### FORGING NEW FRONTIERS 2023 >>>>

n=3, 0%; group 5-9: n=22, 59.1%; group 10-14: n=63, 71.4%; group 15-18: n=20, 75%).

For bicycle-related traumas, there were fewer intracranial injuries in children who wore helmets (helmet: 12 (34.3%), no helmet: 44 (60.3%); p=0.011). The rates of intracranial injuries were lower in children who wore helmets for MC traumas (helmet: 22 (41.5%), no helmet: 8 (61.5%)), ATV traumas (helmet: 3 (25%), no helmet: 8 (57.1%)), and skate traumas (helmet: 1 (50%), no helmet: 8 (72.7%)); however, these were not statistically significant differences.

**Conclusions:** The rates of helmet use are uniformly low amongst pediatric non-MC trauma patients, with an inverse relationship between helmet use and age among bicycle specific trauma. These results underscore the importance of bicycle helmet use in the pediatric population. Furthermore, the data highlights a need for improved helmet use in the local community. Future efforts are needed to evaluate why helmet use within this patient population is unsatisfactory and identify potential interventions, which may include increased education or access to safety gear.

### **Objectives:**

1. Although national data is important, evaluation of local community data could help better guide injury prevention efforts.

 Despite knowing the importance of using helmets, use among children in our community is suboptimal.
Proper helmet usage in children is critically important to decrease rates of intracranial injury.

# The Effects of the COVID-19 Pandemic on Pediatric Dog Bite Injuries



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**Background:** Shortly after the onset of the COVID Pandemic, when many schools and outside activities were suspended, dog adoption rates increased. It is unknown if increased dog adoption rates along with stay-at-home orders resulted in increases in the prevalence of dog bites in children. The objective of this study was to examine the incidence and characteristics of dog bites in 0-18-year-old children seen in a pediatric emergency department (PED) during the COVID-19 pandemic compared to before the pandemic.

**Methods:** A retrospective review of electronic medical records of children evaluated in the PED of a level 1 pediatric trauma center and its satellite PED from March 1, 2018, through February 28, 2022, who had a discharge diagnosis of dog bite (ICD-10 W54.0XXA) was conducted. Subsequent patient visits for the same diagnosis were excluded. Pre-pandemic cases, March 1, 2018, through February 29, 2020, were compared to those that occurred during the pandemic, March 1, 2020, through February 28, 2022. Incidence rates, demographics, patient dispositions, and injury characteristics were analyzed using chi-square analysis and student's t-tests.

**Results:** Of the 65,204 total injury-related patients seen in the PED during the study months, 2,222 (3.4%) were for dog bites. Compared to pre-pandemic cases, there were 114 more cases

during the pandemic, and the incidence for the first year of the pandemic was 1.5 times higher than the 2 pre-pandemic years (Figure 1); the incidence returned closer to the pre-pandemic rate during the second year of the pandemic. There were no demographic differences between the pre-pandemic and during pandemic groups regarding age, sex, race, or ethnicity. However, more patients had private insurance during the pandemic compared to pre-pandemic (60.2% vs. 49.8%, p<0.001; see Table 1). More patients were admitted during the pandemic compared to pre-pandemic (6.1% vs 3.7%, p < 0.05). More patients required operative management during the pandemic compared to before (4.9% vs 3%, p<0.05). Facial injuries and injuries to multiple body parts occurred more frequently during the pandemic than pre-pandemic (face 35.9% vs 33.5%, respectively and multiple 18.5% vs. 15.6%, respectively, p<0.05). Total cases per age group did not vary between the pre-pandemic and during pandemic groups. For both groups, children ages 5 to 9 years were most commonly affected (33.6% pre-pandemic; 35.2% during).

**Conclusions:** There was a higher incidence of PED visits, higher admission rates, and an increase in multiple body part and facial injuries in children with dog bite injuries during the COVID pandemic compared to pre-pandemic. Pediatric providers should emphasize safe dog interactions with anticipatory guidance.

### **Objectives:**

1. Dog bites in pediatric patients increased during the initial period of COVID-19 pandemic

2. As social restrictions relaxed, dog bite incidence rates returned back to pre-pandemic rates.

3. Higher admission rates, higher OR rates, and increases in facial and multi-part injuries suggest that dog bite injuries were more severe during the pandemic.

## Snowmobile Helmets: Attitudes and Use by Rural Adolescents



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**Background:** Snowmobiles are a common recreational activity in rural areas in northern climes. Head injuries are a common cause of deaths and injuries while snowmobiling, and helmet use can significantly decrease the risk. Our objective was to determine rural adolescents' attitudes regarding helmets, the frequency of their use while riding snowmobiles and associated demographic factors.

**Methods:** An anonymous survey was given to a convenience sample of attendees of the 2022 Iowa FFA (formerly Future Farmers of America) Leadership Conference at the University of Iowa Stead Family Children's Hospital injury prevention booth. Descriptive, bivariate (Chi-square, Fisher's exact test), and multivariable logistic regression analyses were performed after data compilation and importation into Stata 15.1 (StataCorp, College Station, TX).

**Results:** 1,331 adolescents between 13-18 years completed the survey with 50% living on farms, 21% in the country but not on a farm and 28% from towns. One-fourth (26%) lived in a