



Policy statement

Creating a Nation of Lifesavers

Introduction

The British Heart Foundation (BHF) is leading the fight to ensure more people survive a cardiac arrest. In the UK there are over 30,000 cardiac arrests a year outside of hospital where the emergency medical services attempt to resuscitate the victim.¹ However, the survival rate is dismal – less than one in ten victims survive to be discharged from hospital² - and this rate lags behind those of other developed nations. Every minute counts when someone has had a cardiac arrest. There are a few simple steps that anyone witnessing a cardiac arrest, or finding a victim, can take to help save their life: calling 999, performing CPR (cardiopulmonary resuscitation) and using a PAD (public access defibrillator) if one is available. But people lack the skills, ability and confidence to step in and help. The BHF is determined to tackle this, by creating a Nation of Lifesavers and improving survival rates for out of hospital cardiac arrest. Ensuring that all young people are taught CPR and PAD awareness at secondary school will be vital to achieving this ambition.

Policy statement

The BHF wants Governments and relevant bodies across the UK to:

- launch national public awareness campaigns on recognising cardiac arrest;
- develop strategies to improve response times to out of hospital cardiac arrest, including reviewing the operation of Community First Responder schemes;
- ensure all young people are taught CPR and PAD awareness at secondary school;
- build on the BHF's investment in setting up a UK wide database of PADs by committing to funding its on-going maintenance;
- ensure PADs are located where they are accessible to the public, in unlocked cabinets with universal signage;
- make more PADs available by developing an agreed list of places they should be installed. Legislation should then be introduced covering installation in these places as well as registration, accessibility, and maintenance, alongside measures to increase the number of people trained in CPR; and
- consider introducing legislation to help protect those that step in to help during a medical emergency from legal action. Such legislation has already been proposed for England and Wales.

¹ We Fight for every Heartbeat, Our Strategy to 2020, British Heart Foundation, 2014. Available at: <http://www.bhf.org.uk/publications/view-publication.aspx?ps=1002531> This figure includes 28,000 out of hospital cardiac arrests in England in 2013 where the emergency medical services attempted resuscitation. See: www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/

² In England the rate of survival to discharge for the 28,000 out of hospital cardiac arrests where the emergency medical services attempted resuscitation in 2013 was 8.6%. See: www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/ Comparable survival statistics are not published for Scotland, Wales and Northern Ireland.

Background

What is a cardiac arrest?

In a cardiac arrest, a person's heart goes into a life threatening rhythm and stops pumping blood around their body and to their brain. It causes the person to fall unconscious and stop breathing (or stop breathing normally).

A heart attack is the most common cause of cardiac arrest, but not everyone that has a heart attack will have a cardiac arrest. There are several other potential causes of cardiac arrest, including other heart problems, severe bleeding, choking or electrocution.

How common is cardiac arrest? How many people survive?

In the UK there are over 30,000 cardiac arrests a year outside of hospital – in homes and communities – where the emergency medical services attempt resuscitation.³ However, less than one in ten victims of cardiac arrest survive to be discharged from hospital.⁴

Survival rates in the UK lag behind those in other developed countries and areas such as Norway, where the survival rate is 25%,⁵ North Holland where the survival rate is 21%,⁶ and Seattle in the US where the survival rate is 20%.⁷ Although these figures have to be interpreted carefully, as there are differences in the way they are presented, there is consensus that we can – and must - improve survival rates in the UK.

In some cases, CPR can double the chances of survival from out of hospital cardiac arrest.⁸ It is therefore vital that anyone that witnesses a cardiac arrest, or finds a victim, has the skills, ability and confidence to step in and help.

³ We Fight for every Heartbeat, Our Strategy to 2020, British Heart Foundation, 2014. Available at: <http://www.bhf.org.uk/publications/view-publication.aspx?ps=1002531>. This figure includes 28,000 out of hospital cardiac arrests in England in 2013 where the emergency medical services attempted resuscitation. See: www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/

⁴ In England the rate of survival to discharge for the 28,000 out of hospital cardiac arrests where the emergency medical services attempted resuscitation in 2013 was 8.6%. See: www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators/ Comparable survival statistics are not published for Scotland, Wales and Northern Ireland.

⁵ Lindner TW et al. Good outcome in every fourth resuscitation attempt is achievable - An Utstein template report from the Stavanger region. Resuscitation 2011; 82:1508-13.

⁶ Grasner JT et al. Quality management in resuscitation--towards a European cardiac arrest registry (EuReCa). Resuscitation 2011;82:989-94.

