

SAVING LIVES: THE CARDIAC ARREST SURVIVAL ACT

HEARING BEFORE THE SUBCOMMITTEE ON HEALTH AND ENVIRONMENT OF THE COMMITTEE ON COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED SIXTH CONGRESS SECOND SESSION

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TUESDAY, MAY 9, 2000

HOUSE OF REPRESENTATIVES,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON HEALTH AND ENVIRONMENT,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:03 a.m. in room 2322, Rayburn House Office Building, Hon. Michael Bilirakis (chairman) presiding.

Members present: Representatives Bilirakis, Upton, Stearns, Burr, Ganske, Bryant, Brown, Stupak, Green, Strickland, Barrett, and Capps and .

Staff present: Robert Gordon, majority counsel; Mark Wheat, majority counsel; Robert Simison, legislative clerk; Bruce Gwinn, minority professional staff; and John Ford, minority counsel.

Mr. BILIRAKIS. The hearing will come to order.

Good morning. This morning the subcommittee is holding a hearing and markup of H.R. 2498, the Cardiac Arrest Survival Act of 2000. This important legislation was introduced by my Florida colleague, Congressman Cliff Stearns, and I hope that Mr. Stearns is on his way here. I am sure he would like to make an opening statement in this regard. I want to take this opportunity to commend him for his dedication in advancing this life-saving measure.

As we consider the bill before us, I would note for the record that the jurisdiction of this subcommittee encompasses many contentious issues, and achieving a consensus can often be quite difficult. We frequently find ourselves presented with seemingly insurmountable problems, while the solutions remain illusive. Today, I am pleased to say, is not one of those occasions. Each year a quarter of a million Americans die without warning due to cardiac arrest. Many of these victims—our colleagues, friends, and loved ones—could be saved if new, portable medical devices called “automated external defibrillators,” or AEDs, were used.

AEDs can analyze heart rhythms to determine if a shock is necessary, and, when warranted, deliver a life-saving shock to the heart.

One of our witnesses this morning, Mr. Robert Adams, had his life saved by an AED and is here with his son to share his story.

The Cardiac Arrest Survival Act of 2000 directs the Department of Health and Human Services to develop guidelines for the placement of AEDs in Federal buildings and to provide for relief of liability where gaps in coverage exist under State law. This simple, common-sense measure has the potential to save countless lives.

I want to welcome all of our witnesses and to very sincerely thank them for their commitment to advancing this very important legislation. I hope all of our colleagues will join me in supporting passage of this critical bill.

I now yield to the ranking member, Mr. Brown.

Mr. BROWN. Thank you, Mr. Chairman.

Thanks to Dr. Hardman and to Mr. Adams, Mr. Conner, and Mr. Lazar for joining us today.

Fewer than 5 percent of out-of-hospital cardiac arrest victims survive. That is a sobering statistic. Here is another: sudden cardiac arrest takes more than 250,000 lives each year. The American Heart Association characterizes the critical actions after an individual experiences cardiac arrest as the "chain of survival." The single most important critical step is the first one. Cardiac arrest victims must receive care immediately, or their chance of survival plummets. Every minute counts, literally. According to the Heart Association, the chance of surviving drops about 10 percent per minute after a cardiac arrest occurs. That is why access to automated external defibrillators can make such a tremendous difference. Access to this equipment could save 50,000 lives each year.

The Cardiac Arrest Survival Act promotes access to AED equipment in Federal and other public buildings across the country. AED technology can be used to determine the need for defibrillation and to administer it in a safe and effective manner. It gives us a way to overcome the otherwise inevitable lag time between an arrest and treatment.

The majority and minority have worked out solid compromise language that provides Good Samaritan partnership to AED users and the equipment owner in those States that do not currently have AED Good Samaritan protections in their laws.

I look forward to hearing from our witnesses, and am pleased we have been able to work effectively on a bipartisan basis to bring this measure to a subcommittee vote.

Mr. BILIRAKIS. I thank the gentleman.

Mr. Stearns is recognized for an opening statement, the author of the bill.

Mr. STEARNS. Thank you, Mr. Chairman. I appreciate having a hearing on this bill.

I am tempted to say the world will little note nor long remember what we do here, but I think thousands and thousands of Americans will not forget.

Between 200,000 and 300,000 Americans' lives are lost every year because of sudden cardiac arrest in the United States. But, Mr. Chairman, it is estimated that up to 30 percent of these victims could be saved if they had immediate access to external automatic defibrillators.

For the last several years, I have worked closely with the American Heart Association, the American Red Cross, and local emergency medical systems to develop Congressional legislation on defibrillators. Working together, we have developed, as my colleague has pointed out, a bipartisan bill to remove the barriers to widespread adoption of these life-saving devices.

Mr. Chairman, I have here almost 40 individual groups from the American Heart Association, the American Red Cross, down to the

Institute of Critical Care Medicine—all of these groups, 40 of them, have supported this bill.

But let me say this morning this is what the bill does not do: it does not give people who purchase or use defibrillators in good faith full protection from frivolous lawsuits. We may not want to force people to provide medical care to someone having a heart attack, but if they are willing to do so we should not put them at risk of being sued for unlimited damages if something goes wrong.

This legislation also directs the Secretary of Health and Human Services to develop guidelines for the placement of defibrillators in Federal buildings. It is inexcusable that we do not have these life-saving devices widely available in Federal buildings. I mean, we are talking about something that saves lives. I mean, the debate is almost like talking about the fire extinguisher 100 years ago. These should be put in all the Federal buildings and public places where people congregate.

We need to be a role model for the private sector by demonstrating our commitment to protecting the lives of Federal employees, military personnel, and private citizens who are visiting our Federal museums, Social Security offices, and various parks and recreational areas.

This bill does not, however, force any new regulation or obligation on the private sector, and the bill does not preempt State law, where the State has already provided immunity for the persons being sued.

This bill, frankly, is more of a gap filler. It only applies where the State has not yet legislated in a particular area.

I have over 130 cosponsors—it is bipartisan—H.R. 2498, as well as letters of support from a great many organizations, including the National Safe Kid Campaign, the National Fire Protection Association, the American Academy of Pediatrics, the American Association for Respiratory Care, the International Association of Fire Chiefs—and the list goes on and on and on.

Mr. Chairman, we have made every effort to work in a bipartisan manner in putting together this hearing and markup, and hope to continue this constructive relationship until this bill finally becomes law.

Again, I would thank you, Mr. Chairman, and also Mr. Bliley, for your support in bringing this important legislation before the committee. We are one step closer this morning to saving the lives of every American.

Thank you.

Mr. BILIRAKIS. I thank the gentleman.

I have not mandated it, but I would hope that our opening statements here will also serve as our opening statements for today's markup, in the interest of time and in consideration of our witnesses.

The gentlelady from California is recognized for an opening statement.

Ms. CAPPS. Thank you, Mr. Chairman. I thank you for holding this hearing and markup today on a life-saving piece of legislation, the Cardiac Arrest Survival Act.

I want to commend my colleague, Mr. Stearns, for introducing this legislation.

As a co-chair here in the House of the Heart and Stroke Coalition, I have a special interest in the area of heart disease. This coalition is a bipartisan, bicameral group which works closely with the American Heart Association, and our purpose is to heighten awareness of heart attack, stroke, and other cardiovascular disease here on the Hill, but also in the wider community. Additionally, the coalition works to promote research opportunities in the area of heart disease and stroke and acts as a resource center on these issues.

The Cardiac Arrest Survival Act does two key things. First, it instructs the Secretary of Health and Human Services to make recommendations to promote public access to defibrillation programs in all Federal buildings and other public buildings across the country. These recommendations would ensure the health and safety of all Americans by encouraging ready access to the tools needed to improve cardiac arrest survival rates.

Second, the act extends Good Samaritan protections to the automatic external defibrillator, AED, users and the acquirers of the devices in those States that do not currently have the AED Good Samaritan protections. This protection will help encourage lay persons to respond in a cardiac emergency by using an AED.

These defibrillators, AEDs, are small, easy-to-use, laptop-sized devices that can analyze the heart rhythms of a person in cardiac arrest to determine if a shock is necessary and if it is warranted to deliver a life-saving shock to the heart. Every minute that passes before a cardiac arrest victim's heart is defibrillated—shocked back into rhythm—his or her chance of survival decreases by as much as 10 percent. As a result, less than 5 percent of out-of-hospital cardiac arrest victims survive.

When this happens in our neighborhood, in our community, God forbid, in our family the impact is so devastating. Just last week in Santa Barbara, where I live, a 25-year-old professional athlete collapsed during a workout. Bystanders started CPR. He was transported to an emergency room. He did not survive. We will never know if an AED would have made the difference. It is so worth the try.

I applaud the chairman holding this hearing and subsequent markup today.

The American Heart Association estimates that, with increased access to defibrillators, up to 50,000 lives could be saved each year. That is sufficient reason for us to move this legislation.

I yield back the balance of my time.

Mr. BILIRAKIS. I thank the gentlelady.

Dr. Ganske for an opening statement.

Mr. GANSKE. Thanks, Mr. Chairman.

I want to give credit to the author of the bill, and also to the minority. For once, we have worked together in a bipartisan fashion on an important bill.

It is true that there are idiopathic causes of cardiac fibrillation, but by far and away the most common cause is coronary artery disease, acute MI, and the most common reason for that is tobacco.

Now, the ranking member of this committee and I have a bill that would give the FDA authority to regulate tobacco and nicotine. We now have 68 bipartisan cosponsors. I am wondering when this

committee is going to have hearings on our bipartisan bill on the No. 1 public health issue before the country.

Tobacco kills over 400,000 people each year. Each day, today, for instance, 3,000 children or kids less than 18 will start smoking, and 1,000 of them will end up dying of their disease.

You know, when I look at this defibrillator bill, it reminds me of a billboard that has been shown somewhere around the country, and I will show that to you. This billboard is sort of a parody on the points that tobacco companies give for prizes, and it says, "The more you smoke, the more cool gear you will earn. For instance, you can earn an all-expense paid trip to a cancer clinic of your choice for 2,000 points; or you can earn a deluxe carrying case, a coffin, for 10,000 points; or, for 1,000 points, you can earn a portable respirator." But pertinent to this hearing is this little device here. For 5,000 points, Mr. Chairman, you can earn a sport defibrillator.

Mr. Chairman, we have a major, major problem. The No. 1 public health problem before this country is the use of tobacco. Other than, for instance, the American public exercising more and losing weight, there is no other thing that could make the public healthier than to do something to prevent the tobacco industry from enticing kids to start to smoke. That is what those 1996 FDA regulations were all about.

By a 5-to-4 Supreme Court decision, Sandra Day O'Connor, in her majority opinion, said, "We just do not think that Congress has given the FDA authority to regulate tobacco." But you read the last paragraph. It says, "But that does not mean that we do not think there is not ample reason for the FDA to have that authority."

Mr. Chairman, I am asking you: when is this subcommittee and committee going to deal with the No. 1 public health issue before our country?

Mr. BILIRAKIS. Is that a question for the Chair?

Mr. GANSKE. That is a question.

Mr. BILIRAKIS. During your opening statement, which is about to expire?

Mr. GANSKE. That is the end of my statement, Mr. Chairman.

Mr. BILIRAKIS. The response to your question is that this subcommittee, as you well know even before you came to the Congress, has tried to deal with that particular subject. It is a very difficult subject.

I have requested hearings of the full committee chairman. I have gotten assurance from him that we will hold not only one hearing on your and Mr. Dingell's bill, but a series of hearings. I cannot give the gentleman any specific dates insofar as that is concerned.

Mr. GANSKE. Mr. Chairman, I will not offer any amendments today.

Mr. BILIRAKIS. The Chair appreciates that.

