

5. Qualitative Consultations

This chapter presents the findings from the in-depth consultations with host organisations participating in the PAD Demonstration. Managers and staff at selected host organisations provided feedback on the effectiveness the PAD Demonstration from a grass roots perspective.

These in-depth interviews also explored the issues that arose during the PAD Demonstration and identified lessons relevant to future considerations regarding early access defibrillation.

5.1 Experiences under the current PAD Demonstration

5.1.1 AEDs perceived as valuable

The potential to save a life was the most commonly cited benefit of involvement in the PAD Demonstration by management and trained staff. Despite only a small number of activations, most host organisations interviewed believed that AEDs provided the most effective method for responding to sudden cardiac arrest and improving survival rates for sudden cardiac arrest victims.

It is helping save lives. I don't know the stats, but with an AED at least you have a chance of saving them. It is good support for the first aider who has to respond. (Manager, tourist attraction)

Best practice in duty of care, reassurances, and good corporate citizenship were other benefits cited by management stemming from their organisation's involvement in the PAD Demonstration.

Benefit for us is that we have to be best practice. People expect us to respond to incidents in the most efficient way. I think people would be surprised if an international airport did not have defibrillators installed. (Manager, international airport)

It's a commitment to our public image. (Manager, sporting club)

It [the AED] provides a sense of security for staff. Knowing that if something goes we are confident and have the technical support to help the out. (Manager, secondary school)

AEDs were perceived as valuable life saving devices.

5.1.2 Appropriateness of PAD host organisations

The majority of AEDs under the PAD Demonstration had been placed at sites with either a high volume of people (airports, train stations, zoos), a high proportion of persons aged over 50 (golf and yacht clubs), locations where there had been previous sudden cardiac arrest or where an ambulance would be delayed in reaching a patient (national parks).

Most host organisations believed that their site was a suitable and appropriate location for the installation of an AED.

We thought it was a fantastic idea. We are out of range of ambulance services here. We are the only first aid people around during the ski season. (Manager, state national park)

However, some venues did not seem to fit the criteria for being a site of 'high risk'. Managers at these sites did not believe that their organisation was the most suitable site to receive a government funded AED. The main reason given was that the organisation had only small volume of people moving

through the venue. One organisation was surprised to have been approached by St John to receive a 'free' AED, as they had already purchased a device privately.

I am still amazed that we got one, it's like money for jam really ... Though from a tax payer point of view there are other clubs less well off than ours that probably would have been more appropriate to get one of these defibrillators from the government. (Manager, golf course)

I was a bit surprised. I have been in policing for 20 years and haven't ever had people need one of these at a station. Would be better suited on patrols I think. (Manager, police station)

Most of the AED sites selected for the PAD Demonstration were appropriate based on the project guidelines for selecting venues according to risk of sudden cardiac arrest.¹⁹

5.1.3 Location of AEDs

Host organisations had collaborated with St John and other emergency personnel to ensure that the devices were accessible by trained responders within two to three minutes. While AEDs were generally placed in publicly accessible areas, a number were not accessible by the general public. This placement was inline with the views of management that trained emergency personnel were the most appropriate first responders, and the units were kept with other emergency response equipment.

We have one located in the foyer, under the key safe. It is not immediately visible to the public, although they could see it if they looked around for it. The concern about making it too visible was that you ideally need to be trained in the use of a defibrillator unit. (Manager, casino)

AEDs were located where trained emergency response staff could access them quickly in the event of an emergency.

5.1.4 Experience with St John

Many managers reported that the personal element provided by St John project management was of great value, and assisted them with adjusting to being part of a PAD Demonstration, including engaging their staff, reassuring higher level management, and informing their customers.

St John provided a really really good service. Excellent. Amazing. You can tell that she [the project manager] really cares about what she is doing. She really believes in the program. (Manager, tourist attraction)

Most managers felt no need for ongoing support from St John once the AED had been installed and staff trained. Others were concerned that communication with St John eased off over time, and would have preferred arrangements for regular communication between St John and the host organisation.

