Socialstyrelsen

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# Statistics on Causes of Death 2023

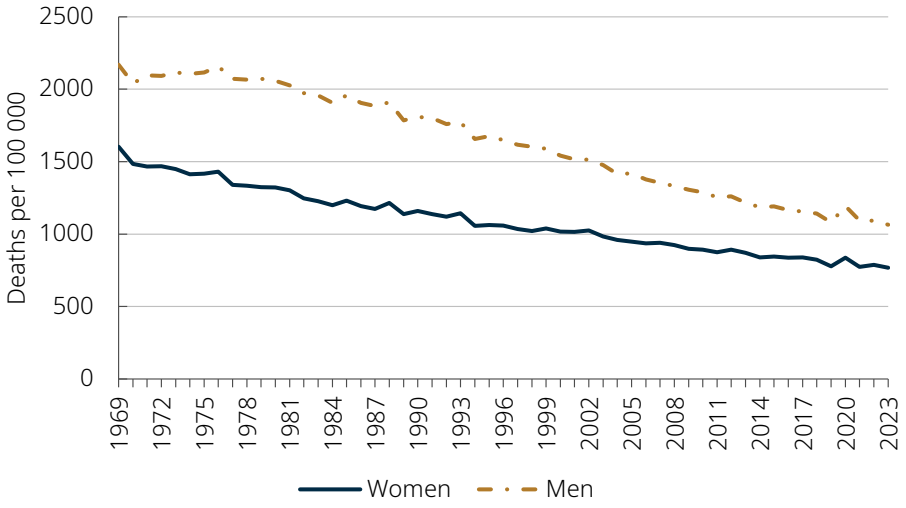
**In total, 94,505 persons registered in Sweden died during 2023. Of these, 46,945 were women and 47,560 were men. Overall mortality has decreased during the period 1969–2023 for both women and men. *Cardiovascular diseases* caused the most deaths in 2023 followed by *tumours*. The mortality rates for these two illnesses, and in particular *cardiovascular diseases*, have decreased over time. The mortality rates were higher in areas with less favourable socioeconomic conditions as compared with areas with better socioeconomic conditions. This difference could also be observed in regards to child mortality rates.**

## Mortality rates have decreased over time

Mortality rates have decreased over time for both women and men. In 1969, the age standardised mortality rates per 100,000 inhabitants were 1603.0 for women and 2169.0 for men (Figure 1). The corresponding mortality rates in 2023 were 767.5 and 1065.2 for women and men, respectively. It corresponds to a 52 percent decrease for women and 51 percent decrease for men between 1969–2023. The slight variation during the latter part of the time period can partly be attributed to a low mortality rate in 2019 and partly to the increased mortality rate caused by the Covid-19 pandemic, which affected mortality rates in 2020.

