

CABINET

25 MAY 2023

CARDIOPULMONARY RESUSCITATION (CPR) TRAINING AND AUTOMATED EXTERNAL DEFIBRILLATORS (AEDs) ACROSS THE COUNTY

Relevant Cabinet Member

Councillor Karen May, Cabinet Member with Responsibility for Health & Wellbeing

Relevant Chief Officer

Dr Lisa McNally, Director of Public Health

Recommendation

1. The Cabinet Member with Responsibility for Health & Wellbeing recommends that Cabinet:

- a) Note the audit of CPR training and AED availability conducted by the Public Health team and presented within this report (see paragraphs 20-31);**
- b) Agree that all WCC staff and elected members are encouraged to undertake online CPR training (see paragraph 32);**
- c) Agree the proposed promotional work by Public Health aimed at increasing awareness of CPR training and community located AEDs; to include Public Health providing signposting and support to community organisations in obtaining funding for AEDs (see paragraph 34); and**
- d) Agree that Public Health create a grant scheme to assist local organisations to purchase AEDs where alternative sources of funding could not be accessed and where specific criteria are met (see paragraph 37).**

Executive Summary

2. In 2022 the Council passed a Motion calling for an audit of the availability of CPR training and AEDs across Worcestershire, including in schools. The motion also recommended work to increase access to CPR training and AEDs.

3. This report details the work in response to the Council Motion, by Public Health and working with partners, to deliver the audit and make appropriate proposals to increase promotion and access to both CPR training and AEDs.

Audit Findings

4. An audit carried out by the Worcestershire County Council (WCC) Public Health directorate revealed that all schools have received information about access to CPR training kits and online training.
5. The Department for Education first aid/CPR teacher training guidance and the national government plans are for all schools to receive an AED by the end of 2022/23 academic year. Public Health found that 96% of middle and secondary schools in Worcestershire currently have an AED.
6. The audit showed that there are 897 AEDs in Worcestershire of which 530 are publicly available. See paragraph 26 for comparisons by district. This equates to 149 AEDs per 100,000 head of population in the county with 86/100,000 being publicly available 24/7.
7. Priority areas for AED provision are those in which out of hospital cardiac arrests are most likely to occur and where an AED has the greatest potential to sustain life. These are generally urban residential areas with greater numbers of people aged over 65 and higher prevalence of heart disease.

Proposed Actions

8. Public Health will work with partners to increase promotion of both CPR training and availability of AEDs. This will include creating a dedicated webpage through which free online CPR training can be accessed. There will be specific information for schools as well as community organisation. Information on support for accessing all forms of CPR training (online or otherwise) will be available from Public Health (details on the webpage).
9. Visitors to the webpage will be able to navigate information on the locations of AEDs in their local area. It will offer advice to organisations considering obtaining an AED for their premises or local area. This will cover decision making as to whether an AED should be obtained, information on the availability and purchase, and appropriate location of devices. Finally, information will be offered on where and how to obtain funding and tailored advice will be available from Public Health via email.

Public Health proposes to provide a limited number of small grant contributions for purchasing CPR training or AEDs to local Voluntary and Community Sector Enterprise (VCSE) organisations and parish/town councils. This small provisional would act as a backstop should an organisation have failed to obtain funding through other routes.

Background

10. In July 2022 Council agreed a motion with regards to CPR training in schools and AEDs across the county. This included:
 - a) support and encourage schools to offer CPR training;
 - b) audit the availability of CPR training and AEDs across the county; and
 - c) determine how funding can be provided to help saves more Worcestershire lives from being cut short.

11. Out of hospital cardiac arrests (OHCA) have received attention nationally, when footballers Muamba and Eriksen collapsed during professional football matches, and locally with tragic cases of young people with rare conditions resulting in cardiac events. However, most OHCA occur in the home amongst the over 65s.

Out-of-hospital cardiac arrests (OHCA) facts

12. Nationally:

- The annual incidence of OHCA is approximately 55 per 100,000 inhabitants
- Half of all OHCA are witnessed by a bystander which emphasises the importance of being able to apply CPR whilst awaiting the ambulance service and AED.
- Most cardiac arrests occur in adults (98%), amongst whom one third (33%) were aged 15-64 years
- Public access AEDs are used in less than 1 in 10 OHCA.
- There is evidence of health inequalities in the incidence of cardiac arrest, bystander CPR and distribution of public access AEDs. Deprived areas and areas with a greater proportion of residents from minority ethnic backgrounds have a higher incidence of cardiac arrest, lower incidence of bystander CPR and less access to public access AEDs

13. In the West Midlands:

- The median age for OHCA is 69.7 years; Mean age 66.4 years with:
- 1.4% of cases in the <15 age group
- 36.5% in the 15-64 age group and
- 62.1% in the 65+ age group.
- 83.8% of OHCA occurred in the home/place of residence, 8.6% in public places, 1.5% in workplace, 0.4% in leisure centres, 0.0% in education places and 5.7% other places.

