

**Background:**

The COVID-19 pandemic demanded changes in societal behavior and health care worldwide. Previous studies have compared trauma patient admissions in COVID-19 related lockdowns to prior years. This study describes the COVID-19 impact on trauma patient admissions during entire 2020 at a major trauma center in Denmark.

**Patients & Methods:**

We retrospectively analyzed trauma patients received by a trauma team and admitted at Aarhus University Hospital in 2020 compared with 2018-2019. The incidence of injuries, mechanism of injury, 30-day mortality and Injury Severity Score (ISS) were investigated.

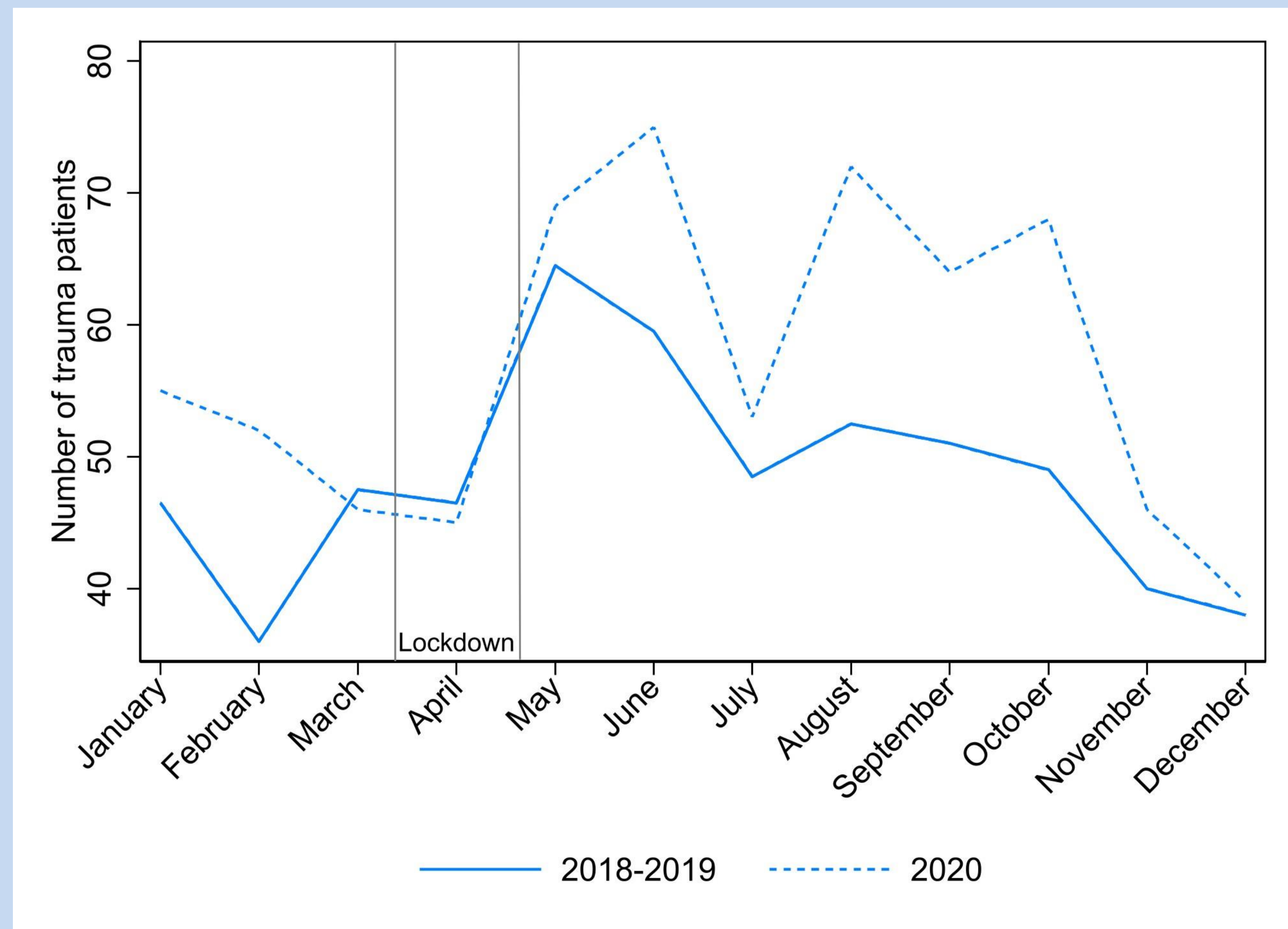
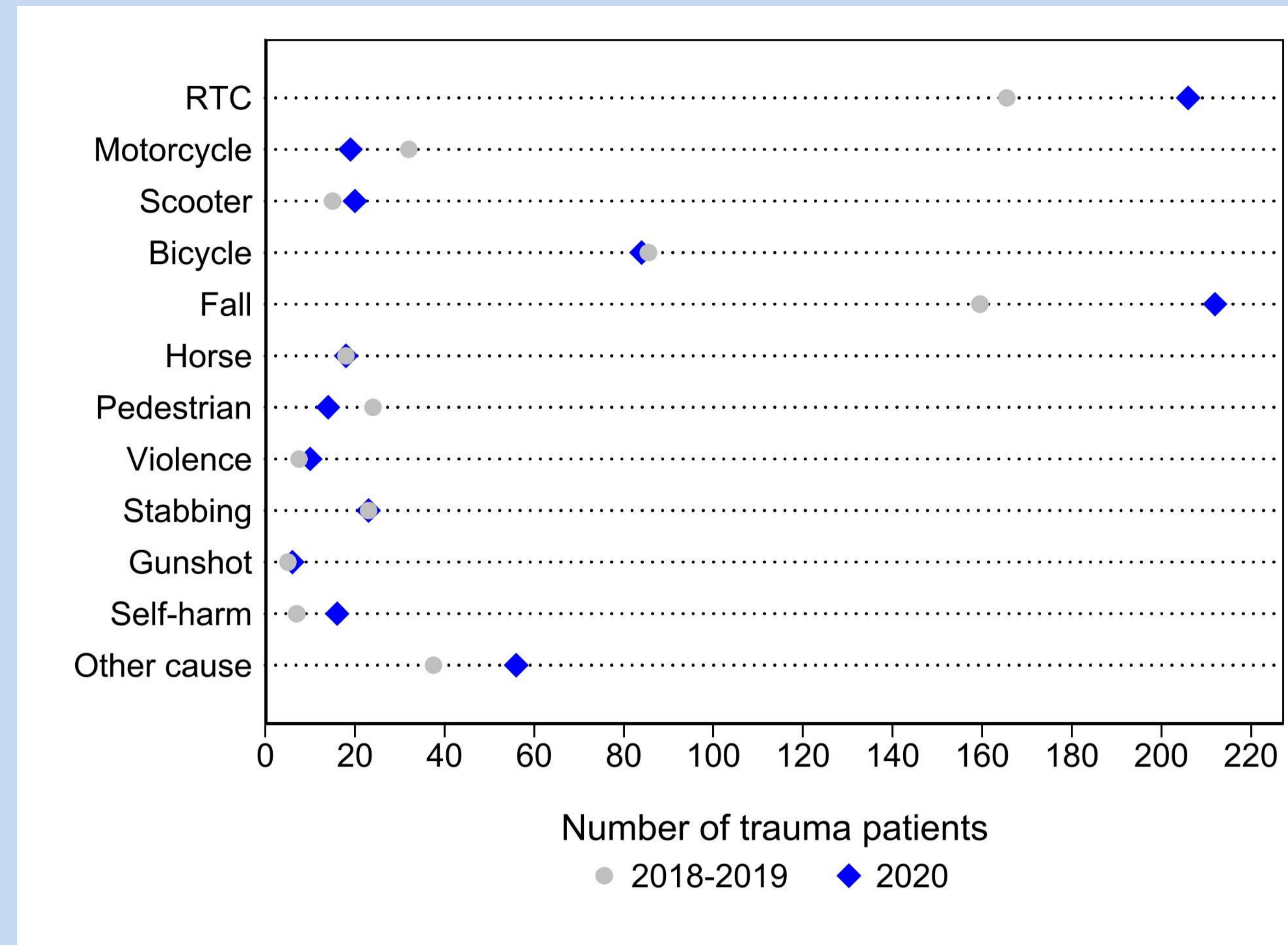