Mr. GANSKE. And I do want to commend Mr. Stearns for this bill.

Mr. BILIRAKIS. The gentleman from Texas, Mr. Green.

Mr. GREEN. Thank you, Mr. Chairmen, for calling the hearing and the markup today. As a cosponsor of the Cardiac Arrest Survival Act, I am pleased to see the subcommittee marking up this important initiative today. I congratulate my colleague from Florida for this legislation.

Each year, thousands of lives are lost because the medical technology necessary to save them is not available. This loss of life is particularly sad, given the fact that machinery such as automated external defibrillators, if available, could prevent such deaths.

In my home State of Texas, we had 57,000 Texans die of cardiovascular disease in 1997. Perhaps with the installation of defibrillators, some deaths would have been prevented.

Today, we can still take one small step toward improving the health care of some Americans, and particularly those who work in and visit our Federal buildings, but so much remains to be done so that all Americans, regardless of their age and economic status or place of employment, receive the quality health care they deserve.

Following up on my colleague from Iowa, particularly our subcommittee's attention to our seniors—and, Mr. Chairman, I have a long statement following up Mr. Ganske's issue on tobacco, but mine is on prescription drug medication for seniors. I recently surveyed constituents in my District concerning their priorities, and heard from hundreds of those constituents and middle-income seniors who worked hard and paid into the system, and now they are having to choose between buying pharmaceuticals and buying groceries.

These seniors sent me a clear message that Congress must act to help older Americans pay for prescription medication. I have seniors like Norma Keyes of Houston, who writes, "I need help with my prescriptions. I spend over half my Social Security for prescriptions. I cannot get enough money ahead to pay my house, much less my taxes."

I hear from seniors like Jay F. Craddock of Houston, who says, "My wife's prescription bill is \$300 or better each month."

Norma Grams of Humble writes, "The elderly must decide to buy medicine or food or pay heating or electric with their Social Security check. It is unfair."

Joyce Belou wrote, "I am now retired, after working 53 years, and I have Medicare and a supplement, but no prescription drug relief at all. I cannot afford the \$250 per month for prescription drugs, so I cannot take the medication daily. I skip days."

Mr. Graff from Channelview writes, "My mother receives \$947 a month, and \$800 of that goes to prescriptions." She receives \$947 a month, and \$800 goes to prescriptions.

Mr. Chairman, we need help, and hopefully our subcommittee will not let Ways and Means take the issue away from us. I want to thank my colleagues on the committee who are working on it, but hopefully we will continue. I know we have had two hearings on it. Hopefully we will expand that, because this is an issue I think our subcommittee needs to address, our full committee needs to address, and, obviously, this Congress needs to.

Thank you.

Mr. BILIRAKIS. I thank the gentleman.

I would merely say to the gentleman from Texas what he already knows, and that is how strongly I feel about that subject, and if the leadership on both sides of the aisle—and I emphasize both sides of the aisle—sincerely wants a piece of legislation this year, we will have it, but it is going to take that.

The other gentleman from Tennessee, Mr. Bryant, for an opening statement.

Mr. BRYANT. Thank you, Mr. Chairman. I do not know if I have an opening statement. I do not have another issue to talk about here.

Mr. BILIRAKIS. The Chair appreciates that.

Mr. BRYANT. I would like to talk about perhaps TVA and that.

It is an interesting experience to be here in Washington. And I understand. These are friends of mine, my colleagues, and I understand the feeling about these issues, as I think we share those feelings, maybe in different degrees and maybe see other angles to this, but who can be against keeping young people from starting smoking, and who can be against providing in some measure, well-thought-out, workable form, prescription drugs for those senior citizens who cannot afford them.

But today we are here to talk about this bill, which is an important bill, also, and I just want to commend very quickly the chairman for calling this hearing and Mr. Stearns and all the supporters of this bill for it. I think, with the development of the technology that we have today, it is realistic to have this equipment available in Federal buildings, and, as was mentioned earlier in some of the statements, as much as to send a message or a symbol to the private sector also that this should be considered as appropriate for their buildings, also, but not in the form of a mandate.

Again, I want to thank all of you that are involved in this. I thank the panel for being here today.

Some of us will be in and out quite frequently with other meetings we have got to go to, so I apologize in advance for that, but I look forward to the balance of the hearing and hearing the testimony and the markup of this bill and yield back the balance of my time.

Mr. BILIRAKIS. I appreciate that.

The gentleman from Michigan is recognized.

Mr. UPTON. Thank you, Mr. Chairman. I want to commend you and my colleague from Florida, Mr. Stearns, for pursuing this legislation, bipartisan from the get-go. I want to remind folks that this bill that we are considering today has the potential to save many lives by making automated defibrillation more immediately available, and a reminder to us all that for every minute that passes before the heart resumes to a normal rhythm causes the chance of survival to drop by 10 percent. We need this legislation passed today. I am looking forward to working with my colleagues to make sure that that is done. Thank you for your leadership, both of you.

Mr. BILIRAKIS. And I thank the gentleman.

I believe that completes the opening statements.

[Additional statement submitted for the record follows:]

PREPARED STATEMENT OF HON. TOM BLILEY, CHAIRMAN, COMMITTEE ON COMMERCE

Today's Subcommittee hearing and markup is the result of the good work of my friend from Florida, Mr. Stearns, and, of course, the leadership of Subcommittee Chairman Mr. Billrakis. Between 200 and 300 thousand lives are lost every year to sudden cardiac arrest in the United States. It is estimated that up to 30% of these victims could be saved if they had access to immediate help, including defibrillation. H.R. 2498, the Cardiac Arrest Survival Act, would help achieve this goal.

In 1990, the American Heart Association challenged the medical device industry to develop a life saving machine that could be used safely even by ordinary people. The device industry met this challenge.

Unfortunately, it is hard to locate the device in a public place because of liability fears. No one wants a lawsuit against them because they acquired a device to make the workplace safer. And in fact, businesses are now getting hit by the trial lawyers in both directions—sued if they buy a defibrillator and something goes wrong, and sued if they don't buy a defibrillator and someone has a heart attack. We need to stop these lawsuits.

This bill would protect our good Samaritans who help save the lives of our fellow Americans. It would also protect people who acquire the devices to make their buildings or offices safer for the public. This is good public policy, and necessary to encourage life saving devices in the private sector.

While protecting people who use or acquire defibrillators, this bill does not place any new requirements, obligations, or regulations on the private sector.

H.R. 2498 has been cosponsored by 130 Members, including numerous bipartisan Members from this Committee and this Subcommittee. It has been strongly endorsed by the National Safe Kid Campaign, the National Fire Protection Association, the American Academy of Pediatrics, the American Association for Respiratory Care, and the International Association of Fire Chiefs.

Mr. Stearns' bill is timely, necessary, and a fine addition to this Committee's long-standing efforts on liability reform.

Mr. BILIRAKIS. The panel today consists of: Dr. Richard Hardman, Ph.D., EMS training coordinator for the Clark County Fire Department, Las Vegas, Nevada; Mr. Robert T. Adams, Esquire, partner in Wilson, Elser, Moskowitz, Edelman, & Dicker of New York; Mr. Scott Conner, vice president, health, safety, and community services of the American Red Cross, based here in Washington; and Mr. Richard A. Lazar, Esquire, of Portland, Oregon.

Gentleman, I thank you very much, on behalf of myself and my colleagues, for coming, many of you from long distances, to be here today to share your stories with us and supporting the need for this legislation.

Dr. Hardman, please proceed.

I would advise all of you that you have submitted written statements, and they are a part of the record, so I would hope that your testimony would complement those statements. I will set the clock for 5 minutes—hopefully you will keep your remarks within that period of time.

Please proceed, Doctor Hardman.

STATEMENTS OF RICHARD HARDMAN, NREMT-P, EMS TRAINING COORDINATOR, CLARK COUNTY FIRE DEPARTMENT; ROBERT T. ADAMS, PARTNER, WILSON, ELSE, MOSKOWITZ, EDELMAN, & DICKER, L.L.P.; SCOTT CONNER, VICE PRESIDENT, HEALTH, SAFETY, & COMMUNITY SERVICES, AMERICAN RED CROSS; ACCOMPANIED BY: DON VARDELL, RED CROSS OPERATIONS OFFICER; AND RICHARD A. LAZAR

Mr. HARDMAN. Good morning. As you already know, my name is Richard Hardman. I am pleased to be here today before the subcommittee.

I have been involved in emergency medical services for over the past 16 years. I started off functioning as a field fire fighter/paramedic, as well as a flight paramedic. I hold a doctoral degree in both health administration, as well as molecular and cellular biology, and have been appointed as an associate professor in the School of Medicine for the University of Nevada. I have been employed by the Clark County Fire Department in the Las Vegas area

for the past 10 years, the last 5 of which I have spent researching sudden cardiac arrest. Today, my appearance before you is that on behalf of the American Heart Association.

As we have already heard earlier today, approximately 250,000 Americans suffer sudden cardiac arrest every year. This represents about half the deaths caused by cardiovascular disease, which, in turn, represents almost half the deaths that occur in the U.S. annually. As was stated earlier, only about 5 percent of these individuals end up surviving.

Experts have estimated that somewhere between 20,000 to 100,000 lives could be spared annually should such a program as we have been discussing with automatic external defibrillators be placed. As we have already heard, again, the chances of survival decrease, on average, by about 10 percent per minute.

In 1995, as part of the Clark County Fire Department's quality assurance process, I researched sudden cardiac arrests occurring in our jurisdiction. What I found is the preponderance of the cardiac arrests were occurring in our large hotel casino settings, as well as other facilities with high population densities, such as our McCarran International Airport, which I am sure some members have been to.

In our rapid response, all medical emergencies, including sudden cardiac arrest, our response times are approximately 4½ minutes. Even with that profound response time, our cardiac arrest survival rate at that point in time was only slightly over 14 percent.

Therefore, we devised a targeted first responder AED program, which we implemented in March 1997 in Las Vegas. The program was modeled after the American Heart Association's chain of survival, and we identified our weakest link in this chain as being that of early defibrillation.

In order to obtain a number of defibrillators required in a given property, we established the 3-minute rule. They needed to have enough defibrillators in order to have the defibrillator at a victim's side in 3 minutes or less from the time that they were notified. The rationale for this was the knowledge that biological death or brain injury begins approximately 4 to 6 minutes after the heart ceases to function.

Although initially the idea of having nonmedical personnel using a defibrillator raised some concerns and some questions over complexity and unrealistic expectations, those quickly disappeared and were addressed by additional insurance riders prior to the Good Samaritan legislation in the State of Nevada taking place.

Today, we train more than 6,500 security officers, with an average internal response time of less than 3 minutes, and shocks delivered an average of less than 4 minutes. We have documented thus far over 200 sudden cardiac arrest events where the AED has been used, and to date we have demonstrated the highest out-of-hospital sudden cardiac arrest survival rate in the world, that being 57 percent.

These results are easily duplicated. They are duplicated by strategic placement of defibrillators in buildings and training individuals responsible for their use. The AEDs are inexpensive, extremely low maintenance, dependable, and safe to use.

The American Heart Association's heart-saver AED program, for example, teaches an individual both cardiopulmonary resuscitation, as well as the use of an AED, in less than 4 hours.

Due to the unique condition under which the program exists in the Las Vegas, Nevada, area, I would like to show you a videotape of actual surveillance camera footage from a cardiac arrest event. I understand that this will take my testimony past the 5-minute period; however, I request your indulgence.

Mr. BILIRAKIS. Thank you. By all means, Dr. Hardman. I thought possibly we might show it before you began your testimony, but this is a good time for it.

[Videotape presentation.]

Mr. HARDMAN. Being surveillance video, there is no associated audio with it, so, if you do not mind, I will narrate it for you.

