

**CITY OF HAMILTON**

**HAMILTON EMERGENCY SERVICES**  
*Emergency Medical Services*

<b>TO:</b> Chair and Members Emergency & Community Services Committee	<b>WARD(S) AFFECTED:</b> CITY WIDE
<b>COMMITTEE DATE:</b> February 13, 2012	
<b>SUBJECT/REPORT NO:</b> Ontario Defibrillator Access Initiative (ODAI) (HES12004) (City Wide)	
<b>SUBMITTED BY:</b> Brent Browett Director, Emergency Medical Services Paramedic Chief Hamilton Emergency Services	<b>PREPARED BY:</b>  Justin Pyke (905)546-2424 ext. 7743 Brent Browett (905) 546-2424 ext. 7741
<b>SIGNATURE:</b>	

**RECOMMENDATION**

- (a) That Emergency Medical Services (EMS) staff, as the designated Public Access Defibrillation Program Lead for Hamilton, be directed to support the Ontario Defibrillator Access Initiative of the Provincial Government and the Heart & Stroke Foundation of Ontario (HSFO) as outlined in Appendix A attached to Report HES12004;
- (b) That EMS staff be directed to work with local community partners including City departments and the HSFO to acquire as many Automated External Defibrillators (AEDs) as made available through this OADI, which at this time provides for an estimated grant for Hamilton at approximately \$300,000 in capital assets and \$300,000 in training and related operational supplies in support of the local Public Access Defibrillation Program;
- (c) That commencing in the 2013 budget process, EMS staff be directed to request an increase of \$30,000 annually to the reserve, to cover the cost of replacement AEDs to ensure a long-term sustainable Public Access Defibrillation Program for Hamilton; given that the average AED lifespan is 10 years, it is estimated that a contribution of \$30,000 per year will provide sufficient sustainability.

- (d) That EMS staff be directed to explore options to ensure that the city-wide AED program remains financially sustainable.

### **EXECUTIVE SUMMARY**

On June 3, 2011, Premier Dalton McGuinty announced the Government of Ontario's commitment to saving lives with Automated External Defibrillators (AEDs) and announced that \$10 million will be provided to place the life-saving devices in publicly-funded community sport and recreation facilities and schools with high recreation and sport use across Ontario. A portion of the funding will also be set aside to develop Ontario's first AED registry. This registry will track all of the public access units placed and will link directly into the Emergency Medical Services (EMS) system.

As a result, the Heart & Stroke Foundation of Ontario (HSFO) is leading this initiative, called the **Ontario Defibrillator Access Initiative (ODAI)**, and is set to open the largest application process for AED grant funding in Ontario's history. The aim of the ODAI is to distribute a minimum of 2,500 defibrillators and train a minimum of 25,000 people across Ontario, which will significantly add to the current inventory of public access defibrillators in Ontario. This will have a significant impact on the cardiac health of all Ontarians.

As AEDs continue to become available in a variety of public settings, they are quickly becoming the 'standard of care' for owners and operators of public spaces.

In Hamilton, EMS functions as the lead for the Public Access Defibrillation Program. As the local lead EMS will work closely with HSFO to process local applications, prioritize the locations and handle the installations of the units allocated by HSFO.

It is estimated that through the ODAI Hamilton may receive up to 100 new AEDs at sites across the City. Priority is being given to high volume public sites including schools, arenas and sports complexes and public buildings. The number allocated to Hamilton will be determined by the Heart and Stroke Foundation Grant Allocation Committee.

#### ***Alternatives for Consideration – Not Applicable***

### **FINANCIAL / STAFFING / LEGAL IMPLICATIONS (for Recommendation(s) only)**

#### **Financial:**

There are no initial fees associated with this initiative and an AED will come as part of a complete package. In addition, the package includes the following materials and services for every AED that is placed:

- One set of Adult electrode pads and one replacement set;
- One set of Pediatric (infant/child) electrode pads;
- One installed battery and a backup battery;
- One display cabinet and signage;
- Free CPR-AED certification for at least 10 individuals per device (e.g. employees, frequent facility users);
- One *Family & Friends™ CPR Anytime™ Kit* to continue training on CPR-AED; and
- Listing of the AED on the provincial registry.

To ensure long-term sustainability, EMS will increase contributions to capital asset replacement reserves to cover the cost of replacement when donated AEDs reach the end of their 10 year life span and explore options to ensure sustainability of the City-wide AED program.

While the amount to be contributed annually to reserve will be based on the actual number of AEDs allocated to Hamilton through the OADI, it is estimated that an annual contribution of \$30,000 will adequately cover the projected future costs.

**Staffing:**

The OADI initiative will be coordinated through the EMS Public Access Defibrillation Program at current staffing levels.

**Legal:**

The Good Samaritan Act (2001) protects people who voluntarily offer CPR or first aid assistance in an emergency. Additionally, the Chase McEachern Act (Heart Defibrillator Civil Liability Act, 2006) protects users of AEDs from liability for damages that may occur and protects the owners and occupiers of the buildings where AEDs are installed from liability for damages.

**HISTORICAL BACKGROUND** (Chronology of events)

In 2008 Council approved the recommendation that EMS be designated the lead for the Public Access Defibrillation Program for Hamilton. Since that time EMS has successfully sought and received grant funding through the HSFO to support the placement of 138 AEDs across Hamilton.

