



# Policy statement

## Defibrillators in public places

### Introduction

Cardiac arrest is a medical emergency, occurring when someone's heart stops pumping blood around the body and they stop breathing normally. Around 60,000 out-of-hospital cardiac arrests occur in the UK each year.<sup>1,2</sup> Of these, around 30,000 are treated by emergency medical services.<sup>3</sup>

Bystander action in these cases can be the difference between life and death. The British Heart Foundation (BHF) is fighting for every heartbeat, determined to ensure that every person suffering a cardiac arrest has the best chances of survival.

### Policy statement

In instances of an out-of-hospital cardiac arrest, immediate cardiopulmonary resuscitation (CPR) and access to an Automated External Defibrillator (AED) are all essential to maximise the chances of survival. Community First Responders also play an important role in helping to supplement ambulance services' response.

Governments and administrations in the UK should work in partnership with charitable organisations, the Resuscitation Council UK, Ambulance Trusts and Ambulance Services to map the location of existing AEDs placed within local communities across the UK. Governments and administrations in the UK should also increase the availability of public access Automated External Defibrillators (AEDs) within communities and encourage greater public confidence in their use. Within England, the Westminster Government should:

- introduce legislation requiring the installation of AEDs in high footfall areas and other places where there is an appreciable risk of cardiac arrest occurring. As part of this, an expert advisory group should be formed to determine requirements regarding the placement of AEDs in public places and develop a national strategy which would require public bodies and individual businesses to assume responsibility for the installation, training, and maintenance of AEDs.
- fund a national campaign to raise public awareness regarding CPR and AEDs and encourage members of the public to carry out CPR and use an AED if required in an emergency.
- consider the introduction of a Good Samaritan law, subsequent to a national campaign, to provide reassurance to the public in helping someone requiring CPR or use of an AED.

Within the devolved nations, each administration should explore the merits of introducing similar legislation requiring the placement of public access AEDs and additional measures aimed at improving awareness of and confidence in using AEDs in an emergency, within the context of a wider Community Resuscitation Strategy.

<sup>1</sup> Ambulance Service Association, 2006. *National Cardiac Arrest Audit Report*.

<sup>2</sup> Berdowski J, Berg RA, Tijssen JG, Koster RW. 2010. [Global incidences of out-of-hospital cardiac arrest and survival rates: systematic review of 67 prospective studies](#). *Resuscitation* 2010 Nov;81(11):1479-87. Epub 2010 Sep 9.

<sup>3</sup> Pell JP, Sirel JM, Marsden AK, Ford I, Walker NL, Cobbe SM. [Presentation, management, and outcome of out-of-hospital cardiopulmonary arrest: comparison by underlying aetiology](#). *Heart* 2003;89:839-42.

## Policy statement (continued)

Finally, we are calling on all Governments and administrations in the UK to develop a strategy to improve response times to all out-of-hospital cardiac arrests (OHCA), not just those that occur in public, which would help to save the lives of the large percentage of people experiencing OHCA in the home. As part of this, we urge Governments and administrations in the UK to maintain Community First Responder groups managed by Ambulance Trusts and Ambulance Services and increase the number of Community First Responders.

## Background

Around 60,000 out-of-hospital cardiac arrests happen in the UK each year.<sup>4,5</sup> Of these, around 30,000 are treated by emergency medical services.<sup>6</sup> AEDs are life-saving items of equipment which, when used with CPR, can support survival from sudden cardiac arrest. They are electrical devices that analyse the heart rhythm and administer an electric shock if necessary to try and restore a normal heart rhythm.

AEDs are specifically designed to be used by members of the public as well as first responders in the event of a cardiac arrest. Early CPR and defibrillation is essential for survival. Increasing awareness of the need for CPR and the placement of AEDs in public places helps reduce the time delay between cardiac arrest and shock, and increases the number of people able to respond to out-of-hospital cardiac arrest. It increases the chances of survival, by providing CPR and defibrillation before emergency services arrive on the scene.<sup>7</sup>

There are two ways of making an AED available to out-of-hospital cardiac arrest victims:

- placing them at a specific location where people gather, e.g. gyms and public buildings (also called public access defibrillators/referred to as PAD sites), and
- Emergency medical services may dispatch Community First Responders with an AED to the scene of the cardiac arrest (Community First Responder programs).<sup>8</sup>

For the purposes of this statement we will explore the issue of onsite AEDs.