Figure 1: Number of trauma patient in 2020 compared with 2018-2019.

Figure 2: Mechanism of injuries in 2020 compared with 2018-2019.  
RTC = Road traffic collision.



**Results & discussion:**

The incidence of minor injuries (ISS 1-15) increased by 24% in 2020 compared with 2018-2019 (incidence rate ratio 1.24 [95% CI 1.11–1.39]). The incidence of severe injuries (ISS > 15) in 2020 did not change compared with 2018-2019 (incidence rate ratio 0.97 [95% CI 0.80–1.17]).

The 30-day mortality was similar in 2020 compared with 2018-2019. Comparing 2020 with 2018-2019, the risk ratio of traffic injuries decreased (0.90 [95% CI: 0.82–0.99]), risk ratio for fall injuries was 1.13 (95% CI: 0.97–1.30), for violence 1.13 (95% CI: 0.51–2.50) and for self-harm 1.94 (95% CI: 0.95–3.94). During the first lockdown of 2020, trauma team activations declined by 15.2% compared with 2018-2019 (42 vs. 49.5 patients) and the risk ratio for traffic injuries was 0.74 (95% CI: 0.50–1.10).

**Conclusion:**

The incidence of minor injuries increased, but the incidence of severe injuries was similar in 2020 compared with 2018-2019. Societal restrictions might alter mechanism of injuries. The first lockdown was associated with reduced traffic injuries.

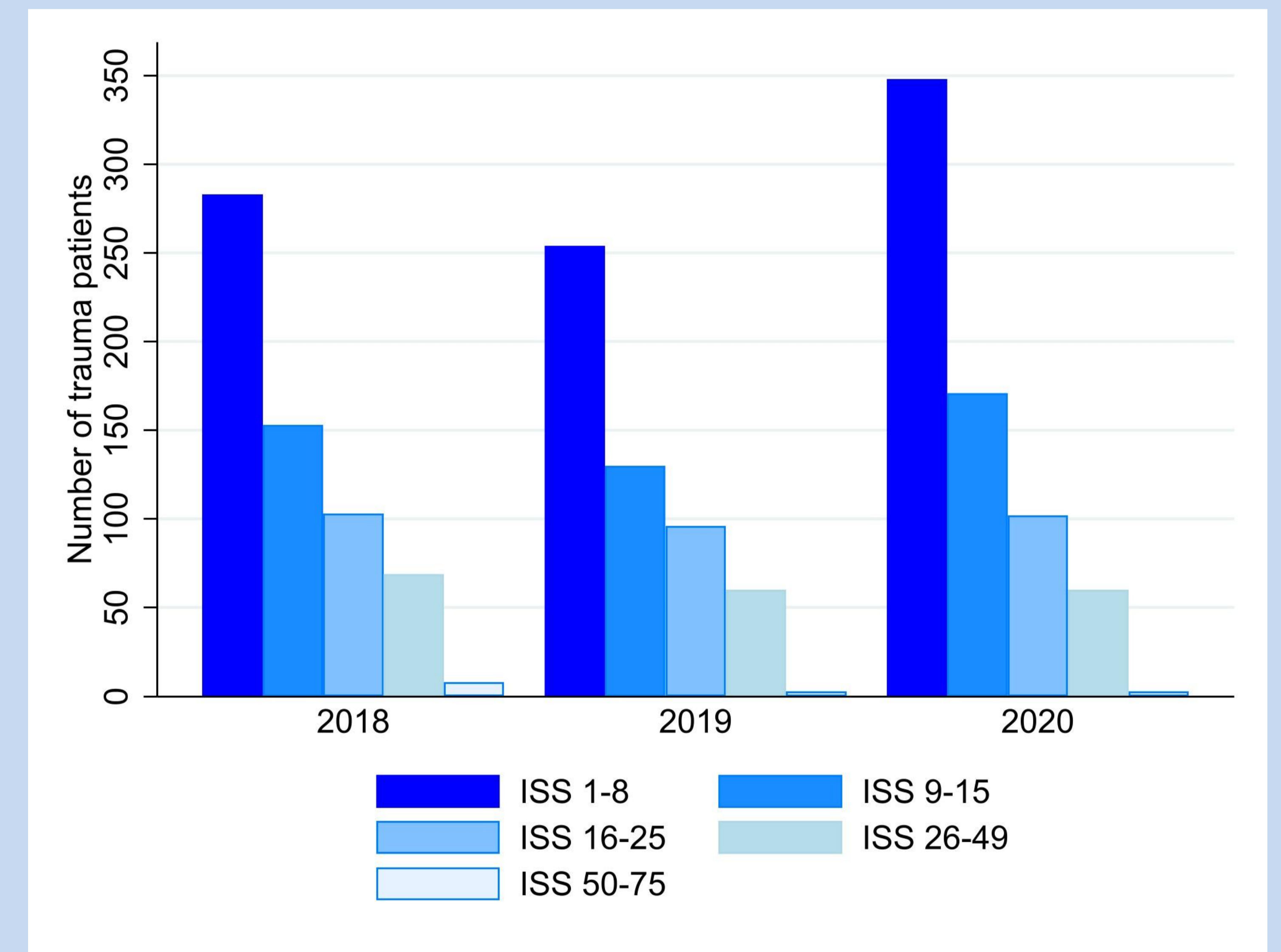


Figure 3: Distribution of Injury Severity Score in 2020 compared with 2018-2019.

Figure 4: Aarhus University Hospital