Notice the gentleman toward the left-hand side of the screen there at the gaming table. He is experiencing what he described as light-headedness. Recently, he had relocated to the southern Nevada area from the midwest. He had a prior history of cardiovascular disease, and he said this event that he was experiencing was drastically different than his myocardial infarction he had previously.

The gentleman goes into cardiac arrest and collapses into the gentleman seated to his right, as you will notice.

Very shortly thereafter, some of the patrons notice this is taking place. If you will note, the time is approximately 1326, or 1:26 p.m., when he went into cardiac arrest.

Several of the patrons there are helping the gentleman down to the ground to offer some assistance, and the female that you see that just entered the screen in the kind of yellow shirt there, she happens to be an off-duty emergency room nurse who comes over to offer assistance, as well.

This is a true testament that cardiac arrest can occur at any time in any place without any warning.

As you can see, this gentleman, though he had a prior history, presented differently. He did not alert anybody around him that he was having an issue with his heart, as he had prior.

The bystanders there are offering some assistance. Our first security officer—you see him taking his jacket off in the lower right-hand corner of the screen—he goes down to assess the victim's current status, as well as, as you will see, to initiate CPR, along with some assistance from the nurse that I pointed out previously.

Our camera angle is going to change here in just a moment as the surveillance camera operator now moves the angle down so we get a better view of the process taking place.

You will note the defibrillator in the lower right-hand corner now at center screen has just arrived. We are approximately 1 minute and 50 seconds into this gentleman's cardiac arrest.

CPR, as you will note, is being performed by the gentleman who was initially seated to the victim's left at the gaming table.

The defibrillator is opened up. The pads—which you will probably see demonstrated later—are taken out. The adhesive backing is taken off. The nurse you will see is exposing the chest, and security facilitates the placement of the AED.

We are now 2 minutes and 20 seconds into this gentleman's cardiac arrest.

The defibrillator is attached. At this point it is analyzing. The computer algorithm internally in the machine is analyzing electrical activity of the heart, very appropriately identifies it as ventricular fibrillation.

A shock is required. Watch closely as that shock—one and only shock that was required—at 2 minutes and 45 seconds, slightly less than 3 minutes from the time this gentleman's cardiac arrest occurred.

That one and only shock that was required terminated the very lethal ventricular fibrillation that he was in, allowing the heart to resume its normal organized activity.

There are some supportive measures, as you will see, being administered to the cardiac arrest victim.

At this point in time, the gentleman does have a return of spontaneous circulation, meaning he has a pulse again on his own. There is some spontaneous breathing taking place. And they roll the victim up on his side here and put him in a recovery position, as we call it, awaiting EMS personnel to arrive.

We are going to jump ahead in time again. If you watch the upper portion of the screen, we are approximately 9 minutes from the time this gentleman went into cardiac arrest. You will see some feet enter into the video and a manual defibrillator placed on the ground in the upper right-hand portion of the screen. This is the EMS personnel arriving, some 9 minutes from the time this gentleman suffered cardiac arrest.

As we have already heard, 10 percent per minute. Would this gentleman's outcome have been the same had he waited on those trained EMS responders in order to deliver that life-saving shock?

EMS personnel assess the victim. They are advised by the security personnel, as part of their training, that he was shocked one time. They are administering some advanced care, as you will make out here.

There is just a small segment left, and then I will end the video. I just wanted you to be able to see the gentleman's outcome, which will be very apparent here in just a few moments.

They are starting IVs, administering medications, and so forth, as per standard protocol in this type of victim.

In the next scene, we are going to see the victim is becoming more alert, is actually somewhat combative as EMS personnel try to protect him from injuring himself. He is not tolerating the oxygen mask that was once on his face just a few moments ago.

We are going to jump again ahead in time for the last portion of the video, and then I will stop this.

Watch as the paramedic is leaning over in center screen there moves out of the way. Pay close attention to the victim, once he, again, moves off of the screen to the right. The victim is now conscious and alert, oriented to his surroundings, having dialog with the paramedic there at his side rendering care 20 minutes, approximately, from the time that he was clinically dead—heart, breathing, level of consciousness all were not present.

This is just, again, to demonstrate the profound impact that a properly implemented defibrillator program can have.

I would strongly urge your support for H.R. 2498. As you can already see, again, very, very profound impacts in saving lives.

Thank you for your time.

[The prepared statement of Richard Hardman follows:]

PREPARED STATEMENT OF RICHARD HARDMAN, DIRECTOR OF EMS, CLARK COUNTY,
NEVADA ON BEHALF OF THE AMERICAN HEART ASSOCIATION

Good morning, my name is Richard Hardman, and I am pleased to be here today to address the members of this subcommittee. I have been involved in emergency medical services (EMS) for the past 16 years. Since that time, I have worked as a firefighter/paramedic and as a flight paramedic. I hold a Doctor of Philosophy in both Health Administration as well as Molecular/Cellular Biology and am an Associate Professor of Medicine for the University of Nevada School of Medicine. I have been employed by the Clark County Fire Department in Las Vegas, Nevada where I serve as the EMS Training Coordinator. My focus for the past 5 years has been that of Sudden Cardiac Arrest (SCA) research. Today, I appear before you on behalf of the American Heart Association.

Approximately 250,000 Americans suffer Sudden Cardiac Arrest each year.¹ This represents about half of the deaths caused by cardiovascular disease, which in turn represents almost half of all deaths in the United States annually.² Of these, an average of only 5% survive to hospital discharge despite prehospital care by Emergency Medical Services (EMS) personnel. Experts estimate that 20,000 to 100,000 lives could be saved annually by greater access to Automated External Defibrillators (AEDs).³ It has been demonstrated that the chances of survival from SCA decrease by approximately 10% per minute until defibrillation, which is the definitive therapy in three-quarters of these victims.⁴

In 1995, as part of a Quality Improvement (QI) process for Clark County Fire Department, I researched SCA occurring in our jurisdiction. The majority of our SCA incidents were occurring in our large hotel/casino settings and other facilities with a high population density such as our McCarran International Airport. Even with our rapid response to all medical emergencies (including SCA) of approximately 4.5 minutes, our survival rate for SCA was only slightly over 14%.

The Clark County Fire Department Targeted Responder Automated External Defibrillator (AED) Program was implemented in March of 1997 in the Las Vegas, Nevada area with Security Officers as our AED operators. The program was modeled as to strengthen the "chain of survival" as promoted by American Heart Association. Our "weak link" was identified to be early defibrillation.

In order to obtain the number of defibrillators required to equip a site, we devised the "three minute rule". This guideline suggests that each property implementing an AED program have a sufficient number of devices so that the maximal time that elapses from notification to arrival at the victim's side with the AED is 3 minutes. The rationale was based on the fact that "biological death" (brain insult) begins at approximately 4-6 minutes after cardiac function ceases.

Although initially somewhat hesitant at the idea of having non-medical personnel using a defibrillator, the properties that have adopted AED programs are the biggest proponents of the technology. Concerns over potentially causing harm, complexity in use, and unrealistic expectations quickly disappeared.

To date, we have trained more than 6,500 Security Officers with an average internal response time of less than 3 minutes and first shock delivered in less than 4 minutes. We have documented more than 200 SCA events thus far with the AED having been used and have demonstrated the highest out-of-hospital cardiac arrest survival in the world (57%) having saved the lives of visitors and employees alike.

These results are easily duplicated with the strategic placement of sufficient numbers of Automated External Defibrillators and the proper training of individuals responsible for their use. The AEDs are inexpensive, extremely low maintenance, dependable and safe to use. The American Heart Association "Heartsaver AED" program teaches an individual both Cardiopulmonary Resuscitation (CPR) and use of the AED in approximately four (4) hours.

¹ Myerburg R, Kessler KM, Castellanos A. Sudden cardiac death: epidemiology, transient risk and intervention assessment. *Ann Intern Med.* 1993; 119:1187-1197

² Myerburg R, Castellanos A. Cardiac arrest and sudden cardiac death. In: Braunwald E, ed. *Heart Disease: A Textbook of Cardiovascular Medicine.* Philadelphia, Pa: WB Saunders; 1996.

³ *Implementing an Early Defibrillation Program*, Spacelabs Medical, Inc. 1992

⁴ Cummins R, Thies W, Paraskos J, et al. Encouraging early defibrillation: the American Heart Association and automated external defibrillators. *Ann Emerg Med.* 1990; 19:1245-1248

Due to the unique conditions under which our program exists, I will now show you videotape footage of an actual cardiac arrest resuscitation as captured by surveillance camera to demonstrate my points.

The gentleman seated in the upper left side of the screen recently moved to the Las Vegas area. He had a prior history of coronary artery disease (CAD) as well as a prior heart attack and bypass surgery. While seated at the gaming table, he described as having a sensation of light-headedness, a symptom not experienced with his prior heart attack. You can see his somewhat confused state as he leans his head on the table and collapses in cardiac arrest. This is a true testament to the fact that cardiac arrest can occur at any time, any place with little or no warning.

Several concerned citizens seated near him offer assistance as they place him on the floor. An off-duty nurse happens to be nearby and attends to the victim as well. You see cardiopulmonary resuscitation (CPR) being performed by bystanders and security alike while other security personnel are responding with the AED.

The defibrillator in the lower right hand of the screen is applied to the victim's chest. Note the security personnel clearing the victim in order to allow the AED to analyze the need for defibrillation (shock). The computer algorithm identifies the cardiac rhythm and appropriately a shock is advised. The security personnel make certain that the victim is clear and that there is no contact as the shock is delivered. This was a single shock required to terminate the chaotic rhythm ventricular fibrillation and allow the heart to begin to function in an organized manner once again. This all occurred in less than three minutes from the time of collapse (one could infer a 70% chance of survival).

Supportive measures are provided by security and bystanders while waiting for EMS personnel to arrive. You will note EMS personnel arriving at the top portion of the screen approximately 9 minutes after the cardiac arrest occurred. It is only reasonable to ask if this gentleman would have had the same outcome had he waited for these professionals to deliver the shock.

Security personnel are indicating that a single shock was delivered as EMS personnel assess the victim's status. Here you see them initiating advanced care as they start an intravenous (I.V.) line. The victim becomes somewhat combative, as his brain becomes re-introduced to normal blood flow as EMS attempt to keep him from injuring himself.

Note the condition of the victim as the paramedic with his back to us moves out of the way in the center of the screen. The victim is conscious, alert, and conversing with EMS personnel approximately 20 minutes since he suffered sudden cardiac arrest. This scenario has repeated itself time and time again in the hotel/casino setting in Las Vegas as well as other sites that have adopted the AED in their workplace.

Automated External Defibrillators are safe to use inexpensive, dependable, low maintenance and have a profound impact on the chance for survival in an otherwise dismal prognosis.

The Cardiac Arrest Survival Act provides an important step toward removing remaining barriers to broad availability of automated external defibrillators, and sends a positive message to the American public about the importance of prompt response to emergency situations. I urge your support for HR 2498.

Mr. BILIRAKIS. Thank you, sir.

We gave the doctor an extra 5 or 6 minutes because I felt that it was important that we see that video.

Mr. Adams?

STATEMENT OF ROBERT T. ADAMS

Mr. ADAMS. Good morning. My name is Bob Adams, and, as was noted by the chairman, I happen to be an attorney, but that is not why I am here today. I am here as a survivor. Something you just saw on that tape—and, in all fairness, that is the first time I have seen that tape, and it gave me some chills, because I know that a couple of years ago that was me on the ground, so I just want you to bear with me a little bit.

I just want to tell you a little bit about myself, because I think it is very important as to my pedigree in terms of what this story means and what this bill means.