⁷ Division of Medical Services Public Health - Seattle & King County, 2013 Annual Report to the King County Council. Available at: <http://www.kingcounty.gov/healthservices/health/ems/reports.aspx>

⁸ Nolan, J.P et al (2010): European Resuscitation Council Guidelines for Resuscitation 2010, Resuscitation 2010;81:1219-1451. Available at: <http://www.cprguidelines.eu/2010/>

The Chain of Survival



The Chain of Survival is the series of actions necessary to help save the life of someone who has had a cardiac arrest. The four actions in the Chain are: early recognition of the problem and calling 999; early CPR; early defibrillation; and effective post-resuscitation care. All four parts of the Chain are crucial in helping to save the life of a victim.

Recognising that someone is having a cardiac arrest and calling 999 is vital to ensure that the emergency services arrive as soon as possible. Performing CPR keeps the blood flowing to vital organs such as the brain and increases the chances of the heart remaining in a 'shockable' rhythm until a defibrillator is used. In some cases using a defibrillator will shock the heart to restore a normal rhythm.

Effective post resuscitation care is provided by the emergency medical services and hospital, and depends on the cause of the cardiac arrest. This policy statement focuses on the first three elements of the Chain of Survival.

The Chain of Survival: recognising cardiac arrest and calling 999

Recognising that someone is having a cardiac arrest and calling 999 is vital to ensure that the emergency services arrive as soon as possible. Having called 999, the emergency operator can also instruct the caller in CPR if necessary, and tell them if there is a PAD in the area which they could send someone to fetch.

Raising public awareness of cardiac arrest

A YouGov poll conducted for the BHF in September 2014 suggests that many people may not recognise a cardiac arrest: 44% said they thought a cardiac arrest and a heart attack were different terms to describe the same condition, and 21% did not know if there was a difference.⁹

Public awareness campaigns have been successful in improving recognition and action amongst the public for other conditions where a quick response is necessary. For example, in England, following the Department of Health's Act FAST campaign which started in 2009, a survey found that the number of people that would call 999 if

⁹ All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 2,072 adults. Fieldwork was undertaken between 12th -14th September 2014. The survey was conducted online. All figures have been weighted and are representative of all UK adults (age 18+).

they saw the signs of stroke increased by around 25% for each of the symptoms the campaign covered: a slumped face, an inability to lift the arms, and slurred speech. A Public Accounts Committee audit of the four ambulance services that had comparable data between 2008 and 2009 showed a 54% increase in the number of stroke calls in the April to June period between those two years.¹⁰

The BHF wants Governments and relevant bodies across the UK to launch national public awareness campaigns on recognising cardiac arrest, what action should be taken, and why it is important to act quickly.

Ambulance response times and Community First Responders

A cardiac arrest is considered a Category A incident - one that is immediately life threatening - by emergency medical services. Governments across the UK have set targets for Category A calls to be responded to within 8 minutes. Targets and the latest available data on national performance against them are set out in the table below. There are variations in performance against targets between the different ambulance services in the different parts of the UK.

	Category A calls – proportion responded to in 8 minutes	
	Target	Actual
England	75%	75.6% (2013/2014) ¹¹
Wales	65%	59.9% (2013/2014) ¹²
Scotland	75%	73.9% (2013/14) ¹³
Northern Ireland	72.5%	68.3% (2012/13) ¹⁴

Governments across the UK have encouraged the development of Community First Responder (CFR) schemes to help respond to Category A calls within the target time of 8 minutes. CFRs are volunteers who respond to emergency calls within their local communities in their spare time. They are usually lay people who have received training – including CPR and how to use a defibrillator – from their local ambulance service, although healthcare professionals, and other emergency workers such as fire fighters and life guards are also used in some areas. CFRs are normally dispatched at the same time as an ambulance to Category A calls in rural areas, or other areas that an ambulance is unlikely to reach in the target time of 8 minutes.

In April 2007, the then Healthcare Commission in England undertook a national survey of ambulance services about their CFR schemes. At that time there were 10,158 CFRs in England, ranging from between 25 to 2,080 per ambulance service, with an average of 847 per service. However, CFRs responded to a relatively low

¹⁰ Department of Health, Progress in Improving Stroke Care, National Audit Office, February 2010. Available at: <http://www.nao.org.uk/wp-content/uploads/2010/02/0910291.pdf>

¹¹ See: <http://www.hscic.gov.uk/searchcatalogue?productid=15165&q=ambulance&sort=Relevance&size=10&page=1#top> In England Category A calls were divided into Red 1 (most serious and time critical) and Red 2 (serious but less time critical) in June 2012. Red 1 calls include cardiac arrest.

¹² See: <https://stats.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Performance/Ambulance-Services/AmbulanceCallsAndEmergencyResponses-by-Area-CategoryOfCall> Data for the Welsh Ambulance Service is provided by month. This percentage has been calculated using the data provided for April 2013 to March 2014.

