

# Women's awareness of heart attack : defining the information to include in a public health campaign

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## Introduction

- CHD are the 3rd cause of death for females in the UK, with 19 865 women dying in 2021 (7% of all deaths), and the leading cause of death (LCOD) globally.
- Significant gender inequalities exist regarding women's awareness of heart attack in England.
- In England and Wales, between 2003 and 2013, 8200 women could have survived after their MI if they had been given the same treatment as men. Additional inequalities exist amongst minorities.
- Birmingham is the most ethnically diverse city in England with 42% of its population being people from ethnic minorities. In the context of such a diverse city and given the inequalities of health literacy affecting women and minorities, public health campaign could improve their health literacy regarding CHD.

## Methods

### Google

Keywords: "heart attack signs in women", "heart attack signs in women perception", "heart attack in uk women", "heart attack awareness in women"

### Grey literature: NHS, BHK, press articles

Main issues found: gender gap in MI prevention, signs, treatment, aftercare; the issue of minorities regarding their lack of health literacy; the lack of awareness found in women regarding MI

### PubMed & Google Scholar

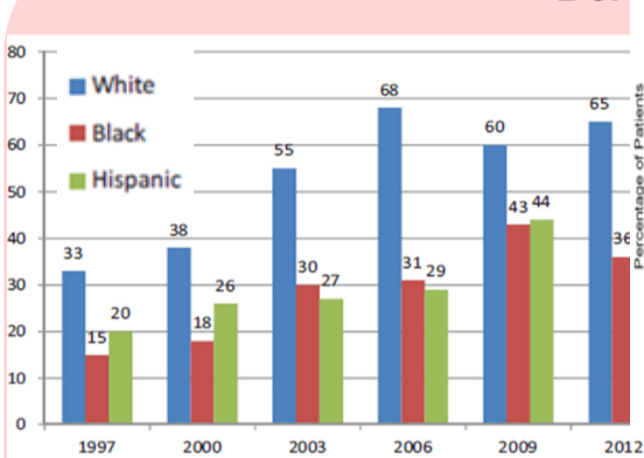
Ensuring that the issues found in grey literature were previously studied

### Inclusion and exclusion

- Peer reviewed
- Published in the last 15 years (2007-2022)
- Focusing on Europe and western countries and written in English

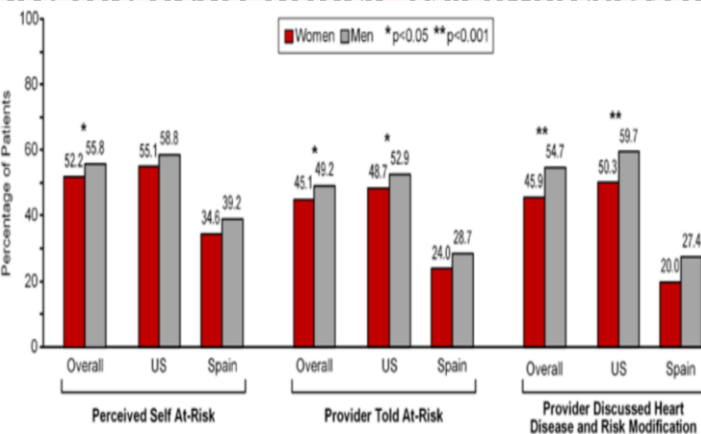
## Summary of findings

### Before the heart attack: risk awareness and preventive behaviours



Trends in awareness that heart disease is the LCOD in women

Mosca L, Hammond G, Mochari-Greenberger H, Towfighi A, Albert MA. Fifteen-Year Trends in Awareness of Heart Disease in Women. *Circulation*. 2013;127(11):1254-1263. doi:10.1161/CIR.0b013e318287e2f



