



**The National Academy of Sciences  
Institute of Medicine  
National Efforts to Raise Public Awareness  
About Sudden Cardiac Arrest**

**Mary M. Newman, MS**

**June 16, 2014**

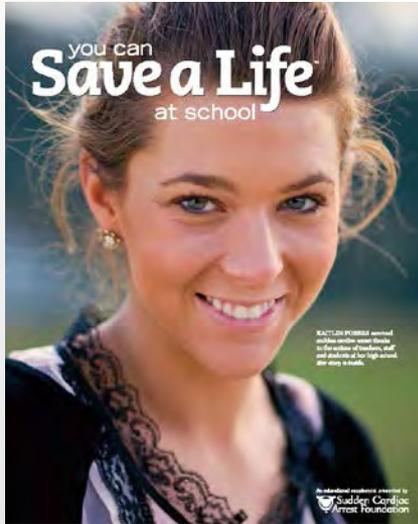
**Seattle, Washington**



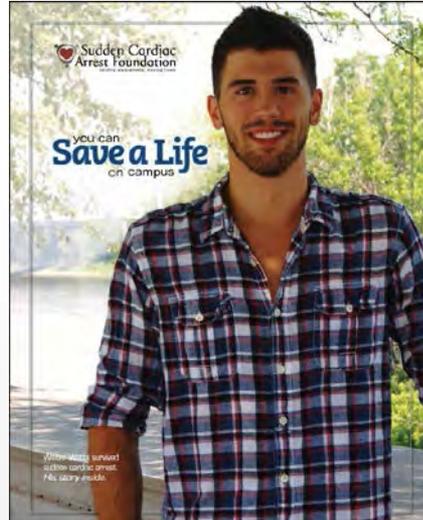
# Sudden Cardiac Arrest Foundation

- National 501(c)(3) community benefit organization
- Launched in 2006 to address unmet need for comprehensive information clearinghouse focused exclusively on prevention of death and disability from SCA
- Mission: “To raise awareness about sudden cardiac arrest and help save lives”
- Medical Director: Norman S. Abramson, MD, FACEP, FCCM, Principal Investigator of landmark International Brain Resuscitation Clinical Trials
- Board members and advisors include other leaders in resuscitation, cardiology, EMS, and adult education, plus patient advocates
- Named a Top-Rated Nonprofit in 2013 based on testimonials from constituents

# Educational Initiatives



Award-winning educational campaign for secondary schools



Educational campaign for higher education



Award-winning website, [www.sca-aware.org](http://www.sca-aware.org)

# Educational Initiatives

**Sudden Cardiac Arrest Foundation**  
raising awareness, saving lives  
sca-aware.org

**King County Has World's Highest SCA Survival Rate**

Dear [FIRST\_NAME],

Year	Survival Rate (%)
2002	20
2003	22
2004	25
2005	28
2006	32
2007	35
2008	38
2009	40
2010	42
2011	45
2012	48
2013	62

Someone who has a cardiac arrest in King County, WA, has a greater chance of survival than anyone else in the world, according to the latest analysis by county officials. The survival rate for cardiac arrest in King County hit an all-time high of 62 percent in 2013. By comparison, the cardiac survival rates in New York City, Chicago, and other urban areas have been recorded in the single digits. "People are alive today in King County who would not have survived in most other places in the country," said King County Executive Dow Constantine. "Our system delivers rapid, high-quality critical care wherever you are." [More...](#)

**Can You Survive When Your Heart Stops?**

Sudden chest pain isn't something you're likely to ignore. This symptom—along with breathlessness, cold sweats and other classic heart attack symptoms—is a clear sign that you need to call 911. While a possible heart attack is scary enough, the reality actually could be even worse. With sudden cardiac arrest (SCA), brain damage is almost certain unless you are treated within just a few minutes. And unlike a heart

**AED Regulations May Be Changing**

A year ago, manufacturers of automated external defibrillators and groups that promote use of the life-saving equipment in schools, fitness centers, and other public facilities—including the Sudden Cardiac Arrest Foundation—asked the U.S. Food and Drug Administration to reconsider a controversial proposal to make the process for getting the devices on the market more stringent—and as a consequence more costly. [More...](#)