In June 2011 the Province announced the funding for the Ontario Defibrillator Access Initiative (ODAI) with the aim of distributing 2,500 AEDs and training a minimum of 25,000 individuals in CPR and AED use.

In January 2012 the HSFO officially announced the launch of the OADI with letters to municipalities and community partners inviting applications to receive AEDs.

**POLICY IMPLICATIONS**

No implications at this time.

**RELEVANT CONSULTATION**

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Sandra Page, Specialist, AED Program, Heart and Stroke Foundation of Ontario

David Lindeman, Manager, Health, Safety & Wellness, City of Hamilton

Lorraine Paddon, HES Finance, Business Administrator

Dr. Michael Shuster, Hamilton EMS Municipal Medical Advisor

**ANALYSIS / RATIONALE FOR RECOMMENDATION**

(include Performance Measurement/Benchmarking Data, if applicable)

Analysis of comparator municipalities was conducted to assess the number of AEDs in local Public Access Defibrillation Programs. Data for comparator municipalities is not widely publicly available.

A relevant example, the City of Ottawa Public Access Defibrillation Program coordinated by the Ottawa Paramedic Service currently has over 400 AEDs across the City serving a population of 870,250 or approximately 1 AED per 2,175 population and 1 AED per 5 square kilometres of area.

Hamilton by comparison currently maintains 1 AED per 3,659 population and 1 AED per 9 square kilometres of area.

**ALTERNATIVES FOR CONSIDERATION**

(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

None.

**CORPORATE STRATEGIC PLAN (Linkage to Desired End Results)**

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

***Skilled, Innovative & Respectful Organization***

- ◆ A culture of excellence
- ◆ More innovation, greater teamwork, better client focus
- ◆ An enabling work environment - respectful culture, well-being and safety, effective communication
- ◆ Council and SMT are recognized for their leadership and integrity

***Financial Sustainability***

- ◆ Financially Sustainable City by 2020
- ◆ Effective and sustainable Growth Management
- ◆ Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner
- ◆ Full life-cycle costing for capital
- ◆ Address infrastructure deficiencies and unfunded liabilities

***Intergovernmental Relationships***

- ◆ Acquire greater share of Provincial and Federal grants (including those that meet specific needs)
- ◆ Maintain effective relationships with other public agencies

***Growing Our Economy***

- ◆ An improved customer service

***Healthy Community***

- ◆ An engaged Citizenry
- ◆ Adequate access to food, water, shelter and income, safety, work, recreation and support for all (Human Services)

**APPENDICES / SCHEDULES**

Appendix A – *Ontario Defibrillator Access Initiative*; Heart and Stroke Foundation of Ontario, 2011



# ONTARIO DEFIBRILLATOR ACCESS INITIATIVE



## THE ONTARIO DEFIBRILLATOR ACCESS INITIATIVE

This document will serve as your guide in getting to know about the **Ontario Defibrillator Access Initiative**. Inside you will find a helpful Q&A, statistics and facts about cardiac arrest and information on how to apply to the Initiative.

The **Ontario Defibrillator Access Initiative** (ODAI) represents the Government of Ontario's most recent commitment to the cardiac safety of the province. This \$10 million investment in Automated External Defibrillators (AEDs) is being directed to publicly-funded sports and recreation facilities and schools with high recreation and sport uses. A portion of the funding will also be set aside to develop Ontario's first ever AED registry. This registry will track all of the public access defibrillator units placed.

There are four main components in placing AEDs under this initiative:

1. Application and selection of qualified organizations;
2. Certification of first responders (i.e. CPR-AED training);
3. Placement of devices and related equipment such as training and -materials;
4. Registration of AED devices on the provincial AED registry.

The ODAI adds to the government's previous \$3 million contribution in 2007 – the largest in North American history for AEDs. This funding contributed to distributing over 3,000 defibrillators in public places across Ontario through the Heart and Stroke Foundation's **Restart a Heart, a Life™** Program which has helped to save 35 lives to date.



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## Q&A

The following Q and A was developed to answer some questions you may have in relation to this Initiative.

### 1. Q: What is an Automated External Defibrillator

**A:** An Automated External Defibrillator (AED) is a small, portable, and easy-to-use device. Adhesive pads connected by wires to the AED are applied to the person's chest. The AED detects the electrical activity of the heart and checks the heart's rhythm. If the heart is in a shockable rhythm, the AED instructs the provider to press a button that delivers a controlled shock to the heart. The shock stops the heart in an attempt to trigger the heart to resume a normal rhythm. If a shockable rhythm is not detected, then a shock is not advised and cannot be given even if the button is pressed. Cardiopulmonary Resuscitation (CPR) should be continued until EMS arrives.

Until recently, only medical and paramedical staff used AEDs. However, the advent of safe and easy-to-use AEDs now makes it possible to extend the use of AEDs to people with no medical background or training. This means that AEDs can be used by any member of the public to help save lives.

AEDs are completely safe. Although AEDs are available in different models, all AEDs operate in essentially the same manner. Once the AED is turned on, the unit will coach the user/responder through all the necessary steps by giving step-by-step instructions on what to do in an emergency situation and will only deliver a shock if the heart is in a rhythm that can be corrected by defibrillation. You cannot hurt anyone with an AED, but you can save a life!