When we first got it, St John was on the phone regularly. Having that program manager make contact was fantastic. But we have had it for two years now – the program really could do with ongoing check up, follow up and background support. (Manager, state national park)

St John project management provided support, reassurance and guidance through the planning and implementation process.

5.1.5 AED training

There was universal praise for the expertise and nature of the St John trainers from managers and staff at host organisations. Reassurance and confidence were seen as important components with regard to

¹⁹ The broad guidelines adopted by St John consider the venue appropriate if: length of time for local ambulance to arrive greater than five minutes; previous sudden cardiac arrests have occurred; 10,000 or more persons regularly gather at the location; there is a large concentration of persons over 50 years old or there is a high probability of sudden cardiac arrest.

effective AED response. Staff and managers reported that the St John training primarily provided a level of reassurance and confidence, and demonstrated how simple the AEDs were to use.

The training was really well delivered. St John were excellent. (Manager, shopping centre)

The whole set up was perfect. They had it up and running in a matter of weeks. The program manager was always available, we had our queries answered right away. Had them out here to help us decide where to put the units. (Manager, metropolitan train service)

The additional emergency first aid training (including CPR) was another important and valued aspect of the training noted by both management and trained staff.

Before training, managers at host organisations and those selected to be first responders often had initial concerns about the responsibility of activating the AED, and the threat of litigation if something went wrong. All respondents stated that St John project management and trainers effectively eased any concerns about litigation, by citing the protection offered by *Good Samaritan* legislation.

Some individual staff members were concerned about litigation if they could not resuscitate a patient. The St John trainer provided reassurances and the liability issue was explained really well in the training. (Manager, shopping centre)

For organisations that already provided first aid and emergency response (e.g. airports, national parks, casinos, zoos etc) the AED training was incorporated into annual refresher courses for dedicated emergency responders. The AED had become part of these organisations' standard public liability and occupational health and safety procedures.

If you don't do it [refresher training] you're not confident. If you're not confident, you're not competent. (Manager, zoo)

Organisational awareness of the correct procedures for activating the AED tended to diminish at smaller organisations. Those that did not routinely train staff in first aid tended not to have arranged for any refresher training for staff.

The training was effective at the time, but only if you use it. When I found out you were coming to talk to me I needed a refresher, to remind me of the correct response procedures. (Manager, secondary school)

The quality of the AED training provided by St John was widely reported to be effective, efficient and appropriate. However, knowledge of correct AED procedures diminished overtime in those organisations that did not provide regular refresher training sessions.

5.1.6 Lay persons and AEDs

Untrained (or lay) staff interviewed at host organisations stated that they would not feel confident in their ability to activate the AED without training. This was the case even for some staff trained in Level 2 first aid.

I don't know what I would do. I haven't really looked at it. I mean, I have Level 2 first aid, but I don't know that I would use [the AED]. I could do more harm than good you know? (Untrained staff member, national park)

Most management believed that trained first responders should be the first to activate the AED. In some organisations this translated to AEDs placed in locations only accessible to first aid staff.

It is always our trained accident first response team that would respond to a collapse. Have to be able to evaluate the scene, to respond to any type of situation at anytime. Have to know CPR, we give two minutes of compression to get some sort of pressure building in the patient before we give them a shock – you can get a more positive result that way. Would not be appropriate for someone without training to respond.
(Manager, international airport)

A number of managers also noted that the signage around the AEDs acted as a deterrent to public use of the unit. This was especially the case at venues such as airports, where most signage was designed to discourage public access to airport equipment.

People are tentative about what they can do and what they can't. People are scared of doing stuff that is against the law. With the signage and the security box, only a medical professional would be likely to take it off the wall. (Manager, airport)

Managers and trained staff at host organisations did not believe it was appropriate or necessary for the general public to activate the AED. Most believed that effective emergency response procedures had been put in place through trained first responders.

Most host organisation representatives did not believe that the public should activate AEDs and that their emergency response procedures ensured that trained responders were the first to reach the AED.
Lay persons were not likely to activate the AEDs.