¹³ See: http://www.scottishambulance.com/UserFiles/file/TheService/Annual%20Review%20Self-Assessment%20201314%20Approved_%2020141706.pdf

¹⁴ See: http://www.niamb.co.uk/docs/documents/annual_reports/annual_report_12-13.pdf

proportion of calls, just 1.8% of all emergency calls in 2006/7¹⁵. In July 2010 there were over 1,000 CFRs in Scotland.¹⁶ There is little comprehensive, up to date, information on CFRs readily available.

The BHF wants Governments and relevant bodies across the UK to develop strategies to improve response times to out of hospital cardiac arrest. As part of this, the operation of CFR schemes should be reviewed, with the aim of increasing the number of emergency calls they respond to where possible.

The Chain of Survival: performing CPR

What is CPR?

CPR involves giving a combination of chest compressions and mouth to mouth 'rescue breaths' to the person that has had a cardiac arrest. People that have not been trained in CPR, or who are uncomfortable giving rescue breaths to strangers, can just do chest compressions. This is known as 'hands-only' CPR and further information on this is provided on page 8.

Why is CPR important?

Performing CPR keeps the blood flowing to vital organs such as the brain and increases the chances of the heart remaining in a 'shockable' rhythm (these rhythms are known as ventricular fibrillation or pulseless ventricular tachycardia) until a defibrillator can be used – whether by a member of the public or the emergency services. Without CPR a 'shockable' heart rhythm can deteriorate into a 'non-shockable' rhythm in a few minutes.

Furthermore, not all of the heart rhythms that cause cardiac arrest will respond to the electric shock given by a defibrillator (this rhythm is known as asystole) and around 80% of out of hospital cardiac arrests happen in people's homes, where family and friends are unlikely to be able to access a PAD.¹⁷ Further information on PADs is provided on pages 9 to 11. Being able to perform CPR in these cases is vital in keeping the victim alive until the emergency services arrive.

However, too few people know how to perform CPR. Over the years, surveys have shown that around three quarters of people do not know how to perform CPR,¹⁸ although in a YouGov poll conducted for the BHF in September 2014, 47% of people said they had received formal CPR training. However, only 29% said they would be

¹⁵ The role and management of community first responders. Findings from a national survey of NHS ambulance services in England, Healthcare Commission, December 2007. Available at: https://www.bristol.gov.uk/committee/2008/wa/wa048/0418_7.pdf

¹⁶ Evaluation of the introduction of a Community First Responder scheme in Rannoch and Tummel, University of Aberdeen and University of the Highlands and Islands, May 2011. Available at: <http://www.nhstayside.scot.nhs.uk/Kinloch%20Rannoch%20final%20report.pdf>

¹⁷ London Ambulance Service Cardiac Arrest Annual Report 2012/2013. Available at: www.londonambulance.nhs.uk

¹⁸ BHF research in 2006 found that nearly three quarters of people were not trained in CPR (CPR training research, British Heart Foundation, Ed Coms, 2006.) A survey undertaken in 2010 by St John Ambulance, St Andrew Ambulance and the British Red Cross found that 77% of people either did not know how to perform CPR, or were unsure – see: <http://www.sja.org.uk/sja/about-us/latest-news/news-archive/news-stories-from-2009/february/national-first-aid-awareness.aspx>

confident performing CPR on a loved one, family member or friend, and only 22% would be confident performing CPR on a stranger.¹⁹ Increasing the number of people that have the skills and confidence to perform CPR is a crucial part of creating a Nation of Lifesavers.

Teaching CPR in secondary schools

We believe the most effective way to ensure that as many people as possible know how to perform CPR is to teach them at school.

Young people are often present at accidents and emergencies, and older children are able to effectively perform CPR.²⁰ Research has shown that skill retention among young people taught such skills is good.²¹ Young people may also share what they have learnt with family and friends, suggesting this could be an effective way of reaching the wider community.²²

We know that some schools do teach CPR and other life-saving skills – usually through subjects that focus on personal, social and health information and skills – although this is not mandatory. There are currently no official figures on the number of schools that teach CPR and other lifesaving skills. However, we estimate that over 70,000 young people in the UK received CPR training through a BHF Heartstart scheme at their secondary school in 2013 – that’s just 2% of young people at secondary school in the UK.²³ At least 5% of young people are likely to have received first aid training at secondary school that may include CPR through other organisations. And of course, young people will also do first aid training that includes CPR in their local community through various routes.