## 2. Q: What are the benefits of participating in the Initiative?

**A:** There are no fees associated with the Ontario Defibrillator Access Initiative and an AED will come as part of a complete package. In addition, the package includes the following materials and services for every AED that is placed:

- One set of Adult electrode pads and one replacement set;
- One set of Pediatric (infant/child) electrode pads;
- One installed battery and a backup battery,
- One display cabinet and signage;
- Free CPR-AED certification for at least 10 individuals per device (i.e. employees, frequent facility users);
- One Family & Friends™ CPR Anytime™ Kit to continue training on CPR-AED in the facility; and
- Registration of the AED and its location on the provincial registry.

While participants are responsible for the cost of any additional AEDs and/or CPR-AED certifications, each participant receives preferred pricing on any related AED equipment (i.e. AEDs, pads, batteries) and CPR-AED certification to upgrade their system throughout the community.

## 3. Q: Isn't it risky to install and use these devices?

**A:** As AEDs continue to become available in a variety of public settings, they are quickly becoming the 'standard of care' for owners and operators of public spaces, and it may soon be the expectation of the public that AEDs be located in public facilities including schools. In Ontario, the Good Samaritan Act (2001) protects people who voluntarily perform CPR or offer first aid assistance in an emergency. Additionally, the Chase McEachern Act (Heart Defibrillator Civil Liability Act, 2006) **protects users of AEDs from liability for damages that may occur and protects the owners and occupiers of the buildings where AEDs are installed from liability for damages.**



**4. Q: How will the AED registry affect me?**

**A:** The Government of Ontario is currently developing a provincial registry to identify the location of all AEDs in the province. Emergency dispatch (9-1-1) services in Ontario will be aware of the location of AEDs when responding to cardiac arrests or relevant medical calls and will be able to inform the caller of the nearby location of an AED and instruct them on how to use it. A registry may also provide insight into the best places to locate an AED – based on areas that are not well serviced by existing AEDs or based on limitations in the response of Emergency Medical Services (EMS).

**5. Q: Will AED(s) placed in my facility be listed on the Provincial Registry?**

**A:** Yes. Additionally, in order to receive an AED through the ODAI all facilities will be required to register all of their existing AEDs with the registry. This will ensure the registry has a complete listing of the active AED devices in the Province of Ontario.

**6. Q: Why are AEDs important to help save lives?**

**A:** Every year in Ontario 7,000 sudden cardiac arrests (SCA) occur with up to 85% happening outside of a hospital setting, in a private dwelling or a public place. For every minute that passes without help, a person's chance of surviving drops by 7% to 10%. Research indicates that having an AED at hand is imperative, as defibrillation, when used in conjunction with CPR in the first few minutes can dramatically improve an individual's chance of survival to up to 75%.

**7. Q: Can AEDs be used on people of any age?**

**A:** There is no age restriction; AEDs can be used on anyone. All AEDs deployed through the Ontario Defibrillator Access Initiative will be delivered with both adult and pediatric (infant/child) pads (the electrode pads that connect the AED to a person's chest). Older or existing AEDs that contain only adult pads can still be used on children and the absence of pediatric pads should not discourage a responder (trained or untrained) from using an AED.



**8. Q: What is public access defibrillation?**

**A:** Public Access Defibrillation (PAD) means making AEDs available to everyone. The Heart and Stroke Foundation of Ontario (HSFO) has worked to develop relationships with municipalities across Ontario to develop PAD Programs for their communities. It is typically the EMS who oversee the PAD Program but there are also Fire Services, Parks & Recreation Departments and Health units working toward the common goal of cardiac safety. All AEDs in your system may be registered as well to provide fuller information to EMS services.

**9. Q: Why is PAD essential to communities across Ontario?**

**A:** Sudden Cardiac Arrest (SCA) can strike anyone of any age and any fitness level. This means it can happen to otherwise healthy and unsuspecting people; it usually happens without warning and can often be the individual's first sign of a heart problem. Many of these victims can be saved if citizens are prepared to quickly phone 9-1-1, begin CPR and provide defibrillation within minutes of collapse. The goal of an organized PAD program is to better prepare the public to deal with SCA prior to the arrival of EMS. This is essential in improving the Chain of Survival™ within our community.

**10. Q: Can't I just buy an AED on my own?**

**A:** The units placed in this Initiative are part of a public access defibrillator (PAD) program, and include: CPR-AED certification, training materials, expert advice from PAD Coordinators, listing in the province's registry and are free of charge. Buying an AED(s) sold at retail outlets can be a solution for individual or home use.



**11. Q: Does my facility need an AED? How will I know if my organization qualifies?**

**A:** If you are concerned about the health and safety of the people that visit, work in or frequent your facility or workplace the answer is yes.

Early, effective defibrillation can only be achieved if an AED is available at or near the site of the cardiac arrest, or can be provided quickly by EMS. Unfortunately, quick EMS response isn't always possible, and is almost always longer than 3-4 minutes (see question #16 on page 13 for more information on why this timeframe is so important), so more AEDs are necessary in public places. To achieve early access to defibrillation, there must be widespread awareness of the need for and value of AED programs, increased access to AEDs in the community and in workplaces, and widespread AED training programs to ensure that people can be more effective in operating the AED equipment and performing CPR when necessary.