## Outcomes of the use of AEDs

The use of an AED is an essential part of the chain of survival- interventions that contribute to a successful outcome following a cardiac arrest. There is clear evidence that bystander responses can have a huge impact as part of the chain of survival (below).<sup>9</sup> People who are

<sup>4</sup> Ambulance Service Association. National Cardiac Arrest Audit Report; 2006.

<sup>5</sup> Berdowski J, Berg RA, Tijssen JG, Koster RW. [Global incidences of out-of-hospital cardiac arrest and survival rates: systematic review of 67 prospective studies](#). Resuscitation 2010 Nov;81(11):1479-87. Epub 2010 Sep 9.

<sup>6</sup> Pell JP, Sirel JM, Marsden AK, Ford I, Walker NL, Cobbe SM. [Presentation, management, and outcome of out-of-hospital cardiopulmonary arrest: comparison by underlying aetiology](#). Heart 2003;89:839-42.

<sup>7</sup> Berdowski J. et al, Impact of Onsite or Dispatched Automated External Defibrillator Use on Survival After Out-of-Hospital Cardiac Arrest *Circulation*. 2011;124:2225-2232; originally published online October 17, 2011;

<sup>8</sup> Ibid.

<sup>9</sup> Cave DM, Aufderheide TP, Beeson J, Ellison A, Gregory A, Hazinski MF, Hiratzka LF, Lurie KG, Morrison LJ, Mosesso VN Jr, Nadkarni V, Potts J, Samson RA, Sayre MR, Schexnayder SM. Importance and implementation of training in cardiopulmonary resuscitation and automated external defibrillation in schools: A science advisory from the American Heart Association. *Circulation* 2011 Feb 15;123(6):691-706. Epub 2011 Jan 10. Available at:

trained to recognise that something is wrong and provide life-saving skills will buy time for the casualty, until professional help arrives, which could improve the chance of a successful outcome.<sup>10</sup>



Research shows that applying a controlled shock within three to five minutes of collapse, following CPR, provides the best possible chance of survival.<sup>11</sup> Where an AED is used as part of the chain of survival (cardiac arrest is recognised and 999 is called quickly, bystander CPR is started early and effective post-resuscitation care is given following defibrillation) survival rates following cardiac arrest can exceed 50 per cent.<sup>12</sup> A lack of blood circulation for a few minutes will lead to irreversible organ damage- including brain damage, therefore bystander intervention and early defibrillation is crucial in these circumstances.

### **Prevalence and location of sudden cardiac arrest**

The majority of cases of out-of-hospital cardiac arrests occur within the home, however, a significant proportion also occur in public places.<sup>13,14</sup>

Due to the devolved structure of Ambulance Trusts in the UK, statistics on the location of out-of-hospital cardiac arrests are not collated on a national basis. However, recent statistics from the London Ambulance Service indicate that in 2011/12, 67 per cent of cardiac arrests in London occurred within the home, 11 per cent occurred in care homes and 22 per cent of cardiac arrests occurred in public places. Of those that occurred in public places, 10 per cent occurred on the street and the remaining proportion occurred in other public places such as at work, a GP surgery, on public transport, or in a sports facility.<sup>15</sup>

Data collected by the North East Cardiac Arrest Network regarding OHCA in the North East of England in 2011, found that 81 per cent of cardiac arrests occurred within the home (including care homes) and 19 per cent of cases occurred in public places.<sup>16</sup>

<http://www.ncbi.nlm.nih.gov/pubmed/21220728>

<sup>10</sup> London Assembly Health and Public Services Committee (2007): A heartbeat away – Emergency life support training in London

<sup>11</sup> European Resuscitation Council, 2010, European Resuscitation Council Guidelines for Resuscitation 2010 Section 2. Adult basic life support and use of automated external defibrillators, Resuscitation 81 (2010) 1277–1292

<sup>12</sup> Cave DM, Aufderheide TP, Beeson J, Ellison A, Gregory A, Hazinski MF, Hiratzka LF, Lurie KG, Morrison LJ, Mosesso VN Jr, Nadkarni V, Potts J, Samson RA, Sayre MR, Schexnayder SM. Importance and implementation of training in cardiopulmonary resuscitation and automated external defibrillation in schools: A science advisory from the American Heart Association. *Circulation* 2011 Feb 15;123(6):691-706. Epub 2011 Jan 10. Available at:

<http://www.ncbi.nlm.nih.gov/pubmed/21220728>

<sup>13</sup> Priori, S., Bossaert, L., Chamberlain, D, Napolitano, C., Arntz, H., Koster, R., Monsieurs, K., et al, 2004. ESC-ERC recommendations for the use of AEDs in Europe. *European Heart Journal*. 23: 437-445

<sup>14</sup> Berdowski J. et al, Impact of Onsite or Dispatched Automated External Defibrillator Use on Survival After Out-of-Hospital Cardiac Arrest *Circulation*. 2011;124:2225-2232; originally published online October 17, 2011; <http://circ.ahajournals.org/content/124/20/2225.full>

<sup>15</sup> London Ambulance Service NHS Trust (2012) Cardiac Arrest Annual Report: 2011/12, Available at:

[http://www.londonambulance.nhs.uk/news/news\\_releases\\_and\\_statements/londons\\_cardiac\\_arrest\\_surviva.aspx](http://www.londonambulance.nhs.uk/news/news_releases_and_statements/londons_cardiac_arrest_surviva.aspx)

<sup>16</sup> North East Cardiac Arrest Network and British Heart Foundation, 2011, Out-of-hospital Cardiac

Arrest Registry: First Year of Data Report, available at: <http://www.networks.nhs.uk/nhs-networks/north-east-england-cardiac-arrest-network/documents/Out%20of%20Hospital%20Cardiac%20arrest%20registry.pdf>

International studies have identified specific public locations at greatest risk for cardiac arrest in local communities and have recommended placement of AEDs at these locations to maximize cost-effectiveness and survival. Public locations where there is a higher incidence of cardiac arrests identified include transport terminals (airports, ferries and train terminals) large public venues (shopping centres and sports venues), sports facilities (such as gyms and golf clubs) and industrial sites.<sup>17,18,19</sup> A study of cardiac arrest rates in the Seattle area concluded that AED placement can be guided by site-specific incidence of cardiac arrest.<sup>20</sup>

### **Provision of AEDs**

BHF has a long history of placing defibrillators within communities and began its work in this area by placing defibrillators on ambulances in the 1970s. In 2004, the BHF and the Department of Health launched the National Defibrillator Programme (NDP) in England. The NDP was a public access defibrillator programme which provided AEDs in busy public places, such as airports, railway and underground stations. The overall aim of the programme was to increase the proportion of people who survive an out-of-hospital cardiac arrest by providing training and placing AEDs in communities. 'As of February 2007, 110 live sites had received 681 automated external defibrillators (AEDs) and more than 6,000 people have received defibrillation training.'<sup>21</sup> Since 2007 the programme has been the responsibility of Ambulance Trusts.<sup>22</sup>

There is no statutory requirement regarding the placement of AEDs in public places and at present the majority of AEDs placed within communities are funded and awarded by a patchwork of charitable organisations, and Ambulance Trusts, often as part of broader community resuscitation strategies.

Due to the absence of a national register, the location and precise numbers of AEDs within communities is unknown. However, a small number of organisations have set up online national registries in an attempt to map the location of AEDs, for example, AEDLocator.co.uk and defibfinder.co.uk. However, these websites have had limited success to date.

Alongside the BHF, leading funders of AEDs within local communities include:

- Sudden Arrhythmic Death Syndrome (SADS) UK and Hand on Heart, two specialist charities who both have defibrillator initiatives in schools
- Arrhythmia Alliance, which runs a football club project and the Restart the Heart project which has placed over 100 AEDs in communities in the UK, and
- St John Ambulance and the British Red Cross – the main training providers for first aid courses & AEDs.

An example of a recent community public access defibrillator initiative is the Scottish Ambulance Service's partnership with Scotmid, a retail company, which was launched in

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<sup>17</sup> Brooks, S et al, Determining Risk for Out-of-Hospital Cardiac Arrest by Location Type in a Canadian Urban Setting to Guide Future Public Access Defibrillator Placement, *American College of Emergency Physicians*, <http://dx.doi.org/10.1016/j.annemergmed.2012.10.037>

<sup>18</sup> Location of Cardiac Arrest in a City Center Strategic Placement of Automated External AEDs in Public Locations, *Circulation*. 2009; 120: 510-517 <http://circ.ahajournals.org/content/120/6/510.full>

