

The Gibsons AED Project

Written by

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Speech to Gibsons Council
March 7, 2006

Good evening,

A couple of disclaimers, first: Philips was told in plain English, in writing, that by helping me with this project there was absolutely no guaranty that they would get an order. The only benefits offered any one and not included in the battle plan were offered to the Doctors, specifically that if they would buy into the project the town would equip them with a top of the line AED and the equipment necessary to do debrief an AED when it arrives with the patient at the clinic. The other item not offered but thought about is to put \$500 worth of gas in the RCMP boat if it is made available to the project.

IN reality you have to be crazy to bring a life or death project to a municipal government because it is not their jurisdiction, it is not their responsibility, and they are not paid enough to make that sort of decision. Now it is no secret that I am very well qualified in that respect to be here tonight presenting this plan. Truth is that this is on no senior level of government's radar. The new international recommendations for the performing of CPR and the recommended use of AED came out in Late November and nobody as acted on them. It is my sincere hope that you will buy into this project and in doing so you will make Canadian History. As far as I can tell, no body in Canada has done an AED project on this scale. IF you do this project, there will be a significant number of people in the town of Gibsons and surrounding areas who will owe their lives to you!

People on the Coast are very naive. They go into Vancouver and routinely see a man down and within minutes two ambulances and a fire truck arrive to look after the patient. People believe that will happen here and unfortunately they are terribly wrong. What you see happen in Vancouver is Carson Smith's, the father of the provincial ambulance services, vision of what the ambulance service should be. One Ambulance is an EMA2 car, the other an EMA3 car or ALS car. The fire truck is a concession on the part of the Ambulance service to end the war between the Ambulance service and the fire departments in the lower mainland. Carson's thinking was that people hired by the ambulance service would be trained as EMA2s, that they would serve two years and gain some experience, then train to become EM3s. Initially there would be EMA1s which would be the lowest acceptable standard. They would be inherited when the Provincial service took over some existing services that had little or no training. EM1s were thought to exist only for a couple of years until they could be trained as EMA2. The new provincial ambulance service blew its first 2 year budget in nine months and had to ask for more funding. Part timers could never get EMA2 training, only full timers which explains why the Sunshine Coast has only 5 EMA1 cars.

In thirty something years, only one thing has changed to alter Caron's original vision, and that's the introduction of the AED. They have been around for 10 years and have evolved to the point where they are very intelligent, very affordable devices. If you just do CPR you have only about a 5% chance of survival. If an AED is used within 10minutes of a person suffering SCA that survival rate jumps to 50%. To be effective, however, you must think in terms of bubbles with a 5 minute radius. If it takes a fire truck 2.5 minutes to get on the road, it only can travel 2.5 minutes before its effectiveness deteriorates. After ten minutes there is little chance of survival. This is why you have tackled the concept of AED coverage from so many sides.

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My final thought is this. It is critically important that you not dump this project into the fire department. I mean no disrespect to anyone, but there is a reality that we are despatched from the GVRD and governed from Victoria and both are a hot bed of trouble. To avoid this, it is my strong recommendation that this project be attached to the town hall, with perhaps the coordinator being a political appointed assistant to the mayor or something like that.

I thank you for your attention and patience, and I now invite your questions and comments.

Gibsons Code Blue Battle Plan

The Budget Request

Prepared for the Town of Gibsons

By

Robert W Jones

January 18, 2006

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Executive Summary

The purpose of this report and the accompanying presentation is to request budget funding for two items:

- The Acquisition of a significant number of AED's to significantly increase the survival rate of victims of Sudden Cardiac Arrest (SCA) in the town of Gibsons.
- A project to install, train, monitor, and maximize the impact of the above acquisition.

In November, 2005 new International recommendations for the performing of CPR were announced. These recommendations not only changed how we do CPR, but included a recommendation, (for perhaps the first time), of the use of an AED within the first five minutes of nSCA a victim. Use of an AED after fifteen minutes is deemed ineffective. The likelihood of successful resuscitation decreases by about 10% with every minute that passes. The victim's best chance of survival is to receive a shock within 5 minutes of collapse.

AED stands for Automatic External Defibrillator. It is an intelligent device which can detect heart electrical activity or lack of activity and recommend treatment to a first responder who may have little or no medical training. The device does this by talking to the user. If an electric shock is necessary to help restore a normal heart rhythm, the AED will tell the user how to initiate this sequence (to press a single button on some models) and then on command, delivers one shock to the heart until normal heart rhythm is restored (maximum of 3 shocks before CPR – 1 shock before CPR is the new norm). If the user tries to initiate a shock sequence when a shock is not recommended, the AED will not comply. This is a critical point to remember.

AEDs have been around for more than ten years. They have evolved to the point that Philips, for example, has received approval in both the US and Canada to market a home AED. In fact, the HeartStart Home Defibrillator is the only defibrillator in Canada to have received Health Canada approval for use in a household to date. The patented SMART Analysis heart rhythm assessment and SMART Biphasic defibrillation therapy used in the HeartStart AEDs are clinically proven in nearly 10 years of use. No other biphasic waveform is as well documented. And with patented Quick Shock (see attached), the HeartStart AEDs are the fastest in class at delivering a shock after CPR. Studies show that minimizing time to shock after CPR may improve survival (such studies are available on demand). Deployment of AEDs in the US is light years ahead of Canada. For example if you go to www.amazon.com, (which is Amazon in the US), and search on AED you will discover that you can buy a Phillips HeartStart Home AED for \$1299. If you go to www.amazon.ca, do the same search you will find it is not available. You can legally buy from the US site and import the device into Canada (and pay for the additional customs, duty and possibly shipping charges) or you can buy it directly from Philips Medical Systems in or from a Philips Authorized Distributor in Canada. For home use, it is not mandatory to receive AED training or certification; a training

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cartridge comes with the HeartStart Home AED and it is very easy to learn how to use one.