Supporting and encouraging schools to offer CPR training

14. There is comprehensive Department for Education (DfE) teacher training guidance on CPR training as part of first aid teacher training (see Appendix 2), which was shared with schools via the Education Bulletin.

15. The most current data on CPR training in Worcestershire schools is from the 'Physical Health and Mental Wellbeing Survey' of schools issued by Worcestershire Children First (WCF), completed in April 2022. Of the 50 secondary and middle schools in Worcestershire, 26 schools answered the survey. Sixteen schools confirmed that they taught their pupils CPR training as part of the PSHE curriculum, and eight schools confirmed that they do not have CPR training on the curriculum. Six schools indicated that would be including it on the curriculum during 2022/23. One school reported that they would not be teaching CPR training the following year.

16. Over 50% of schools completing the Physical Health and Mental Wellbeing survey identified a requirement for further support to develop CPR training for pupils. In addition to the training information shared with schools, schools have been signposted to information about local St John Ambulance and British Red Cross first aid training via the Education Bulletin.

17. British Heart Foundation (BHF) Call Push Rescue kits and training free to all schools. Kits include reusable inflatable manikins, red inflation bags, practise-while-

watching training DVDs, two manual inflation pumps, cleaning wipes. In addition, the RevivR training from the BHF is free to access, this focuses on learning CPR in 15 minutes. This information was shared with schools via the Education Bulletin.

18. As part of an AED audit secondary and middle schools were asked about use of BHF Call Push Rescue kits. Not all schools have the kits. Of all secondary and middle schools, 18% reported using the BHF kits in school and 50% of schools were unsure if they were in use. However, this information was collected from school reception staff who may not know the details of kit usage, so the actual number of schools using the BHF kits could be different.

19. School Phase Leads were informed about the DfE roll of out AEDs, BHF Call Push Rescue kits, associated training and other training available in Worcestershire at an Education Planning meeting.

Audit of the availability of CPR training and AEDs

CPR training availability

20. CPR training is available via the [BHF website](#). This 15-minute training is free. There are also providers of face-to-face training within the county which incur a cost.

AEDs in schools

21. Central government has produced guidance for schools on buying, installing and using an AED, this has been shared with schools via the Education Bulletin.

22. Public Health contacted all secondary and middle schools to audit AEDs. It was found that 96% of schools had an AED. Where there was an AED, 54% were available to the public in school hour and 12% available to the public out of school hours. Secondary schools were more likely to have their AEDs available out of hours.

23. Schools were reminded, via the Education Bulletin, of the importance of maintaining and servicing AEDs.

24. Anecdotal evidence, as a result of the audit of schools, indicated that schools would find it useful for all information about AEDs and CPR to be located in one place.

AEDs in the Community

Definitions with regard to public access are as follows:

- Public access = available to the public
- Restricted access = limited access to the public
- 24/7 access = available to the public 24/7
- Varied access = available to the public but not 24/7

25. Data has been collected from the BHF which indicates that there are 897 AEDs in Worcestershire, 240 of these have restricted access.iii There are 530 AEDs that are publicly available 24/7. In addition, there are 127 which are publicly available but have varied access.

26. A comparison of the number of AEDs in the county against Worcestershire's comparable neighbours was undertaken. Table 1 demonstrates that Worcestershire has more AEDs per 100,000 population compared with all but one comparable neighbour.

