Introduction: Trauma is the leading cause of mortality in adults under 45 years old. Trauma demographics change over time therefore requiring constant re-evaluation of the presenting trauma population to decrease morbidity and mortality. The study aimed to describe the trauma population at the Karolinska University Hospital, causes of death and examine the proportion of potentially preventable and preventable deaths.

Method: Using the trauma registry SweTrau, variables for all trauma patients >15 years (6483 patients) were extracted during the period 2018 to 2022 with regards to age, gender, type of injury, injury mechanism, injury intention etc. Descriptive statistics were used to describe the general trauma population and compare survivors and non-survivors. Logistic regression was used to evaluate factors associated with 30-day mortality.

Result: Stockholm’s trauma demographics consist of predominantly male patients. Blunt, unintentional, injuries were the most common presenting trauma. The most common injury mechanism was falls. Most patients presented with mild to moderate injuries and were healthy prior to presentation. The main cause of death was traumatic brain injury. The percentage of potentially preventable and preventable deaths was 7% and 0.5%. The most common trauma care error was delay in time to surgery/treatment.

Discussion: The study shows a change in trauma mortality, with increasing mortality in the elderly population. There is a decrease in the number of preventable deaths which suggests that trauma care is improving. Future studies on specific subgroups of the trauma population, such as fall injuries in females and gunshot wound patients in males, can lead to further improvements.