If you want to use an AED as a public service you need a CPR certificate with an AED endorsement. The AED endorsement requires an extra four hours training (that also is changing as AEDs are becoming easier to use). The HeartStart OnSite (which is the equivalent to the HeartStart Home, but for general public) is designed to be the easiest to use and most reliable defibrillator available (see Dr Andre study), in addition to the normal CPR course. You do not need a first aid certificate to get a CPR certificate with an AED endorsement. An individual who already has a CPR certificate can get the AED endorsement simply by taking the AED portion of the course which is four hours long (see note above).

Presently, AEDs in the town of Gibsons are deployed as follows:

- The town has two ambulances operated by the provincial ambulance service. Each is equipped with an AED and crewed by two people having the minimal acceptable training. This is due to a lack of adequate funding of the ambulance service by the Province of BC and has been a chronic problem. Until recently the crews were part-time on call. They are now one car full time, (although they are not paid as full time), and one car part time on call.
- The Fire Department has two AEDs but they are used only to treat fire fighters who suffer heart attacks while on calls. This has happened twice in the past ten years.

To achieve the new international recommendations for performing CPR, specifically to deliver an AED to a heart Attack Victim within five minutes we need to attack the problem in several different ways:

- The ambulance service can remain as it is. Long term we need to lobby the province to upgrade the service to include one ALS (Advanced Life Support) car and one EMA2 car. ALS crews have a level of training that allows them to administer specific drugs, establish an effective airway, start an IV and stabilize a patient prior to transport. While an AED may reset or start a problem heart, without this type of prompt medical intervention, the heart may quickly fail again. This level of expertise was offered to the town a decade ago but the local doctors refused to participate which effectively killed the plan. I shudder to think of the lives that have been lost because of the stand the doctors.
- Because ambulances leave the town to go to ST Mary's Hospital, for example, and are not always available we need to equip each responding fire truck with an AED including the chief's car. We equip each truck because Murphy's Law of Fire Fighting states that the equipment you need is always on the other truck. Since the trucks at number two hall respond into Gibsons but are technically in Area E, we must equip these trucks as well if we are to protect the town.

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- The RCMP does not typically respond to medical emergencies. They are, however, in a significant number of incidents, first on the scene. Since time is of the essence, it is advisable to equip the RCMP cars based in Gibsons with AEDs. Long term we need to lobby the RCMP to rather than keep their boat at the station, instead keep it in the water by the Coast Guard Boats. If they will do this and provide added protection to the town, the town should equip this boat with an AED.
- The Coast Guard Auxiliary has two primary boats. A rigid hull inflatable which is owned by the Auxiliary and the Perks which is privately owned. Since both boats spend the majority of there time in Search and Rescue use, it is recommended that both vessels be equipped with AEDs. Should the circumstances of the Perks change the AED would be returned to the town for reassignment.
- In order to effectively cover areas such as the west end of lower Gibsons, Langdale, Bonnie Brook, and Wood Creek Park short term we need to recruit volunteers to form a code blue service. Ideally they should be attached to the fire department as special firefighters, but they could be attached to the project. They would be provided with training and an AED. They would use there own vehicles and cell phones. In the later case the town should pay for their liability insurance, pay a minimum monthly fee to cover cell phone mike costs and a per call fee to cover gas etc. Other then that, they would be volunteer positions.
- All public buildings, including town hall, the library, the pool, Elphinstone Secondary, Gibsons Elementary, Cedar Grove elementary, and Langdale Elementary would be equipped with an AED. Existing staff would be trained to operate it.
- Private businesses would be recruited to equip their premise with an AED. In recognition of providing this service the town would sell them an AED at a special price with any profits going to fund the project. The project would provide a limited number of employees training, but the business would be responsible for liability insurance. It may be desirable for the town to get a blanket policy that the participants of this option would pay into. One logical candidate under this option would be BC Ferries for the Langdale Horseshoe Bay route. Others would be the forest industry companies out towards Port Mellon.
- Private individuals who wish to buy their own units could buy from the town in the same manner that ICBC is handled. I recommend this since no one else is locally selling AEDs. Any profits from these sales would go to fund the project.

Dispatching of these Code Blue services will be done under the Ambulance Services first responder program. If we have all first responders' part of the Fire Department then what I am proposing will fall within the existing structure of the first responder program no problems at all. The town of Gibsons merely has to pass a motion authorizing the

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program and arrangements need to be made with the Ambulance Service. I believe in this instance the Ambulance service will cover the liability insurance, but this needs to be clarified. The Coast Guard will dispatch the Auxiliary as they presently do now – there will be no change there.

If all or part of this Code Blue Service can not be accommodated within the Fire Department it is not fatal to the project. Need simply to lobby that we are a rural area, with rural realities and that the First Responder program which is based on the Urban Model needs to be modified slightly. I do not see this as a problem or a delay to getting the basic project up and running.