I was an individual for whom health was always a non-issue. At 42 years old, I was former captain of my college basketball team, went to Europe with an American all-star team, 1 of 12 in this country selected, went and played all the Olympic teams around Europe, signed with a French professional team and stayed there for 3 years. I came back, went to graduate school and law school, but stayed active in athletics. I am an avid tennis player, and also someone who became involved refereeing, and at this point in time I have moved on to such things as, this past year, refereed for the second time the NCAA tournament, 1 of 96 officials selected in this country.

But I am going to bring you back 2 years ago, because I think it is very, very important. I heard that story about the 25-year-old professional athlete, and that also brought chills to me.

I have three young children. At the time, there was a 1-year-old; Ryan, who is with me, right behind me, a 5-year-old at the time; and I had an 8-year-old.

As I said, I had never been sick in my life. I was the kind of person—in my law firm we have 250 lawyers in my firm in New York. I was always that person who everybody said, “Boy, I hope when I get to his age I can be in his shape.” I am a non-smoker. I have two parents who are still alive, who have just turned 80 years old. I am not overweight.

I referee in the Big East and around the country. To do division one basketball at the level I do, the NCAA requires you to go for an extensive physical. I would go every year and pass with flying colors.

Lo and behold, a couple of years ago on July 4 weekend I went—before I left the law firm, which is right in mid-town Manhattan—I commute in and out of Grand Central Terminal, as do half a million other Americans who commute to southern Connecticut and Westchester County. I had said so-long to everybody, I was wishing to go and play a little golf that afternoon, have a bar-b-que with friends that night. Unfortunately, I felt terrific. No such things as dizziness, nothing such as that. I had no warnings whatsoever. But when I went to catch that train that afternoon, I collapsed, inexplicably collapsed. I was as limp as that individual on that tape.

The only reason I am here today is because someone had the foresight 2½ years ago, before there were such things as Good Samaritan laws, someone had the foresight at Metro North in New York to purchase an automatic defibrillator. It had been delivered on July 2. I collapsed on July 3. It had never been taken out of the box. They prayed that it had batteries in it. The people had been trained a week prior. They were not even sure, themselves—just like anything you have done—that they knew how to work this thing, but there was only one hope. They were doing CPR on me because, if anybody has been through Grand Central Station, there is a multi-million dollar renovation going on, and there happened to have been a couple EMTs who were also subcontractors in the construction industry.

I went down in the lobby in the grand concourse there, which I am sure many of you people probably in this room have been around. They were able to get to me and start giving me CPR,

which, obviously, in the last 2 years I know quite a bit about the chain of survival and what it means and every minute what it means. I did not know it then, because there was no reason, just like probably everybody sitting in this room. "No, that does not happen to me."

Well, I submit to you I am probably today the healthiest person in this room, but that day inexplicably I fell. Seven days I was in Bellevue Hospital. Some of the top cardio physicians in this world worked on me. They never found a cause. They still do not know why it happened. But I am living proof that it can happen to anyone, anywhere, at any time.

I submit to you that when the chief of cardiology at NYU Medical Center, when they were dispatching me—and they did put an internal EAD in my heart—they said to me—I remember there were seven of these specialists who had been called to my hospital bed at that time, and they said, "You know something—" because my major avocation that I loved to do was to referee college basketball. And I said, "Am I going to be able to referee again?" And they said to me—and I remember them looking around the room, saying, "You know something? You are probably healthier than anyone in this room, so you can go back to being a college basketball referee."

A year later, I was selected to go to the NCAA tournament. I was in the Superdome with 40,000 people sitting around, refereeing Kentucky and New Mexico State, and I looked around and I said, "This is really some story."

My son has never heard this story because he was too young to really listen to it. Well, I am now his Little League coach, and I go to my daughter's soccer games. I am here because of that machine and because some people wanted to save lives.

I just ask this committee not to get caught up in the politics of it all and just do the right thing, and understand that Bob Adams would not be sitting here. That young military officer in the Pentagon, maybe he would have been there if there was a defibrillator in the Pentagon that day a year ago. I was just a lucky one. It was fortuitous that I fell where I fell. If I had stayed in the office that extra couple of minutes, I was dead. If I had gotten on that train a minute later, I was dead. I was clinically dead. But I am here today.

I make time for whatever I can do to tell my story, because I think it is a story that needs to be told, so I am here to educate people and help just share my story.

I met and I applaud Congressman Stearns. I met him 1½ years ago when I came to speak. At that point in time, for instance, there were 18 States that had passed Good Samaritan laws. There are now 46. It is a story that needs to be told.

But the sad story is that 2½ years later they still need Bob Adams to come tell that story. I hope that I never have to come here again—that there are thousands of Bob Adams stories out there.

When Rich Hamburg from the American Heart Association gets on the phone—and I do anything I can when they call me. I support whatever I can support.

I do not know all the politics of the bill, and I apologize for that, because, like I said, I do not come here as an attorney, I come here

as a survivor. I just ask that you people consider the fact that you are going to hear a lot about statistics today, but just remember something: there are faces and families behind these statistics, and there are little boys like this, little 8-year-old boys like this who would not have a father. And there are a lot of people who are not here, because 99 percent of the people in New York die from sudden cardiac arrest because the response time is 12 minutes. It just so happened that those people at Metro North had that unit, or there was no hope for me.

I just welcome any questions, any thoughts at the end of this, and I thank you very much for your time.

[The prepared statement of Robert T. Adams follows:]

PREPARED STATEMENT OF ROBERT ADAMS, CARDIAC ARREST SURVIVOR

Good Morning, my name is Bob Adams and I am a cardiac arrest survivor. I would like to thank the Subcommittee for inviting me to testify today to share my personal story of survival.

On July 3, 1997, I was walking through Grand Central Station in New York City when my heart suddenly stopped and I collapsed. I was 42 years old, a lawyer in a firm with 450 people, a husband and the father of three young children. I was in perfect health, and always had been. From the time I played collegiate basketball at Colgate University, up to my current avocation as a NCAA basketball referee, health was always a non-issue.

Nevertheless, without warning, without any history of heart disease, I went into cardiac arrest the day before a holiday weekend, in a location through which half a million people pass every day. My heart stopped, and I wavered between life and death. There was no chest pain, no nausea. One minute I was on my way home, the next I was on the floor.

For me, timing was everything. On July 2, the day before I collapsed, the automated external defibrillator that the Metro North Commuter Railroad had ordered for use in Grand Central Station had arrived and the staff had been trained in its use.

My heart was stopped for approximately 5 minutes while the AED was unpacked from its shipping box and everyone hoped it had come with charged batteries. Thanks to the trained staff at the station, and an EMT who happened to be present, my life was saved.

Doctors have never discovered what happened to my heart. It simply stopped. Whatever it was, my wife Sue and I, along with our three children, Kimberly, 10; Ryan, 8; and Kyle, 4, are very glad there was an AED at Grand Central Station that day.

An automated external defibrillator, or AED, is a small, laptop sized, easy-to-use device that analyses cardiac arrest victims' heart rhythms for abnormalities. If the machine detects an abnormality, it administers a life-saving shock to the heart. That is what I got, a life-saving shock to the heart. And every day since, my family and I are thankful for the folks who responded, and the device that saved my life.

I was rushed to Bellevue Hospital where the doctors declared me healthy. I have never learned what caused my arrest. I now have an implanted defibrillator in my chest, which is capable of shocking my heart, should I ever arrest again.

What I do know is that luck was on my side that day. If I had stayed in my office a few minutes longer, I would be gone. But, I don't want the next person who experiences an arrest to have to depend upon luck. I have joined forces with the American Heart Association to fight for expanded access to public defibrillation, including making AEDs, and the training necessary to use them, more readily available in public facilities. That is why I am here today. The Cardiac Arrest Survival Act is a vital step in combating the 250,000 deaths per year from cardiac arrest. Congress can and should take a leadership role in spreading the message that we can fight cardiac arrest by putting the tools to save lives in the hands of those most likely to respond, the lay public.

As you will hear throughout today's hearing, time is of the essence in treating cardiac arrest. For every minute that passes before a victim's heart is returned to normal rhythm, his or her chances of survival falls by as much as 10 percent. I was down for five minutes. I am a very lucky man. The people who could save me were the people on site. Traffic congestion and complex building structures often delay emergency response, particularly in a dense urban area like New York City. My ten

minutes would have been up long before those folks could have gotten to me. I needed people in the building to have the device and to know how to use it. They did, and that is why I am alive today.

You can help save lives by helping put these devices in the hands of people in federal buildings across America. When the Secretary of Health and Human Services makes recommendations for public access to defibrillation programs in federal buildings, she and you, the Congress, will be saying that my life matters, as do the lives of the 250,000 others that suffer sudden cardiac arrest every year. We can and should do what we know works in fighting cardiac arrest. And, putting the voice of the federal government behind this effort is invaluable as people like me work with the American Heart Association to expand access to defibrillation in cities and towns across this country.

I am also here today for the people who haven't been as lucky as I was. I am here for the young military officer who suffered cardiac arrest and died in the Pentagon because the emergency response time was too long and there was no AED available. I am here so that doesn't have to happen again. I am also here for you, because unfortunately you, your loved ones, or your staff could be next. I had no warning, I was perfectly healthy. It could be any of you.

I am also here to thank you for taking up this important cause and fighting for people like my family and me. In particular, I would like to thank Representative Stearns, who I have worked with on this bill and who has shown tremendous dedication to fighting cardiac arrest. I would also like to thank the many members of the Subcommittee who are co-sponsors of the bill. My three kids would like to thank you as well.

Like you, I am anxious to hear from the other witnesses here today. They are the people that work in the field everyday to make public access to defibrillation a reality, including the trainers and the emergency medical systems. I am grateful for their work and I look forward to their testimony.

I would be happy to answer any questions you may have. Thank you, again, for the opportunity to share my story with you.

Mr. BILIRAKIS. Thank you so much.

I would suggest that you have made an impact, both you and Dr. Hardman and I am sure the other two witnesses as well.

Mr. Conner, please proceed.

STATEMENT OF SCOTT CONNER

Mr. CONNER. Thank you. I must say I am very humbled by following Mr. Adams and his heartwarming testimony. I have already invited him to speak at our upcoming Health and Safety Conference. Ryan will be glad to hear this—it is at DisneyWorld. He will be invited, along with the other two kids.

Mr. Chairman and members of the subcommittee, we are very pleased to be here today to share with you how the American Red Cross is providing training for AEDs. My name is Scott Conner, vice president of health, safety, and community services in the American Red Cross.

For more than 85 years, we have been dedicated to helping make families and communities safer at home, at work, and around the world. Each year, we train almost 12 million people in vital life-saving skills. Sudden cardiac arrest is one of the leading causes of death in the United States, taking more than 250,000 lives each year.

The cause is not well understood. It can strike anyone at any time, anywhere, as we have seen today. Many victims have no history of heart disease, and, unlike a heart attack, many victims have no prior symptoms.

The survival rate of those who suffer sudden cardiac arrest can be significantly increased if a chain of events known as the “cardiac chain of survival” is undertaken: step one, calling 911; step two, administering CPR; step three—and this is extremely important—

providing early access to defibrillation; and, step four, early access to advanced life support. A break in any of the four links in this chain can compromise a victim's chance for survival.

As Mr. Stearns mentioned, studies indicate that survival rates could rise from the current 5 percent to as much as 30 to 40 percent if CPR is administered at 2 minutes and a shock delivered at 4 minutes, followed by advanced life support at 8 minutes. However, early defibrillation is becoming widely recognized as the most critical step in restoring cardiac rhythm and resuscitating a victim.

When a person suffers sudden cardiac arrest, an AED can restore the heart's natural rhythm by applying an electrical shock. AEDs are small, light-weight, inexpensive, and easy to use, with little more than 4 hours of training needed to operate these life-saving devices in a safe and effective manner.