Perceptions and discussions of risk by sex and country

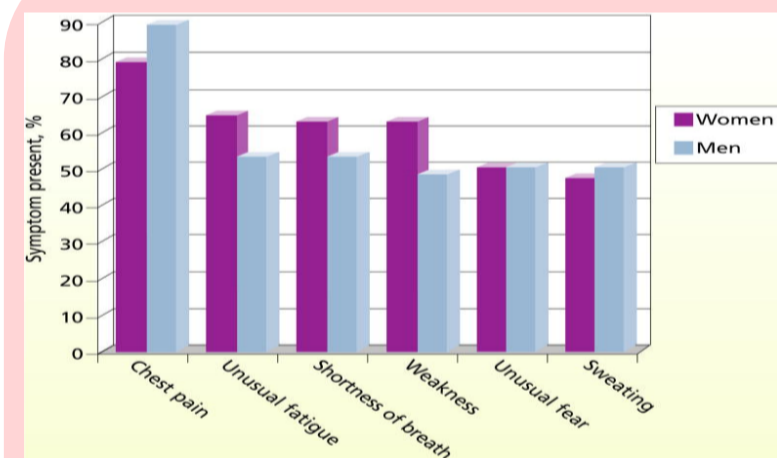
Leifheit-Limson EC, D'Onofrio G, Daneshvar M, et al. Sex Differences in Cardiac Risk Factors, Perceived Risk, and Health Care Provider Discussion of Risk and Risk Modification Among Young Patients With Acute Myocardial Infarction: The VIRGO Study. *Journal of the American College of Cardiology*. 2015;66(18):1949-1957. doi:10.1016/j.jacc.2015.08.859

- Women were mainly not aware that CHD is their LCOD, or that they were at risk for it
- A decline of awareness was observed between 2009 and 2019.
- Some women reported not being told they were at risk by their healthcare providers.
- They did know about preventive behaviors, but they did not necessarily associate them with bettering their cardiac health.

### What could be done ?

- Inform women that CHD are their LCOD and that they are at risk
- This will encourage them to adopt preventive behaviours

- The main risks factors of CHD (smoking, obesity, hypertension, dyslipidemia, diabetes mellitus) are mostly preventable



Frequently reported symptoms of acute coronary syndromes in women and men

DeVon HA, Ryan CJ, Ochs AL, Shapiro M. Symptoms Across the Continuum of Acute Coronary Syndromes: Differences Between Women and Men. *Am J Crit Care*. 2008;17(1):14-25.

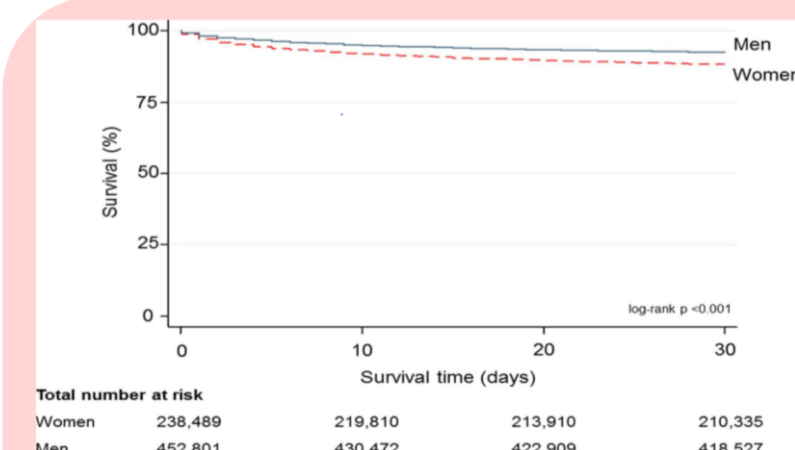
### During the heart attack: knowledge of the signs of a heart attack and response

- Most people were aware about chest pain being a sign of heart attack, but they mainly did not know about the other main signs.
- Women reported experiencing more unusual signs (indigestion, palpitations, nausea, numbness in the hand, unusual fatigue) compared to men, that they did not associate with heart attack but rather anxiety, or did not consider them severe enough, leading to a delay in seeking care, as well as misdiagnosis from their provider.

- Heart attack signs are similar between men and women
- Women are more likely to experience unusual signs

### What could be done?

- Inform women about these unusual signs
- This will encourage them to seek care while experiencing them



### After the heart attack: treatment and aftercare

- A gender gap regarding the aftercare of MI exists, both for acute treatment of MI and long-term care and risk management, which is detrimental to women regarding their post MI outcomes, as it led to a higher mortality rate amongst women and evitable deaths.
- Improving women's awareness cannot fix the gender gap in MI aftercare

### What could be done ?

- Inform healthcare providers
- This will encourage them to follow proper treatment guidelines

## Conclusion and Recommendations

### Public health campaigns should :

- be targeted and adapted to convey appropriate information to those with most needs
- include information about every step of heart attack

### Healthcare providers should

- Be involved in the campaigns and inform their patients
- be informed and encouraged to follow the guidelines
- ensure that women are listened to and taken seriously to improve the trust of women seeking care.