Racial Disparities in Pediatric Injury Hospitalization Rates in a Rural State
South Dakota, 2009-2013
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Purpose:
Compare injury hospitalization rates from 2009-2013 among White and American Indian populations:

- manner of injuries: (6 categories includes unintentional or accidental injuries, suicide or self-inflicted, homicide or assault, etc.)
- mechanisms of injuries: (18 categories on the way injury was sustained, or cause of injury – i.e., falls, motor vehicle accidents, poisoning, etc.)
- nature of injuries: (12 categories including fractures, system-wide & late effects, burns, etc.)

Death Rates due to Unintentional Injuries Among Persons Aged ≤19 Years, by State, 2009

Leading Causes of Death by Age Group, South Dakota, 2009-2013
South Dakota Population: 0-19 Years, 2009-2013

Methods

Hospital Admission Data
- South Dakota Association of Healthcare Organizations Data Collection System, 2009-13
- Note: IHS Hospital data are not included

External Cause of Injury Code
- External Cause of Injury Code (DXE)
  - ICD-9-CM Diagnosis Codes: E000-E999
- Injury Diagnosis Matrix for ICD-9-CM & Barell Injury Diagnosis Matrix for classification

Injury Hospitalization Rates Among Children 0-19 Years of Age, South Dakota, 2009-2013

Significant upward trend
Injury Hospitalization Rates by Race and Age Group Among Children Aged 0-19 Years
South Dakota, 2009-2013

0 to 14 years

15-19 years

Significant upward trend for American Indians only

Significant upward trends

Injury Hospitalization Rates by Manner Among Children Aged 0-19 Years
South Dakota, 2009-2013

Significant upward trends for suicide and homicide

UNINTENTIONAL

SUICIDE

HOMICIDE
Injury Hospitalization Rates by Manner, Age and Race Among Children 0-19 Years, South Dakota, 2009-2013

- **Unintentional**
- **Suicide**
- **Homicide**

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Injury Hospitalization Rates for the Top 3 Mechanisms by Age and Race Among Children 0-19 Years, South Dakota, 2009-2013

- **Falls**
- **Cut or pierce**
- **Poisoning**
- **MV traffic**
- **Natural or environmental**
- **Other Injuries**
- **Unspecified/Unknown**

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**American Indian**

**White**
Conclusions

- South Dakota American Indian children have disproportionately higher hospitalization rates due to injuries.
- Knowing types of injuries requiring hospitalization will allow public health professionals to more efficiently target their efforts to prevent injuries.

Limitations

- Data set that was used did not include hospitalizations at IHS facilities.
- This would result in underestimating injury hospitalization rates for American Indian children.
- It is not known whether IHS Hospital admissions differ by manner, mechanism, or nature of injury than those seen in the South Dakota data set that was used.