I live in the Town of Gibsons. It is my home and I pay property taxes here. I am very proud of our town and quite frankly I am sick and tired of Sechelt being the center of the universe. While this project uses off the shelf technologies, and the Americans have done it all before us, this is a ground breaking project for the Province of BC. I want the town of Gibsons to be recognized as the innovative leader in this field. When we are up and running I want people from around the Province to come and see what we are doing and in the process stay in our hotels and eat in our restaurants etc.

There is absolutely no disputing the fact that areas E and F will benefit from this project and that initially the town will be subsidizing them. If restructuring takes place, and I believe it will we are doing something for the expanded town a little bit a head of time. I know that the directors of area E and F are on side with this project. If restructuring does not take place or is delayed I am very confident that they will contribute their fair share to this project. My great worry is that if we get into funding negotiation with areas E and F this project will be delayed and to be blunt people will die needlessly.

If it is the wish of the town that this project be expanded to include all of the SCRCD, the Sechelt Indian Band lands, the Squamish Indian Band Lands and the town of Sechelt and implementation of this project is not delayed, I think it would be a great idea. The bulk of the research and planning is done and it would be very easy to add the other areas. But, and I can not emphasize this enough, it must not delay implementation of this project in the town of Gibsons because lives are at stake. The worst case scenario as I see it, if the other areas are on board and will pay their fair share, implementation in those areas will, at most, be delayed a couple of months.

Funding both these items will bring the town into compliance with the international recommendations. I am asking for initial funding for AEDs to a maximum of \$80,000 and the project funded to a maximum of \$20,000. The project will be evaluated this time next year, and it may be desirable to fund the project another year. Based on the first years experiences we may want purchase additional AEDs. The only major expense down the road occurs in year four when the batteries in the AEDs will have to be replaced. The other on going expense is training which we would have to do any ways even if we don't do this proposal.



Emergency Medical Assistants First Responder Program

About the First Responder Program

The First Responder (FR) Program was created in July, 1989 to address recommendations resulting from a report prepared by Chief Coroner Vince Cain.

The primary objective of the FR program is to improve the continuity of patient care provided throughout the Province for pre-hospital emergencies. By recognizing that police and fire department personnel are often available to assist patients prior to arrival of ambulance crew, basic medical training provides responders with knowledge and capability deal with critical situations involving airway, breathing and/or circulation concerns until higher levels of help can take over. Even when the first responder is only able to comfort the patient and document initial findings, a difference can be observed.

There are now over 7,000 first responders registered in the Province. Many have acquired additional training in the form of Automatic External Defibrillator (AED) and spinal management to address cardiac arrest and major trauma situations respectively. Being a provincial program, the training program developed by the Paramedic Academy helps ensure that care provided is consistent and appropriate for those in need.

How to Become a First Responder Department

When a department expresses an interest in participating in the First Responder Program, the following requirements need to be addressed or confirmed:

- Approval by local authority (i.e. municipality or regional district) for department's involvement in first responder activity;
- Confirmation that indemnification coverage will be provided by the department's local authority and what the maximum coverage is;
- The ability to be dispatched to 9-1-1 calls must be understood and coordinated with the British Columbia Ambulance Service (BCAS) as indicated by letter of support or provider agreement; and
- Training must be provided by qualified instructors, either within the department or arrangements made with another department.

The Program was designed primarily for police and fire departments. By encouraging these departments to participate, many areas will benefit by having first responders on site to provide basic first aid care, and to provide support until BCAS crew can take over. The response since 1990 has been significant with approximately 7000 individuals training as first responders.

Fire departments are responsible for most of the licensed first responders currently registered. Exceptions exist in a small number of non-profit societies providing a similar service. These groups were approved for their area since the local fire department was not permitted by its local or regional authority to provide first responder services. So long as

Emergency Medical Assistants Licensing Board

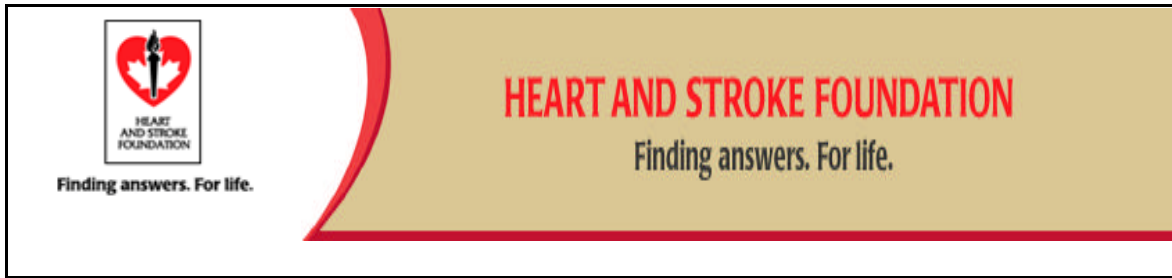
Ministry of
Health



a fire department is capable and permitted to function, other groups in the same area will not be approved.

The extent to which each first responder department responds to a medical or trauma call should be discussed between the first responder department and BCAS. It should also be documented in a provider agreement so that exceptions are clearly understood.

Last Revised: July 21, 2005



What is an AED and how does it work?

What is an AED?



