Disparities in Firearm Injury Mortality, 2000-2013

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Background

Healthy People 2020 initiative: two overarching goals

- "Attain high quality, longer lives free of preventable disease, disability, injury, and premature death."
- "Achieve health equity, eliminate disparities, and improve the health of all groups."

Objectives

- Examine trends and patterns in firearm injury mortality
 - Fatal injuries by intent and mechanism
 - Focus: firearm injury mortality
 - Nature of, and change over time in, disparities
 Racial and ethnic
 - Sex



Mortality data from the National Vital Statistics System

- Coverage: 50 states and DC
- Deaths to U.S. residents 2000-2013
- Underlying cause of death
- Data presented overall and by sex and racialethnic group
 - Four racial-ethnic groups: non-Hispanic white, non-Hispanic black, non-Hispanic Asian or Pacific Islander (API) and Hispanic

Methods

1) Rankings of fatal injuries

- Based on number of deaths
- By intent and mechanism
- 2) Age-adjusted death rates
 - Year 2000 standard population
 - Trend analysis Joinpoint regression
 - Tests of significant differences among groups
 - Tests of significant changes in disparities over time

Percent distribution of injury deaths by intent: United States, 2000-2013

■ Unintentional ■ Suicide ■ Homicide

Undetermined Other



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

Five leading mechanisms of injury deaths: United States, 2000 and 2013

Rank	2000	2013
1	Motor vehicle traffic (28.3%)	Poisoning (25.2%)
2	Firearm (19.3%)	Motor vehicle traffic (17.5%)
3	Poisoning (13.6%)	Firearm (17.4%)
4	Fall (9.4%)	Fall (16.2%)
5	Suffocation (8.2%)	Suffocation (9.0%)

NOTE: Values show percentage of all injury deaths. SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

Five leading mechanisms of injury deaths by sex, Hispanic origin, and race: United States, 2013





Firearm injury mortality by intent, sex, Hispanic origin, and race: United States, 2013



Age-adjusted firearm injury death rates by Hispanic origin and race: United States, 2000-2013



SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

Summary - 1

Disparities in firearm injury mortality persist

- Firearm injury remained one of the 5 leading causes of fatal injuries in 2013
 - Males had a higher relative burden than females
 - Highest burden in the black population, especially for black males
- The majority of firearm injuries in 2013 were suicides and homicides, with variations in relative burden by demographic group

Summary -2

Disparities in firearm injury mortality persist

- Variations by demographic group were observed in trends and changes in disparities over time
 - Increase in firearm injury mortality NH white group
 - No improvement for NH black group
 - Decrease in firearm injury mortality NH API and Hispanic groups
 - NH black to NH white disparity decreased
 - NH API to NH white and Hispanic to NH white disparities increased

Summary -3

Challenges remain in addressing the causes of

- Increasing firearm injury mortality for the NH white population
- Lack of progress for the NH black population

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