AEDs are becoming more widely available and being used in a wide range of settings—for example, airplanes, office buildings, industrial plants, and, as you saw right here, casinos.

Both Mr. Upton and Ms. Capps referred to the fact that a victim's chance of survival decreases about 10 percent with every minute that defibrillation is delayed. Response times for paramedics or other advanced life support often exceed 10 minutes. You saw on the tape it was about 9 minutes. And when they do arrive, they often do not have the equipment necessary for defibrillation. Only 25 percent of basic life support ambulances and less than 1 percent of police vehicles are currently equipped with defibrillators.

On-site and widespread deployment of AEDs is the most feasible method of achieving defibrillation in the critical first minutes of sudden cardiac arrest.

The American Red Cross provides two types of AED training, the first specifically designed for first responders, those who are most likely to be on the scene of an accident, such as police, fire fighters, and lifeguards. Most recently, we have developed a 4½ hour course designed for the general public, which combines adult CPR training with AED skills training. This course is designed especially for business and industry, focusing on the lay rescuer in the work place.

Since January, 1999, approximately 14,000 people have been trained by the Red Cross to use AEDs through our training courses. Training is done through our extensive network of over 1,200 chapters nationwide. Our Red Cross lifeguard training program is being revised to include AED training, and other Red Cross first aid and CPR courses are expected to include AED training as a course component.

The Red Cross wants to see as many sudden cardiac arrest victims saved as possible, and we believe this can be accomplished by strategically placing defibrillators in public places and by training people in CPR and the use of AEDs. Studies show that, with greater access to AEDs, 250 lives may be saved each day.

The American Red Cross national headquarters has implemented our own AED program and placed devices on every floor of our Falls Church, Virginia, location, as well as in all national headquarters facilities in the Washington area. Staff and security personnel have been trained to use the devices in the event of an emergency.

AED placement and training is also required in Red Cross chapters who are participating in the program that link CPR with AED technology.

Don Vardell, Red Cross operations officer, is here this morning to provide a brief EAD demonstration following my remarks in about a minute.

Mr. Chairman and members of the subcommittee, the American Red Cross thanks you for your leadership and for holding today's hearings on this important public health issue. As one of the largest employers in the country, the Federal Government has the opportunity to provide its employees with access to this life-saving technology and to protect those from liability who are trained to use these important life-saving devices.

It is our belief that the Cardiac Arrest Survival Act has significant potential to save lives, and we commend you for your commitment.

Thank you very much.

Don will demonstrate now.

[Demonstration of the automatic external defibrillator.]

[The prepared statement of Scott Conner follows:]

PREPARED STATEMENT OF SCOTT CONNER, VICE PRESIDENT, AMERICAN RED CROSS
HEALTH, SAFETY AND COMMUNITY SERVICES

Mr. Chairman and Members of the Subcommittee: I am pleased to be here today to share with you how the American Red Cross is providing training for an important lifesaving device known as the Automated External Defibrillator (AED). My name is Scott Conner, and I am the Vice President of Health, Safety and Community Services at the American Red Cross. For more than 85 years the American Red Cross has been dedicated to helping make families and communities safer at home, at work and around the world. Each year we train almost 12 million people in vital lifesaving skills.

Sudden cardiac arrest is one of the leading causes of death in the United States, taking more than 250,000 lives each year. Sudden cardiac arrest is an abrupt disruption of the heart function causing lack of blood flow to vital organs resulting in loss of blood pressure, lack of pulse and loss of consciousness. The cause of sudden cardiac arrest is not well understood. It can strike anyone, at anytime, anywhere. Many victims have no history of heart disease, or if heart disease is present it has not functionally impaired them. Unlike a heart attack, which is the death of a muscle tissue from loss of blood supply, many victims of sudden cardiac arrest have no prior symptoms. The survival rate of those who suffer sudden cardiac arrest can be significantly increased if a chain of events known as the "cardiac chain of survival" is undertaken: step one—calling 911, step two—administering CPR, step three—providing early access to defibrillation and step four—early access to advanced life support. A break in any of the four links in this chain can compromise a victim's chance for survival. Published studies indicate the survival rates could rise from the current 5 percent to as much as 40 percent if CPR is administered at 2 minutes and a shock delivered at 4 minutes followed by advanced life support at 8 minutes. However, early defibrillation is becoming widely recognized as the most critical step in restoring cardiac rhythm and resuscitating a victim of sudden cardiac arrest.

When a person suffers sudden cardiac arrest, an AED can restore the heart's natural rhythm by applying an electrical shock. AEDs are small, lightweight, inexpensive and exceptionally easy to use with a little more than four hours of training needed to operate these lifesaving devices in a safe and effective manner. AEDs are becoming more widely available and being used in a wide range of settings, including airplanes, office buildings, industrial plants, casinos, golf courses, cruise ships, sports arenas and health clubs. We know that a victim's chance of survival *decreases* about 10% with every minute that defibrillation is delayed. Response times for paramedics or other advanced life support often exceed 10 minutes and even when they arrive, they often do not have the equipment necessary for defibrillation. Only 25 percent of basic life-support ambulances, 10-15 percent of emergency service fire units and less than 1 percent of police vehicles are reportedly equipped with defibrillators. A study published in the *Journal of the American Medical Association*

found that in New York City, where the average response time from patient collapse to delivery of the first electric shock is more than 12 minutes, only 1% of patients survive sudden cardiac arrest. On-site and widespread deployment of AEDs is the most feasible method of achieving defibrillation in the critical first minutes of sudden cardiac arrest.

The American Red Cross provides two types of AED training, the first specifically designed for first responders—those who are most likely to be on the scene of an accident such as police, firefighters, security officers, lifeguard and flight attendants. Most recently the Red Cross developed a 4½-hour course designed for the general public which combines adult CPR training with AED skills training. This course is designed especially for business and industry, focusing on the lay rescuer in the workplace. The American Red Cross *Workplace Training: Adult CPR/AED* course will help business and industry further protect the health and safety of their employees by ensuring that trained lay rescuers are prepared with the skills and equipment to save a life from sudden cardiac arrest at the workplace.

Since January 1999 approximately 14,000 people have been trained by the Red Cross to use AEDs through our *Professional Rescue and Workplace CPR/AED* training courses. Training is done through our extensive network of over 1,200 chapters nationwide. Our Red Cross lifeguard training program is in the process of being revised to include AED training and other Red Cross first aid and CPR courses are expected to include AED training as a course component in the near future. The Red Cross wants to see as many sudden cardiac arrest victims saved as possible and we believe this can be accomplished by strategically placing defibrillators in public places and by training people in Adult CPR and the use of AEDs. Studies show that with greater access to lifesaving devices such as AEDs, 250 lives may be saved each day.

The American Red Cross National Headquarters has implemented its own AED program and placed devices on every floor of our Falls Church, Virginia location as well as all national headquarters facilities in the Washington Metro area. Staff and security personnel have been trained to use the devices in the event of an emergency. AED placement and training is also being required in those Red Cross chapters who are participating in the AED program that links CPR/AED training with AED technology. We believe Red Cross AED training gives employees the confidence to act in an emergency situation and the skills to create a safe and healthy workplace. Don Vardell, Red Cross Operations Officer, is here this morning to provide a brief AED demonstration concluding these remarks.

Mr. Chairman and Members of the subcommittee, the American Red Cross thanks you for your leadership and holding today's hearing on this important public health issue. As one of the largest employers in the country, we believe that with enactment of the Cardiac Arrest Survival Act, the federal government has the opportunity to provide its employees with access to this lifesaving technology and also to protect those from liability who are trained to use these important lifesaving devices. It is our belief that this legislation has significant potential to save lives, and we commend you for your commitment.

Mr. BILIRAKIS. The AED determines whether further shocks are necessary; is that right?

Mr. VARDELL. Yes, sir.

Mr. BILIRAKIS. Any questions of this gentleman at this point?

Mr. UPTON. What happens if someone is touching the patient?

Mr. VARDELL. Well, the worst thing that will happen is the patient will not get all the energy that he or she requires. Most of the devices start off with a low energy. There is a risk of someone else getting injured or getting a little electrical shock, but, again, the most important thing is if the patient's heart needs this shock, it needs the shock.

Mr. BARRETT. How much is the device?

Mr. VARDELL. They are all about \$3,000.

Mr. BILIRAKIS. Is there more than one manufacturer?

Mr. VARDELL. There are approximately three major manufacturers right now. These are the top two most people use right now.

And, again, these are AEDs, totally automated devices. They are not designed to turn back into a manual mode for enhanced life support providers.

Mr. BILIRAKIS. And if the amount or usage were expanded—let's say doubled or tripled or whatever the case may be—would the cost drop?

Mr. VARDELL. Probably so. Just like cell phones, when they first started out, were \$3,000 apiece.

Mr. CONNER. I think we can envision a day—remember when you first bought VCRs years ago and they were over \$1,000? I think the cost will be driven down to the point, hopefully, that we will be able to have these in private homes. I think that will be where this thing goes.

Mr. BROWN. How many are sold a year right now?

Mr. VARDELL. I do not have those numbers.

Mr. CONNER. I know that the folks at Hewlett-Packard expect a doubling in their business next year, and they expect that growth rate to continue and even accelerate.

Mr. BILIRAKIS. Does the State of Nevada require them in each of the casinos?

Mr. HARDMAN. It is not a requirement in the State of Nevada. I know that is something we have approached Gaming Control on but, as of yet, no.

Mr. BILIRAKIS. Any further questions of this gentleman?

Mr. GREEN. Mr. Chairman?

Mr. BILIRAKIS. Yes, please?

Mr. GREEN. What prompted the decision in the State of Nevada for this casino or different casinos to do it?

Mr. HARDMAN. The decision to put the AEDs in place is a decision based on each of the individual properties, so there are some properties that have, at this point, opted not to participate in the program, and I am under the impression they are feeling some liability pressures that maybe they are going to be implementing a program here shortly.

Mr. GREEN. Did Nevada provide a liability limitation? I know the original bill—and we have a substitute that Mr. Stearns—

Mr. HARDMAN. There was a liability coverage in our Good Samaritan legislation. Actually, the first group of properties that implemented an AED program—this was prior to Good Samaritan law actually existing—they took out an insurance rider to cover their perceived liability risks. Then the Good Samaritan law was in place in Nevada went through a revision to specifically address individuals who are compensated and who are expected to perform such duties as a part of their job. That was in the last legislative session.

Mr. GREEN. Thank you, Mr. Chairman.

Mr. BILIRAKIS. Thank you.

All right. If there is nothing further, we will proceed to Mr. Lazar.

Please proceed, sir.

STATEMENT OF RICHARD A. LAZAR

Mr. LAZAR. Thank you. Good morning, Mr. Chairman and members of the committee. It is a privilege to be here, and I must say that on Friday afternoon, when my cell phone rang from committee counsel's office, this is the last place I expected to be on Tuesday.

I am currently the CEO of a technology company involved in electronic evidence discovery. I was not being invited to come to Washington to pick up e-mail, however. I was invited to Washington to talk about something that I have been involved in in my prior 30-year career in emergency medical services—as an emergency medical care provider, a hospital trauma technician, EMS system administrator, EMS system designer, and for 12 years a lawyer defending medical malpractice cases brought against EMS providers and also involved heavily in the AED public policy arena. I have written a number of articles. My credentials are outlined in the written statement.

Committee counsel asked me to come here today to provide something in the nature of expert witness support and inputs to the committee. Now, one always has to be suspicious of an expert, but I will do the best I can in providing some level of understanding about the Good Samaritan and liability issues and drivers that affect this clear public health threat.