Through this initiative, AEDs and associated training are being directed to publicly-funded community sport and recreation facilities and schools that have high recreation and sport uses.

**12. Q: What does my facility need to do to be prepared for an AED?**

**A:** Selected facilities must meet the following Initiative requirements:

- a minimum of 10 individuals per device must attend the free CPR-AED certification course (i.e. employees, frequent facility users);
- the AED location(s) and Family & Friends™ CPR Anytime™ Kit resource must be identified in all rental/usage agreements for their facilities, such as facility permits;
- all AED devices must be listed on the provincial registry when it becomes active;
- a site coordinator must be identified (someone who will work with the PAD program to place the device(s), organize training and maintain the device(s)); and
- the application must be approved by the organization's management.

AEDs will not be installed by the PAD program until certification is completed.

\*Please note application does not guarantee that an AED will be provided. The final decision to allocate AEDs will be based on factors such as qualification details, site criteria, availability of units.



**13. Q: What if we're not ready to apply now, will there be another opportunity through this Initiative?**

**A:** There will be another opportunity to apply for AEDs through the Ontario Defibrillator Access Initiative in the Fall of 2012. Details and specific timelines will be made available for the Fall 2012 application at a later date.

**14. Q: Can I apply to the Ontario Defibrillator Access Initiative to replace AEDs that are outdated or broken?**

**A:** No, the mandate of the Initiative is to distribute new AEDs. Even if you have existing AEDs, you can still apply to receive additional AEDs to provide more comprehensive coverage at your facility under this Initiative. If your facility has an AED that is outdated or requires service it is strongly suggested that you inform EMS or your local/regional PAD program.

**15. Q: When will our facility receive the AEDs?**

**A:** All applications received by the application deadline will be reviewed by the corresponding local PAD Program and by an expert panel appointed by HSFO based on criteria, including local readiness and local need. Allocation decisions will be communicated shortly thereafter. We will endeavor to place as many AEDs as possible. Please take the time to fill out the application in its entirety; this information is very important in aiding the Review Committee in identifying sites that are most prepared to receive deployment of an AED unit.

PAD programs will likely conduct site visits to determine appropriate local placement of AEDs and identify training requirements and deployment logistics. They may be able to support a local estimate of timing. It is anticipated that the first AEDs will begin being delivered in the spring of 2012 and but actual timelines will depend upon local PAD resources, product availability and the ability to coordinate on-site training.



**16. Q: How many AEDs will our facility need, and how many can we request?**

**A:** The number of AEDs will differ from facility to facility. In order to achieve the greatest opportunity for survival, it is the Heart and Stroke Foundation's recommendation that AEDs be within three minutes reach of anyone in the facility (CPR and AEDs are most effective in the first 3-4 minutes). This means that should an arrest occur, a person could recognize the need for the AED, get to the AED, return to the scene (at a brisk walking pace) and prepare the AED for use within three minutes. In a larger facility this may mean that additional AEDs are required. Please estimate the number of AEDs you feel are required to safeguard your facility based on this 3-minute rule. Once your application has been approved your corresponding PAD program will work in coordination with your facility staff to determine the best location for placement and verify the total number of AEDs required.

**17. Q: Who will be responsible for the AED once placed?**

**A:** Each facility must appoint a staff member as a site coordinator. This site coordinator will be responsible for checking the unit regularly (including the status of batteries, pads etc.) and communicating with their respective PAD Program if the unit is used or if any problems arise.

**18. Q: If AEDs are so easy to use, why do we need training?**

**A:** AEDs are safe and effective and can be used by everyone. However, evidence shows that when properly supported with training AED's can be used more quickly and efficiently to save lives; which is why AEDs will only be deployed when certification for a minimum of 10 individuals per unit has been delivered. Training is essential to better prepare the public to deal with sudden cardiac arrest prior to the arrival of emergency response personnel. This is essential in strengthening the **Chain of Survival™** within our community. Through the Ontario Defibrillator Access Initiative, each AED will be accompanied by one Heart&Stroke *Family & Friends™ CPR Anytime™ Kit*. These kits can be used to support on-going training to site staff and facility users and help maintain current CPR and AED skills.



**19. Q: How will training be provided through this initiative and who will conduct the training?**

**A:** Through the Ontario Defibrillator Access Initiative, CPR-AED training will be provided to at least 10 individuals for each AED that is deployed and one Heart&Stroke *Family & Friends™ CPR Anytime™ Kit* will be provided to each site. These kits can be used to support on-going training and the maintenance of CPR/AED skills. An online training tool for CPR-AED is being developed and should be available in the spring of 2012.

**20. Q: How do you pick an AED supplier?**

**A:** The Heart and Stroke Foundation of Ontario does not recommend or endorse specific products or any single manufacturer or distributor. The local PAD Program will make the purchasing arrangement with the suppliers according to their own processes on HSFO's behalf.

**21. Q: What is the ongoing maintenance cost of an AED?**

**A:** Both pads and batteries typically have defined shelf lives, which vary depending on factors such as the model chosen, local usage, AED self-test features and maintenance protocols. These items require periodic replacement. Applicants may purchase additional equipment at preferred pricing, such as extra pads and batteries for the length of this initiative. Your local PAD Program may offer an AED maintenance program at a nominal cost, which should be identified and arranged through the PAD program by the local site coordinator.