5.1.7 Emergency response plans and broader awareness of AEDs

Organisations that already provided first aid and emergency response had very effective first aid plans in place. These organisations always had at least one trained first aider on site and tended to conduct regular safety drills. Smaller organisations did not regularly encounter emergency incidents, were more naïve about emergency procedures and tended to have fewer trained AED staff and a less rigorous emergency response plan. Whilst most organisations reported having an emergency response plan in place that incorporated the use of the AED(s), the extent and efficiency of these plans tended to vary.

Managers and trained staff interviewed were aware of the organisation's emergency response procedure and felt confident in their ability to activate the AED. Many managers reported that their organisation included information about the AED in their induction packages for new staff to ensure broader awareness of the AEDs. However, amongst untrained staff awareness of the AED and the correct procedures for activating the device tended to be low.

I developed a manual, copied all the information St John gave us, our organisations' emergency response plan and ensured that every station manager had one, and distributed it to all emergency staff. (Manager, metropolitan train service)

Public awareness of the use of AEDs and their benefits was also reported to be very low. Some attributed the lack of public awareness of AEDs to a lack of awareness and acceptance amongst senior management – with AEDs often a low occupational health and safety priority.

Awareness of the AED was high amongst managers and trained staff at host organisations. However, the general consensus was that untrained people are not aware of AEDs and not likely to activate one. Trained first responders were perceived as being best placed to provide optimum care in an emergency.

Overall, the PAD Demonstration has been effective in establishing that organisations can be accepting of AEDs. High quality training was provided and most organisations had effectively incorporated the AEDs into their standard emergency response procedures.

5.2 Commitment of host organisations to PAD

Commitment amongst host organisations to the PAD Demonstration varied. Those organisations that had that actively sought out St John (or had purchased the AEDs themselves) were highly committed to participating in PAD, and reported the following driving factors behind their commitment:

- Experienced a sudden cardiac arrests at the organisation previously;
- Viewed the AED as part of the organisation's duty of care to staff, customers and general public:
First and foremost it's an organisation commitment to OHE&S. (Manager, tourist attraction);
- Their customers or patrons tended to be older; and/ or
- Participating in a PAD program was seen as 'good corporate citizenship'.

Strong commitment was also evident at host organisations where staff had campaigned (unsuccessfully) for the installation of AEDs for many years prior to the PAD Demonstration. These respondents were extremely committed to providing access to early defibrillation in their organisation now that the AEDs had been installed.

Organisations who had been approached to participate in the PAD Demonstration by St John project managers were less committed to involvement in the program in the long term.

There was a higher level of commitment to, and perceived value of, the program in those organisations that actively sought out St John (or had purchased the AEDs themselves) compared to those who had been approached to participate.

5.2.1 Ongoing installation and AED maintenance

Ongoing installation and AED maintenance was generally perceived by managers and staff as 'fuss free', easy and low cost. However, at some organisations, where the AED had been installed for a number of years, maintenance checks were reported to have reduced. Over time, staff and management had become unsure of exactly how often maintenance check should be undertaken, and some were unsure of what the checks involved.

Just the maintenance of the unit. I think it requires weekly checking, but I don't think we have been as vigilant. Not checking it regularly and I don't think anyone has signed the book to say that it has been checked. (Manager, national park)

5.2.2 Financial commitment to the installation of AEDs

When asked if the private market could sustain a PAD program if government funding was not available, a number of managers said 'no'. Lack of financial commitment was especially evident for

smaller organisations, who reported more pressing occupational health and safety priorities. The purchase and installation of AEDs would not have been a priority for these organisations if they had been required to fund the cost of the units, training and implementation themselves.

I don't think management would have paid. Small businesses with high overheads can't really afford it. Not legally necessary to have one in a gym, so it's not likely to be privately funded without legislation. (OH&S manager, fitness club)

We are committed, but not likely to fund ourselves. If funding was not available this would not have been a priority for us. (Manager, yacht club)

I don't think government should be funding this. I would like to see organisational management understand the benefits and see it as their duty of care to provide these units. (Manager, state national park)

Conversely, a number of organisations were financially committed. These businesses had already invested in additional devices. Such organisations tended to be larger, busier environments or sites where there had been fatalities from sudden cardiac arrest prior to the installation of the AED, or activation of the AED had saved a life. The initial funding from government had acted to demonstrate the value of AEDs as life saving tools to these organisations. These organisations stressed that they would continue to install AEDs, even if government funding was no longer available.