Table 1 Distribution of total number of AEDs per 100,000 head of population^{iv} in Worcestershire's comparable neighbours

AEDs and availability	Staffordshire	Worcestershire	Warwickshire	Gloucestershire	Suffolk
Total	154	149	136	132	119

27. Distribution of publicly available 24/7 AEDs within districts and per 100,000 population is shown in Table 2 below.

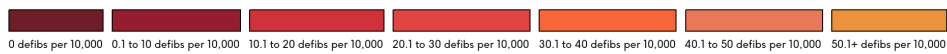
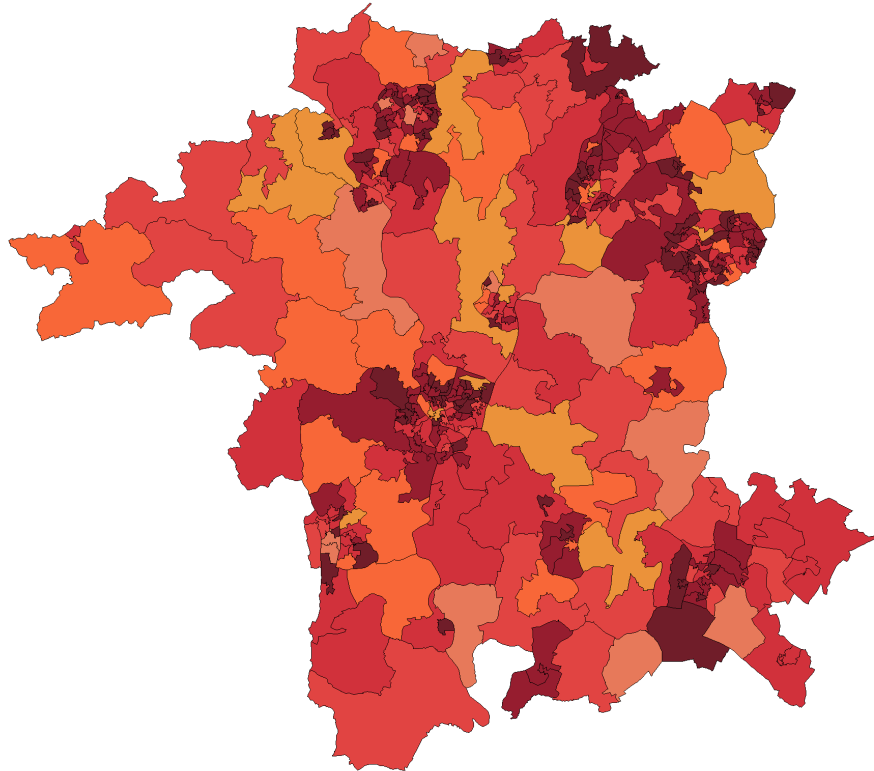
Table 2 Distribution of publicly available 24/7 AEDs by district and per 100,000 head of population

	Bromsgrove	Malvern Hills	Redditch	Worcester	Wychavon	Wyre Forest
Total No. of publicly available AEDs 24/7	60	123	26	44	148	74
No. of publicly available 24/7 AEDs per 100,000 population	58	150	31	43	108	71
No. of publicly available AEDs 24/7 per 100,000 over 65-year-olds	253	512	155	234	416	281
No. of publicly available AEDs 24/7 per km ²	0.3	0.2	0.5	1.3	0.2	0.4

28. This table indicates that two of Worcestershire's more deprived communities (Redditch and Worcester City) have fewer AEDs per head of population, and also for the over 65-year-old population who are more likely to experience an OHCA. When considered in relation to the size of each district, the two rural districts (Wychavon and Malvern Hills) have fewer AEDs in relation to square kilometres, and Worcester City, the most densely populated, has the greater number per square kilometre.