<sup>19</sup> Becker L, Eisenberg M, Fahrenbruch C, et al. Public locations of cardiac arrest: implications for public access defibrillation. *Circulation*. 1998;97: 2106–2109. <http://circ.ahajournals.org/content/97/21/2106.full>

<sup>20</sup> Becker, L. et al (1998) Public Locations of Cardiac Arrest: implications for public access defibrillation *American Heart Association*

<sup>21</sup> Department of Health, 2010, National Defibrillator Programme, available at : <http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Healthcare/Longtermconditions/Vascular/Coronaryheartdisease/Coronarypromotionproject/index.htm>

<sup>22</sup> Ibid.

2011 to support the business to purchase and install AEDs in their stores and train their staff to use them.<sup>23</sup>

## **Public awareness of AEDs**

AEDs are specifically designed to be used by members of the public as well as first responders in the event of a cardiac arrest. However, research shows a lack of public awareness and willingness to use them.<sup>24</sup> A research study in 2011, which surveyed 1,081 people in 38 nations, found that 53 per cent of all respondents were unable to identify an AED and 47 per cent of all respondents said they would be willing to use an AED.<sup>25</sup>

The Netherlands Heart Foundation launched a “6 Minutes” campaign in response to a lack of public awareness of what to do in the event of an out-of-hospital cardiac arrest the campaign aimed to:

- educate the Dutch public of the importance and use of AEDs,
- encourage and help the public along with local and national governments to establish 6 minute zones, to increase the availability of AEDs and response times in cases of sudden cardiac arrest.

This would then increase the availability of AEDs.<sup>26</sup>

## **Legal liability on resuscitation**

Concerns of legal liability and the unintentional injury of a cardiac arrest victim are believed to also act as a deterrent to bystander intervention and the use of AEDs.<sup>27</sup> As such, several areas in the US and Canada have introduced Good Samaritan laws – legislation designed to protect those who choose to tend to others who are injured or ill.<sup>28,29,30,31</sup> They are intended to reduce bystanders' hesitation to assist, for fear of being sued or prosecuted for unintentional injury or wrongful death.<sup>32</sup> In the case of some European countries this is framed in the context of a ‘Duty to Rescue’ law, legislation which penalises bystanders who fail to act in an emergency.<sup>33</sup> For the purposes of this statement we will focus on Good Samaritan laws.

A survey commissioned by the BHF in 2011 suggested that a fear of legal action may present a barrier to coming to the aid of someone who has suffered a cardiac arrest. The

<sup>23</sup> The Scottish Government, 2011, Defibrillator partnership, 10/10/2011, last visited: 24/3/13

<http://www.scotland.gov.uk/News/Releases/2011/10/10141042>

<sup>24</sup> Schober, P. *et al* (2011) ‘Public access defibrillation: time to access the public.’ *Ann Emerg Med.* 58(3):240-7

[http://www.annemergmed.com/article/S0196-0644\(10\)01868-8/fulltext](http://www.annemergmed.com/article/S0196-0644(10)01868-8/fulltext)

<sup>25</sup> *Ibid.*

<sup>26</sup> Netherlands Heart Foundation, Netherlands, 2013, 6-Minute Zones, <http://www.6minutenzone.nl/Home/Default.aspx>

<sup>27</sup> Jeffrey Lubin *et al*, 2004, An assessment of public attitudes toward automated external defibrillators, *Resuscitation*, Volume

62, Issue 1, July 2004, Pages 43–47 <http://www.sciencedirect.com/science/article/pii/S030095720400084X>

<sup>28</sup> Hannah England, BA; Paul S. Weinberg, JD; N. A. Mark Estes, MD, The Automated External Defibrillator Clinical Benefits and Legal Liability, *The Journal of the American Medical Association.* 2006;295(6):687-690.

<http://jama.jamanetwork.com/article.aspx?articleid=202311>

<sup>29</sup> Reiner, J.S *et al*, Shock and Law, *Circulation.* 2011; 124: 1391-1394

<http://circ.ahajournals.org/content/124/12/1391.full>

<sup>30</sup> British Columbia Laws, Good Samaritan Act [RSBC 1996] CHAPTER 17, Available at:

[http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/00\\_96172\\_01](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96172_01)

<sup>31</sup> Service Ontario e-laws , Good Samaritan Act, 2001, Available at: [http://www.e-](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_01g02_e.htm)

[laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_01g02\\_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_01g02_e.htm)

<sup>32</sup> Hannah England, BA; Paul S. Weinberg, JD; N. A. Mark Estes, MD, The Automated External Defibrillator Clinical Benefits and Legal Liability, *The Journal of the American Medical Association.* 2006;295(6):687-690.

