Shakespeare). In Haiti, over 400 non-government organizations showed up. There were thousands of others that showed up and didn’t register in the Clusters that Dr. Stephanie Kayden talked about. The relief effort was not coordinated. Does that mean good was not done? No. But if it were coordinated, a lot more good could have been done.

A picture of house debris, which was on the cover of the October 2011 DMPHP issue, was taken in Joplin (Missouri, USA)—one tornado hit, and it was gone. “As flies to wanton boys, are we to the gods; they kill us for their sport” (William Shakespeare). Substitute “fate” for gods, we are not safe anywhere on this planet, as Dr. Amaral said. We must all be prepared to respond to these things. The hospital that was destroyed in Joplin did a tremendous job in getting the patients out and saving lives. How did they do that? They trained. In fact, they exercised just a week before.

Today, I am especially proud to announce that the DMPHP March 2012 issue, which is yet to be published, will have four sequential pictures showing the power of the tsunami attack in Iwate last year. The only point I want to make is this. We always hear “be prepared,” “be a 100% prepared”—but you will never be a 100% prepared.
When you are dealing with a level-9 earthquake on the Richter scale, you are no longer talking about billions of tons of TNT; you are talking about trillions of tons. You can do so much, but nature will always find a way to overwhelm you. “They have been at a great feast of languages and stolen the scraps” (William Shakespeare). It boils down to communication. Don’t communicate in bits and pieces. Communicate the truth, the whole truth, and nothing but the truth—and, everyone will be better off for it.

When we globally examine the occurrence of natural disasters and their economic expenditures for the past several decades, you would notice that we are seeing more disasters, costing us more and more billions. Is cost more important than human loss? No. But unfortunately, the frequency of disasters and their economic impact correlate very closely. Human populations are increasing exponentially, and no one is quite sure where they will level off. But, we are sure that human populations are up around 6 billion now. And, the more people you have, the greater their dispersion and the greater the probability for them to be in the path of an event. There is a complex interaction between the human population and the effect to our planet; as our population continues to grow, the impact on environment, on agriculture, on geography itself becomes greater, too. Most studies show the earth can comfortably support 2.5 billion or so people. We’re already up to 6. We must be prepared for continued human growth.

What can medical societies do? We have to respond to our members. About 80% of physicians will respond to a disaster or emergency, but only 20% feel prepared. This means, we haven’t done our job educating them. That is the main effort that the AMA has undertaken through the National Disaster Life Support™ (NDLS™) Program. We developed three courses—Advanced Disaster Life Support™, Basic Disaster Life Support™, and Core Disaster Life Support®—and we give them all across the United States. We have also given several over here in Tokyo. Three main themes that run through the courses are: “planning and practice,” which are both extremely important, “resilience” of the population, and “education and training.” We also have a DISASTER Paradigm™ (Fig. 5), which stands for “Detection,” “Incident management,” “Safety and security,” “Assess hazards,” “Support,” “Triage and treatment,” “Evacuation,” and “Recovery.” It’s not an algorithm, but rather a way to think and approach an emergency event. If we think population, and we think about protecting ourselves, we will do much better taking care of other people. Every physician should have a secondary specialty, and that is public health preparedness—this has become our mantra. But today, I want to stress not only physicians, but all healthcare professionals because this not an individual effort, but a team one. It is not limited to physicians; it is physicians working together with nurses and others as a unit.

I am going to conclude by saying that one of the obligations we see for our physicians is to be professor and instructor to our citizens in order to better prepare them and give them an understanding of truly what to do to be ready for major events. I would like to introduce you to the latest research we are involved in, called the Health Security Card project.³ It is a smart card with a chip in it, and this card will contain the information that the responder needs when something happens to someone; to identify him, to notify his next of kin, and to assess him medically—all in the first moments. This is the card we are going to try to push as a global example to bring people together, so we can talk across geography and across languages.

And, lastly, I am going to turn to the Bard to set the stage for going forward—“To be, or not to be, that is the question” (William Shakespeare).
References