The recipient of an AED under the Ontario Defibrillator Access Initiative is responsible for all on going maintenance and certification costs related to any AED acquired through this program. The Government of Ontario and the Heart and Stroke Foundation are not responsible for ongoing costs associated with the acquisition of an AED through this program.





## BACKGROUND INFORMATION

### SHOCKING STATISTICS

Why is resuscitation so important? With early CPR and early defibrillation the chance of a person surviving a sudden cardiac arrest significantly increases and could make the difference in saving lives.

Sudden cardiac arrest is an emergency situation resulting from the sudden and unexpected loss of heart function.

- As many as 45,000 cardiac arrests occur each year. That is about one every 12 minutes.
- In Ontario, approximately 7,000 cardiac arrests occur annually, mostly in homes and public places
- Up to 85% of all cardiac arrests occur in public settings or homes.
- Less than 5% of those who suffer a cardiac arrest outside of a hospital survive.
- For every 1 minute delay in defibrillation, the survival rate of a cardiac arrest victim decreases by 7% to 10%.
- CPR and AEDs are most effective in the first 3-4 minutes.

### CHAIN OF SURVIVAL

The Heart and Stroke Foundation of Canada established the **Chain of Survival™** to provide a systematic approach to Emergency Cardiac Care:

**Early Access (Call 9-1-1)** – bring trained medical help to the scene.

**Early CPR** – CPR is started as soon as possible on a person who does not have visible signs of circulation (normal breathing, coughing, or movement) to ensure that the vital organs, especially the brain and heart, receive oxygen until medical help arrives.

**Early Defibrillation** – application of the AED can determine if the heart has stopped beating effectively and can shock the heart to promote it resuming a normal rhythm.

**Early Advanced Care** – by Paramedics and health care professionals, may be provided at the scene and on the way to the hospital, or at the hospital.

Once a person goes into cardiac arrest, time is of the essence; within minutes of not receiving oxygen, the brain can suffer permanent damage. When CPR is combined with the use of an AED in those early minutes, an individual's chance of surviving a cardiac arrest increases to up to 75%. The two key components of CPR Training and placement of AEDs are interrelated.



## WHAT IS A SUDDEN CARDIAC ARREST

**Sudden cardiac arrest (SCA) can strike anywhere and at any time. It can happen to anyone: an employee in the workplace, a shopper in a mall, an athlete on the playing field, a spectator at an event, a traveler at an airport or in a plane, ferry or train, or a pedestrian on a busy street.**

In a SCA, the heart abruptly loses its ability to function, causing blood flow to stop. Without oxygen and nutrients supplied by the blood, brain cells begin to die within minutes and death soon follows. CPR can help maintain oxygenation and blood circulation, but unless defibrillation is performed quickly, survival is unlikely.

For a few minutes before the heart stops completely, it usually goes into a rhythm called ventricular fibrillation (VF), a fluttering of the heart muscle. During VF it is often possible to shock the heart back into normal rhythm with an AED. The AED is used to analyze the heart's electrical activity, through pads applied to the chest, and determines if a shock is needed. The window of opportunity for using an AED is small – **defibrillation is most successful when performed within three minutes of the cardiac arrest.** Studies show that the chances of survival decrease 7-10% with every minute that passes after the arrest.

### Cardiac Arrest vs. Heart Attack

**A cardiac arrest is NOT a heart attack.** Many people confuse cardiac arrest with having a heart attack, but they are different. When a person has a heart attack, the blood supply to the heart is compromised due to a blockage or reduced flow. In a cardiac arrest, the heart stops beating effectively, blood flow stops and breathing stops as well.

Cardiac arrest does not discriminate. It can strike anyone at any time in any place. Even people who are healthy and fit can succumb to a cardiac arrest, and without an AED, they are unlikely to survive.

Causes of cardiac arrest can include:

- Heart disease
- Stroke
- Arrhythmias & Inherited Rhythm Disorders (IRDs)
- Electrocutation
- Motor vehicle accident
- A heart defect (often undetected)
- Drowning
- Suffocation
- Other types of injury
- Other unknown reasons

When a person is in cardiac arrest, the only way to correct the abnormal electrical rhythm of their heart is to provide an electric shock with an AED, which can trigger the heart to resume to its normal rhythm. Most communities rely on a first aid attendant, staff member, or bystanders to perform cardiopulmonary resuscitation (CPR) until Emergency Medical Services (EMS) arrive at the scene.

## **SUDDEN CARDIAC ARREST (SCA)**

Is an emergency situation

Is caused by an abnormal heart rhythm (in most cases ventricular fibrillation)

Is frequently sudden

Victims always lose consciousness

### **Signs of a Sudden Cardiac Arrest:**

Sudden collapse

Sudden unresponsiveness to touch or sounds, and

Abnormal or no breathing

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## **HEART ATTACK**

Is an emergency situation

Is caused by a blockage in an artery that supplies blood to the heart

Causes heart muscle to die due to lack of oxygen

Can lead to a cardiac arrest

### **Heart attack warning signs:**

Chest discomfort (uncomfortable chest pressure, squeezing, fullness or pain, burning or heaviness)

Discomfort in other areas of the upper body (neck, jaw, shoulder, arms, back)

Shortness of breath

Sweating

Nausea

Light-headedness

# THE HEART AND STROKE FOUNDATION OF ONTARIO

## OUR MISSION

The Heart and Stroke Foundation of Ontario (HSFO), a volunteer-based health charity, leads in eliminating heart disease and stroke and reducing their impact through:

- the advancement of research and its application;
- the promotion of healthy living; and
- advocacy.

