

# Deaths halved among infarct patients attending Heart School

September 16 2019

---



Credit: CC0 Public Domain

Patients who attend 'Heart School,' as almost every patient in Sweden is invited to do after a first heart attack, live longer than non-participating patients. This is shown in a new study, by researchers at Uppsala University, published in the *European Journal of Preventive Cardiology*.

Patient education is an important aspect of rehabilitation after a [heart attack](#) ([myocardial infarction](#)). Core components of Sweden's 'Heart School' are individual counselling and group sessions focused on lifestyle-related, modifiable risks. Thus, patients are taught the importance of maintaining a healthy diet, being physically active and giving up smoking. Almost all patients with a first-time myocardial infarction are invited to participate. However, Heart School attendance is voluntary and fewer than half the patients choose to join.

This study represents the first scientific evaluation of Heart School in relation to [mortality](#) after myocardial infarction. To investigate the relationship between Heart School participation and how long patients survive after a [first heart attack](#), the researchers used ten years' data from the nationwide Swedish [heart](#) registry SWEDEHEART (Swedish Web-system for Enhancement and Development of Evidence-based care in Heart disease Evaluated According to Recommended Therapies) and the Swedish Cause of Death Register. Socioeconomic variables were obtained from Statistics Sweden (SCB).

The researchers' material comprised 47,907 patients who had their first heart attack in 2006-2015 and subsequently went to the first CR follow-up visit. Among them, time to total death (from all causes) and death from cardiovascular causes within two and five years after the attack were investigated. The data enabled the scientists to control for a range of other important confounding variables, such as demographic and socioeconomic factors, and other aspects of the patients' cardiac health.

After adjusting for confounding variables, the researchers found that attendance at Heart School was associated with a markedly [lower risk](#) (time to outcome) not only for total mortality, but also for cardiovascular mortality. With up to two years' follow-up, the Heart School participants' risk of dying was reduced by 47% (50% risk reduction for death from cardiovascular causes). After up to five years, the follow-up results

showed a 38% lower mortality risk (43% lower for death from cardiovascular causes).

"We can say that Heart School attendance was associated with almost halved mortality, both total and specifically cardiovascular, after a first myocardial infarction," says John Wallert, licensed psychologist and doctoral student at the Department of Women's and Children's Health, Uppsala University.

The results were consistent across several sensitivity analyses, including varying dates of Heart School attendance and supplementary checks for participation in other cardiac rehabilitation programmes, among patients who also succeeded in achieving complete cardiac rehabilitation, after gender and age stratification etc.

"We were a little surprised at how robust the results were. In this study, thanks to Sweden's exceptional registry data, we have the means of controlling for not only clinical and demographic factors, but also factors related to self-selection and [socioeconomic variables](#), such as educational attainment and income. Data also provided the statistical power to achieve precise estimates and to allow for a range of sensitivity analyses

"Now we want to determine whether the association of attending Heart School with mortality is genuinely one of cause and effect. Ideally, we'll find this out in a large enough randomised clinical trial, preferably a registry-based one," Wallert says.

**More information:** John Wallert et al, Attending Heart School and long-term outcome after myocardial infarction: A decennial SWEDEHEART registry study, *European Journal of Preventive Cardiology* (2019). [DOI: 10.1177/2047487319871714](https://doi.org/10.1177/2047487319871714)

Provided by Uppsala University

Citation: Deaths halved among infarct patients attending Heart School (2019, September 16)  
retrieved 18 April 2024 from

<https://medicalxpress.com/news/2019-09-deaths-halved-infarct-patients-heart.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.