**Read comments from Sudden Cardiac Arrest Foundation in DOTmed HealthCare Business News [here](#).**

**Verdugo vs. Target**

The California Supreme Court appeared reluctant to require large retailers to keep a defibrillator in stores in case customers suffer cardiac arrest. During arguments involving a lawsuit against Target in the death of a customer, Justice Marvin Baxter asked how a store clerk would know a customer was suffering cardiac arrest and whether the device could be inappropriately used and cause more harm to a shopper suffering another ailment. [More...](#)

**Read Sudden Cardiac Arrest Foundation amicus brief [here](#).**

**Raising Awareness... One Step at a Time**

Sudden cardiac arrest survivors, including Beverly Buxaeo from Pittsburgh, PA, and Patrick Bielocki from Niagara Falls, NY, were among those who joined the Sudden Cardiac Arrest Foundation team at the Highmark Walk for a Healthy Community on May 17 in Pittsburgh. Families who lost loved ones to SCA were also there to raise awareness about the nation's leading cause of death. Thank



Unlike · Comment · Share 22 Shares

Sudden Cardiac Arrest Foundation, Judy Kristan, Butch-Susie Gibbs, Magnus Bäckström and 44 others like this.

Active social media engagement

[Facebook.com/youcansavealife](https://www.facebook.com/youcansavealife)

[Twitter.com/youcansavealife](https://twitter.com/youcansavealife)

[YouTube.com/youcansavealife](https://www.youtube.com/youcansavealife)

[Linked In](#)

E-newsletters



# Advocacy Initiatives

- State and federal advocacy on CPR-AED laws, including letters of support, public testimony
- Letters to editor and blogs in national publications
- Articles that advocate making SCA a reportable condition
- Petition garnering thousands of signatures--plus letters to FDA--opposing increased regulations of AEDs
- Amicus brief advocating importance of early defibrillation (Verdugo vs. Target)



The New York Times  
The Opinion Pages

LETTER  
**Reclassifying Defibrillators**  
Published: February 3, 2011

To the Editor:

Re "[Stricter Oversight Urged for Defibrillators](#)" (Business Day, Jan. 26):

The Food and Drug Administration's recommendation to reclassify automated external defibrillators as high-risk devices is shortsighted and could cost thousands of lives each year.

While there were 22,000 malfunction reports over the last five years, most resulted from routine device self-checks, not the actual use of A.E.D.'s. Further, considering that more than one million A.E.D.'s have been deployed in the United States, that's an extremely low failure rate.

A.E.D.'s do not cause death — they are used to bring dead people back to life. While they cannot save everyone, they give many victims a second chance, particularly when used quickly by bystanders.

If regulatory hurdles increase, public access to A.E.D.'s will decrease. That would be devastating news for the 295,000 people who suffer sudden death outside hospitals each year — and a giant step backward in the quest to improve survival from the nation's leading killer.

Mary Newman  
President  
Sudden Cardiac Arrest Foundation  
Wexford, Pa., Jan. 27, 2011

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SIGN IN TO E-MAIL  
PRINT  
REPRINTS  
SHARE

CALVARY AUGUST 1 WATCH TRAILER

# Community Building Initiatives



SCA Foundation National Spokesperson, Susan Koeppen, a survivor and TV news anchor, with Dr. Guy Knickerbocker, co-inventor of CPR and defibrillator, June 2014

- **SCA Network:** Online community for people affected by SCA, such as family members of victims and healthcare professionals. Members can share their stories, post blogs, find and work with others toward common goals.
- **SCA Survivor Network:** Online community for SCA survivors. Members can share their stories, post blogs, provide mutual support, and participate in research, media interviews, and speakers' bureau.

# What Does the Public Know About SCA?





# Public Awareness Survey, 2000

## METHODS

- Cross-sectional telephone survey
- Stratified random sample of 1,000+ adults in U.S.

## RESULTS

- **Majority have taken CPR class (57%),** mostly due to work or school requirements.
- **Most say they are willing to give CPR** to help both known victims and strangers (73%).
- **Most say they are willing to use AED** to help both known victims (81%) and strangers (73%).
- Primary reasons for hesitating to help:
  - **Fear of doing the wrong thing,** might hurt victim, others would do better, not trained, not confident, card expired, what is an AED?
  - Non-issues: Fear of disease transmission, legal liability risks.

SOURCE: Newman, MM. Resuscitation 45(1),S51, 2000.

# Public Awareness Survey, 2007

## METHODS

- National survey of 800 likely voters in U.S.