HSFO is an international leader in developing the science behind CPR and Emergency Cardiac Care and is a leading funder of Heart and Stroke research in Canada. The Foundation has been playing a lead role in resuscitation in Canada since its inception. This leadership is demonstrated through HSFO's role in Guideline development, training, public awareness, advocacy, research and partnership development in support of a strong **Chain of Survival™**.

In Ontario, HSFO became actively engaged in the placement of AEDs in public places throughout the province. The Foundation has partnered with over 60 PAD Programs working with municipal representatives and EMS.

The vision of the Heart and Stroke Foundation is to ensure that communities are cardiac safe with enhanced survival following a cardiac arrest through improved bystander CPR, greater use of AEDs, and effective execution of the **Chain of Survival™**.

*For more information on the Heart & Stroke Foundation, visit [heartandstroke.ca](http://heartandstroke.ca).*




*John McEachern and Don Cherry unveil a defibrillator at the Hockey Hall of Fame in Toronto*

## HOW TO APPLY


*If you represent a publicly-funded, publicly accessible sports and/or recreation facility or school with high recreation and/or sport use, you will still need to qualify to be selected for an AED under the Initiative. Successful applicants will be notified at a later date.*

The link below will take you to the **Ontario Defibrillator Access Initiative** Qualification Page. Once you have read and understood the intent of the Initiative you may proceed to the next step in the application process:

<http://aedprogram.heartandstroke.ca>

 **HEART & STROKE FOUNDATION**

**Ontario Defibrillator Access Initiative**  
Introductory Page

 Ontario

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**Welcome to the Ontario Defibrillator Access Initiative application website.**

**About the program**

On June 3, 2011, the Government of Ontario demonstrated its commitment to saving lives with Automated External Defibrillators (AEDs) by providing \$8 million to place these life-saving devices in publicly funded, high use sport and recreation facilities and schools across Ontario (an additional \$2 million was contributed to the development of a provincial AED registry). As a result, the Heart & Stroke Foundation of Ontario is leading this charge, the Ontario Defibrillator Access Initiative, and is set to open the largest application process for AED grant funding in the province's history. This will have a significant impact on the cardiac health of all Ontarians.

This investment is directed towards, but not limited to, publicly-funded community sport and recreation facilities and schools that have high recreation and sport uses. Over the past several years, AEDs have been widely adopted and have proven to be of immense importance in ensuring communities are cardiac safe. In spite of all of this activity there is still much work to be done. It is the Heart and Stroke Foundation's hope that one day AEDs will become as commonplace as fire extinguishers.

If your submission qualifies under the Initiative, a decision to allocate AEDs will depend on the volume of total requests, the readiness and the capacity of our Public Access Defibrillator (PAD) program partners and on a number of criteria including: foot traffic, whether the facility has a sport & recreational focus, and based on known cardiac risk. Consideration will be given to priority facilities first, and then to the additional applicants thereafter.

Please click "next" to proceed to the Applicant Qualification page. Please note that only qualifying facilities will be directed to proceed to the application stage.

[Next](#)

**If you are not a publicly funded facility/organization** your application will not be accepted at this time. Nevertheless, there are a number of other options available to you. The Heart and Stroke Foundation may still be able to assist you in fundraising for an AED at your location, or we may be able to identify new or future funding that you might qualify for. For more information on how you can support the Heart and Stroke Foundation, please visit our website [www.heartandstroke.ca](http://www.heartandstroke.ca).

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## GLOSSARY OF TERMS

<b>AED</b>	Automated External Defibrillator. An AED is a portable electronic device that can be used to treat a victim of cardiac arrest. An AED evaluates a cardiac arrest victim's heart rhythm, determines if a shock is needed and delivers an electric shock through the chest to the heart. Audible and/or visual prompts guide the user through the process.
<b>Arrhythmia</b>	A disturbance in the rhythm of the heart beat that can cause the heart to beat too fast, too slow, or irregularly.
<b>CPR</b>	Cardiopulmonary Resuscitation – an emergency procedure involving chest compressions that enable oxygenated blood to be pumped to the brain and other vital organs in the body.
<b>Family &amp; Friends™ CPR Anytime™ Kit</b>	"all-in-one" training kit that teaches the basic skills CPR/AED in 22 minutes.
<b>Defibrillation</b>	The controlled delivery of an electric shock to the heart in order to restore a regular heartbeat.
<b>EMS</b>	Emergency Medical Services
<b>HSF</b>	Heart and Stroke Foundation
<b>HSFO</b>	Heart and Stroke Foundation of Ontario
<b>PAD</b>	Public Access Defibrillation
<b>Publicly Accessible Site</b>	A facility accessible to your community. Excludes retail locations or restricted-access facilities.
<b>Publicly-Funded</b>	Municipally owned or operated. Excludes temporary or one-time government grants or project funding.
<b>SCA</b>	Sudden Cardiac Arrest – a condition in which the heart abruptly and without warning stops beating. In this state, the heart fails to pump blood to the brain and other vital organs in the body.
<b>Shockable Rhythm</b>	An abnormal heart rhythm of a person in cardiac arrest. A shock from a defibrillator may be able to return the heart to a normal rhythm. This includes heart rhythms such as Ventricular Fibrillation (VF).
<b>VF</b>	Ventricular Fibrillation (VF) is a type of abnormal heart rhythm which causes the heart to beat rapidly and chaotically and stops the heart from pumping blood effectively. This is the most common rhythm in adult victims of cardiac arrest.