An Automated External Defibrillator (AED) is a machine that analyses and looks for shockable heart rhythms, advises the rescuer of the need for defibrillation and delivers that shock, if needed.

What disease is it for?

The AED doesn't treat any disease. Its purpose is to reset a heart that has stopped beating effectively, usually caused by an abnormal heart rhythm called ventricular fibrillation (VF). The AED is applied to the victim of sudden cardiac arrest, a condition where the heart unexpectedly and abruptly quits beating. This could also be caused by a lightning strike, electrocution, hypothermia, kidney failure or physical injury (trauma).

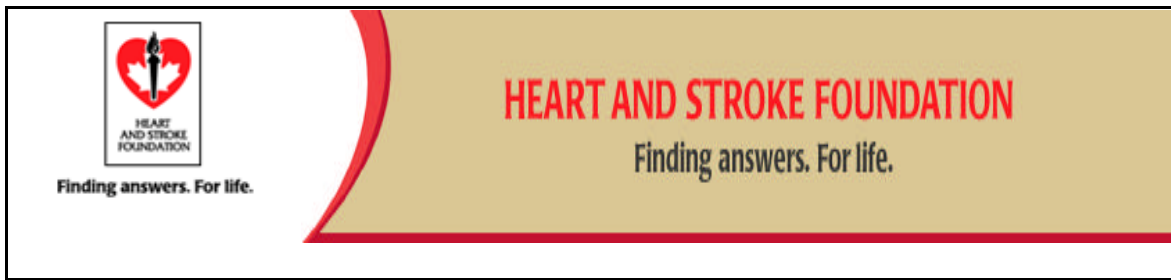
How does the AED work?

Adhesive pads attached to wires that connect to the AED are placed on the patient's chest, and the machine delivers an electrical shock through the body to the heart.

The AED is one vital link in a chain of events called the "Chain of Survival". First of all, someone must recognize that there is an emergency and call for help. While waiting for help to arrive CPR must be started. As soon as an AED is available, it can be used. The next step is advanced medical care.

Who may use the AED?

Only those who have been trained to use the AED and are under medical oversight may use it.



The training course for CPR and AED is approximately eight hours and can be provided to community members who have an interest in learning. Learners do not require previous special skills, first aid experience or more than a basic level of education. If they are previously trained in CPR, the course is only four hours.

Most commonly, community health workers of all levels can be trained to use the AED, but trainees could also include volunteers in the community who are interested, willing to learn and willing to participate in emergency response. For the AED to be most effective, all members of the community should learn when and how to call for medical help using 911 or the local emergency number, and how to perform CPR while waiting for the AED to arrive.

Does it always work?

No. Sometimes the heart cannot be reset, even with more than one shock. An AED doesn't fix the disease or injury that caused the heart to stop. It sometimes can reset the heart of a person whose heart has stopped and who would otherwise die.

But, it won't save everyone. It must be used within a few minutes after the heart has stopped - the sooner, the better. Some hearts are too damaged, stopped or cannot be reset, but, without a defibrillator, all people whose hearts have stopped beating effectively will die.

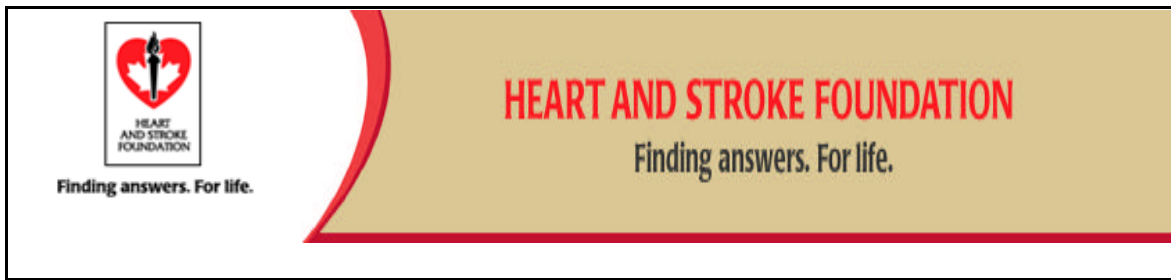
Could someone be hurt by an AED?

A patient who has no pulse cannot be hurt and might be saved.

A trained operator who uses the AED correctly cannot be hurt. It is very important to make sure no one is touching the victim. A serious injury to an AED operator has never been reported.

How does shocking a person affect that person overall? Are there lasting effects? The electric shock from an AED passes out of the body, with no lasting effect beyond the effect of stimulating and resetting the heart.

Community AED Programs



Can we just buy an AED?

To be effective, AEDs and trained responders must be part of a planned community program in cooperation with the emergency medical services system. The AED is one component of an overall program including medical direction, training, continuing education, quality management, documentation and equipment maintenance.

Additional community support

What additional community supports are needed?



The AED can reset a heart, but it has limitations. If a person collapses because his heart has stopped beating effectively, we have only 6 - 8 minutes at best, to reset the heart with the AED. If someone sees the person collapse and performs CPR (rescue breathing and chest compressions) while waiting for the AED to arrive, we have a little extra time - perhaps up to 15 minutes in all - to reset the heart with the AED.

Before deciding to purchase an AED, the community should be committed to learning the signs and symptoms of heart attack, the importance of promptly seeking treatment for heart attack and when and how to perform CPR. Everyone in the community must know the emergency number to call for help. There should always be an AED operator ready to respond instantly to an emergency call.