## RESULTS

- **Most (58%) think SCA is the same as a heart attack.**
- When asked **what action they associate with SCA**, the most common response (27%) was **"I don't know."**
- Nevertheless...
  - Most (88%) favor a campaign to raise awareness about SCA.
  - Most (89%) favor widespread deployment of AEDs.
  - Most (77%) would support federal funding to support SCA research and educational initiatives.
  - Most (74%) are concerned that they or a family member could have an SCA in the next five years.

SOURCE: Sudden Cardiac Arrest Coalition/ Mercury Public Affairs

# Public Awareness Survey, 2008

## METHODS

- National survey of 1,132 U.S. residents  $\geq$  18 yo

## RESULTS

- Most people (79%) say they are **confident that they know what actions** to take in a medical emergency.
- Most people (60%) say they are **familiar with CPR**.
- Most people (98%) **recognize an AED** as something that administers an electrical shock to restore a heartbeat.

SOURCE: American Heart Association/ Harris Interactive

# Public Awareness Survey, 2012

Think Sudden Cardiac Arrest is a Heart Attack?



That's like comparing apples and oranges.

## METHODS

- Public awareness campaign began in 2009
- Public awareness survey conducted in 2012

## RESULTS

- **Most people (65%) do not know the difference between heart attack and sudden cardiac arrest.**
- Most underestimate the seriousness of SCA.
- Many think SCA is a type of heart attack.

SOURCE: Heart Rhythm Society

# Public Awareness Survey, 2013

## METHODS

- National omnibus survey of representative sample of 2,000 individuals in U.S.  $\geq 18$  yo

## RESULTS

- Most respondents (76%) believe **other causes of death (MVA's, stroke, breast cancer, firearms) claim more lives than SCA.**
- **Few people (23%) understand AEDs should be used within three minutes of collapse.**
- Nevertheless...most people expect AEDs to be readily available in airports, fitness clubs, stadiums, schools, shopping malls, factories and manufacturing facilities, hotels, office buildings, theaters and concert halls.

SOURCE: CardioReady/ Harris Interactive

# What Does the Public Know About SCA?



*Sudden cardiac arrest...what it is and what to do is a well-kept secret.*

# Real World Bystander CPR/AED Use

- Only 30<sup>(1)</sup>-44<sup>0%</sup>(<sup>2)</sup> of OHCA victims receive CPR from bystanders.
- Only 2<sup>(1)</sup>-4<sup>0%</sup>(<sup>2)</sup> of OHCA victims are treated with AEDs by bystanders before professional help arrives.

SOURCE: <sup>(1)</sup> AHA; <sup>(2)</sup> CARES

# Key Barriers to Bystander Intervention

## CPR

- Fear of doing the wrong thing
- Lack of training
- Fear of forgetting training
- Belief that one must be currently “certified” in CPR to provide CPR
- Belief that someone else could do a better job
- Legal liability concerns

## AED

- Fear that AED will shock someone who does not need to be shocked
- Inadequate deployment and maintenance of AEDs
- Inability to find an AED when needed
- Belief AED is intended for professional use only
- Antiquated device labeling (“For use by trained rescuers only”)
- Lack of training
- Legal liability concerns

# What Survivors Would Like Us to Know

- **The worst thing to do is to do nothing.**
- **Common experiences of survivors** include memory loss, anxiety, depression, guilt, re-establishing a routine, getting back to school/work, trouble sleeping, trouble visiting place where SCA occurred, fear of ICD shock, fear that ICD will not shock, fear associated with not having ICD.
- **The medical community needs to help survivors and their loved ones deal with the psycho-social aftermath of survival from SCA.** Most survivors receive little or no mental health information or counseling during their hospital stay or upon discharge. Support groups and resources for survivors and caregivers are needed.

SOURCE: Sawyer KM, Newman MM. SCA Foundation Survivor Variation Survey, 2013

# 9 Common Myths

1. SCA is rare.
2. SCA is the same as a heart attack.
3. SCA only happens to the elderly.
4. SCA only happens to people with a history of heart problems.
5. SCA cannot be prevented.
6. Victims are better off waiting for professional help to arrive.
7. AEDs can hurt people by shocking them inappropriately.
8. Nothing could have been done (It was a massive heart attack).
9. Everyone survives (The Hollywood Myth).