**Figure 1. Mortality, women and men 1969–2023**

Age standardised mortality rates per 100,000 inhabitants

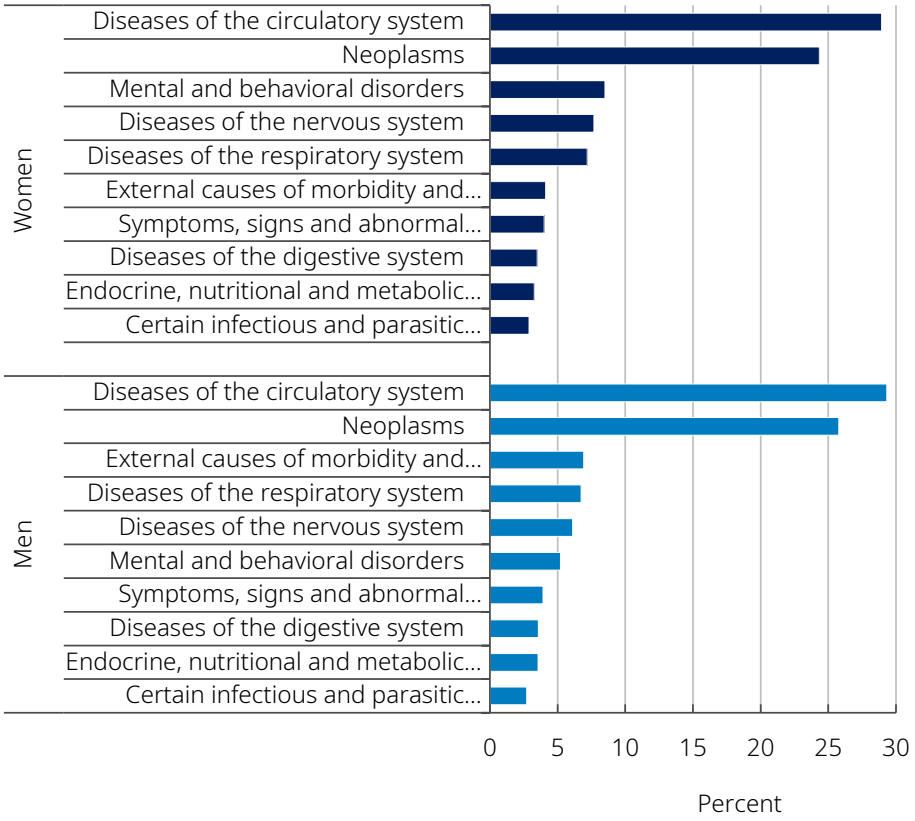



Source: National cause of death register, the National Board of Health and Welfare

# The highest proportion of deaths in 2023 came from diseases of the circulatory system

The most common causes of death in 2023 were related to *diseases of the circulatory system*, followed by *tumours (neoplasms)*, for both women and men (Figure 2). Altogether, deaths from these two chapters comprised 53.3 and 55.1 percent of all causes of death in 2023 for women and men, respectively. For women, the subsequent most frequent causes of death were *mental and behavioural disorders* and *diseases of the nervous system* (8.5 and 7.7 percent, respectively), while *external causes of morbidity and mortality* and *diseases of the respiratory system* were most common among men (6.9 and 6.7 percent, respectively).

**Figure 2. The ten most common causes of death for women and men, respectively, 2023, in percent**



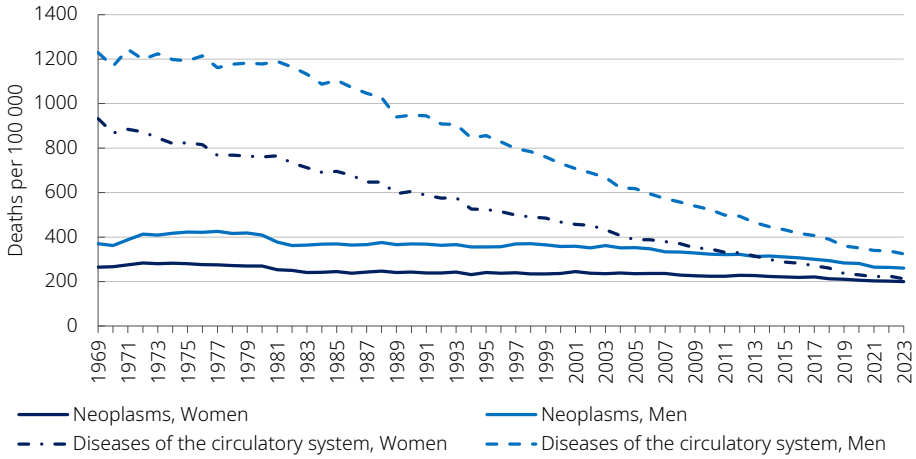

Source: National cause of death register, the National Board of Health and Welfare

# Deaths caused by diseases of the circulatory system and by tumours have decreased over time

Among the most frequently occurring causes of death, the largest decrease in death rates could be observed for *diseases of the circulatory system* (Figure 3). In 1969, the mortality rate was 932.0 per 100,000 inhabitants for women, and in 2023 the rate was 212.7, a 77 percent decrease. For men, death rates for *diseases of the circulatory system* have decreased from 1229.5 cases per 100,000 inhabitants in 1969 to 324.1 in 2023, which corresponds to a 74 percent decrease. *Tumour* death rates have also decreased, albeit not to the same extent as *diseases of the circulatory system*. The decrease between 1969–2023 was 24 percent for women and 30 percent for men. Should the trend continue, *tumours* are likely to be the most common cause of death for women within a not-too-distant future.

**Figure 3. Deaths from *diseases of the circulatory system* and *tumours*, women and men, 1969–2023**

Age standardised mortality rates per 100,000 inhabitants




Source: National cause of death register, the National Board of Health and Welfare

