

Bicycle Safety



Purpose

- Determine the knowledge base of the citizens of Livingston County on general bicycle safety.
- Determine the prevalence of people who regularly wear a helmet when riding a bicycle.
- Find a way to increase the use of bicycle helmets in all age groups.
- Provide some basic safety education in a fun environment.



Bicycle statistics

- 252 children die annually in the U.S from bicycle crashes- 97% of whom were not wearing a helmet¹
- Bicycle injuries are the most common cause of serious head injury in children and most of these injuries are preventable²
- 1/5 of children never wear a helmet³
- Most serious injuries result from collision with motor vehicles⁴

Bicycle statistics

- Encouraging bicycle riders to wear helmets is key to preventing injuries⁴
- Majority of parents are in favor of bicycle helmet legislation for children⁵
- Prevention programs are effective and result in retained knowledge⁶



Setting

- Pontiac, IL
 - Population 11,864
 - County seat of Livingston County
 - Located 100 miles south of Chicago, IL & 35 miles Northeast of Bloomington, IL
 - Healthcare includes 1 Hospital, 3 Nursing homes and 1 Alzheimer's home
 - Largest employer is Caterpillar

Methods

- A ten question survey on general bicycle safety knowledge and helmet use was given to participants attending a Safety Fair before going to any informational booths.
- Bicycle as well as other safety information was then provided to participants.
- All participants who attended and wished to have a bicycle helmet received one for free, which was properly fitted before going home.
- Type of Analysis: Descriptive statistics

Subjects

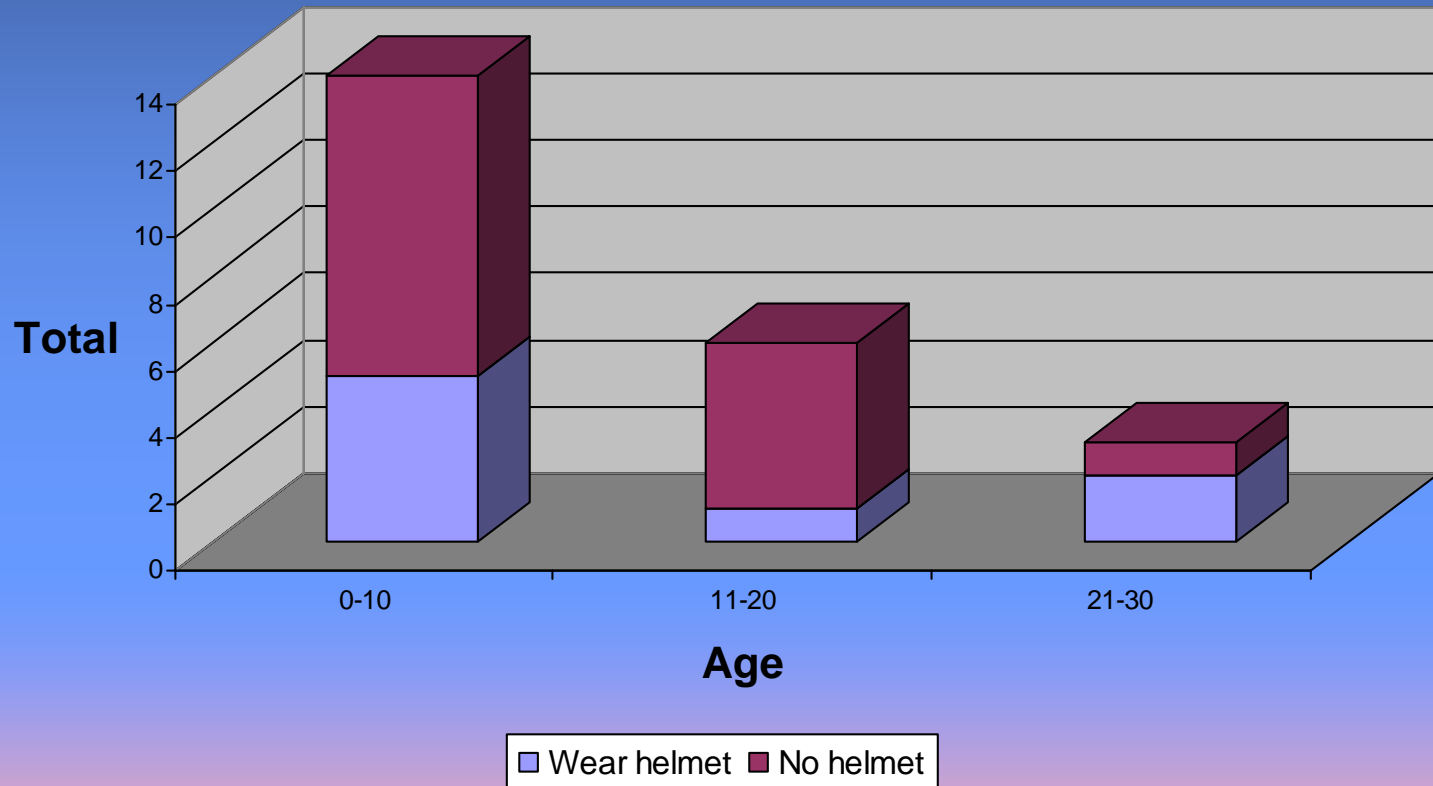
- 83 people attended the Safety Fair of which 38 completed surveys
- Of the 38 respondents, 23 were female
- 20 people who completed surveys were under the age of 20
- No participants who completed surveys were over 60 years old

Findings

- Overall, females were more likely than males to wear helmets, 26% vs. 13%
- Overall helmet use was 21%
- No participant over the age of 30 wore a helmet when riding a bicycle

Helmet Use

Helmet Use of Participants



Findings

- Questions were grouped into those relating to traffic issues and those relating to safety equipment
- Overall, respondents answered 81% of the traffic questions but only 21% of the safety equipment questions correctly
- Question 9 on use of arm signals was incorrectly answered by ALL respondents

Findings

- There were no differences across the age groups in regards to correct answers on traffic vs. safety equipment questions
- The most common reason for not wearing a helmet was that 70% of respondents did not have a helmet

Conclusions

- Bicycle safety programs need to include adults as well as children
- Bicycle safety programs should include Rules of the Road as well as information on safety equipment
- To increase bicycle helmet use, programs need to help find ways for people to obtain bicycle helmets



References

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References

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- ⁴Thompson, M.J. “Bicycle-related injuries”, *American Family Physician*, May 15, 2001; pp2007-2014

References

- ⁵Lohse, J.L. “A bicycle safety education program for parents of young children”, *Journal of School Nursing*, Apr 1, 2003; pp100-118
- ⁶Nagel, R.W. “Educating grade school children using a structured bicycle safety program”, *Journal of Trauma*, Nov 1, 2003; pp920-923