Eighty two per cent of people in a YouGov poll conducted for the BHF in September 2014 said they thought all young people should leave secondary school with CPR skills.²⁴ CPR is taught at school in several countries within Europe, including Denmark and Norway. Nineteen US states have passed laws making CPR a high school graduation requirement.²⁵ Several Australian states, including Queensland, have included CPR as a mandatory requirement in their school curricula. In places where CPR is taught at school and figures are presented in a broadly comparable

¹⁹ All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 2,072 adults. Fieldwork was undertaken between 12th -14th September 2014. The survey was conducted online. All figures have been weighted and are representative of all UK adults (18+).

²⁰ Jones I et al. At what age can schoolchildren provide effective chest compressions? A prospective observational study from the Heartstart UK schools training programme. *BMJ* 2007 Jun 9;334(7605):1201. Epub 2007 Apr 27. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/17468118>

²¹ Fleischhackl R et al. School children sufficiently apply life supporting first aid: a prospective investigation. *Crit Care* 2009; 13(4): R127. Published online 2009 July 31. doi: 10.1186/cc7984. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2750181/>

²² A review of BHF Heartstart training in Northern Ireland found that 67% of children had shared what they learnt with family and friends. North Eastern Education and Library Board, Heartstart Schools programme Audit Report 2007/9. 2009.

²³ This is a BHF estimate based on number of people trained in Heartstart in 2012 and 2013, and the number of pupils at secondary school across the UK.

²⁴ All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 2,072 adults. Fieldwork was undertaken between 12th -14th September 2014. The survey was conducted online. All figures have been weighted and are representative of all UK adults (18+).

²⁵ See: http://www.heart.org/HEARTORG/CPRAndECC/CommunityCPRandFirstAid/CPRinSchools/CPR-in-Schools_UCM_453682_SubHomePage.jsp Data correct as at October 2014.

way to those for the UK, for example in Norway and Seattle, the survival rates from out of hospital cardiac arrest are more than double that of the UK.²⁶

The BHF wants all young people to be taught CPR and PAD awareness at secondary school.

How would this be implemented?

In England, the Government should ensure that CPR and PAD awareness are a mandatory part of a mandatory subject on the curriculum. They could achieve this by adding it to the programme of study for a relevant subject on the national curriculum such as science, PE or citizenship, at key stages 3 and 4 (ages 11-16). All maintained schools (those that are local authority funded) are required to teach the national curriculum, as well as a wider basic curriculum of religious education, sex and relationships education and careers education. Alternatively Personal, Social, Health and Economic (PSHE) education - which the Government expects schools to teach but which is not mandatory - could be made part of the national curriculum. The PSHE Association has published a programme of study to guide schools in teaching this subject. Health and Wellbeing is one of three core themes in the programme, and covers responding to an emergency including first aid, for children at key stages 3 and 4.²⁷

In Wales, administering basic first aid is currently included as an example of how children could be given opportunities to develop the practical skills necessary for everyday life – a learning outcome for Personal and Social Education (PSE) at Key Stages 3 and 4 (ages 11-16).²⁸ In Wales PSE is a mandatory part of the school curriculum, although this framework for PSE is non-statutory. The Welsh Government has commissioned Professor Graham Donaldson to undertake an independent review of the national curriculum and assessment arrangements. The BHF has provided evidence to the review calling for the inclusion of CPR and PAD awareness on the national curriculum.

In Scotland, knowing how to respond in a range of emergency situations is one of the experiences and outcomes for the curriculum area of health and wellbeing in the Curriculum for Excellence.²⁹ However, this is not a national curriculum, so education authorities are responsible for deciding what should be taught to meet the experiences and outcomes set out in the various curriculum areas in schools in their area. Education authorities should specify that CPR and PAD awareness should be taught in schools in their area to meet this experience and outcome.

In Northern Ireland, developing an awareness of emergency first aid procedures is one of the statutory outcomes for the Personal Development strand for the learning

²⁶ The survival rate is 25% in Norway and 20% in Seattle. See page 2 for further information.

²⁷ See: https://www.pshe-association.org.uk/resources_search_details.aspx?ResourceId=495

²⁸ Personal and Social Education Framework for 7-19 year olds in Wales, Welsh Assembly Government, January 2008. Available at: [http://dera.ioe.ac.uk/11294/1/PSE_Framework_WEB_\(E\).pdf%3Flang%3Den](http://dera.ioe.ac.uk/11294/1/PSE_Framework_WEB_(E).pdf%3Flang%3Den)

²⁹ <http://www.educationscotland.gov.uk/learningteachingandassessment/curriculumareas/healthandwellbeing/eados/index.asp>

area of learning for life and work at key stage 3 (ages 11-14).³⁰ To ensure they are delivering this outcome, all schools should cover CPR and PAD awareness, and also ensure that young people are taught how to perform CPR rather than just develop an awareness of it.