# Higher mortality rates in areas with less favourable socioeconomic conditions

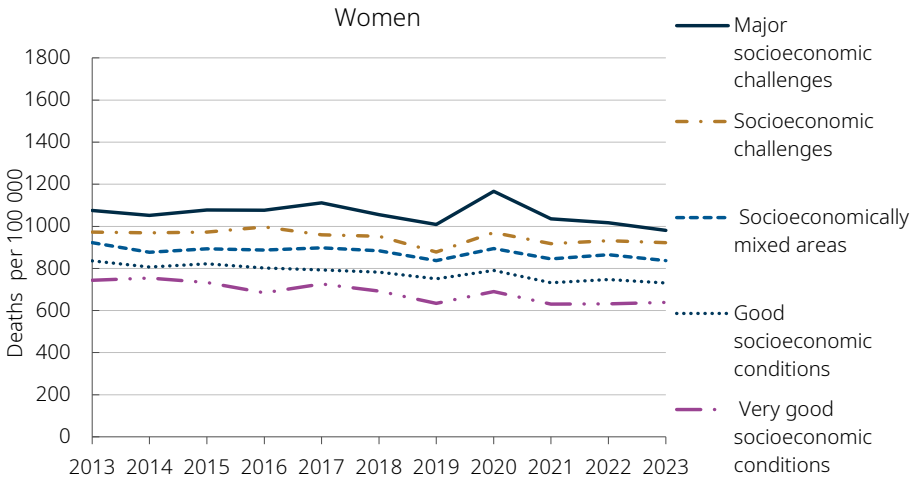
Mortality rates were generally higher for individuals that resided in areas with major socioeconomic challenges compared to other area types. The lowest mortality rates were observed in areas with very good socioeconomic conditions (Figure 4A–B). The mortality rates for women in areas with socioeconomic challenges were on par with the mortality rates for men in areas with very good socioeconomic conditions. The differences in mortality

rates between the different area types were more pronounced for men than for women.

In 2023, the mortality rate for women was 981.1 per 100,000 inhabitants in areas with major socioeconomic challenges, compared to 639.0 in areas with very good socioeconomic conditions. The corresponding mortality rates for men were 1395.5 and 853.6, respectively. The difference in mortality rates between these area types were 35 percent for women and 39 percent for men. The largest decrease in percent during 2013–2023 was observed for women residing in areas with good and very good socioeconomic conditions, corresponding to 13 and 14 percent, respectively, while the corresponding decrease was 5–9 percent in areas with less favourable socioeconomic conditions. The decrease was generally more of a similar magnitude between the different area types for men, varying around 10–13 percent. When the Covid-19 pandemic affected the mortality rates in 2020, a general increase in mortality rates could be observed, particularly for men and those in areas with major socioeconomic challenges, both women and men. In areas with major socioeconomic challenges the increase in mortality rates between 2019–2020 were 16 and 19 percent for women and men, respectively.

**Figure 4A. Mortality rates per area type, 2013–2023, women**

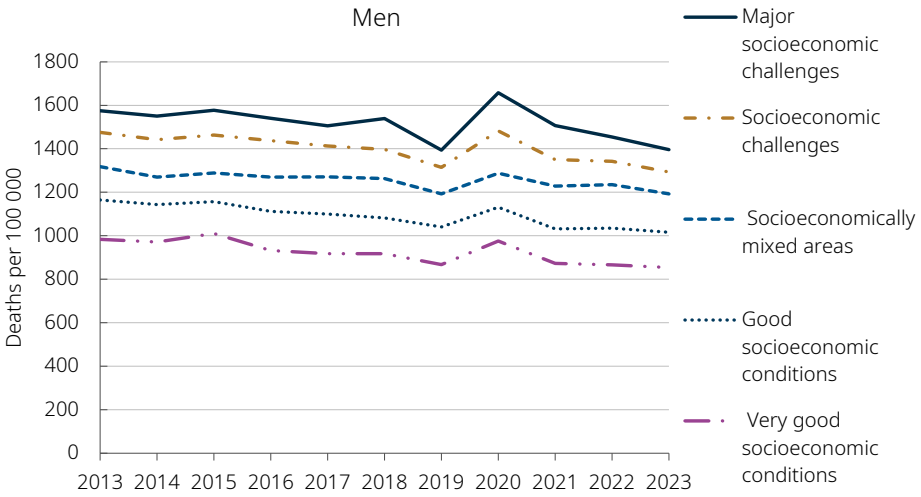
Age standardised mortality rates per 100,000 inhabitants, aged 1 year or older




Source: National cause of death register, the National Board of Health and Welfare; Statistics Sweden

**Figure 4B. Mortality rates per area type, 2013–2023, men**

Age standardised mortality rates per 100,000 inhabitants, aged 1 year or older




Source: National cause of death register, the National Board of Health and Welfare; Statistics Sweden

