

British Heart
Foundation
Cymru



Bias and Biology

The Heart Attack Gender Gap

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Systemic inequalities which existed before, have only been exacerbated by the pandemic and women continue to face unconscious biases and disadvantages at every stage of their heart disease journey. We estimate that there are 100,000 women living in Wales with heart disease. Coronary heart disease alone kills twice as many women as breast cancer.¹ And yet, heart disease is often perceived as something which only affects men. This assumption is incorrect and is costing women their lives.

Women are not seen as being at risk of heart attacks

- Each year 1,700 women are admitted to hospital in Wales due to a heart attack.² Despite this, the people of Wales are not well aware that heart attacks happen to women too. This may lead to symptoms being dismissed or not taken seriously.
- A 2021 BHF Cymru survey found that over a third of women in Wales do not feel confident in recognising the symptoms of a heart attack and only 7% feel very confident.³
- High blood pressure is the biggest modifiable risk factor contributing to premature deaths from heart and circulatory diseases in Wales⁴ and has been more strongly associated with heart attacks in women than in men.⁵ The BHF estimates that there are thousands of women living in Wales with undiagnosed high blood pressure.
- High blood pressure during pregnancy is associated with an increased risk of several heart conditions later in life, including coronary heart disease, heart attack, heart failure, and cardiomyopathy.⁶ Around 1 in 10 women develop high blood pressure during pregnancy in the UK.⁷
- Despite these statistics, our survey showed that women are not seen as being at risk of heart disease by the Welsh public – with 65% of people unable to identify heart disease as one of the leading causes of death of women in Wales.⁸

Women are more likely to be misdiagnosed or diagnosed slowly

- After a heart attack, an incorrect initial diagnosis increases the risk of death after 30 days by 70%. Research suggests that women are 50% more likely than men to receive the wrong initial diagnosis for a heart attack.⁹

Women are less likely to receive optimal treatment

- BHF-funded researchers at the University of Leeds conducted a study which found that women are less likely to receive optimal treatment after a heart attack.¹⁰ The study revealed that there are stark differences in the use of evidence-based medicine that disadvantage women with heart disease, causing worse health outcomes and poorer care.
- BHF funded research estimated that if systemic inequalities were addressed to achieve equity in treatment, at least 8,243 female deaths over a ten-year period (2003–2013) could have been prevented in England and Wales.¹¹ There is no evidence to suggest that this has improved.

Women are less likely to access cardiac rehabilitation

- Female participation in cardiac rehabilitation is low. Across the UK, the proportion of women recruited to cardiac rehabilitation programmes from those eligible is lower than expected. In Wales, the average number of female cardiac rehabilitation patients has remained stagnant in recent years, despite the National Cardiac Rehabilitation Audit reporting repeated calls for cardiac rehab programmes to recruit more women.¹²
- Cardiac rehabilitation providers reported that their female patients were more likely to struggle to attend on-site cardiac rehab services due to a range of socioeconomic factors, such as being more likely to be the primary carer for children and elderly relatives or being unable to travel to services which are not close to home.^{13, 14}
- The Covid-19 pandemic has disrupted cardiac rehabilitation services in Wales, often prohibiting the provision of in-person cardiac rehabilitation services. Cardiac rehabilitation providers adapted by embracing digital platforms. Cardiac rehabilitation providers reported an increased uptake across men and women in cardiac rehabilitation throughout the pandemic, suggesting that a digital offering increases patient participation.

Recommendation

Welsh Government should commit to a women's health quality statement which addresses inequalities experienced by women with heart disease. The quality statement should seek to improve outcomes for women with heart disease through:

- 1. Improved public awareness**
- 2. Timely diagnosis**
- 3. Equitable treatment**
- 4. Equitable access to cardiac rehabilitation**

1. BHF (2021) estimate based on Welsh Health Survey responses and latest ONS population estimates.

2. Digital Health and Care Wales (2020), via correspondence.

3. YouGov Plc. Total sample size was 1007 adults. Fieldwork was undertaken between 10th – 14th June 2021. The survey was carried out online and results have been weighted for the Welsh adult population.

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6. Lo, C. C. W., et al. (2020). Future Cardiovascular Disease Risk for Women with Gestational Hypertension: A Systematic Review and Meta-Analysis. *Journal of the American Heart Association*. <https://bit.ly/3j7ZaV>.

7. National Institute for Health and Care Excellence (NICE). (2019). *Hypertension in pregnancy: diagnosis and management*. NICE guideline. <https://bit.ly/3y4DY3j>.

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11. Ibid.

12. BHF. (2019). *National Audit of Cardiac Rehab (NACR) Quality and Outcomes report 2019*. <https://bit.ly/2X9lOhQ>.

13. UK Government Department for Transport (2021). *Vehicle Licensing Statistics*. <https://bit.ly/3gtdW3P>.

14. Criado-Perez, C. (2019). *Invisible women: Data bias in a world designed for men*.