

Cardiac Safe Communities

ISSUE

Every year, 7,000 cardiac arrests occur in Ontario, majority occurring in public places or homes. However, an individual's chance of survival can increase to 75% when early CPR is used in combination with an AED. Our most recent data indicates that Ontario has a survival rate, for out-of-hospital cardiac arrests, of only 5-6%. By comparison, Seattle, considered by many to be the 'gold-standard' in cardiac safety in North America, has a survival rate of 16.3%. They achieved this with a collaborative approach with the fire services, paramedic agencies, EMS dispatch centres, hospitals, schools and government and overall public awareness. When a person is in cardiac arrest, seconds count. With each passing minute, the probability of survival declines by 7-10%. The use of CPR and an AED can dramatically increase the chance of survival of someone in cardiac arrest, however, too few Ontarians know this life saving skill.

RECOMMENDATIONS FOR MUNICIPALITIES

1. Commit to implement a broad public education campaign raising awareness around issues such as the ease of CPR training and use of an AED.
2. Work with the Heart and Stroke Foundation through the Ontario Defibrillator Access Initiative (ODAI) to ensure AEDs are placed in all sport and recreation facilities and schools.
3. That municipalities write the Minister of Health and Long-Term Care in support of the Heart and Stroke Foundation's request that the script for emergency medical dispatchers be revised to provide the most compelling, clear and mandatory CPR direction in all cases of cardiac arrest.

FACTS

- Bystander CPR rates rarely exceed 5-6% in communities across Ontario
- The odds of surviving a cardiac arrest greatly improves if someone performs CPR right away
- Once a person goes into cardiac arrest the brain can suffer permanent damage within 3-4 minutes of not receiving oxygen
- CPR keeps the blood circulating to keep the organs alive
- The use of CPR along with an AED can increase the odds of survival of an out-of-hospital cardiac arrest to up to 75%

PUBLIC AWARENESS

In 2011, Ipsos Reid, on behalf of the Heart and Stroke Foundation, undertook polling on Ontarians attitudes and awareness towards AEDs and determined that:

Awareness of AEDs:

50% of the population is somewhat or very familiar with AEDs
43% of the population is not familiar with AEDs
7% of the population has never heard of AEDs before this survey

Awareness of AEDs in the community:

While almost every single municipality now has AEDs in public access settings only:

45% of the population remember seeing AEDs when out in the community
55% of the population do not remember seeing any AEDs in their community.

BACKGROUND

Cardiac arrest is a medical emergency which leads to death if not treated immediately. Over 80 per cent of cardiac arrests happen at home or in public places – and only five to six per cent of these victims survive. For every minute that passes without help, a person's chance of surviving a cardiac arrest drops by 7-10%. Research shows that 35 to 55 per cent of out-of-hospital arrests are witnessed by a bystander, often a family member or friend, but very few victims receive CPR. Just calling 9-1-1 and pushing hard and fast, repeatedly on the centre of the victim's chest until help arrives will go a long way to helping the person survive.

The Heart and Stroke Foundation is the leader in Resuscitation

The Heart and Stroke Foundation is an international leader in developing the science behind CPR and Emergency Cardiac Care and is a leading funder of research into heart disease and stroke in Canada. The Heart and Stroke Foundation of Canada sets the guidelines for CPR and AED training to improve the odds of survival from cardiac arrest.

A founding member of the International Liaison Committee on Resuscitation (ILCOR), responsible for updating and revising international scientific guidelines for Resuscitation, the Foundation has been a strong advocate for increased public access to AEDs.

In Ontario, the Heart and Stroke Foundation has been responsible for overseeing, implementing and coordinating resuscitation training. In April 2006, HSFO became actively engaged in the placement of AEDs in public places throughout the province. The Restart a Heart, a Life Program™ and The Chase McEachern Tribute Fund was established and made possible with funding from the Ontario

Government, private and community donors along with fundraising activities. The focus for AED unit placement as well as the associated training has been public/community based venues such as arenas, pools, community centres and schools. HSFO has partnered with over 60 Public Access Defibrillation (PAD) Programs working with municipal representatives and Emergency Medical Services (EMS). In 2007, following an effective advocacy effort, Bill 171 was passed, the Chase McEachern Act (Civil Heart Defibrillator Liability Act), effectively eliminating the liability for anyone using an AED.

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™.

Chain of Survival



- Early Access (to Emergency Medical Services by calling 911)
- Early CPR (cardiopulmonary resuscitation)
- Early Defibrillation (access to an automated external defibrillator)
- Early Advanced Cardiac Life Support (by medically trained paramedics or hospital staff)

With the recent deployment of AEDs throughout Ontario there is an increased need to emphasize the CPR portion of the chain of survival. CPR keeps the blood circulating to keep vital organs alive. This translates into saving lives by increasing bystander CPR and increasing access to AEDs through Public Access Defibrillation (PAD) Programs.

Heart and Stroke Foundation recommendation for dispatch-assisted CPR protocols

HSFO requests that all bystanders (irrespective of their qualifications), at the scene of a cardiac arrest, be directed by the 9-1-1 emergency medical dispatcher to deliver CPR based on the Heart and Stroke Foundation's proposed adjustments to the CPR pre-arrival instructions under the Dispatch Priority Card Index (DPCI). The use of a more compelling narrative, urging the caller/bystander to initiate CPR for the well-being of the victim, may increase the rate of bystander CPR intervention. As it is currently presented, in the form of a question, the bystander is presented with an ambiguous option. Prompting the caller to provide CPR and not presenting the option to decline in a moment of high stress the impact could be significant.