Medical support

Our community does not have a doctor. Where can we get support for community members who use an AED?

If medical expertise is not available in the community, communication links can be established among communities that use AEDs, and to larger Emergency Medical Systems that use AEDs frequently and can provide advice.



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Liability

Are nurses and workers covered for liability if they use an AED?

For health care workers whose scope of practise is defined by regulation, scope of practise guidelines may need to be updated to include defibrillation, and/or they must have medical oversight.

Using an AED is no different from performing other medical act or first aid: if AED operators perform as they are trained to perform, they are protected. Noone in Canada has ever been sued for using an AED.

Legal implications

What are the legal implications of having an AED in the community?

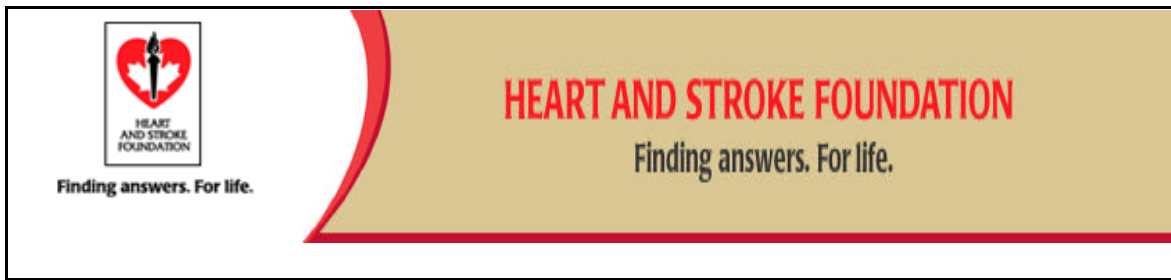
Along with the purchase of the AED, the community must assure that operators have medical oversight, are properly trained and that protocols for continued training, operation and equipment maintenance are in place.

Initial training

Who will provide initial training?

Communities may customize their training program. One or more community members can be trained by a qualified instructor. Once trained, these community members may be asked to provide training to others within the community.

Initial training requires personal instruction and supervision, but training videos are available so that learners may review procedures as often as they wish.



Is ongoing training necessary?


Yes. It is not enough to learn how to use the AED. Using the AED is a skill like any other: it must be practised regularly or it will be forgotten. Once trained, AED operators should regularly view a training video, and should frequently practise the procedures in order to keep up their skills. Practise should occur at least every 90 days, particularly for people who do not regularly use an AED.

Where is it going to be used?

Most commonly, the AED is taken to the patient whose heart has stopped beating effectively. The AED can be kept in a central place in the community or it can be kept by the AED operator on-call. In some communities, the patient could be brought to the machine.

Healthy diet and AEDs

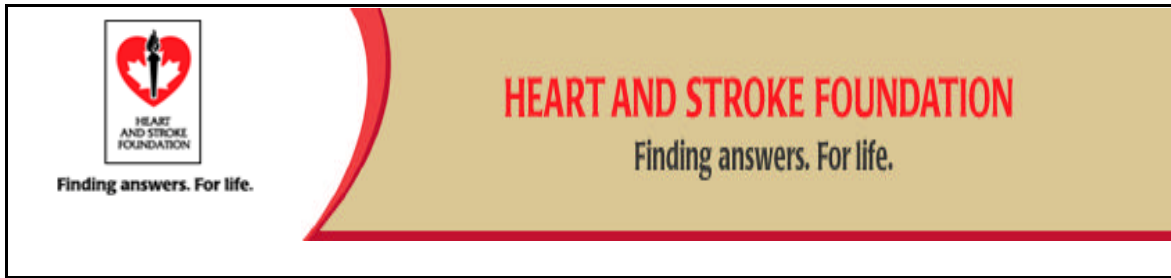
Does having an AED in the community reduce the need to eat a healthy diet or take care of your body in other ways?

 No. AED doesn't prevent heart disease and it doesn't treat heart disease. When it works, the best it can do is reset a stopped heart and give the patient one more chance to live. Healthy habits such as being smoke free, getting exercise and healthy eating are important in preventing heart disease.

Other communities

What other communities are using AEDs? What has been their experience?

AEDs have been available for about 10 years. Every major city in Canada as well as some



smaller centres have AEDs. Some cities have AEDs only on ambulances, while others have them on fire trucks or in police cars as well. AEDs can be placed in other public locations, such as public buildings, recreation centres or stadiums, and the staff can be trained to operate the AED.

Adding AEDs to the community does increase survival from cardiac arrest, but the rate of survival depends on many factors.

Communities that have the best results do more than just purchase AEDs:

- they make sure that people know the signs and symptoms of heart attack;
- they make it easy for people to get help fast in an emergency;
- they teach CPR to as many people as possible.

Cost/benefit information

What cost/benefit information is available for AEDs?