The government funding gave the incentive for use to move forward. We have since purchased four more units and we now have staff at all of our office buildings requesting them to be installed. (Manager, local council)

Financial commitment to AEDs differed amongst host organisations. For some, the devices were too expensive and not viewed as a top health and safety priority. Others believed they were essential, and had already purchased additional devices.

5.2.3 Non-PAD Demonstration AEDs

Organisations that had privately purchased AEDs were included in the consultation to gain further understanding of the factors driving the private purchase of the devices.

As with the government funded PAD Demonstration, AEDs at these organisations were typically installed under a trained first responder program. At each of these organisations, AEDs were considered by management to be an essential element of the company's duty of care to its staff and public. The driving forces behind the decision to purchase the devices varied, from ensuring occupational health and safety for staff to senior management having personal experience with cardiac arrest.

Some examples of privately funded early responder programs included:

- A large university (with five campuses and over 30,000 students)
At this university each campus had an annual budget of \$4,000 to spend on occupational health and safety services for the entire campus. The notion of AEDs was raised as an option for the expenditure of these funds at a regular OH&S meeting. The university purchased one AED for each campus. Campus first aid staff were trained in the use of the AED and all staff and students were informed of the AEDs via the intranet and signage around the sites.
The devices had been installed for five years with no activations.
- Casino in a large metropolitan city

The previous owner of the casino had a serious heart condition and had driven the installation of AEDs in his businesses.

20 devices were installed throughout venue. All security guards (permanent and contract) are regularly trained in the use of the AED. Devices are kept with other emergency equipment, ready to be moved to the scene by security first aid staff in the event of an emergency.

The manager estimated a response time of less than two minutes to any location within the casino.

The AEDs were installed in 2000. There have since been 15 activations, 10 shockable rhythms and six lives saved (until ambulance handover).

AEDs were perceived as core to the casino's duty of care and were now fitted as standard in all new hotels and building extensions.

The key lesson identified by these organisations was that early access defibrillation requires commitment of senior management. Dedicated first aid staff are essential and the training and use of the AED must be incorporated into standard public liability or health and safety practices.

5.3 Outcomes and lessons for host organisations

There have been 20 reported activations at host organisations since the commencement of the PAD Demonstration. In seven cases, lives were saved directly as a result of the AED. Staff at these organisations have become even more committed to the PAD program as a result of these positive outcomes.

In a number of instances, the patient could not be revived. Despite the trauma of experiencing a life being lost, staff who had responded with the AED felt reassured that they had at least been able to do everything within their power to assist.

Based on the consultations, activations have all been carried out by trained staff, trained emergency personnel or medical professional bystanders. In the few instances where activations had occurred, participants reported that the AED was used in accordance with instructions until the patient could be handed over to ambulance paramedics.

Some participants identified the need for crowd control in the event of an emergency event where the AED had to be activated. Family and friends could get distressed and concerned about the application of the AED, especially in environments such as casinos where alcohol was consumed (this is where the role of security personnel as first responder is particularly appropriate).

Two case studies of successful AED activations under the PAD Demonstration are provided below.

Case study of PAD activation at Domestic Airport

In March 2008, a passenger in the airport terminal had a sudden cardiac arrest. The person was about 80 years of age. The first response team at the airport were contracted service emergency providers located within the airport. They were called immediately following the patient's collapse. They ran to the location of the passenger. Passing the security screening area on the way, they collected the defibrillator device as they rushed to the patient. They reached the individual within approximately two minutes. The defibrillator was activated and an ambulance was called. Security staff managed the scene, keeping other airport visitors away while assistance was provided. The person who suffered the cardiac arrest was revived and went on to survive the sudden cardiac arrest.