<http://jama.jamanetwork.com/article.aspx?articleid=202311>

<sup>33</sup> Smits, J. (2000) The Good Samaritan in European Private Law; On the Perils of Principles without a Programme and a Programme for the Future, Inaugural lecture, Maastricht University <http://arno.unimaas.nl/show.cgi?fid=3773>

survey found that 40 per cent of respondents would be put off helping someone that had collapsed and wasn't breathing due to 'the thought of being sued if they did something wrong'.<sup>34</sup>

According to the Resuscitation Council UK, there are no known examples of anyone in the UK being successfully sued for any injury (e.g. broken ribs) resulting from someone performing CPR or using a defibrillator – and this would be very unlikely in the future. However, a lack of a specific protection for bystanders in a medical emergency may act as a deterrent. At present, there are no statutory duties relating to the field of resuscitation, but potential liability can arise at common law.<sup>35</sup>

### ***Domestic legislation in relation to public access AEDs***

In the UK there is no statutory requirement regarding the placement of AEDs in public places and at present there is no specific legal requirement for employers to provide AEDs in the work place. First aid at Work (FAW) courses do not include the use of AEDs.<sup>36</sup> However, FAW guidance states that if 'a workplace decides to provide a defibrillator in the workplace, those who may use it should be appropriately trained.'<sup>37 38</sup>

All UK ambulances are equipped with defibrillators for professional use, i.e. fixed defibrillators which are not automated, but some trusts also have AEDs on ambulances. For example, the London Ambulance Service has AEDs on all ambulances and response vehicles (e.g. rapid response cars). AEDs are not equipped on all emergency service vehicles in the UK, such as police and fire engines, however, in some instances there may be reasons for this. For example, a fire engine might only leave the station when it is on call and therefore it is not the best place to have an AED.

### ***Responses to out-of-hospital cardiac arrest***

The Department of Health has set a target for ambulance services to respond to at least 75% of category A (immediately life-threatening) calls within eight minutes. Research has shown that an individual's chance of survival following a sudden cardiac arrest decreases by 7% to 10% for every minute following onset.<sup>39</sup> Whilst it would be ideal for an ambulance to be on the scene within five minutes of an out-of-hospital cardiac arrest, this is just not practically possible, therefore Ambulance Trusts have developed groups of Community First Responders (CFRs) to help augment the ambulance service's response.

CFRs are typically members of the public who receive basic medical training from their ambulance service, or a charitable organisation specialising in life-saving skills (e.g. St John Ambulance). They have traditionally been dispatched in rural areas as a way of improving ambulance response times in cases of cardiac arrest, and are managed by ambulance services and trained to begin CPR and use an AED while waiting for the arrival of an ambulance crew.<sup>40</sup> In 2007, there were 10,158 CFRs across 1,331 CFR schemes in

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<sup>34</sup> One Poll, 2,000 respondents, UK-wide, November 2011. Full results available upon request

<sup>35</sup> Resuscitation Council UK (2010) The Legal Status of those who attempt resuscitation, Resuscitation Council UK: London <http://www.resus.org.uk/pages/legal.pdf>

<sup>36</sup> Health and Safety Executive (2013) Frequently Asked Questions on First Aid: Automated external defibrillators <http://www.hse.gov.uk/firstaid/faqs.htm>

<sup>37</sup> Ibid.

<sup>38</sup> Health and Safety Executive Northern Ireland, (2011) First-aid at work The Health and Safety (First-Aid) Regulations (Northern Ireland) 1982 [http://www.hseni.gov.uk/first\\_aid\\_at\\_work\\_approved\\_code\\_of\\_practice\\_2011.pdf](http://www.hseni.gov.uk/first_aid_at_work_approved_code_of_practice_2011.pdf)

<sup>39</sup> Commission for Healthcare Audit and Inspection, 2007 The role and management of community first responders: Findings from a national survey of NHS ambulance services in England, London: Commission for Healthcare Audit and Inspection

<sup>40</sup> Ibid.