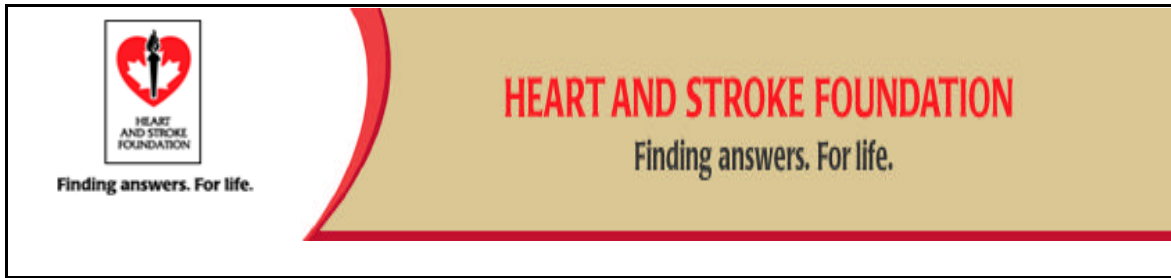
Financial costs include one-time purchase of the AED (about \$5,000 for a basic machine, and up to \$12,000 for an advanced monitor/defibrillator) and a small ongoing cost for supplies. Training expenses will vary, depending upon the location of the community and the training arrangements. Expenses might include transportation, accommodation, material and course costs, and time away from work.

Depending on the size and health of the community, the AED may be needed once a month or once in five years. When defibrillation is needed, it is the patient's only chance. Without it, a pulseless patient will certainly die.

For an AED to be effective, a continuing commitment to skills and education, and the expenditure of time and energy by health educators is required.

The side benefit of community awareness and education may, by itself, justify ongoing time and energy spent in training about heart attack symptoms, CPR and AED use.

Equipment maintenance responsibility



Who is responsible for equipment maintenance?

The community worker responsible for medical supplies and equipment should include the AED and its supplies in a regular schedule of checks and maintenance.

Buying a community AED

About our community

What do we need to know about our community before deciding whether to buy an AED?

The AED is used to reset a heart that suddenly stops beating effectively (cardiac arrest), but it must normally be used within 10 minutes. People who suffer cardiac arrest have the best chance of surviving if someone sees them collapse, calls for help and performs CPR until the AED arrives within minutes.

Even under the best of circumstances, not every heart can be reset.

In communities where the population is small or very spread out (so that it takes more than 10-15 minutes to reach the person needing the AED), an AED may not be effective because it won't reach people in time.

In larger communities, communities with a high rate of heart-related illness (such as diabetes) or a large number of at-risk adults, or communities where there's a nursing station that looks after heart patients awaiting transport, an AED is more likely to be effective. Its effectiveness will be increased if community members know the signs and symptoms of heart attack, know CPR and are encouraged to call for help early.

Community's health priorities



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What are our community's health priorities?

In deciding how to spend its health budget, the community will want to identify the most common health problems and the most serious health problems in the community, as well as considering which problems can be prevented and which can be treated. It is appropriate for various communities to come to different conclusions about their need for an AED. In some communities, an AED will be effective. In others, it may not.

Who is going to pay?

Who is going to pay for the AED?

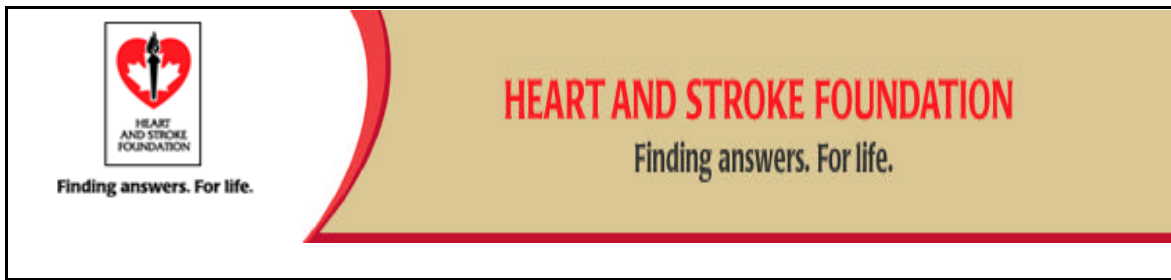
The community that acquires the AED will pay for it. In some areas, service clubs and businesses are helping to provide funds to purchase AEDs and training.

Who will need training?

Who will need training? Initial? On-going?

Depending on the population and location of the community, it might be most efficient to send one or two health workers or first responders for initial training as AED instructors, so that they may return to the community to train other community members. Community members who have been trained as qualified AED instructors can provide personal instruction and supervision to community AED providers and can also organize a system of on-going review, using training videotapes and regularly scheduled practice sessions. However, they must have medical oversight.

A physician, nurse or paramedic could be asked to provide regular continuing education sessions to review procedure and assess performance.



Community education

Who will provide community education before a decision is made about the appropriateness of AEDs?

The answers provided in this section address many questions that community members have about AEDs. Your provincial Heart and Stroke Foundation can provide further information and other contacts.

Decision making process

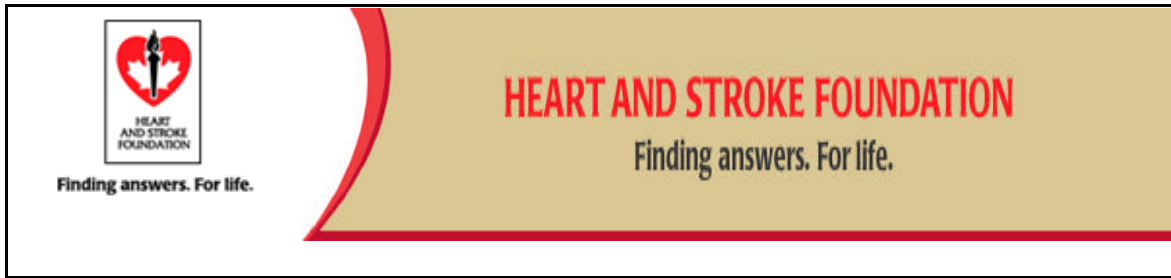
What decision making process will be used?

