BACKGROUND

• Children ages 10 – 14 have the highest incidence of fractures and boys are 2-3 times more likely to suffer a fracture than girls. 1
• Many studies have reported a seasonal variation in the incidence of pediatric fractures, with a higher number of fractures occurring during school holidays. 4,6
• In Oregon, schools were closed to prevent the spread of COVID-19 on March 13th, 2020 for the remainder of the academic year. Parks and playgrounds were closed and all organized sports were cancelled.

OBJECTIVES

• The purpose of this study is to determine how sports and school closures changed the incidence, demographics, and treatment of pediatric fractures.

METHODS

• A retrospective chart review was performed from a single level II trauma center.
• Patients aged 0-17 year old who sustained a fracture during the three month period of March 13th to June 13th in 2017-2020 were included.
• The patients' demographics, mechanism of injury, fracture type, and treatment were recorded and compared by calendar year.

RESULTS

• The total number of pediatric patients sustaining fractures in this three-month period decreased from an average of 73 patients per year in 2017-2019 to a total of 45 in 2020. However, there were only 5 fewer patients in 2020 compared to 2019.
• There was always a slightly higher proportion of males than females each year (range 52-60% male). Age fluctuated across years, but a majority of fracture patients were <15 years old. The percent of patients requiring surgery did not change in 2020 compared to other years (18% in 2020 vs average of 18%).

2020 had the highest proportion of leg/foot injuries and the lowest proportion of arm/hand injuries compared to 2017-2018. However, there has been a gradual trend in this direction and there is no evidence of a dramatic shift in 2020 compared to other years.

• About half of injuries in 2020 were related to playing (playground, scooter, bike, skateboard, ATV, rollerblades, or trampoline), which is more than any other year. In 2020, there were no sports injuries and only one school injury, which is very different compared to 2017

CONCLUSIONS

• There has been a downward trend in pediatric patients presenting with fractures over the past 4 years. However, there was no difference from 2019 to 2020 with respect to quantity of fractures and the percentage of patients requiring surgery.
• In 2020, there were more fractures sustained at home and almost no injuries during team sports or in school.
• Although the number of pediatric fractures was substantially higher in 2017/2018 compared to 2019/2020, there is no evidence that school closures and quarantine in 2020 dramatically changed the number of pediatric fractures.

FUTURE IMPLICATIONS

• Exploring this unique time will give us better insight on how to prevent fractures in the household setting and how school and sports closures affect pediatric fracture care.

REFERENCES