

Heart failure in the elderly and predictions for the future: The AGES-Reykjavík Study.

Ragnar Danielsen^{1,3}, Haukur Einarsson¹, Gudmundur Thorgeirsson^{1,2,3}, Thor Aspelund^{2,3}, Vilmundur Gudnason^{2,3}.

From ¹The Department of Cardiology, Landspítali, University Hospital, Reykjavík, Iceland, ²The Icelandic Heart Association Research Institute, Kópavogur, Iceland and ³The University of Iceland, Reykjavík, Iceland.

Disclosures: The AGES Reykjavik study was funded by NIH contract N01-AG-1-2100, the NIA Intramural Research Program, Hjartavernd (the Icelandic Heart Association), and the Althingi (the Icelandic Parliament).







Background

- Heart failure is a common condition worldwide and increases with age.
- Various disorders can cause heart failure, such as coronary heart disease, hypertension, obesity and diabetes.
- As these are more prevalent with age the consequence is an increased population of elderly who may develop heart failure.
- In the year 2015 it was estimated that about 19% of the European population was 65 years of age and older (Eurostat).
- Few studies, however, have specifically assessed the prevalence of heart failure in the elderly in an unselected general population.





Purpose and key points about methods

- The AGES-Reykjavík study began in 2002 as a collaboration between the National Institute on Aging in the United States and the Icelandic Heart Association.
- The current analysis included data from 5706 randomly selected elderly participants who represented the total population of Iceland.
- Official government data from Statistics Iceland on the current size, sex and age distribution of the national population and its predictions up to 2060 was used .
- Combining these data, the study assessed the prevalence of heart failure in the elderly population and sought to predict the number of elderly people likely to have heart failure in the future.





Results (1)

- Participants' age ranged from 66 to 98 years, the mean age was
 77 years, and 58% were men.
- The prevalence of heart failure was 3.7% in the sexes combined, but it was higher in men, 4.8%, compared to 2.8% in women.
- The prevalence of heart failure increased with age, from 1.9% in those 69 years of age or younger, to 6% in those 80 years and older (see table).

The prevalence (%) of heart failure according to age groups and gender.

Age groups	Both sexes	Men	Women
≤ 69 years	1.9	3.7	0.9
70-79 years	2.5	3.5	1.7
≥ 80 years	6.0	7.4	5.0



Results (2)

Figure 1. Predicted numbers of elderly people according to age groups until 2060.

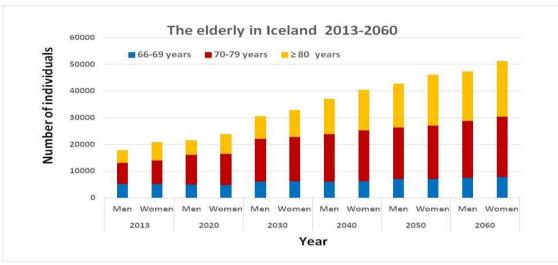
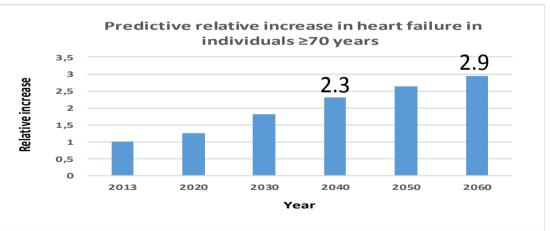


Figure 2. Predicted relative increase in heart failure in individuals 70 years and older.







Conclusions

- This study predicts that in the elderly, 70 years and older, heart failure will more than double by 2040 and triple by 2060.
- In the coming decades the majority of heart failure patients will be elderly individuals and this will have major health economical consequences.
- The findings are a wake-up call for policy makers and healthcare providers that more needs to be done to prevent heart failure.
- This includes giving prompt treatment for heart attacks and encouraging adherence to preventative therapies and lifestyle changes afterwards.