The community will need to decide whether or not to set up a program and purchase an AED. The process the community will choose to make this decision may be the same one that is used to make other health budget allocation decisions, or another process may be chosen.

No AED in the community

What will happen if we don't have an AED in our community?

If defibrillation is not available quickly after cardiac arrest, the chance of survival is minimal. Having an AED available quickly will save the lives of some people who suffer a cardiac arrest.



What else is needed?

What else is needed in our community to effectively use the AED?

The AED is a necessary link in the Chain of Survival from cardiac arrest, but it is only one link. There are other things that the community can do to increase survival. Community members must be taught the signs and symptoms of heart attack, so that they will seek help early. Community members must learn CPR so that if they witness a cardiac arrest, they can provide the patient with a few extra minutes for help to get there. Community members must know the emergency number to call to access the AED. A trained operator must be standing by at all times, ready to take the AED to the patient when called. If a person in cardiac arrest is resuscitated by the AED, the person must be transported to a hospital for advanced care.

Effectiveness of AED

Can an AED be effective in this community?

An AED will save a percentage of the witnessed cardiac arrests which are reached within a few minutes. If cardiac arrests in your community are most likely to be witnessed and occur in close proximity to where the AED is located, the AED will be effective. If cardiac arrests usually occur more than 15 minutes away from an AED, it will not be effective. The rate of success is determined by how soon the AED reaches the cardiac arrest patient, and whether or not the patient has received CPR.

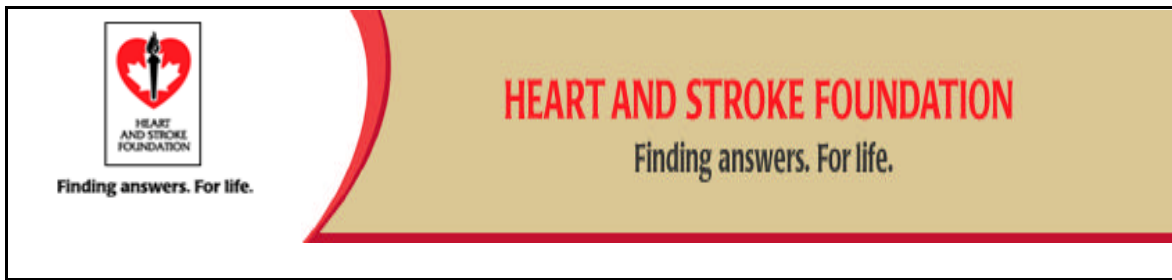
Other uses of AED

Can an AED be used for anything other than cardiac arrest?

The basic AED is used only in cardiac arrest.

A more advanced model of AED includes a heart monitor which a physician or specially trained health care professional can use to observe the rhythm of the heart. Using a heart monitor, medical personnel would be able to give early treatment with "blood clot





dissolving" drugs or treat heart rhythm problems which would otherwise need to wait for treatment until arrival at a hospital. The usefulness of the monitor, however, depends upon the level of medical support in the community.

Effectiveness without community awareness

Can a basic AED be effective without a program of community awareness, CPR, emergency phone access, and full-time operator availability?

Maybe. If the community has a medical facility that cares for heart patients, some of whom may be awaiting transport to more advanced care, there may be a need for a basic AED that stays in that location to be operated by the medical or nursing staff in case of cardiac arrest.

Robert (Bob Jr.) W. Jones

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In Education	
1993 – 1994	Capilano College, North Vancouver, BC Associate in Arts and Science Diploma Accelerated Computer Systems Management, (Accelerated Program of Studies)
1969 - 1973	Capilano College West Vancouver, BC Associate in Arts and Science Diploma Audio – Visual Technology / Media Resources
1978 - 1979	Caribou College, Kamloops, BC Vocational (Canada Manpower) Diploma, 1979 Electronics Technician
Various	BCIT, Burnaby, BC Accounting courses (Equivalent to third year CGA): General accounting years 1 and 2, Business Law, Cost Accounting, Statistics for Business and Industry Computer / Office Automation Courses: FORTRAN (Wattiv), RPG II, Powerhouse
1975	EHS (BC Emergency Health Services Commission) Vancouver, BC Emergency Medical Assistant 2
1964 - 1969	Sentinel Secondary, West Vancouver, BC Academic Transfer Program Graduation

Community Activities	
Politics	<p>At the present time I am helping in the Provincial Liberal riding association. During the 2001 Provincial Election I volunteered as a researcher.</p> <p>Represent CMHA on a low income– disability housing project.</p> <p>I ran for local Political office in Nov1999 for Director Area E – Elphinstone, of the Sunshine Coast Regional District.</p> <p>I served briefly in 1998 for the Reform Party of BC designing a database and reports for the party.</p> <p>I in back office of Federal Campaign in 1998 for The Reform Party doing database work.</p>