I will not spend any time talking about the public health threat. I think all the testimony you have heard this morning really supports the notion that a lot of people die of sudden cardiac arrest and that AEDs can help them. I do not think there is any real dispute about that.

The issue then is: what can Congress do to incent the wider distribution and deployment of AEDs? In my view, the Cardiac Arrest Survival Act provides a very unique opportunity for the Congress to provide the right incentives for the right thing.

One of the questions just asked is: why did casinos adopt AED programs? Why did American Airlines early on adopt AEDs for all of their airplanes, the first to do so back in 1996? Because it was the right thing to do. And whenever new technologies come along, there are always early adopters, and that is what we have seen thus far.

However, one of the things that you need to understand from a systems perspective is that, for AEDs to be truly effective, they do have to be widely deployed, because the critical factor is what I call “AED response time.” That is the time between the collapse, as you saw on the gentleman on the video, and the time of the first shock.

EMS systems, by their very nature, cannot economically justify deploying the amount of resources, advanced cardiac life support resources, to insure early response times to all cardiac arrests. It is just not economically feasible.

Well, medical device manufacturers have now created this magical device, and it truly is magical. It is safe, effective, easy to use. Frankly, it can be used without any training. And if you walk through O’Hare Airport, you will see them hanging on walls everywhere throughout the terminals. That is because you read the instructions, and within a minute to 2 minutes you can actually put the device on and make it work.

Yet, we are not seeing them widely deployed, notwithstanding their ease of use, their relatively low cost, and the clear public health interest in them being widely deployed.

One of the critical reasons why that is is because there is this perception among would-be purchasers and users of AEDs that if they do this they are going to get sued.

Now, statistically, and if you look in the courts, that is not really justified. But you know what, perception is reality, and perception is, indeed, creating a huge barrier to the widespread deployment and adoption of AED programs.

My hope is that the subcommittee and the full committee will adopt language that is appropriate and grant Good Samaritan immunity protection to the right classes for the right conditions and under the right circumstances. That will ensure that people's perception of liability concerns are, indeed, addressed. And so my intent this morning is to try to and provide some inputs to that.

When businesses or organizations such as senior centers or Federal agencies or businesses or airlines or casinos think about adopting AED programs, they go through an algorithm, a decision-making process. Why should we do this? How much will it cost? And will we get sued? That is basically the first three questions they ask.

Well, public education campaigns have done a wonderful job of addressing the "why should we do this" factor. The cost of the device is relatively inexpensive, so that tends not to be a barrier for most businesses. So what you really get to is the impediment of "will we get sued," and the clear fear that they will, and therefore they choose not to go forward.

The States have adopted a patchwork quilt, if you will, of laws that address AED deployment and use. Now, the problem with that is that there is wide disparity among the States in terms of the classes of people who are protected under the laws, the conditions that are imposed in order for immunity to apply, and other factors that really do not solve the problem, do not reduce the perception that there is a problem, and the degree of immunity offered, if any, within the States.

In analyzing Good Samaritan issues and Good Samaritan protection, one must acknowledge that, in effect, what it does is it creates a buffer against lawsuits. It does make it more difficult to sue somebody if they are believed to have done something wrong, but that is a public policy issue, and in this instance the public policy really does support the adoption of Good Samaritan immunity in that it can reduce perceptions and cause people to do something which is the right thing.

Now, the other thing to remember in this particular discussion is we are not talking about providing immunity to a third party who is perceived to have done something wrong—an auto manufacturer or tobacco company, whatever it might be. We are talking about an individual, such as Mr. Adams, walking down the street, and, through no fault of his own, collapsing from sudden cardiac arrest.

The question is: what can public policymakers do to incent people to do the right thing? Nobody caused the cardiac arrest, but there is a means to help, so I think that distinction should be thought about in this discussion.

In terms of addressing this issue in the Cardiac Arrest Survival Act, I would support the notion that immunity should be provided to all groups. In the current iteration, immunity is offered to both users and to acquirers under certain conditions. I would propose that the committee seriously consider adding trainers and physi-

cian medical overseers, and there is a reason for that. AED programs are not adopted in a vacuum. A company does not decide to buy these devices and throw them on the wall or throw them out in the manufacturing plant or throw them up in the terminal of Chicago's O'Hare Airport or in the casinos. They are done in the context of a comprehensive program, which includes a physician, because these are FDA-regulated devices which require medical oversight. They are prescription devices.

Training is currently required almost everywhere in public access defibrillation programs, and so you do not get to users unless you address the full comprehensive nature of the program.

So I would urge the committee to consider that fact, because if you do not, then what happens is the perceived liability barriers impact the programmatic elements of AEDs. So companies do not buy them because they think they are going to get sued for training, or they can't get a doctor to oversee the program, and therefore they will not buy the devices, and therefore they are not available to users. It is, unfortunately, a vicious cycle that goes the wrong way.

So those are some of my general comments. I suspect that the committee will have specific questions on this issue. My suspicion is this is the most contentious element, if any, of the bill. I am happy to address specific issues.

[The prepared statement of Richard A. Lazar follows:]

PREPARED STATEMENT OF RICHARD A. LAZAR

INTRODUCTION

Members of the Subcommittee. It is a privilege to appear before you in support of the Cardiac Arrest Survival Act of 1999. My interest in the Act stems from a nearly 30 year career in the emergency medical services (EMS) field. Beginning in the early 1970s, I served as an emergency medical technician and hospital emergency department trauma technician in California and Oregon where I had the opportunity to treat, first-hand, victims of sudden cardiac arrest. I then served as EMS system administrator for Oregon's second largest county. In this capacity, I had the opportunity to develop and implement system-wide advanced cardiac life support policies.

As an EMS attorney, I spent over a decade defending medical malpractice lawsuits brought against emergency medical technicians, paramedics, ambulance services, fire agencies and local governments. Concurrently, I served as an emergency medical services systems consultant. In this capacity, I provided public policy and legal issues advice on the subject of public access defibrillation to medical device manufacturers, legislative and government bodies, and national associations. I have authored a number of articles about legal and public policy issues surrounding public access defibrillation including:

- *Understanding AED Laws, Regulations and Liability Issues*, Challenging Sudden Death: A Community Guide to Help Save Lives (chapter contribution). Catalyst Research & Communications, Inc. (1998).
- *Defibrillators Enter the Business Marketplace*, Occupational Safety and Health Magazine (August 1997).
- *Are you prepared for a medical emergency*, Business and Health Magazine (August 1997).
- *Legal, Regulatory Issues Impact AED Deployment*, Journal of Emergency Medical Services—Special Supplement (January 1997).
- *AED Technology Seeks Widespread Dissemination*, EMS Insider (October 1996).

I strongly believe early defibrillation programs should be supported in the public policy arena because, unlike virtually any other area of healthcare, such programs can clearly and quantifiably save lives. The Cardiac Arrest Survival Act affords Congress the opportunity to reduce real and perceived legal liability barriers currently impeding the widespread implementation of early defibrillation programs. From a public health standpoint, enactment of meaningful Good Samaritan immunity provi-

sions within the Act has the capacity to increase access to early defibrillation thereby producing a significant reduction in the number of sudden cardiac deaths occurring annually in the United States. I have been asked to address the public policy drivers and legal liability issues associated with the Act. I welcome the opportunity to contribute to this important dialogue.

PUBLIC HEALTH THREAT

During the past two decades, the number of deaths and disabilities resulting from cardiovascular disease have steadily declined—with one notable exception. Sudden cardiac death takes approximately 250,000 lives per year in the United States. In North America, sudden cardiac arrest (SCA) is one of the leading causes of death among adults. Once every one or two minutes, SCA strikes another individual suddenly and without warning.

PUBLIC HEALTH SOLUTION

Sudden cardiac arrest does not have to result in sudden death.. Successful resuscitation of SCA victims requires the systematic linking of a number of elements. Known as the “chain of survival”, a cascade of events occurs designed to increase the probability of survival. These links include: Early access to the emergency medical response system, early CPR, early defibrillation, and early advanced cardiac life support.

The ability to resuscitate SCA victims is a function of time, type and sequence of medical intervention strategies.¹ “Early bystander cardiopulmonary resuscitation (CPR) and rapid defibrillation are the two major contributors to survival of adult victims of sudden cardiac arrest.”² Of the two forms of treatment, rapid defibrillation represents the strategy with highest likelihood of success. In other words, defibrillation delivered as quickly as possible after onset of cardiac arrest has the capacity to greatly improve the victim’s chances of survival.

One of the most important tools now available to safely treat victims of sudden cardiac arrest is the automated external defibrillator (AED). AEDs are capable of recognizing life threatening cardiac rhythms and of converting those rhythms by delivering electrical countershocks. AEDs, if widely deployed and used, have the capacity to greatly reduce the number of sudden cardiac deaths occurring annually in the United States.

That AEDs save lives is well documented in both the medical literature and real life. Traveling through Chicago’s O’Hare International Airport on the way to this hearing, I observed the presence of AEDs on walls throughout the terminal. Since implementation of O’Hare’s public access defibrillation program, a vast majority of victims experiencing sudden cardiac arrest in the airport’s terminals have been successfully defibrillated. There clearly exists a compelling rationale supporting public policy initiatives which promote early defibrillation as a means of combating a well documented and treatable public health threat.

LEGAL LIABILITY BARRIER TO WIDESPREAD EARLY DEFIBRILLATION PROGRAM IMPLEMENTATION

Fear of legal liability generally refers to the risk—perceived or actual—that a particular course of action will lead to a negligence lawsuit. Even the perception of increased risk affects decision-making behavior.

In the quest toward large numbers of early defibrillation programs, there is a clear perception among would-be AED acquirers, users, trainers and medical overseers of heightened legal risk flowing from the acquisition, deployment, and use of these devices. As a result, a legal liability perception barrier significantly affects the prospect of widespread AED deployment. As noted by the American Heart Association (AHA), “a potential disincentive to lay users of AEDs...is the threat of a personal injury claim.”²

While public access defibrillation programs have been implemented in a number of locations throughout the U.S., the rate of program growth is significantly hampered by the perception of liability risk. The AHA notes the example of a Palm Springs senior center which turned down an AED donation because of liability concerns. I recently received a call from the lawyer for a senior residential facility in Florida who was asked to analyze liability risks before the facility would consider

¹ Eisenberg MS, et al. Cardiac Arrest and Resuscitation: A Tale of 29 Cities. *Annals of Emergency Medicine*. 1990;19:179-186.

² Weisfeldt ML, et al. Public Access Defibrillation: A Statement for Healthcare Professionals From the American Heart Association Task Force on Automatic External Defibrillation. *Circulation*. 1995;92:2763.

acquiring an AED. Such fears must be addressed if public access defibrillation is to become truly widespread.

GOOD SAMARITAN IMMUNITY CAN LEAD TO REDUCED SUDDEN CARDIAC DEATH

In law, the term “immunity” refers to an exemption from a duty. One accorded immunity may be excused from conforming with an obligation otherwise imposed by law. Grants of immunity are created by case law and by statute. Good Samaritan immunity represents one duty exemption created by statute. From a public policy perspective, statutory grants of immunity are appropriate where a legislative body seeks to encourage certain types of conduct.

Deployment and use of AEDs currently occurs amid a complex and disparate patchwork of federal, state, and local laws and regulations. A majority of states now have laws and regulations specifically addressing public access defibrillation. Some offer Good Samaritan immunity while others do not. Moreover, states vary markedly with regard to what user classes receive immunity protection, what conditions giving rise to immunity apply, and what degree of immunity is available. State uniformity is lacking and Good Samaritan immunity coverage is not available everywhere. In other words, there currently exists a Good Samaritan immunity gap between and among the states.