Across all parts of the UK, private or independent schools (as well as free schools and academies in England) can set their own curriculum. Governors of these schools should help ensure that CPR and PAD awareness are taught as part of their schools curriculum. School governors in maintained schools across the UK can also help to ensure that CPR and PAD awareness are part of their schools curriculum prior to national and local governments making changes to ensure it is taught.

Other ways of ensuring people are trained in CPR

The BHF recognises that people that have already left school when CPR and PAD awareness are added to the curriculum will not benefit from being trained at school. Some people will be taught CPR for work – for example as part of their profession, or as a first aider in the workplace.³¹ The BHF encourages everyone to get trained in CPR and PAD awareness, and is looking at other ways in which people that have already left school might receive training.

CPR Training

The BHF and a number of other organisations provide training in CPR. In October 2014 the BHF launched its **Call Push Rescue** training package which covers CPR and PAD awareness, as well as recognising a cardiac arrest and calling 999. The BHF has been teaching CPR as part of its Heartstart scheme since 1996. Further information on both is provided on page 14.

'Hands-only' CPR

If someone has not been trained in CPR with rescue breaths or is uncomfortable giving rescue breaths to a stranger then they can just do chest compressions or 'hands-only' CPR. The BHF's Vinnie Jones advert showed how simple it is to 'push hard and fast' on the centre of a victim's chest to the beat of 'Stayin' Alive'. The BHF's 'hands-only' CPR resources can be found [here](#). European and UK guidelines recommend CPR with chest compressions and rescue breaths, however it is better to deliver 'hands-only' CPR than do nothing.

³⁰ See: http://www.nicurriculum.org.uk/docs/key_stage_3/areas_of_learning/statutory_requirements/ks3_personaldev.pdf

³¹ First aid at work, The Health and Safety (First-Aid) Regulations 1981, Guidance on Regulations, Health and Safety Executive, 2013; and First-Aid at work, The Health and Safety (First-Aid) Regulations (Northern Ireland) 1982, Approved Code of Practice and Guidance, Health and Safety Executive Northern Ireland, 2011. The regulations require employers to make arrangements to ensure their employees receive immediate attention if they are injured or taken ill at work. Employers should make an assessment of first aid needs appropriate to the circumstances in the workplace, which should include non-employees where organisations provide a service for others. Where a workplace has higher hazard levels or more than 25 people are employed, the employer should provide a sufficient number of first aiders, whose training should include CPR.

The Chain of Survival: using a public access defibrillator (PAD)

What is a defibrillator?

A defibrillator is a machine that analyses the rhythm of the heart and can deliver an electric shock to try and restore a normal heart rhythm if necessary. All UK ambulances are equipped with fixed defibrillators for professional use. However, there are also thousands of public access defibrillators (PADs) – portable, lightweight defibrillators designed specifically for use by members of the public - in public places across the UK. They are sometimes also referred to as automatic external defibrillators (AEDs). Community First Responders carry PADs, and some ambulance services also put PADs on their ambulances. PADs are fully automated and talk the user through what they need to do, including whether it is necessary for the heart to be shocked, so it is not necessary to be trained in using a PAD.

Why is defibrillation important?

A defibrillator can restore the life-threatening heart rhythm that causes a cardiac arrest to a normal heart rhythm. However, a ‘shockable’ heart rhythm can deteriorate into a ‘non-shockable’ rhythm within a few minutes, and not all heart rhythms will respond to the shock given by a defibrillator. Additionally, where a cardiac arrest occurs in the home, friends and family are unlikely to have access to a PAD. Knowing how to perform CPR is therefore vital in helping the victim of an out of hospital cardiac arrest until the emergency medical services arrive: witnesses cannot rely on defibrillation alone.

Improving the availability of PADs

There are already many thousands of PADs in public places across the UK. The BHF worked with the Department of Health in England between 1999 and 2007 on programmes to place PADs in local communities (since when the Department has handed responsibility for PAD placement to local ambulance services).³² As part of its own programme, the BHF has part funded over 13,000 PADS since 1996. Other charities also fund PADs, and some organisations install them in their premises independently.

However, the exact numbers of PADs, and their location, is not known as there is no central record. Some PADs are registered with the local ambulance service, so that someone calling 999 can be told where the nearest PAD is, as well as how to perform CPR. However, a BHF survey of ambulance services in 2014 found that the number of PADs registered with the local ambulance service ranged between 65 and 2000. Although some organisations have set up online registries in an attempt to map the location of PADs – for example AEDlocator.co.uk and defibfinder.co.uk - their coverage is limited.

³² See:

<http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Healthcare/Longtermconditions/Vascular/Coronary/heartdisease/Coronarypromotionproject/index.htm>

The BHF has committed to fund the setting up of a UK wide database of PADs. This will ensure that as many PADs as possible are registered with the local ambulance service, and crucially, that emergency services are able to direct people to the nearest PAD.