## APPENDIX A – PUBLIC ACCESS DEFIBRILLATION (PAD) PROGRAMS

The Heart and Stroke Foundation of Ontario has worked to develop relationships with municipalities across Ontario to develop Public Access Defibrillation (PAD) Programs for their communities. It is typically the Emergency Medical Services who oversees the PAD Program but there are also Fire Services, Parks & Recreation Departments and Health units working toward the common goal of cardiac safety. HSFO values these partnerships and continues to build strong relationships for future funding of AEDs, associated training and CPR & AED Awareness events.



### Municipalities as of 2011

- |   |                                     |                                  |
|---|-------------------------------------|----------------------------------|
| 1. Algoma                                 | 20. Hastings                        | 39. Parry Sound                  |
| 2. The City of Brampton                   | 21. Huron                           | 40. Perth                        |
| 3. Brant                                  | 22. Kawartha Lakes                  | 41. Peterborough                 |
| 4. The City of Brantford                  | 23. Kenora                          | 42. Prescott and Russell         |
| 5. Bruce                                  | 24. The City of Kingston            | 43. Rainy River                  |
| 6. Central Elgin                          | 25. Lambton                         | 44. Renfrew                      |
| 7. Chatham-Kent                           | 26. Lanark                          | 45. The City of Sault Ste. Marie |
| 8. Cochrane                               | 27. Leeds and Grenville             | 46. Simcoe                       |
| 9. Cornwall Stormont Dundas and Glengarry | 28. Lennox and Addington            | 47. The City of St. Thomas       |
| 10. Dufferin                              | 29. Manitoulin                      | 48. Sudbury                      |
| 11. Durham                                | 30. Middlesex                       | 49. Thunder Bay                  |
| 12. East Elgin                            | 31. The City of Mississauga         | 50. Timiskaming                  |
| 13. Essex                                 | 32. Muskoka                         | 51. Toronto                      |
| 14. Frontenac                             | 33. Niagara and Niagara-on-the-Lake | 52. Waterloo                     |
| 15. Grey                                  | 34. Nipissing                       | 53. Wellington                   |
| 16. Haldimand                             | 35. Norfolk                         | 54. West Elgin                   |
| 17. Haliburton                            | 36. Northumberland                  | 55. The City of Windsor          |
| 18. Halton                                | 37. Ottawa                          | 56. York                         |
| 19. Hamilton                              | 38. Oxford                          |                                  |

### First Nation Communities as of 2011

- |  |   |  |
|--|---|--|
| 57. Chippewas of Beausoleil First Nation         | 65. Grassy Narrows First Nation               | 73. Onyota'a:ka (Oneida) First Nation            |
| 58. Chippewas of Kettle/Stony Point First Nation | 66. Kitchenuhmaykoosib Inninuwug First Nation | 74. Shoal Lake #39 – Iskatwizaagegan             |
| 59. Chippewas of Nawash                          | 67. M'Chigeeng First Nation                   | 75. Six Nations Kenora Project                   |
| 60. Chippewas of the Thames First Nation         | 68. Mississaugas of New Credit                | 76. Tyendinaga First Nation                      |
| 61. Couchiching First Nation                     | 69. Mississaugas of Scugog                    | 77. Wabasseemoong Independent Nation (Islington) |
| 62. Delaware of the Thames (Moravian Town)       | 70. Moose Cree First Nation                   | 78. Wahgoshig First Nation                       |
| 63. Dokis First Nation                           | 71. Naotkamegwaning First Nation              | 79. Wahta Mohawks                                |
| 64. Fort William First Nation                    | 72. Ojibways of Hiawatha First Nation         |  |

## APPENDIX B – SAVE STORIES

### SIMCOE COUNTY'S DEFIBRILLATOR PROGRAM AND THE HEART AND STROKE FOUNDATION TEAM UP TO SAVE A YOUNG BOY'S LIFE

**PENETANGUISHENE, ON – A 13- year old male student attending James Keating Elementary School is alive today thanks to availability of an AED provided through the partnership between the Heart and Stroke Foundation of Ontario and the County of Simcoe Paramedic Services.**

At the age of 13, Brandon Koskitalo was running across one of his school's athletic fields during gym class. Suddenly, he was lying lifeless on the ground. His heart had suddenly stopped beating.

With only seconds to spare, quick thinking classmates and staff from the school immediately called 9-1-1, began CPR and called for the AED, which had been placed at the school the previous year. The Southern Georgian Bay OPP arrived on the scene within a minute of the call. OPP Constable Robin Chiasson was first to arrive and she quickly used the AED to shock Brandon's heart while her partner, Constable Peter Hunter, continued CPR until Paramedics arrived minutes later. The County of Simcoe Paramedic Services arrived and confirmed the good news: Brandon had a pulse.