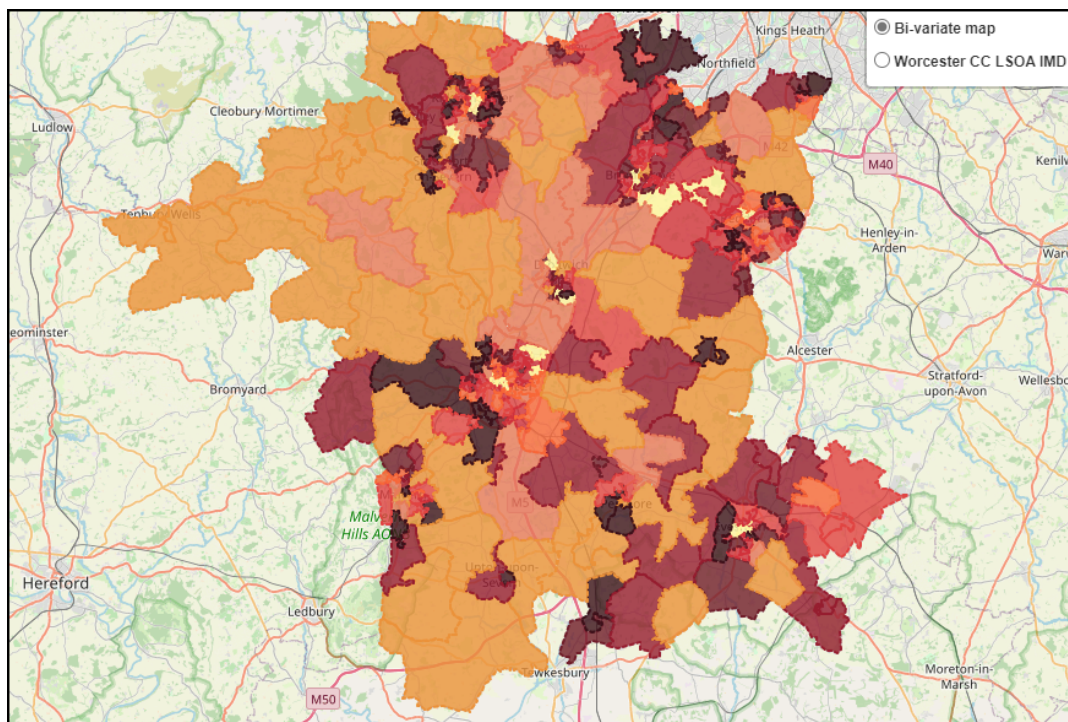
29. There is variable distribution across the county with regards to access to an AED in the event of an OHCA, in particular areas with a higher over 65 years population, deprivation, and from the BHF data, ethnic minorities. New AEDs installations should be focussed on the specific Lower Super Output Areas (LSOAs) in Maps 1 and 2 below, provided by the BHF, where there are fewer AEDs per head of population.

Map 1 Distribution of AEDs in Lower Super Output Areas per 10,000
 (Darker red areas indicate lower numbers of AEDs per 10,000 population)



30. There are fewer AEDs per head of population in more urban areas, particularly outskirts of towns and cities. In city centres there is a tendency to be more AEDs.

Map 2 Distribution of AEDs in LSOAs by proportion of over 65-year-olds and numbers of AEDs
 (The darker red the LSOA the lower number of AEDs and the higher the % of population aged over 65)



31. People aged over 65 are more likely to experience an OHCA. Additional data supplied by the BHF identifies the areas with higher proportions of residents aged 65+ years and also with fewer AEDs. These being the hinterlands of urban areas plus some rural locations and in communities close to the Birmingham conurbation. Broadly speaking, rural areas with higher proportions of residents aged 65+ years are better served with AEDs.

Promotion of CPR training and AEDs

32. It is recommended that COG be tasked to consider the best approach for all WCC staff and elected members to complete online CPR training.

33. With regard to schools, further to the Education Bulletins and Education Planning meeting, it has been suggested to WCF communications team that information about CPR training and obtaining AEDs be included on its schools' portal.

34. It is proposed that Public Health develop a dedicated WCC webpage to increase awareness of free CPR training and community located AEDs across Worcestershire. This webpage would focus on the importance of and access to CPR training (online or otherwise). It will also enable visitors to navigate locations of AEDs and offer advice to organisations considering obtaining them for their local area. This could cover availability, funding options, location and Public Health advice where required.

35. The information from the webpage will also be disseminated offline. This includes communications via local school networks and in partnership with local community organisations, NHS partners and local media outlets.

Funding provision for CPR training and AEDs

36. In December 2022 the Government announced funding support for distribution of AEDs to every school, detailed at Appendix 1.

37. For wider community provision, contributions to AED costs can be accessed via the organisations set out in Appendix 2.

38. To support WCC's promotional webpage and offer, Public Health proposes to provide a limited number of grant contributions for purchasing CPR training or AEDs to local VCSE organisations and parish/town councils. This provision of £50,000 would act as a backstop should an organisation have failed to obtain funding through other routes and providing it meets specific criteria. Funding will be prioritised according to criteria set out by Public Health in consultation with the BHF. These criteria will include:

- evidence that the applicant has applied for other external grant schemes prior to seeking council funding;
- evidence that the organisation commits to continually having staff and/or volunteers trained and confident in CPR and the use of AEDs and promoting CPR training within the local community.
- the organisation serves a priority group or residential area based on a variety of factors including deprivation measured by IMD, age (over 65 year olds) and current access to 24/7 AEDs, this criteria will be set out in detail by the Public Health in consultation with the BHF;

- the organisation can commit to properly maintaining the AED including the replacement of consumables; and

Legal, Financial and HR Implications

39. Legal has been consulted and will provide guidance on ensuring that any grant agreement for funding AEDs with Public Health will limit the liability of WCC with regards to the purchasing, siting and ongoing maintenance of AEDs.