The BHF wants Governments and other relevant bodies across the UK to build on its investment and to ensure the sustainability of the database by committing to funding its on-going maintenance.

Improving the accessibility and visibility of PADs

People need to be able to access PADs quickly. PADs should be located as close as possible to where they are most likely to be needed. This will often be determined by the layout of the building or other location and the potential number of people at risk. If a building is not open at all times, consideration should be given to whether the PAD can be located on the outside of the building, so it can be used by a member of the public at any time of the day or night in an emergency nearby. Key personnel in the building should know where the PAD is located. The Resuscitation Council (UK) and BHF have produced guidance on PADs which includes placement.³³ In order to help anyone, including a member of the public, identify where a PAD is located, the standard sign for a PAD, designed by the Resuscitation Council (UK), should be used.³⁴

Many PADs are kept in locked or coded cabinets as a result of concern about theft or vandalism. However, the London Ambulance Service suggests very few PADs are stolen or vandalised. Locking them away can create an extra delay whilst the person with the key or code is located. We believe that PADs should not normally be kept in locked or coded cabinets. However, if it is considered that there is a significant risk of theft or vandalism any protective measures must be accompanied by reliable arrangements to minimise the delay in accessing the PAD.³⁵

The BHF wants all PADs to be located where they are accessible to the public, in unlocked cabinets with universal signage. In its guidance on first aid at work, the HSE should advise employers that install PADs to use the standard sign for a PAD and follow Resuscitation Council (UK) and BHF guidance on placement of PADs.

Increasing the number of PADs

In order to be most effective, PADs must be placed where they are most likely to be needed. International studies have identified specific locations where people are at greater risk of having a cardiac arrest and recommended that PADs are placed in these locations to maximise cost effectiveness and improve survival rates. These include places where there are high numbers of people, such as transport terminals - including train stations, airports, and ferry terminals – and large public venues such

³³ A guide to Automatic External Defibrillators (AEDs), Resuscitation Council UK and British Heart Foundation, December 2013. Available at: http://www.resus.org.uk/pages/AED_Guide.pdf

³⁴ See: <http://www.resus.org.uk/pages/AEDsign.htm>

³⁵ A guide to Automatic External Defibrillators (AEDs), Resuscitation Council UK and British Heart Foundation, December 2013. Available at: http://www.resus.org.uk/pages/AED_Guide.pdf

as shopping centres and sports stadia; and places where the nature of the activity undertaken there means cardiac arrest is more likely, including gyms and swimming pools.^{36 37 38} The BHF's criteria for funding PADs reflect this.

There are currently no requirements in the UK around the installation of PADs in public places. In some countries legislation requires defibrillators to be installed in certain public places. In Manitoba in Canada, regulations under the Defibrillator Public Access Act of 2011 required PADs to be placed in a variety of locations, including gyms, arenas, community centres, golf courses, and airports by 31 January 2014. The legislation also requires the owners of premises on which PADs are installed to register them with the Heart and Stroke Foundation in Manitoba, which holds a registry shared with the emergency medical services, and to maintain PADs in accordance with the regulations.³⁹ Similar legislation is currently being progressed in Ireland. In Oregon in the USA, all places of public assembly of 50,000 square feet or more and where at least 25 persons congregate on a normal business day are required to have at least one PAD.⁴⁰ In New York state all public buildings, stadia, arenas and convention centres in cities of more than one million people must have a PAD and employees must be trained in their use.⁴¹ In other states in the USA legislation has been passed requiring PADs to be made available in one or more locations such as health clubs or schools.

The BHF wants more PADs to be available in the places they are most needed. Governments across the UK should:

- **work with organisations, including the BHF, to agree a list of places where PADs should be installed. Legislation should then be introduced requiring owners of the premises on the list to install PADs;**
- **ensure this legislation also requires PADs to be registered with the local ambulance service, so they appear on the national database, and contains provisions on accessibility and maintenance; and**
- **maximise the impact of action to increase the number of PADs by ensuring this is accompanied by measures to increase the number of people trained in CPR.**

Overcoming people's concerns around stepping in to help

We know that a lack of knowledge or awareness can stop people stepping in to help during a medical emergency. A YouGov poll conducted for the BHF in September 2014 found that 40% of people would be reluctant to perform CPR because they

³⁶Brooks. 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>

³⁷ Location of Cardiac Arrest in a City Center Strategic Placement of Automated External AEDs in Public Locations, Circulation. 2009; 120: 510-517 Available at: <http://circ.ahajournals.org/content/120/6/510.full>

³⁸ Becker L et al. Public locations of cardiac arrest: implications for public access defibrillation. Circulation. 1998;97: 2106–2109. Available at: <http://circ.ahajournals.org/content/97/21/2106.full>

