



# Exploring public knowledge, attitudes and behaviours towards bystander CPR and defibrillation in circumstances of Out-of-Hospital Cardiac Arrest

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## Preliminary findings

Bystander Cardiopulmonary Resuscitation (CPR) is a key determinant of survival following an Out-of-Hospital Cardiac Arrest (OHCA). The OCHA Plan for Wales (2017) produced by the OHCA sub-group of the Heart Conditions Implementation Group<sup>1</sup> sets out a collaborative programme of work to improve the survival and care of people who have an out-of-hospital cardiac arrest in Wales. The main aims of the OCHA Plan for Wales are to create a willingness to help 'culture of bystander CPR', raising awareness and improving public understanding and education, increasing access to CPR training and use of automated defibrillators and improving pathways for care and rehabilitation in instances of out-of-hospital cardiac arrest.

In 2018, the Welsh Government announced the establishment of the Save a Life Cymru Partnership<sup>2</sup> to lay the foundations of a programme of activities which included raising awareness of the availability and accessibility of CPR/defibrillator training in communities, developing local networks to encourage cross-service collaboration to address gaps in training provision, availability of defibrillators and to coordinate campaign activities and events.

This study collected data to inform the activities of the Save a Life Cymru Partnership. The findings will help to shape the development of a public awareness and education campaign and future behavioural change interventions to address the perceived barriers to intervening in the event of an OHCA, the aim being to improve the rate of bystander CPR and use of defibrillators in Wales. Data were gathered through the Wales Omnibus Survey, administered by Beaufort Research; a rolling general population face-to-face

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<sup>1</sup> The Heart Conditions Implementation Group comprises membership from across the cardiac community in Wales, including primary, secondary and tertiary care services, the community and third sectors. The group is accountable to the Welsh Government and chaired by an NHS Wales Health Board Chief Executive and its purpose is to provide leadership and oversight to support the implementation of the Heart Conditions Delivery Plan 2016-2020.

<sup>2</sup> The Save a Life Cymru Partnership constitutes member organisations from across the public and voluntary sectors including NHS Wales, the emergency services, third sector organisations, voluntary groups, local authorities, academics and industry partners. The group is accountable to the OCHA Implementation sub-group and informs the work of the Wales Cardiac Network.

omnibus survey of a representative quota sample of 1,025 of the Welsh adult population (aged 16 and over) interviewed between 3<sup>rd</sup> and 21<sup>st</sup> June 2019.

This paper presents the preliminary key findings in addition to the research aims and objectives; method, sample and analysis. These preliminary findings will be followed by publication of a full report, comprising a rapid evidence review and the data tables produced by Beaufort Research upon analysis of the Wales Omnibus Survey data.

## **Key Findings**

This section presents the key findings from the data collected via the Wales Omnibus Survey.

### **Cardiopulmonary Resuscitation (CPR) and Defibrillator training**

#### CPR training

The proportion of respondents who reported being trained in CPR was 56 per cent. However, just under half (45 per cent) of those who had received training reported having done so, or having refresher training more than five years ago. A further 19 per cent reported that their last training was between two and five years ago. Of this same group, slightly fewer than half (45 per cent) had undertaken mandatory CPR training as a requirement of their job, and 19 per cent had opted to take up a course organised through their employer.

Half of respondents who had not been CPR trained would like to receive training, with desirability being highest among those aged 35-44 (68 per cent) and those aged 16-24 (67 per cent). The main reasons respondents gave for not having been CPR trained were that they had either never had the opportunity (36 per cent) or that the thought to become CPR trained had never occurred to them (35 per cent). Support for universal training in CPR use was high, with the vast majority (84 per cent) of respondents agreeing that everyone should be trained to use CPR.

#### Defibrillator training

The proportion trained to use a defibrillator was much lower, with only 23 per cent of all respondents reporting that they had undergone training. Whilst just under two fifths (38 per cent) had received their last training within the last year, a similar proportion (42 per cent) reported being last trained more than two years ago. Like CPR, employment was an important point of access and vehicle for delivering defibrillator training, with 55 per cent of those who had received defibrillator training undertaking it as a requirement of their job.

More than half of respondents who had not been defibrillator trained were keen to have the opportunity, with 53 per cent saying they would like to be trained. Support for universal training in defibrillator use was high, with seven in ten (71 per cent) respondents agreeing that everyone should be trained to use a defibrillator.

### **Administering CPR and defibrillators**

#### CPR

Almost three in ten of the respondents (28 per cent) had witnessed someone collapse and possibly be in need of bystander CPR and just over one in ten (11 per cent) had given CPR to someone in a real-life situation.