40. HR would be consulted regarding the proposal to include online CPR training as part of the mandatory staff training programme across WCC.

41. There will be a small provision in the Public Health Ring Fenced Grant budget for 2023/24 to support the purchasing CPR training and AEDs.

Risk Implications

42. The risk to non-delivery of the proposals is reduced awareness of CPR effectiveness and AEDs access and availability, with gaps in communities where there is limited access to an AED.

Joint Equality, Public Health, Data Protection & Sustainability Impact Assessments

43. A Joint Impact Assessment (JIA) screening has been carried out with regard to the audit, availability and proposals detailed in this report regarding CPR training and AED access provided in Appendix 3 (JIA reference number 521). A full Equality and Public Health Impact Assessment has been carried out in respect of the recommendations. This did not identify any potential negative impact for Protected Groups.

Supporting Information

Appendix 1 – Background to schools CPR & AEDs

Appendix 2 – Useful Links

Appendix 3 - Joint Equality, Public Health, Data Protection and Sustainability Impact Assessment CPR Training and AEDS across the county

Contact Points

Specific Contact Points for this report

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Appendix 1 – Background to Schools CPR & AEDs

Schools CPR Training

- Cardiac Pulmonary Resuscitation (CPR) training for school pupils is part of the [statutory guidance](#) for Personal Social & Health Education (PSHE) which advises that CPR is best taught to pupils aged 12+ (Year 7+).
- The BHF training DVD features how and when to perform CPR on an adult or child and how to put someone in the recovery position. Furthermore, these kits also provide the necessary knowledge and training on how to use a public access AED.

Distribution of AEDs

- In July 2022, it was announced by central government that all schools without an AED were to be provided one by the end of the 2022/2023 academic year, further building on curriculum-based teaching of first aid and CPR.
 - The Department for Education (DfE) issued a survey to all state funded primary, secondary, and special schools in England in September 2022 to determine the current provision of automated external defibrillators (AEDs) across the school estate.
 - Deliveries of AEDs will take place automatically to eligible schools over this academic year (2022/23). Schools that did not respond to the survey will still be included in the rollout.
 - Businesses and community organisations are encouraged to register the location of publicly available AEDs on The Circuit website. This information is then made available to ambulance services to share with 999 callers if an AED is required.
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Appendix 2 – Useful Links

Information for Schools and AEDs

- [DfE Teacher Training: Basic First Aid - GOV.UK \(www.gov.uk\)](http://www.gov.uk)
- [DfE / DHCS Guidance for Schools on purchasing AED \(publishing.service.gov.uk\)](http://publishing.service.gov.uk)
- [The Circuit - National Defibrillator Network \(register of AEDs\)](#)

Links to CPR training

- [Call Push Rescue Kids and CPR training for schools - apply for a free CPR kit and train your students BHF](#)
- [Learn CPR in 15 minutes | RevivR | BHF](#)
- [Search | St John Ambulance \(sja.org.uk\)](http://sja.org.uk)
- [Worcester | British Red Cross Centre | First Aid Courses \(redcrossfirstaidtraining.co.uk\)](http://redcrossfirstaidtraining.co.uk)

Links to community AEDs

- [The Circuit - the national defibrillator network](#)
- [Defib Map](#)
- [Community Heartbeat Trust: National Defibrillator Database | \(nddb.uk\)](http://nddb.uk)

Available contributions to community provision AED costs

- <https://www.aeddonate.org.uk/apply-for-funding/>
 - <https://www.tnlcommunityfund.org.uk/funding>
 - <https://footballfoundation.org.uk/grant/premier-league-defibrillator-fund>
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Appendix 3 – Joint Equality, Public Health, Data Protection and Sustainability Impact Assessment CPR training and AEDs across the county

Joint Impact Assessment – CPR Training and AEDs across the County – Available online.

ⁱ Epidemiology of cardiac arrest Guidelines, Perkins et al, 2021

ⁱⁱ University of Warwick, annual epidemiology and outcomes, 2020

^{iv} [Microsoft Power BI](#) WCC population data