England. In 2006/2007 CFRs in England responded to 92,928 (1.8%) of all emergency calls.<sup>41</sup>

In line with Resuscitation Council UK & American Heart Association guidelines, the British Heart Foundation advocates prompt CPR and AED intervention in a short space of time (a response time of approximately 4-5 minutes) to maximise the benefit of care to cardiac arrest victims.<sup>42</sup> In light of the high proportion of out-of-hospital cardiac arrests that occur within the home, action to improve medical response times to all out-of-hospital cardiac arrests and maintain existing Community First Responder Groups, is recommended.

To encourage greater levels of bystander intervention in cases of out-of-hospital cardiac arrests, and improve response times, the British Heart Foundation established the Heartstart training programme. The Heartstart scheme operates in schools across the UK, and teaches children life-saving skills, including CPR. The BHF believes that all young people in the UK should leave school with the knowledge of how to save a life, equipping them with vital skills needed in their communities. As part of our campaigns work, we have been calling on Government to create a new generation of lifesavers, by making life-saving skills a mandatory part of the National Curriculum.<sup>43</sup>

## ***Four nations overview***

### **Scotland**

In accordance with the Better Heart Disease and Stroke Action plan in 2009, NHS Boards in Scotland should have previously sought advice from their Cardiac Managed Clinical Networks to consider whether the introduction of static public access defibrillation schemes in busy public places would be beneficial.<sup>44</sup> Where advised that they would be appropriate, NHS Boards should have introduced schemes by the end of March 2010, however, the process for this has been delayed and at present it is unclear how many NHS Boards have done this.

### **Northern Ireland**

In January 2013, the Northern Ireland Executive announced the development of a regional community resuscitation strategy for Northern Ireland.<sup>45</sup> The Chief Medical Officer for Northern Ireland will be arranging for a working group to be established to develop a community resuscitation strategy for Northern Ireland, aimed at coordinating existing resources to maximise the number of individuals trained in life-saving skills, including defibrillation.<sup>46</sup> The document is set to be drafted for consultation in autumn 2013 (October).

### **Wales**

The Welsh Assembly recently published the Heart Disease Delivery Plan for Wales. The document outlines plans to review the provision of AEDs in public places – alongside investment in community first responders trained in CPR and ambulance response times – to significantly increase the chance of survival and recovery for out-of-hospital cardiac

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<sup>41</sup> Ibid.

<sup>42</sup> Resuscitation Council UK, Resuscitation Guidelines 2010, Resuscitation Council UK: London <http://www.resus.org.uk/pages/guide.htm>

<sup>43</sup> For more information, visit [bhf.org.uk/els](http://bhf.org.uk/els)

<sup>44</sup> The Scottish Government, 2009, Better Heart Disease and Stroke Care Action Plan, Defibrillators in public places (4.20-4.24), available at: <http://www.scotland.gov.uk/Publications/2009/06/29102453/6>

<sup>45</sup> Northern Ireland Executive, 2013, Health Minister Edwin Poots today announced the development of a regional community resuscitation strategy for Northern Ireland.

Wednesday, 9 January 2013 <http://www.northernireland.gov.uk/news-dhssps-090113-minister-announces-the>

<sup>46</sup> Ibid.

arrests. According to the plan the review will be conducted within Local Health Board areas, in liaison with the Welsh Ambulance Service Trust and the British Heart Foundation.<sup>47</sup>

## England

In March 2013, a debate was held in Parliament regarding AEDs in public places. The debate, led by Steve Rotherham MP, was the result of an e-petition which received over 100,000 signatures, which illustrates the broad level of public support for the issue. The debate forms part of a campaign that has been led by the Oliver King Foundation and a coalition of community organisations, which is being supported by the Labour Party.

During the debate, Shadow Health Minister Andy Burnham and other MPs called for legislation to require the placement of defibrillators in public places to ensure that they are available where they are most needed. However, Health Minister Anna Soubry disagreed with this proposal – commenting that she wasn't convinced of the need for legislation and that Ambulance Trusts were the best people to ensure the delivery of AEDs and training in communities.<sup>48</sup>

## *International comparison on the placement of AEDs*

### Canada

Under regulations contained within The Defibrillator Public Access Act, the Government in the Canadian Province of Manitoba will require AEDs to be installed in high-traffic public places such as gyms, arenas, community centres, golf courses, schools and airports by January 31, 2014.<sup>49</sup>

The public places designated under the Act were selected based on expert advice and public feedback. An expert advisory group, including paramedics and charitable organisations, identified several types of high traffic public places where cardiac arrest is more likely to occur, public capacity thresholds, as well as the types of activities that occur, e.g. physical activity.