Overall, confidence about giving someone CPR was not high, with fewer than half of all respondents (48 per cent) stating they would be confident. Noteworthy among the findings is that more than a quarter of people trained in CPR (27 per cent) said they would not feel confident about administering CPR to someone if the situation called for an intervention.

The following scenario 'I'd like you to imagine that you are walking down the street and you see an average person collapse. They are unconscious, not breathing and have no pulse. If you were the only person there, how likely or unlikely is it that you would give this person CPR?' was presented to all respondents. Three quarters of respondents (75 per cent) indicated that they would be likely to intervene and give bystander CPR in this situation. In this scenario, 93 per cent of those with prior CPR training and 95 per cent of those with defibrillator training said they would be likely to intervene.

When provided with a list of potential reasons why they might not intervene, one in four of all respondents (25 per cent) reported that they lacked confidence to give CPR or did not have the skills to give CPR (24 per cent). Respondents also expressed some concerns about making matters worse (22 per cent). When presented with statements and asked about the extent to which they agreed (or disagreed), almost half of respondents (47 per cent) agreed (strongly agree or agree) they would be worried that they might make matters worse by giving CPR. Whilst having training in CPR or use of a defibrillator reduced this concern, it didn't remove it completely with 34 per cent of those who were trained in CPR saying this would be a concern.

### Defibrillators

Overall levels of confidence about using a defibrillator on someone were lower, with less than two fifths (38 per cent) of all respondents saying that they would be confident. Confidence levels were higher among those trained in CPR or in how to use a defibrillator at 55 per cent and 88 per cent respectively.

Of particular note is the proportion of respondents (55 per cent) who did not know the location of their nearest defibrillator. Even among those who were defibrillator trained, 35 per cent reported that they did not know the location of their nearest defibrillator.

Respondents were also asked about their concerns related to the possibility of making matters worse by either giving someone CPR or using a defibrillator. When presented with statements and asked the extent to which they agreed (or disagreed), almost half (47 per cent) agreed (strongly agree or agree) that they would be worried that they might make matters worse by giving CPR or using a defibrillator<sup>3</sup>. Again, whilst having training in CPR or use of a defibrillator reduced this concern, it didn't remove it completely. Among those who were CPR trained, 35 per cent were concerned that using a defibrillator would make matters worse. Fewer of those who were trained to use a defibrillator reported that they would be concerned that giving CPR would make matters worse (20 per cent).

### **Social factors associated with responses**

The following demographic and geographical factors were found to be associated with knowledge, experience, and attitudes toward bystander CPR.

#### Age

Generally, the older a person is, the less likely they were to be CPR trained and show willingness to be CPR trained. Of those that had been CPR trained, the older age group (55+) were more likely to have had CPR training more than five years previously. The older age group is also the least confident to administer bystander CPR. These findings are particularly relevant considering that most OHCA happen in the homes of older people. However, survey findings indicate that levels of confidence among older people could be improved by providing guidance from a 999 call handler in the event of an OHCA.

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<sup>3</sup> The questions for CPR and AED were asked separately, 47 per cent agreed with the statement in both questions.

## Social grade

People in professional managerial and non-manual occupations (according to the household's main income earner's occupation) were more likely than those in manual, unskilled occupations and long-term unemployed people (social grades C2DE) to be CPR trained and be more confident to administer CPR if talked through by a call handler. People in social grades ABC1 are also more likely to say they would like to be trained in CPR.

## Working status

People who were working were more likely to be CPR trained, be trained more recently and show higher levels of confidence to administer CPR. Whilst people who were working were also more likely to say they'd like to be trained in CPR, desire to be trained in CPR was also fairly high among students and people who were unemployed.

## Ethnicity

Overall, levels of training were lower in BME groups. BME respondents trained in CPR were most likely to have been trained as a requirement of their job, and most recently with the majority having been trained 7-12 months ago. They were also among those most likely to have received defibrillator training. However, levels of confidence and willingness to intervene in the event of an OHCA were comparatively low.

## Rurality

Respondents in rural settings were most likely to be supportive of universal training in CPR and defibrillator use. Respondents in rural areas were most likely to say that they would intervene to provide CPR in the event that they were the only bystander.

## Next steps

This paper presents the preliminary key findings drawn from Wales Omnibus Survey data collected over the course of two weeks in June 2019. A full report will be published later this year, comprising a brief literature review and the data tables produced by Beaufort Research on administering the Wales Omnibus Survey. The report will make a series of recommendations intended to inform the development of future communications activities to support the implementation of the Save a Life Cymru programme.

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The logo for Beaufort Research, featuring the text "beaufortresearch" in a white, lowercase, sans-serif font on a dark purple rectangular background.

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Views expressed in this report are those of the researchers and not necessarily those of the Welsh Government

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