The Cardiac Arrest Survival Act offers Good Samaritan immunity to AED users and others involved in the implementation of early defibrillation programs. Properly crafted, this form of immunity is capable of filling the state gap and addressing legal liability fears of those considering adoption of AED programs. By creating a legal liability immunity buffer, Congress can strongly encourage large-scale deployment and use of life-saving AEDs.

A number of groups are typically involved in the coordinated implementation of early defibrillation programs. These include:

- *Acquirers* such as federal agencies, businesses, organizations and individuals who recognize the benefits of early defibrillation and devote money and human resources to the acquisition and deployment of these devices;
- *Physicians* who are involved in providing training and medical oversight;
- *Trainers* who provide training in the use of AEDs; and
- *Users* who actually retrieve and use AEDs to save victims of sudden cardiac arrest.

To be effective, the Act should provide meaningful protection to each of these affected groups. This approach will provide incentives for involvement of each group thus ensuring comprehensive and effective program development and implementation.

Unlike other contexts in which the issue of immunity might be discussed, early defibrillation programs are designed to address a risk of harm not created by a third-party. Indeed, the risk relates to sudden cardiac arrest, a treatable medical condition experienced without warning and generally without external cause. By enacting Good Samaritan immunity protections, Congress has the power to truly lower legal liability risk barriers thus encouraging a variety of groups to establish programs designed to save victims of sudden cardiac arrest. These victims will, to a person, die without early defibrillation. I strongly urge Congress to pursue this goal.

Thank you for the chance to contribute to this important public policy discussion. I welcome the opportunity to answer your questions.

Mr. BILIRAKIS. Thank you very much, Mr. Lazar.

The Chair will recognize himself.

First, I would say that I plan to lose weight after listening to this testimony today.

And I mean that. My wife is in Florida. She is not listening to this. She has lost her weight.

We all should be very grateful, of course, to Mr. Stearns for this great work. Strangely enough, he has had to almost fight to get this legislation moving, which is pretty darned unfortunate. He and I share an awful lot of time during the football season watching the University of Florida Gators play, and I think the next question we should have of them is do they have one of these up there in that area, because we sometimes feel we might need one.

Basically, my question is to Mr. Conner, but I guess it is to everybody. Are we saying that, considering the tremendous advan-

tage and tremendous positives of the use of EADs, and the fact that—I do not know whether \$3,000 is a lot or not. As related, obviously, to saving a person's life, it is peanuts. But in any case, I suppose, for an awful lot of small employers it might seem like an awful lot.

Anyhow, why are so few AED programs implemented? Would we say it is because of the liability problem?

Mr. CONNER. I would say that is a big part of it. Awareness is building. The technology has only been around a few years, and it does take time.

We have found that, when you talk about work places, there is a lead time to plan the budgeting cycle. It is not, as you said, something that is that much money, but, on the other hand, if you are going to buy 10 or 20 of these for your various plants, etc., it takes time.

Importantly, we are looking for legislation around the country, and right now many States are passing such a legislation.

I think it is just a matter of time, but it is building. I mentioned the two suppliers that we work with are projecting at least a doubling of sales next year. Again, that will accelerate.

Mr. BILIRAKIS. Yes, sir?

Mr. LAZAR. Mr. Chairman, thank you.

First of all, I do want to specifically commend Representative Stearns for your efforts over the years in trying to get this bill passed. It is quite admirable.

Specifically addressing the Chair's question, it is true, in my view, that the biggest barrier currently to widespread distribution of AEDs is the liability fear. The States have tried to address this, and, as mentioned, 46 States currently have laws that at least address the issue but do not always address the Good Samaritan problem, so it does not cure the fear.

Mr. BILIRAKIS. Dr. Hardman, in your capacity, your experience, your Ph.D., etc., have you attempted to have AEDs placed in, let's say, all of the casinos, which are virtually all of the public places in Las Vegas.

Mr. HARDMAN. We have certainly urged the casino industry specifically—that was our initial target—to adopt similar programs. As a result of our successes, which you have witnessed here earlier today, we have had an outgrowth of that. We have had AEDs placed in our international airport, as I have said earlier. We have had them placed in our court systems. We have had them placed in our convention centers. We have had them placed in private businesses, as well.

There is a huge push on the public sector. I know that some of the shopping malls—any area where you have a large number of people gathering are now looking at implementing AED programs in Las Vegas, just because of our successes that we have had in the casino industry.

Mr. BILIRAKIS. Great. I commend you for your great work in that regard.

Is it difficult to get people to be trained to use these, Mr. Conner?

Mr. CONNER. No, it really is not. We have a national standard that we apply, and, as I mentioned, it is about a 4½ hour program, which includes the whole cycle of CPR—

Mr. BILIRAKIS. The entire thing.

Mr. CONNER. [continuing] and then a refresher course on an annual basis. But no, it is not hard. As you saw Don demonstrate, the machine——

Mr. BILIRAKIS. Well, it seems simple, but I guess anything is difficult if you do not know how to use it, and I can see where maybe some people might be frightened due to liability concerns.

Mr. CONNER. Right. But, in fact, it is easy. Again, I think over time the awareness of that fact will be critical to its development.

Mr. BILIRAKIS. I would ask you, before I yield to Mr. Brown, to use us. Do not hesitate to write us, put in writing suggestions that you may have. Some things we may not be able to do, because, you know, jurisdiction problems and Constitution and things of that nature, but do not think about that—just defer judgment in that regard. Particularly, Mr. Lazar, we would like to hear from you. I know I speak for Mr. Stearns, too, when I say that.

Mr. Brown?

Mr. BROWN. Thank you, Mr. Chairman.

Mr. Lazar, your statement describes liability as a “potential disincentive to the lay use of AEDs.” Have untrained users—or, for that matters, trained users, too—been sued for using the devices? Run through that. If so, what has been the outcome of some of those cases?

Mr. LAZAR. Well, that is an interesting question, Congressman, in that I am not aware of any lawsuits in the United States, and only one I am aware of in the United Kingdom in which a lawsuit arose over the use of the device.

There are three notable cases in the United States surrounding a company or airline’s failure to have an AED present. One involved Busch Gardens in Florida, in which a judgment was rendered because a 13-year-old died from sudden cardiac arrest and the park did not have a defibrillator. Lufthansa Airlines had a million-plus judgment against them for not having a defibrillator. And United Airlines was sued in 1998 over a 1995 incident in which a man died on an airplane for lack of defibrillator.

I am not aware of any suits, in contrast, involving the actual use of a defibrillator.

Mr. BROWN. Okay.

Thank you, Mr. Chairman.

Mr. BILIRAKIS. Mr. Stearns?

Mr. STEARNS. I thank you, Mr. Chairman.

Robert, I think your testimony is very compelling, and I know how valuable your time is. I think what I understand is that you were in perfect health and the doctors were unable to find anything that was wrong with you, and yet they said, after it was all over, that you could still continue your life. I think that is a message to all of us, whether we think we are in perfect health or not.

A friend of mine in my church who retired was on the golf course, and he hit a drive and had a cardiac arrest on the golf course in my home town and he died. They did not have an automatic external defibrillator.

You mentioned in your testimony about this gentleman at the Pentagon that was running here in Washington, DC.

I think the message should be in this subcommittee, Mr. Chairman, that this is not a case of just a person who has smoked a lot or drinks a lot or is overweight. This could happen to anyone in this room, and I think Robert's testimony is very compelling.

Mr. LAZAR, the question I have is, since all the States are starting to adopt some kind of Good Samaritan laws, in your opinion, why would the Federal Government need to step in if the States are doing it? You might just amplify why—and I agree that the Federal Government should, but you might amplify on that again.

Mr. LAZAR. It would be my privilege. First and foremost, the States are not uniform in their treatment of AED users or acquirers or trainers or medical overseers.

Second, while many States have adopted laws that are called "Good Samaritan laws" and speak to the issue of AED use, when you read the language of those laws carefully they really offer no protection. They are what I would call a "placebo," in effect creating a standard of negligence which imposes liability in any event.

So the question is: should there be some level of national uniformity in terms of a floor?

Now, I recognize this is a political issue and I will not get in the middle of that, but I would suggest that it would be appropriate in this instance, because of the nature of this issue, that a national floor would, indeed, be appropriate. And by that I mean a minimum threshold below which the State should not be permitted to go.

States are all over the map in terms of the level of protection they offer. And by that I mean whether it is a mere negligence standard imposing liability, which is no protection, on up through the kind of language in the current iteration of the bill, which is willful misconduct or criminal misconduct standard—something more than negligence. Willful or criminal misconduct, in my view, is the appropriate standard.

They also differ in regards to the classes of people who are protected by the law and the circumstances in which that protection is granted.

Mr. STEARNS. Dr. Hardman, are you concerned? You indicate that you have trained more than 6,500 security officers. Are you ever concerned about this liability as being a problem in this training, because we have talked about extending this beyond just the people who are volunteering to do it, but also the providers, the manufacturers. We are talking also about trainers.

Mr. HARDMAN. We are in a unique condition in Las Vegas area. As I stated earlier, I am employed for the fire department, and, as a result, we are almost immune to liability issues. There is a cap on what are liabilities. So I do not know if I am the appropriate person to ask on liability concerns as far as training goes. Perhaps Mr. LAZAR would be the one to properly address that.

Mr. STEARNS. Yes. Go ahead.

Mr. LAZAR. Representative Stearns, if I understand correctly, it is the fire department, itself, which is providing the training in Nevada, and they have their own form of immunity. There are tort caps that relate to government bodies.

Mr. STEARNS. State law.

Mr. LAZAR. So there is immunity, and so they can train like crazy and——

Mr. STEARNS. Not be concerned.

Mr. LAZAR. [continuing] they are protected. That is right. Well, they should be concerned to do it right, but——

Mr. STEARNS. No, I know, but there is not that fear——

Mr. LAZAR. [continuing] there are some statutory protections.

Mr. STEARNS. [continuing] that Damocles sword hanging over them.

Mr. LAZAR. Correct.

Mr. STEARNS. Robert, tell me again, the people who actually pulled this out of the container—it came July 2, and July 3 they unwrapped it. Who were these people?

Mr. ADAMS. These people were Metro North technicians, or really people who did that, EMT people who all had other jobs, but they were Metro North people, which is a governmental agency, from what I understand. And I went and met them, and I met their families, and I went to Albany and met their bosses to make sure that these individuals got the proper respect, and I brought my family in to meet these individuals. But they were people. They are fire prevention people.

Mr. STEARNS. Were they specifically trained on the defibrillator?

Mr. ADAMS. Absolutely. They were trained a week prior to this. It took them 7 months to cut through all the—as any governmental agency, sometimes it can be a little difficult. You have got many hurdles to cross. I said to this one gentleman, Mr. Hennessy, it was just incredible the foresight he had, like I said, 2 years ago. I mean, here we are 2 years later and we are having this discussion. Can you imagine, if you look back 2 years, when it was not the type of thing that people were writing about all the time or speaking about.

This was a gentleman, Robert Hennessy, who was the chairman or chief of fire prevention for Metro North Railroad, the largest commuter railroad, I believe, in this country. They were the people who purchased it, and they were the people who went through and had the training done. They trained about 20 to 25 people, and those people travel along in and around Grand Central Terminal, all with other jobs, but they are all on beepers. When I went down, like I said, they were able to get to me within about the first 2 minutes and start CPR. The actual machine arrived approximately 2 minutes later, from what I understand. So within 5 minutes they were—and I had to go through, from what I understand, two shocks, Dr. Hardman. But at that point in time, although my wife sometimes thinks I lost some brain cells through it all, fortunately, it is a really nice story.

Mr. STEARNS. Thank you, Mr. Chairman.

Mr. BILIRAKIS. Certainly the good Lord was with you, wasn't he?

Mr. ADAMS. Absolutely.

