Abstract Title:
Teen Seat Belt Challenge, Implementing in a Rural High School Setting

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Background & Purpose:
An assessment of our rural community found teen drivers are at highest risk for motor vehicle crashes, injury, and death per miles traveled. This is compounded by inexperience, tendency to overestimate driving ability, and hazardous mountain driving conditions year round. There were 17 traffic fatalities in 2010 in our region including teen drivers, 59% were unrestrained and 54% of deaths occurred on rural roads. The purpose of this project was to measure the effectiveness of teen education regarding seatbelt utilization, and determine if a challenge contest could improve seatbelt utilization.

Study/Project Design:
Observational studies at 4 high schools in 3 counties pre/ post seatbelt challenge.

Setting:
Rural and frontier mountain community.

Sample:
Convenience sample of 4 high schools. 2500 students and parent drivers at entrance of school.

Procedures:
State grant was secured and regional trauma council contributed additional funds to the project. The state provided a blueprint curriculum for an 8 week program. The authors secured participation of the high schools. Funding provided prizes for schools and students during various phases of the project which included T-shirt design contest, banners, social media and sign campaigns to promote use of seatbelts. Teen peer pledges were utilized to encourage further participation. A competitive contest between the high schools was established to promote participation and to establish pre and post seatbelt utilization rates. Findings were measured pre, midway, and post program. Law enforcement increased enforcement of primary seatbelt law on rural roads which was publicized to students.

Findings/Results:
There was a 12% increase in seatbelt use measured by a belted rate of 80% pre-intervention and 92.1% at end of the contest. This represents 300 additional people wearing seatbelts, which injury prevention estimates of dollars saved is $111,000,000 over a lifetime. Average hospital costs are 55% higher for an unrestrained crash victim. More than half of those who died on rural roads were unrestrained, compared to 36% in urban areas. Mortality is increased when ejected, and 71% of unbuckled drivers were ejected from vehicle. Other rural counties within the state who do not have this program have substantially lower use. Observed baseline seatbelt rates were 42.6 to 64.3% at other rural high schools within region. Based on these findings, the state has committed additional funding to continue the program and to expand to other rural counties.

Discussion/Conclusions/Implications:
The contest targeted teen and rural drivers who are at greatest risk for not wearing seatbelts. The challenge educates and reinforces safe behavior. Teacher, parent, and teen peer to peer outreach enhanced success. Law enforcement on rural roads with consequences of points, fines, and loss of license assisted in efforts to change teenage behavior. Rural High Schools committed to seatbelt challenge for next year, and 2 additional schools enrolled in program. The program was a low cost way to impact many students and their parents, while increasing seatbelt use through community engagement.