Case study of PAD activation at a Casino

In March 2008, a patron in the casino suffered a sudden cardiac arrest. The patron was a man of about 55 years of age. This incident occurred in the daytime. Security officers immediately assisted, while other security officers kept family/friends and other patrons at a distance and prevented interruption to emergency assistance efforts. Another security guard had meanwhile picked up the defibrillator device from its nearby location and rushed to the patient. The security guard then activated the device to restart the man's heart approximately two minutes after the sudden cardiac arrest occurred. Ambulance officers arrived soon after and took over from the security officer. The man went on to survive the event and has since returned as a regular patron.

5.3.1 Specific issues identified by host organisations

Respondents identified a number of issues with the installation of AEDs and training provided through the PAD Demonstration. These issues included:

- Organisational awareness of the correct procedures for activating the AED tended to diminish for those organisations that had not arranged for annual refresher courses. Both managers and staff at these organisations were less clear about the correct AED procedures to be followed in the event of an emergency.
- One organisation reported a contrast in methods between the training they had received from St John under the PAD Demonstration and the regular first aid training they received from a different first aid company (for the early model AEDs that the company purchased privately, prior to the PAD Demonstration AEDs):
 - Staff at this organisation had been trained by the other company to apply compression for two minutes before activating the early model defibrillation unit (which had a manual activation);
 - Once the button is pushed to activate the AEDs received under the PAD Demonstration the timing of the shock administered is automatic, occurring immediately upon pushing the button;
 - As a result of the advice received at their regular first aid training, these trained first responders would turn off the newer AEDs in order to deliver the compression, and then have to turn it back on two minutes later to shock;
 - The difference in training techniques caused a level of confusion amongst the trained first responders, who reverted to the training received under the organisation they had an established and trusted relationship with.
- A number of larger organisations relied on contracted security staff (employed by an external consultancy) as the first responders for emergency first aid incidents. All Australian security personnel are required to have a certain level of first aid training, and managers at AED sites tended to *assume* that their contracted security staff would also have specific defibrillation training. However, a number of managers had not specifically confirmed the AED training with their security contractor. (It should be noted that some organisations had actively incorporated the requirement of AED training into their contracts with security providers).

Reduced organisational awareness of AEDs overtime, conflicting training techniques and the use of contracted security staff could impact on the effectiveness of the PAD Demonstration.

Some managers also identified specific issues that had initially acted as a barrier to their organisations involvement in the PAD Demonstration. Fear of litigation in was identified as a strong barrier for management in some host organisations.

When we originally received the AED we were a [shopping chain]. We have since been taken over by [larger shopping chain]. The new company have a policy of NOT installing AEDs. We have had to fight to keep it. They have advice from their legal people that they are too great of a liability. But we think the device is a huge benefit. (Manager, shopping centre)

Other issues that emerged throughout the consultations included senior management being unaware of the benefits of AEDs and reluctant to fund the costs without prior incidents. Some Occupational Health and Safety managers reported difficulty in getting senior management on board with AEDs prior to their involvement in the PAD Demonstration. Again, this reluctance was often related to litigation fears of litigation risk arising from improper use of the unit or negative outcomes. The combination of litigation fear and low levels of awareness results in inertia and resistance to the take up of AEDs.

A fear of litigation from the use of AEDs and general lack of awareness of the effectiveness in the devices in saving lives were the main issues identified as affecting the installation of AEDs in an organisation.

However, generally respondents at host organisations identified very few problems with the PAD Demonstration. Most valued the program very highly.

5.3.2 Lessons that may be relevant to future PAD in Australia

The installation of AEDs provides benefit for host organisations. There is value in promoting the positive outcomes of the PAD Demonstration to encourage a wider take up of the installation of the devices. Considerable work needs to be done with public liability insurance providers, larger organisations managing facilities used by large numbers of people and occupational health and safety authorities for AEDs to become a common standard of care.

It is noted that occupational health and safety is largely the responsibility of state jurisdictions. The PAD Demonstration has funded installation of AEDs in state government employers, indicating that there remains considerable work to be done to increase awareness of PAD at the state government level.

Managers and staff reported that fear of litigation can be readily overcome with clear authoritative and legally grounded advice. This barrier must be overcome prior to training but can be reinforced through the training program.