

# Popular Scientific Summary

## The Perception of Socio-Demographic Risk Factors in Residential Fires

Residential fires are the cause of about 90 deaths in Sweden every year. These fatalities are disproportionate over the population, with a few specific socio-demographic groups constituting a larger part of the victims. Some of the socio-demographic factors that can lead to increased risk are for example smoking, old age, disability, and alcohol. Other socio-demographic risk factors are for example bad economy, unemployment, low education, living alone, being male, and type of municipality. Other factors instead reduce the risk. People who are born outside of a Nordic country are an example of a socio-demographic factor that can reduce the risk, and being female is another.

To know where resources and education need to be concentrated to minimize inequality in fire safety, knowledge is needed on where the disconnect is. Does the general population know how different socio-demographic factors correlate with fire risk? Do fire experts know how different socio-demographic factors correlate with fire risk? Is this a question of educating fire safety experts or the general population? Or is it an even larger issue, where everyone knows about the problems and risk factors, but it is still an ongoing issue? To be able to address fire safety inequalities in Sweden, first, we need to know where the problem lies. Therefore, the purpose of the thesis is to investigate how both the general population and fire safety experts, perceive different socio-demographic factors correlated to fire risk in residential buildings.

This was done through a survey, where information about the general public's risk perception was received, and through interviews to investigate how fire safety experts perceive the factors. The perceptions were then compared with how the socio-demographic factors correlate with the risk of fatal fires in residents in reality. A literature study was conducted to determine how socio-demographics correlate with the risk of fatal fires in residential buildings in reality. By comparing the real-life socio-demographic factors and the perception of socio-demographic factors, we hoped a broader perspective would be found and thereby enable preventive work against the inequalities in fire safety.

After comparing the perception and reality, the conclusion could be drawn that the general public has insufficient knowledge of how some of the socio-demographic factors correlate with the risk. Their answers on the survey did not match the reality on the following factors:

- Use of sedatives, antidepressants, and illicit drugs
- Children younger than 5 years old
- Country of origin
- Small and rural municipalities
- Education level
- Employment status
- Low income
- Lives alone
- Disabilities

The fire safety experts had a few socio-demographic factors where they did not have enough knowledge, these were:

- Country of origin
- Use of sedatives, antidepressants, and illicit drugs
- Small and rural municipalities

Based on this, the general public and fire safety experts could be educated further on some socio-demographic factors to continue the work on reducing inequalities in fire safety.

Rebecca Wigervall & Emilia Wretman

Master thesis in fire & risk management, 30 hp

Division of Fire Safety Engineering, Faculty of Engineering, Lund University, Lund 2022