³⁹ Manitoba Law, 2011 The Defibrillator Public Access Act. Available at: <http://web2.gov.mb.ca/laws/statutes/2011/c01011e.php>

⁴⁰ 75th Oregon Legislative Assembly--2009 Regular Session Senate Bill 556. Available at: <http://www.statesurge.com/bills/sb556-oregon-552404>

⁴¹ State of New York, 2009, Bill 1246. Available at: http://www.statescape.com/TextArchive/BillTextArchive/SSBillText2010/NY20092010/NY_20092010_AB_001246_Current_2026.htm

lacked the knowledge and skills, and only 22% of people would use a PAD themselves if they witnessed a cardiac arrest in a public place and saw a PAD nearby.⁴² Other parts of this statement have set out how we think this should be tackled.

The poll also found that 46% of people would be put off performing CPR by the fear of causing more harm than good, and 22% by the fear of being sued.⁴³ There are no reported cases of someone being successfully sued for coming to the aid of the victim in a medical emergency in the UK.⁴⁴ Nevertheless, this is an issue that people are concerned about.

In some parts of the USA and Canada ‘Good Samaritan’ laws designed to protect those that tend to others who are ill or injured have been introduced. In some countries in Europe ‘Duty to Rescue’ laws, which penalise bystanders that fail to act in an emergency, have been introduced.⁴⁵

The UK Government introduced the Social Action, Responsibility and Heroism Bill, which covers England and Wales, into Parliament in July 2014.⁴⁶ The Bill aims to protect those that volunteer, help others or intervene in an emergency by ensuring that the courts consider the context of their actions in the event that legal action is taken for negligence or breach of a statutory duty.

The BHF wants Governments in Scotland and Northern Ireland to consider whether similar laws should be introduced to help give people the confidence to step in and help during a medical emergency such as a cardiac arrest.

What are Governments across the UK doing to improve survival rates from out of hospital cardiac arrest?

England

- The Department of Health published a Cardiovascular Disease Outcomes Strategy in 2013 that committed NHS England to working with the BHF, Resuscitation Council UK and others to promote site mapping and registration of PADs and first responder programmes by ambulance services, and consider ways of increasing the numbers trained in CPR and using PADs.⁴⁷
- The Department for Education has published guidance for school governing bodies on their duty to support children with medical conditions which advises

⁴²All figures, unless otherwise stated, are from YouGov Plc. Total sample size was 2,072 adults. Fieldwork was undertaken between 12-14 September 2014. The survey was conducted online. All figures have been weighted and are representative of all UK adults (18+).

⁴³ Ibid.

⁴⁴ Resuscitation Council UK (2010) The Legal Status of those who attempt resuscitation, Resuscitation Council UK: London. Available at: <http://www.resus.org.uk/pages/legal.pdf>

⁴⁵ 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 Available at: <http://arno.unimaas.nl/show.cgi?fid=3773>

⁴⁶ See: <http://services.parliament.uk/bills/2014-15/socialactionresponsibilityandheroism.html>

⁴⁷ Cardiovascular disease outcomes strategy: improving outcomes for people with or at risk of cardiovascular disease. Department of Health, March 2013. Available at: <https://www.gov.uk/government/publications/improving-cardiovascular-disease-outcomes-strategy>

schools to consider purchasing a defibrillator and to promote training of lifesaving techniques amongst teachers and pupils.⁴⁸

- The Government has introduced the Social Action, Responsibility and Heroism Bill which is intended to help protect those that step in to help in an emergency from being sued.⁴⁹

Wales

- The Welsh Government's Heart Disease Delivery Plan includes specific priorities for 2013-16 on raising awareness of when to ring 999; and reviewing the provision of defibrillators in public places and community first responders within Local Health Board areas ensuring that – in liaison with the BHF and Welsh Ambulance Service Trust - adequate provision and training, and an effective first responder scheme is in place.⁵⁰
- The Welsh Government has commissioned Professor Graham Donaldson to undertake an independent review of the national curriculum and assessment arrangements.⁵¹
- Wales will also be covered by the Social Action, Responsibility and Heroism Bill.⁵²

Scotland

- The Scottish Government's Heart Disease Improvement Plan includes the need to improve its approach to out of hospital cardiac arrest as an on-going initiative.⁵³
- The Scottish Government is now working with the BHF and others to develop a community resuscitation strategy. This is expected to be published in early 2015.
- In 2013, the Scottish Government provided £110,000 funding to BHF Scotland to carry out a programme of training in lifesaving skills in five local authority areas where affiliations to the Heartstart scheme were low. It has been agreed in principle that an underspend of funds can be retained for the BHF's new CPR training programme.
- The Scottish Government is rolling out a £600,000 programme installing PADs in independent NHS dental practices for community use, which will be registered with the Scottish Ambulance Service.⁵⁴
- This is in addition to spend of £100,000 for PADs in communities.⁵⁵