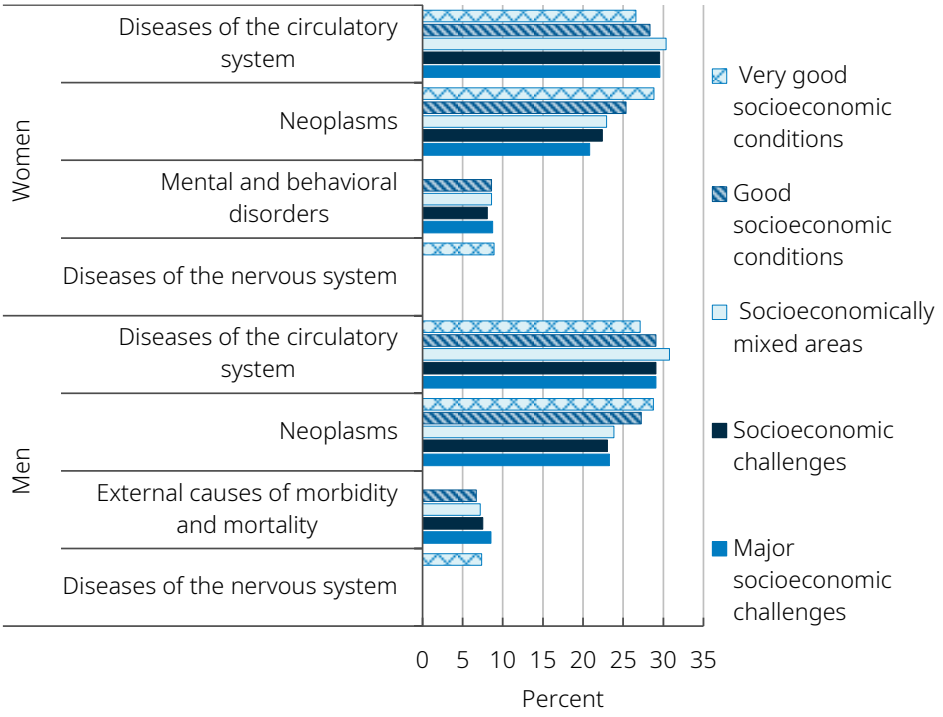
### Regional statistical areas and area type

In this brief summary statistics are presented per area type, a socioeconomic grouping, which is based on regional statistical areas (acronym in Swedish: RegSo). RegSo divides Sweden into 3363 areas that adhere to county and municipal boundaries. RegSo are generated on the 31st of December each year for all living individuals registered in Sweden. Area type is based on a socioeconomical index (SEI) which is calculated for each RegSo. SEI is constructed as the mean value for three statistical indicators: the proportion (of the population in each area) with high school education (20–64 years), the proportion with low economical prerequisites (irrespective of age), and the proportion receiving financial subsidies and/or that are long-term unemployed (20–64 years). A high SEI-value is indicative of greater socioeconomical vulnerability. Based on standard deviations from the mean, a grouped variable is derived, namely area type. The variable spans from major socioeconomic challenges (1) to very good socioeconomic conditions (5). RegSo and area types are available up until 2023 and 2022, respectively.

With the exception of areas with the most favourable socioeconomic conditions, *diseases of the circulatory system* were the most common causes of death (Figure 5). In areas with very good socioeconomic conditions, *tumours* were the most frequently occurring causes of death for both women and men. Differences between the area types could be observed, not just for

*tumours* and *diseases of the circulatory system*, but also for *external causes of death* for men. In areas with very good socioeconomic conditions, *diseases of the nervous system* was the third most common cause of death.

**Figure 5. The three most frequently occurring causes of death per area type, women and men, 2023, percent**



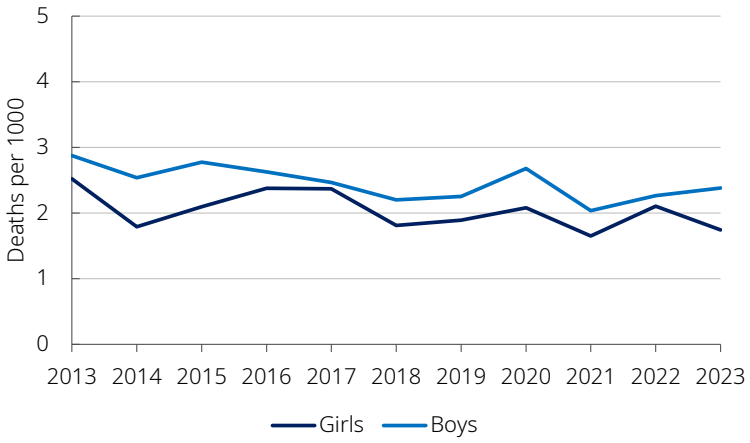

Source: National cause of death register, the National Board of Health and Welfare; Statistics Sweden

# Child mortality has decreased over time but there are differences between girls and boys as well as between area types

During 2023, 207 children died before the age of one, 85 girls and 122 boys. The child mortality rates were 1.7 and 2.4 per 1000 births for girls and boys, respectively (Figure 6A). Child mortality rates have decreased since 2013 when it was 2.5 per 1000 live births for girls and 2.9 for boys, which respectively corresponds to a 31 and 17 percent decrease. The most common causes of death in this age group were *certain conditions originating in the perinatal period* (57.5 percent) and *congenital malformations, deformations and chromosomal abnormalities* (17.9 percent). Deaths from *sudden infant death syndrome* comprised 6.3 percent of the cases.