Mr. BILIRAKIS. He put everybody in place, if it had to happen.

Ms. Capps?

Ms. CAPPS. This was one of the most moving hearings I have ever been a part of here, and each of you had a very important story to tell.

Mr. Adams, what you are doing for the public I think seems to be a genuine response to some gifts given to you. It ought to be the motivation for all that we do here in response to this hearing today. I am just thinking what is the next bill, Mr. Stearns, that we want to do around this issue, because it is such a genuine, heart-felt need in our country, and each of you said just the right things to make your case. It is kind of like, well, now let's get busy. Let's get this done with.

I am not going to take my 5 minutes, Mr. Chairman, but I just want to make absolutely clear—and we had the Red Cross in my community a couple of weeks ago, because I am interested in another topic, which is teaching CPR skills to high school or actually school kids that they can start—your son's age, Mr. Adams.

Mr. ADAMS. Yes.

Ms. CAPPS. And begin that chain of survival, with learning how to call 911, and then little by little. And the high school students said, "Piece of cake. We can learn this." And they, of course, were most fascinated by the defibrillator that our local Red Cross brought forward.

Now, any cases that we know of—I guess Mr. Hardman or Conner—of malfunction? Is this a pretty sure-fire thing that we should sign on to as a Congress?

Mr. CONNER. As a piece of technology, it is highly efficient. I am, personally, unaware. There was one situation with one of the brands where they had a problem with the battery, but other than that I am unaware.

And I might add, you mentioned the Red Cross and kids. We are in the middle of a large effort. My wife happens to be here today, and she is a school teacher and volunteer, and, in fact, is teaching high school and grammar school kids first aid CPR in the Washington, DC area. This is something that I think we need to aggressively pursue.

By the way, we are also training everybody that takes our basic CPR on AEDs. Our thinking is that the more awareness there is—this could be a person that is walking through O'Hare Airport—

Ms. CAPPS. Exactly.

Mr. CONNER. [continuing] and there may not be a professional around, so that every opportunity we get we are doing that.

Thank you for mentioning the Red Cross.

Ms. CAPPS. And that might be a next step, because I do have legislation that—for those local communities that want to partner with their school districts and offer this kind of training. Public school teachers know that their hands are full with the required things. Providing the equipment to teach CPR and the defibrillators to demonstrate to high school kids will take community involvement, but I think we can step up and offer some resource and support for doing that, too.

Yes, sir?

Mr. HARDMAN. As far as the safety of the devices go, as I have said earlier, we have had over 200 applications of the AED in the Nevada area. Twenty-three times the AED was applied when technically the individual did not meet the criteria for it to be applied. Our criteria are that they are unconscious, they have no pulse, and they have no breathing. Despite the inappropriate application of

the device, the AED that you saw earlier by the demonstration, as well as on the video, the computer algorithm internally interprets the electrical rhythm of the heart and appropriately identifies that no shock was required. So the energy is not even available to the user to deliver a shock if the victim is not in cardiac arrest or, more specifically, ventricular fibrillation. So with more than 200 uses, we have not had any inappropriate shocks delivered as a result.

Ms. CAPPS. It is really actually more fool-proof than CPR, isn't it?

Mr. HARDMAN. Absolutely.

Ms. CAPPS. Yes. Which is now universally accepted. It took a while for that, as well, but I think this is a matter of we are finally getting to where this is commonplace. We should just do all we can, I think, to speed it up, do our part here with this legislation and perhaps think of some other ways to encourage its more widespread adoption throughout the country.

Mr. BILIRAKIS. You know, we have two bills on the floor that this subcommittee is responsible for. One is the children's health bill and the other is a breast cancer bill. I know many of us want to get on the floor for that. And, of course, we want to mark up this legislation. Hopefully I do not have to say anything further.

Mr. Ganske?

Mr. GANSKE. Well, I was interested in the videotape, because I noticed that the gambling continued while the CPR was going on. It reminded me of a time a number of years ago when my wife and I were at a luau in Hawaii. A fellow dropped over and we provided CPR while the hula dancing continued.

On a separate occasion, my next-door neighbor a few years ago was out jogging and died suddenly of a heart attack. I do not know that anyone would have found him in time or even had available a unit, but it sure would be nice if we had more of these units available around.

What we are dealing with is a situation where there has not been a single lawsuit in the country related to this other than where the unit has not been available, and so this is a question of perception, probably more than reality. But I think perception determines reality, too.

I am very pleased that Mr. Stearns has a substitute that I think improves the bill, particularly as it relates to the liability section, because in his original version—and I would be happy to enter into a colloquy with Mr. Stearns on this, or hear any comments from him—basically immunity is given in the original version to any person who maintains the device, tests the device, or provides training in the use of the device.

Now, we have not had any cases where there has been a suit from this, but what I would be concerned about in legislation is where these devices become widespread but they are not properly maintained or tested and therefore do not work for a gentleman such as our testifier today.

And so it appears to me Mr. Stearns corrects that because in his substitute he says, "Any person who acquires the device is immune from such liability if the harm was not due to the failure of such acquirer of the device, i.e., to notify local emergency response or to

properly maintain and test the device or to provide appropriate training in the use of the device.

So, in my opinion, the substitute of Mr. Stearns considerably tightens up this liability section and improves it, and for that reason I will support the substitute and I thank Mr. Stearns for working on that, because I do not think we want to do a bill that has national implications that would actually weaken the good effects of these defibrillators in terms of them taking away an incentive for their proper maintenance and training in the use of those devices.

I will yield back.

Mr. BILIRAKIS. I thank the gentleman.

Mr. Barrett to inquire?

Mr. BARRETT. It is a good bill. I am happy to be a co-sponsor of it. I applaud Mr. Stearns. All of you said exactly what needs to be said. Let's do it.

Mr. BILIRAKIS. Thank you, sir.

Mr. Burr?

Mr. BURR. Just very quickly, Mr. Chairman.

Of the 250,000 individuals who are hit with cardiac arrest, does anybody have any statistics on how many of those are children?

Mr. CONNER. We believe it is very few, actually. I do not know. It is very few.

And, by the way, the recommendation on the device is the person needs to be at least 60 pounds for the defibrillator to be used.

Mr. BURR. Sixty pounds?

Mr. CONNER. Yes.

Mr. BURR. Okay. I thank the chairman and also urge all the members to support this bill.

Mr. BILIRAKIS. I thank the gentleman from North Carolina.

Mr. Stupak?

Mr. STUPAK. Thank you, Mr. Chairman. I will be brief.

As you know, I was a police officer for 12 years. We did not have defibrillators back then. I can tell you many stories of many people I tried to help who did not make it. We just did not have the modern equipment.

I still spend a lot of time with the EMS, the fire fighters, police officers. They are asking for this legislation. I am a cosponsor of it.

I would yield back my time and say let's move this legislation and get it to the full committee and on the floor for passage.

I thank the witnesses today.

Mr. Adams, do you have something you want to add?

Mr. ADAMS. Mr. Stupak, I just want to pass this piece of knowledge. I live in White Plains, New York—a pretty significant city. Yesterday morning, I attended a press conference with the mayor of the city of White Plains, where the city purchased six defibrillators to be put in the police cars, trained over 60 fire fighters and police people, because those are, for the most part, even more so than the EMT people, what they term the “first responders.” In White Plains, they estimate the police normally can get to an individual within 3 minutes. Now those people in the city of White Plains, where I am a resident, now have that protection. They have gone just like you said. I did not realize you had a back-

ground as a policeman, but many of those police people—and I applauded that, because I have been all over the country speaking on this, yet the city where I live did not have that protection, so I made sure I made myself available for that press conference, as well.

Mr. STUPAK. Well, my wife is the mayor of our small town of Menominee, and we now have three of them, and we did it through bake sales and everything else to get money to get them there.

Mr. ADAMS. Terrific.

Mr. STUPAK. But we have them there and the police officers have them.

Mr. ADAMS. I love to hear those stories. Thank you.

Mr. BILIRAKIS. Mr. Adams, do you still practice law?

Mr. ADAMS. I attempt to. But, as my father told me when he used to coach my Little League team, “You make time for important things.”

Mr. BILIRAKIS. Yes.

Mr. ADAMS. So I make time for things like this.

Mr. BILIRAKIS. And we are so very appreciative that all four of you had made time for this.

I just feel, honestly, as strongly as we feel about this legislation, and as strongly as we feel we have got to get it through, and soon, I think there is more that can be done within the purview of our jurisdiction, if you will, and that sort of thing.

Again, I repeat to you, help us to basically help an awful lot of people out there.

Thank you so very much.

This hearing is now over and we will line up for our markup.

Thank you kindly, gentlemen.

[Whereupon, at 11:30 a.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

PREPARED STATEMENT OF HEALTH INDUSTRY MANUFACTURERS ASSOCIATION

On behalf of the Health Industry Manufacturers Association, we are pleased to submit testimony for the record in support of the H.R. 2498, The Cardiac Arrest Survival Act.

The Health Industry Manufacturers Association (HIMA) is a Washington, D.C.-based trade association and the largest medical technology association in the world. HIMA represents more than 800 manufacturers of medical devices, diagnostic products, and medical information systems. HIMA's members manufacture nearly 90 percent of the \$68 billion of health care technology products purchased annually in the United States, and nearly 50 percent of the \$159 billion purchased annually around the world.

All of us know someone whose life has been made better by medical technology: a father who was able to leave the hospital in just a few days thanks to minimally invasive heart bypass technology; a friend who received a breakthrough implant that for the first time effectively treated her Parkinson's disease symptoms, a family member whose life was saved by an advanced diagnostic test. Medical technologies like these touch all of our lives.

The findings of a recent survey confirm the value of technology. The survey of about 800 people found that 94 percent of Americans have a favorable view of medical technology and over 90 percent of people surveyed said that all patients should be able to have access to the newest medical treatments. HIMA is committed to improving patient access to new and breakthrough life-saving and life-enhancing medical technologies.

The legislation before the Committee today will help ensure that a key segment of the population will have access to just such technology. Sudden cardiac arrest is one of this nation's leading medical emergencies, affecting more than 250,000 Americans each year.

The key to a patient's survival is timely initiation of a series of events, referred to as the "Chain of Survival." Weakness in any of the four critical steps in the chain—early access to emergency assistance (for example, calling 911); early cardiopulmonary resuscitation (CPR); early defibrillation; and early advanced life support—lessens the chance of survival and condemns the efforts of an emergency medical system to poor results. Every minute that passes before a cardiac arrest victim's heart is defibrillated—shocked back into rhythm—his or her chance of survival decreases by as much as 10 percent.

There are many stories of men and women who have survived sudden cardiac arrest, thanks to the availability of an automated external defibrillator (AED). AEDs are small, easy-to-use laptop size devices that can analyze heart rhythms to determine if a shock is necessary and, if warranted, deliver a life-saving shock to the heart. Defibrillation is the only way to return a heart to normal rhythm. No amount of CPR alone can accomplish this.

Unfortunately, there also are many stories of people who did not survive. For example, Colonel Mike Moake, 47, was in the Pentagon when his cardiac arrest occurred. Traffic delays and the complexity of the Pentagon hindered medical response. If an AED had been available, he might be alive today.

The Cardiac Arrest Survival Act is an important step in ensuring that people like Colonel Moake do not continue to die needlessly in federal facilities. For the thousands of Americans who work in or visit federal facilities each day, the Cardiac Arrest Survival Act will add peace of mind, reduce unnecessary and life-threatening minutes of delay, and empower people to take action to save lives.

HIMA strongly supports H.R. 2498, The Cardiac Arrest Survival Act which directs the Secretary of Health and Human Services to develop recommendations for public access to defibrillation programs in federal buildings in order to improve the survival rates of people who suffer cardiac arrest in federal facilities.