⁴⁸ Supporting pupils at school with medical conditions. Statutory guidance for governing bodies of maintained schools and proprietors of academies in England, April 2014. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/306952/Statutory_guidance_on_supporting_pupils_at_school_with_medical_conditions.pdf

⁴⁹ See: <http://services.parliament.uk/bills/2014-15/socialactionresponsibilityandheroism.html>

⁵⁰ Together for Health. A Heart Disease Delivery Plan. A Delivery Plan up to 2016 for NHS Wales and its Partners. Welsh Government, 2013. Available at:

http://wales.gov.uk/topics/health/publications/health/reports/heart_plan/?lang=en

⁵¹ See: <http://wales.gov.uk/topics/educationandskills/schoolshome/curriculuminwales/curriculum-for-wales/?lang=en>

⁵² See: <http://services.parliament.uk/bills/2014-15/socialactionresponsibilityandheroism.html>

⁵³ Heart Disease Implementation Plan. August 2014. The Scottish Government. Available at: <http://www.scotland.gov.uk/Publications/2014/08/5434/0>

⁵⁴ See: <http://news.scotland.gov.uk/News/Roll-out-of-defibrillators-fc7.aspx>

⁵⁵ See: <http://news.scotland.gov.uk/News/Funding-for-life-saving-equipment-9aa.aspx>

Northern Ireland

- One of the standards in the Northern Ireland Assembly's Service Framework for Cardiovascular Health and Wellbeing requires healthcare professionals to work with schools, workplaces and communities to increase lifesaving skills in members of the public.⁵⁶
- The Northern Ireland Assembly published a Community Resuscitation Strategy in July 2014, which covers the early recognition, early CPR and early defibrillation parts of the chain of survival.⁵⁷ Key objectives include:
 - raising awareness of the importance of early recognition and intervention;
 - encouraging members of the public to intervene;
 - increasing the availability of and access to appropriate CPR training and effective CPR training provision – this includes facilitating the availability of CPR training resources to schools and advising schools of this.
 - achieving high uptake of CPR training;
 - making the most efficient use of resources available to support training; and
 - improving the availability of and access to PADs in Northern Ireland. This includes producing guidance on PADs covering location, access, maintenance and signage.

What is the BHF doing to create a Nation of Lifesavers?

- We have been teaching CPR and PAD awareness as part of our Heartstart schemes since 1996. As of July 2014, there were 3,876 Heartstart schemes across the UK – 3,116 in schools and 760 in the wider community. Over 3.5 million people have been trained through Heartstart to date, several million of whom will be young people. Existing Heartstart schemes are continuing.
- In October 2014 we launched our **Call Push Rescue** training package. It is a new 'watch and learn' model that teaches CPR in just 30 minutes.
- We are providing 35 free **Call Push Rescue** training kits to all secondary schools, sixth forms and colleges in 5 areas: Greater Manchester, Leicestershire, Greater Glasgow, Cardiff and surrounding areas, and Belfast and surrounding areas. We will also be focussing on workplaces and community groups in these areas in early 2015. Targeting these areas will help us to track the impact of the training on rates of survival from out of hospital cardiac arrest.
- We will be actively promoting **Call Push Rescue** to all secondary schools in the UK and training kits will be made available free of charge to any secondary school in the UK that requests one.
- Our 'Push Hard and Fast' campaign raised awareness of how simple 'hands-only' CPR is and that it can help to save a life. The video has been viewed 4 million times, and there are 30,000 downloads of the pocket CPR app every year. The campaign has saved over 40 lives that we know of.

⁵⁶ Service framework for cardiovascular Health and Wellbeing. April 2014 – March 2017. Department of Health, Social Security and Public Safety. Available at:

http://www.dhsspsni.gov.uk/sqsd_service_frameworks_cardiovascular.htm

⁵⁷ Community Resuscitation Strategy. Northern Ireland. Available at: <http://www.dhsspsni.gov.uk/resus-strategy>

Policy statement – Creating a Nation of Lifesavers

- We have funded over 13,000 defibrillators in the community. In order to strengthen the Chain of Survival we now require organisations that we provide funding to for PADs to commit to training their members or staff in CPR as well.
- We are advising the Department for Education on the specification for PADs for the procurement deal they are negotiating for schools, and offering free **Call Push Rescue** training kits to any secondary school that purchases a PAD through this deal.
- We have partnerships with a number of organisations to provide PADs and CPR training including the Football Association and Asda.

For more information please contact policy@bhf.org.uk