Brandon is now a healthy 16 year-old – a milestone that would not have been possible without the quick access to a defibrillator, people trained in CPR and our generous donors.

"I am only here because everyone did what they were supposed to do correctly. I am lucky to be here," Brandon said.



Brandon Koskitalo with Constable Robin Chiasson and Constable Peter Hunter



## APPENDIX B – SAVE STORIES

### A SAVE IN HALIBURTON COUNTY

#### **Cardiac arrest survivor is grateful to be alive to enjoy his life and play more volleyball.**

On February 24, 2011, Paul Whitelaw tossed a volleyball in the air and hit a well-placed serve that scored a point. The 61-year-old watched the ball sail over the net and hit the ground. Seconds later, he hit the ground, too.

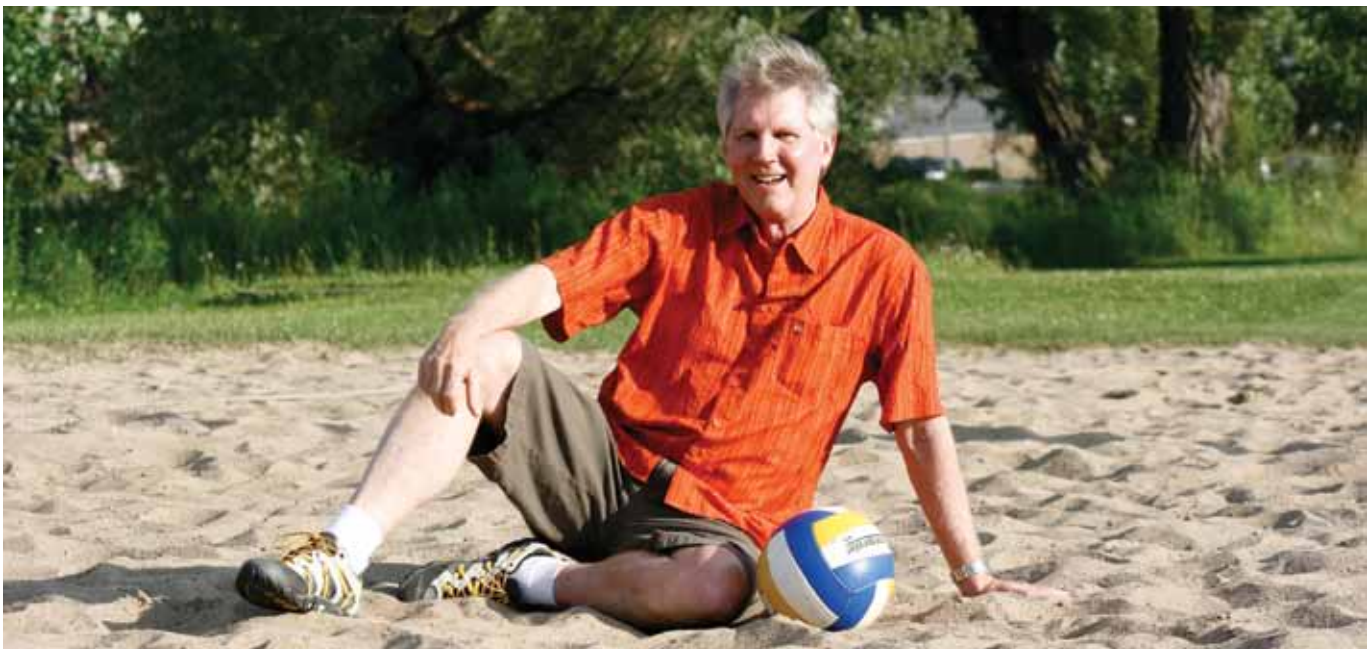
His teammates at the Dorset Recreation Centre in Haliburton County cheered and turned to find him collapsed on the gym floor. At first, they thought it was a staged reaction to his accurate serve. But as he lay perfectly still, they quickly realized this was no act. Paul had experienced cardiac arrest and his teammates couldn't find a pulse. A friend and retired police officer began CPR and instructed others to call 9-1-1 and see if there was Automated External Defibrillator (AED) in the building.

Thanks to the **Heart&Stroke Restart a Heart, a Life™ Program**, the Government of Ontario and the Cowan Foundation there was. And thanks to the Haliburton County Public Access Defibrillation (PAD) Program, there was a player on the court trained to use it

The AED shocked his heart, resetting it to a normal rhythm and gave the retired bank technology manager the chance to spend more time with his wife, three sons and three grandchildren.

Once Paul was revived, EMS arrived and transported him to Huntsville Memorial Hospital. An angiogram later revealed Paul had two blocked arteries that required double by-pass surgery." My doctor said to me, 'Paul, you are a very, very lucky man.' I agreed."

Being a little more careful with his diet by reducing his saturated fats and overall fat intake to lower his cholesterol, Paul now walks an hour a day, swims in a nearby lake and is back on the volleyball court two months after he collapsed. "I feel great. I feel better now than I did before my attack," he says." That AED saved my life. I certainly have a better appreciation for each day. I'm just so glad to be alive."



Paul Whitelaw photo by R. McPhee