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	<p>I served on Gordon Wilson's Local PDA Campaign in the 1996 Provincial Election Campaign. I also served as the riding association as vice president.</p> <p>I ran for local Political office in Nov1996 for Director Area E – Elphinstone, of the Sunshine Coast Regional District. I came in second however the lady I ran against appointed me Vice-Chair of the SCRCD Transportation Commission.</p>
Volunteer	<p>I presently serve on the Steering Committee established to reform the CMHA – Sunshine Coast Branch as an active volunteer.</p> <p>I served in a voluntary capacity as an independent committee member on the BC Ferries Howe Sound / Sunshine Coast Ferry Advisory Committee. I am presently the appointed representative of the Sunshine Coast Regional District.</p> <p>I was also very active in the Sunshine Coast Commuters Association serving as Chairman.</p> <p>I served as a volunteer firefighter in the West Vancouver Fire Department in the early 1970's. My involvement was terminated only when the Municipality terminated the volunteers in favor of a full time force.</p>
BBS	<p>In the past I have had a very popular BBS called BOB'S TRADING SHIP which in addition to providing private message bases for the BC Clarion user group for which I am the sponsor, and several other community groups, is a good source for public domain and shareware software.</p>

Summary of Qualifications	
February Present	1984 Self Employed Freelance Consultant, Vancouver, BC For a number of years now, I have been providing a consulting service to the small business community with respect to "Micro" and "Mini" computers and office automation. This has involved: System Analysis, Data base development and im plementation, System hardware installation and trouble shooting, Project management, Liaison (mediation) between clients and suppliers, Training and technical support. My current efforts are primarily devoted to Systems Analysis Business development Projects. I have extensive experience as a programmer analyst specialising in database applications.
September January	1983 1984 Superior Business Machines, Vancouver, BC Technical Sales Responsible for the introduction and marketing of the Wang Professional Computer to the Vancouver Business community. This position required involvement in: customer problem identification and solutions, proposal writing and presentation, system demonstration, staff training, system i nstallation and maintenance.
April	1981 Glenayre Electronics Ltd. Vancouver, B. C.

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May 1983	<p>Programmer / Analyst</p> <p>Responsible for problem analysis and software development on a Wang 2200 MVP using Wang Basic2. Applications were developed using Basic 2 in the areas of Accounting, Project labour management, Labour cost accounting, Payroll, Sales order entry and analysis, Bill of materials, and Inventory control.</p>
February 1979 November 1979	<p>Freelance Programmer / Analyst Kamloops, BC</p> <p>Projects completed involved the sales, installation, and programming of "Micro" computer systems in small business. Software was designed and developed in the areas of General ledger, Restaurant Food Costing, Payroll, Sales order entry, Sales Analysis and Inventory Control.</p>

Professional experience	
Hardware	Monreobot 11, Litton 1100, HP1200, Commodore PET, Wang 2200 MVP, Wang 2200 LVP, Apple, Apple II, IBM 36, Wang Professional Computer, IBM PC, IBM XT, IBM AT, 386, 486, PC2, IBM AS400, HP3000.
Operating Systems	Wang 2200, MS DOS, MS Windows 3.X, MS Windows 95MS Windows NT, MS Windows 95, SCO UNIX, Apple DOS, Novel NetWare 3.12
Languages	HP Basic, Commodore Basic, Wang Basic II, GW Basic, C, C++, Clarion, FORTRAN, COBOL, MIX Power C and RPG II.
Word Processing	Major Packages used: Microsoft Words, Word Perfect 5.1, 6.0
Spread Sheets	Microsoft Excel, Microsoft Multiplan, Lotus 123. VIP Planner, SuperCalc 4,
Database Management Systems	Ms Access, dBase 4 plus, Clarion, Powerhouse, Paradox for Windows and Signon.

Applications Analyzed and Developed	
Accounting	I have personally developed applications in the following subject areas: General Ledger, Accounts Receivable, Accounts Payable, Payroll, Cost Center / Profit Center Analysis, Sales Journal.
Inventory Control	Purchase Orders, Bill of Materials

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Manufacturing	Work Order Processing, Manufacturing Resource Planning (MRP), Project Costing
Marketing	Prospect Management, Sales Order Processing, Cash Register
Taxi Dispatch & Fleet Monitoring	Computer Assisted Dispatch, Taxi Payroll, Accounts Receivable
Talent Agency Management	Talent Resources, Talent Booking
Restaurant and Cabaret Management	Cash Register, Sales Analysis, Product Costing
Machine shop	Inventory, Work Order Management.
Dialup Information Systems	<p>The designing of a dial up information system for The Kinsmen Rehabilitation Foundation of British Columbia. This system was originally implemented on a Wang O.I.S. 140 for internal access using Wang list processing. I provided the expertise necessary to convert the project to a Wang 2200 LVP for both internal and external dial up use. A true relational data base structure was designed and implemented. Data transfer and reformatting was handled by software with minimal operator intervention. The final data base occupies only 25% of the space used by the original OIS version yet has virtually unlimited flexibility while minimizing duplication and errors. This project developed new applications for existing Wang Hardware despite a lack of technical Documentation and manufacture's support. The System was interconnected to CNCP's Infoswitch Network to allow affordable worldwide access. The project was demonstrated successfully in Ottawa at an International Conference on Rehabilitation, at a regional conference in William's Lake, BC and a National conference in Victoria, BC.</p>