# Dispelling Myths

1. *SCA is rare.*
  2. *SCA is the same as a heart attack.*
  3. *SCA only happens to the elderly.*
  4. *SCA only happens to people with a history of heart problems.*
  5. *SCA cannot be prevented.*
  6. *AEDs can hurt people by shocking inappropriately.*
  7. *Victims are better off waiting for professional help to arrive.*
  8. *Nothing could have been done. (It was a massive heart attack.)*
  9. *Everyone survives (Hollywood).*
1. SCA is the leading cause of death in the U.S. affecting about 1,000 people a day.
  2. SCA is different from a heart attack.
  3. SCA happens to people of all ages, even the young.
  4. SCA is often the first indication of a heart problem.
  5. Heart screenings can identify people at risk.
  6. AEDs will not shock anyone unless shocks to restore a normal heart rhythm are needed.
  7. Immediate bystander intervention can mean the difference between life and death.
  8. Bystanders can call 911, start CPR, and use AEDs to help save lives.
  9. About 10% of OHCA victims survive, though survival rates 40% and higher have been achieved.

# Positive Indicators:

## States Where CPR Is/ Will Be HS Graduation Requirement

1. Alabama
2. Arkansas (2014)
3. Georgia (2013)
4. Idaho
5. Illinois (2014)
6. Iowa
7. Louisiana (soon)
8. Maryland (2014)
9. Minnesota (2014)
10. Mississippi (2014)
11. North Carolina (2013)
12. Oklahoma (2016)
13. Rhode Island (2013)
14. South Carolina (soon)
15. Tennessee (2012)
16. Texas (2014)
17. Virginia (2016)
18. Vermont (2012)
19. Washington (2013)

*Note: Utah provides funding for CPR education in schools*

# Positive Indicators:

## States Where AEDs Are Required in Schools

1. Alabama
2. Arkansas
3. Connecticut
4. Florida
5. Georgia
6. Hawaii
7. Kentucky
8. Louisiana
9. Maine
10. Maryland
11. Massachusetts
12. Nevada
13. New Jersey
14. New York
15. North Dakota
16. Oregon
17. South Carolina
18. Tennessee
19. Texas

SOURCE: Scripps News Service, 2013

MORE: [www.sca-aware.org/aed-laws](http://www.sca-aware.org/aed-laws)

# Positive Indicators:

## States Where AEDs Are Required in Health Clubs

1. Arkansas
2. California
3. Connecticut
4. Illinois
5. Indiana
6. Iowa
7. Maryland
8. Michigan
9. New Jersey
10. New York
11. Pennsylvania
12. Oregon
13. Rhode Island

SOURCE: Scripps News Service, 2013

MORE: [www.sca-aware.org/aed-laws](http://www.sca-aware.org/aed-laws)

# Positive Indicators: The Bee Gees Effect



*Anecdotal reports from multiple rescuers without formal CPR training on the benefits of giving chest compressions to the tune of "Stayin' Alive!"*

# A Case in Point



- Sue Hostler, lay rescuer, (center), saved the life of Robert Hallinan, 25, on August 22, 2013, at the Philadelphia International Airport.
- **She performed hands-only CPR for 15 minutes before EMS arrived.**
- **The airport has at least 100 AEDs, but no one retrieved an AED.**
- When EMS arrived, Bob was shocked several times, underwent therapeutic hypothermia, received an ICD, and now is back to work.
- Sue received the SCA Foundation's "People Saving People" Award on June 6.

# Key Recommendations

1. Make OHCA a reportable condition.
2. Advance public awareness campaigns that feature these key messages:
  - SCA is the leading cause of death in U.S.
  - SCA is not the same as a heart attack.
  - Survival depends largely on immediate bystander action with CPR and AEDs.
  - CPR involves pressing hard and fast on the center of the chest.
  - AEDs are safe and effective for use by laypersons.
  - Good Samaritan laws protect people who try to help others.
  - The worst thing to do is to do nothing.
3. Make CPR-AED education a requirement for high school graduation in all states to help create a new generation of rescuers who are ready, willing and able to help in cases of SCA.
4. Make dispatcher-CPR coaching universally available.

# Key Recommendations

5. Ensure more widespread deployment of AEDs with signage that encourages bystander action.
6. Foster systems for readily identifying AED locations at times of need.
7. Avoid emphasis on formal CPR/AED education and certification.
8. Use social media to educate the public about preventing and treating SCA.
9. Create systems for proactively helping survivors of cardiac arrest and their loved ones post-survival

# Top 3 Recommendations

1. Make OHCA a reportable condition.
2. Use social media to educate the public about preventing and treating SCA.
3. Create programs to help survivors of cardiac arrest and their loved ones post-survival.