**Figure 6A. Child mortality rates, girls and boys, 2013–2023**

Number of deaths before reaching the age of one, per 1000 live births

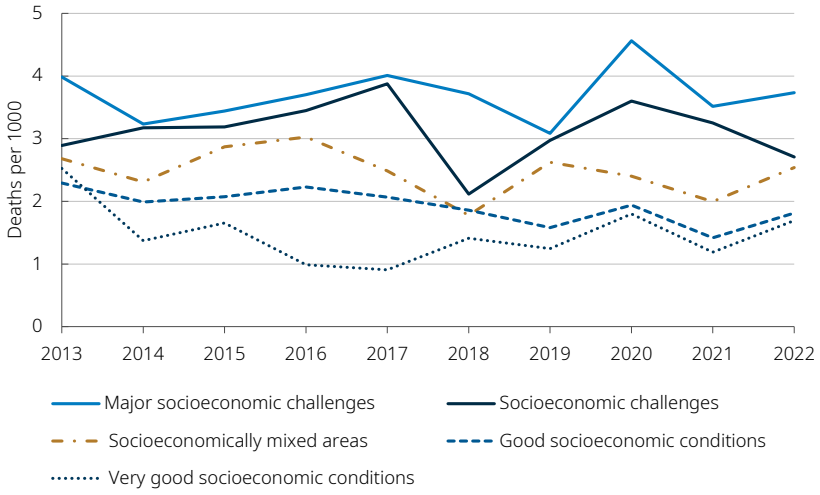



Source: National cause of death register, the National Board of Health and Welfare; Statistics Sweden

When child mortality rates were stratified by area type, differences could be observed between areas with different socioeconomic circumstances (Figure 6B). In areas with very good socioeconomic conditions, the child mortality rate was 1.7 deaths per 1000 live births in 2022, and in areas with major socioeconomic challenges the number was 3.7. A slight fluctuation in child mortality rates could be observed over time, but when the beginning of the time-series is compared to the latter part, a decrease could be observed for all area types. The magnitude of decrease did, however, differ between the area types. In areas with good and very good socioeconomic conditions, the decrease was 21 and 33 percent, respectively. For the other area types, the decreases were between 5–6 percent.

**Figure 6B. Child mortality rates per area type, 2013–2022**

Number of deaths before reaching the age of one, per 1000 live births




Source: National cause of death register and the Medical birth register, the National Board of Health and Welfare; Statistics Sweden

## About the statistics

Underlying cause of death is the disease or injury that initiated the chain of events leading directly to death. This includes the circumstances of an accident or violent act that caused the fatal injury. In this brief summary, underlying cause of death is always presented. Mortality rate is a measure used to compare mortality between groups that are different in numbers, usually expressed as number of deaths per 100,000 inhabitants in the population. Age-standardised mortality rate accounts for age differences between groups.

In the statistics presenting data stratified by area type, deceased individuals one year or older have been included (except for the section presenting child mortality rates). RegSo-code, area type and the population for each area type have been collected at the end of the year prior to death. The reason being that individuals are not registered in Sweden by the end of the year they pass away. Age-standardised mortality rates per area type have been calculated using the population in Sweden on the 31st of December 2022.

Child mortality rates have been calculated for children born in Sweden by dividing the number of deceased 0-year olds by the number of live births per year and socioeconomic group. Information regarding RegSo and area type for the deceased children have been identified using the mother's information from the year of death via the nationwide Swedish medical birth register (MBR). On average, around nine cases per year did not have RegSo-information. The number of live births were also derived using the MBR. Child mortality rates stratified by gender are based on the number of births per year as compiled by Statistics Sweden.

## More information

You can find more tables, graphs and information here (in Swedish): www.socialstyrelsen.se/statistik-och-data/statistik/alla-statistikamnen/dodsorsaker

If you would like to use our statistical database (in English), please visit: https://sdb.socialstyrelsen.se/if_dor/val_eng.aspx

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