The Act and Regulation outline the following requirements:

- **Access and installation:** Owners of premises must install AEDs to ensure that a member of the public witnessing a victim of cardiac arrest at any public location on the premises is able to access a defibrillator and return to the victim in less than three minutes to maximize the benefit offered by AEDs.
- **Registration:** Once installed, AEDs must be registered with the Heart and Stroke Foundation in Manitoba, which acts as the registrar. This registry is shared with 911 dispatchers so they can assist a caller in an emergency with locating the nearest AED.
- **Maintenance:** owners of designated premises maintain their AEDs in accordance with the Regulation and can make their own arrangements as to who inspects it.

<sup>47</sup> Welsh Government (2013) Together for Health – a Heart Disease Delivery Plan

A Delivery Plan up to 2016 for NHS Wales and its Partners <http://wales.gov.uk/docs/dhss/publications/130503hearten.pdf>

<sup>48</sup> Hansard (2013) Westminster Hall, Back Bench Debate, Sudden Adult Death Syndrome, Monday 25 March 2013

<http://www.publications.parliament.uk/pa/cm201213/cmhansrd/cm130325/halltext/130325h0001.htm#13032523000001>

<sup>49</sup> Manitoba Law, 2011 The Defibrillator Public Access Act, <http://web2.gov.mb.ca/laws/statutes/2011/c01011e.php>



## USA

Over the past decade, legislators in some US States have introduced a broad range of laws to introduce the availability of AEDs.

The following areas have introduced legislation requiring or supporting AED placement in:

- **Schools:** California, Colorado, Florida, Georgia, Illinois, Iowa, Maryland, Michigan, Nevada, New Jersey New York, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, Wisconsin.
- **Health Clubs:** California, Illinois, Indiana, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, Rhode Island, and the District of Columbia.<sup>50</sup>
- **Public places:**
  - **Oregon:** In the state of Oregon, all places of public assembly that have 50,000 ft<sup>2</sup> or more and where at least 25 persons congregate on a normal business day will be required to possess at least one AED and therefore must comply with this policy where noted.<sup>51</sup>
  - **New York State:** New York State requires all public buildings, stadia, arenas and convention centres in cities with a population of over one million to be equipped with AEDs and that employees are trained in their use.<sup>52</sup> The state also requires every assisted living facility to have at least one AED on the premises and have at least one individual trained in its use in attendance at all times.<sup>53</sup>

## Taiwan

In December 2012, the Taiwanese Government introduced legislation requiring the installation of AEDs in public venues.<sup>54</sup> However, the emphasis appears to be on the use of defibrillators by individuals with prior training and the Department of Health is currently in the process of determining the order of priority for venues where AEDs will be installed. The amended law also exempts people who try but fail to save a life with the device from criminal and civil liabilities. Off-duty medical professionals are included in this immunity.<sup>55</sup>

## Japan

The Japanese government has not legislated any requirement of the placement of AEDs in public places. However, its authorisation of the use of AEDs by laypersons in 2004 has led to rapid dissemination of AEDs.<sup>56</sup> This has been primarily guided by voluntary involvement of individual organisations and business owners rather than government action. Unique concepts are being employed to expand public use but keep costs to a minimum – for

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<sup>50</sup> National Conference of State Legislatures (2013) State Laws on Cardiac Arrest & Defibrillators. <http://www.ncsl.org/issues-research/health/laws-on-cardiac-arrest-and-defibrillators-aeds.aspx>

<sup>51</sup> 75th Oregon Legislative Assembly--2009 Regular Session Senate Bill 556 <http://www.statesurge.com/bills/sb556-oregon-552404>

<sup>52</sup> State of New York, 2009, Bill 1246 [http://www.statescape.com/TextArchive/BillTextArchive/SSBillText2010/NY20092010/NY\\_20092010\\_AB\\_001246\\_Current\\_2026.htm](http://www.statescape.com/TextArchive/BillTextArchive/SSBillText2010/NY20092010/NY_20092010_AB_001246_Current_2026.htm)

<sup>53</sup> State of New York, 2009, Bill 5611 [http://www.statescape.com/TextArchive/BillTextArchive/SSBillText2010/NY20092010/NY\\_20092010\\_AB\\_005611\\_Current\\_4498.htm](http://www.statescape.com/TextArchive/BillTextArchive/SSBillText2010/NY20092010/NY_20092010_AB_005611_Current_4498.htm)

<sup>54</sup> Taiwan Today, 2012, ROC lawmakers OK AEDs in public places , 12/26/2012 <http://taiwantoday.tw/ct.asp?xItem=200153&CtNode=413>

<sup>55</sup> Ibid.

<sup>56</sup> Hideo Mitamura, Public access defibrillation: advances from Japan, *Nature Clinical Practice Cardiovascular Medicine* (2008) 5, 690-692 <http://www.nature.com/nrcardio/journal/v5/n11/full/ncpcardio1330.html>

example, AEDs have been placed in vending machines where costs are covered by food and drink purchases and advertising panels have been placed above the AED to create revenue.

## Switzerland

Since July 2008 all buses in Davos have been equipped with AEDs and bus drivers are trained to use them. This project is controlled and supported by Hospital Davos.<sup>57</sup>

## Portugal

AEDs are located in public places but use is limited to laypersons who are trained and certified. In 2011, there were 145 AEDs licensed for use in Portugal – 2/3 of which are placed in public spaces e.g. shopping centres and airports, however, according to media reports, the Government has recently introduced a requirement that all sports, leisure and entertainment venues with a capacity of 5,000 people will also have to have the equipment installed.<sup>58 59</sup>

## *BHF activity*

AED deployment by the BHF has been in existence since the early 1990s and has helped to improve the range of these lifesaving pieces of equipment by donating AEDs to GPs initially, then offering supportive funding for AEDs in the wider community. In 1999 the BHF and Department of Health (DH) worked together to bring 700 AEDs to static sites across the UK in areas of high footfall under the Defibrillators in Public Places Initiative (DIPPI), this was built upon by the National Defibrillator Programme from 2004-2006 which saw a further 2300 units placed within the community in England with support from the Big Lottery Fund. This fulfilled the criteria set out by the DH of having a network of 3000 public access defibrillators within the UK. These developments have run concurrently with the BHF funded initiatives and have helped to build a network of AEDs across the UK.

In recent years the BHF AED programme has passed the landmark figure of 9500 AEDs deployed into the community. The range of the AED programme has been far reaching and the BHF knows of at least 230 lives saved since inception; with potentially many more that have gone unreported or that attempted to save a life without success. Between 2000-2013 the BHF spent approximately £10.8 million on AEDs.

In March 2013, BHF launched a partnership with The Football Association (FA) to place defibrillators in lower league football clubs in England. The £1.2million project, which includes teaching Hands-only CPR skills, will place at least 900 defibrillators in National League System clubs, below Npower League Two, and the Women's Super League. The BHF will match fund an initial donation of £400,000 from The FA towards the cost of the defibrillators, with clubs contributing the rest of the money.

At present, the BHF and Resuscitation Council UK are currently funding a project to create a national cardiac arrest registry whereby OHCA data can be collated and easily compared (at the moment ambulance services collect data in different ways).

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<sup>57</sup> Davos Klosters (2013) Heart Safe Davos, Available at: <http://www.davos.ch/en/stay/health-spa-town/heart-safe-in-davos.html>

<sup>58</sup> Portugal News (2011) Portugal making progress in heart attack intervention <http://www.theportugalnews.com/news/view/1100-13>

<sup>59</sup> Portugal News (2012) Defibrillators compulsory in shopping centres <http://theportugalnews.com/news/defibrillators-compulsory-in-shopping-centres/26412>

## Policy statement – Defibrillators in public places

BHF's activity in relation to AEDs forms part of a wider Community Resuscitation programme, which seeks to strengthen the Chain of Survival. The programme is formed of three key strands: Heartstart (which teaches life-saving skills within schools & communities across the UK), AEDs and Community Resuscitation funded posts (such as Community Resuscitation Development Officers, Community Resuscitation Training Officers and Community Defibrillation Officers). The BHF's Community Resuscitation programme is currently being reviewed and at present we cannot guarantee the content of it going forwards.

**For more information, please contact [policy@bhf.org.uk](mailto:policy@bhf.org.uk)**

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