

# Public health surveillance for suicide-related data

Alex E. Crosby

Garrett L Smith Memorial Act Grantees seminar

May 2014

National Center for Injury Prevention and Control  
Centers for Disease Control and Prevention

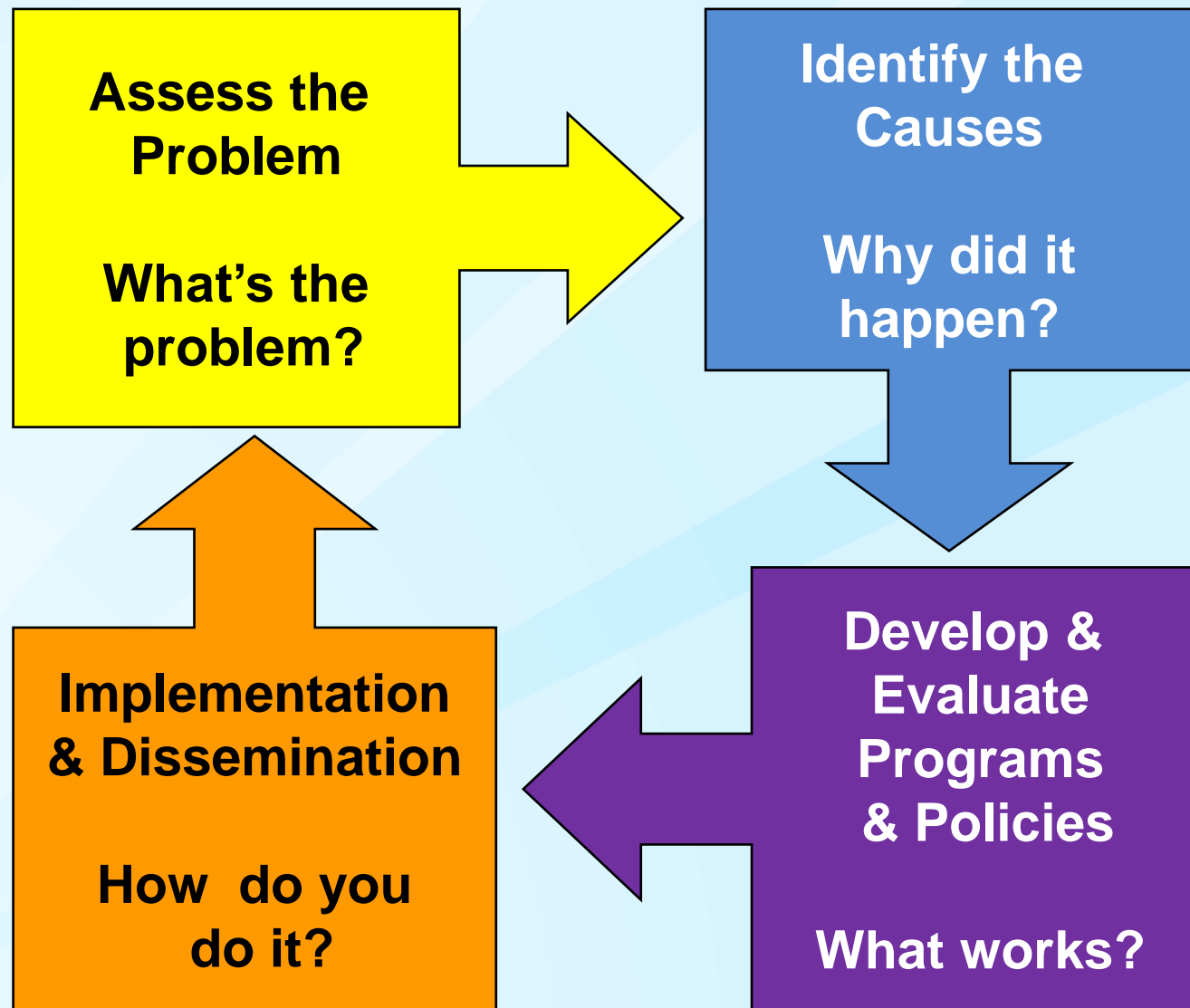
**"The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention/the Agency for Toxic Substances and Disease Registry."**



U.S. Department of Health and Human Services

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# The Public Health Approach to Prevention



# Public Health Surveillance

- “...ongoing systematic collection, analysis and interpretation of health data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know.”

Thacker & Berkelman – 1988

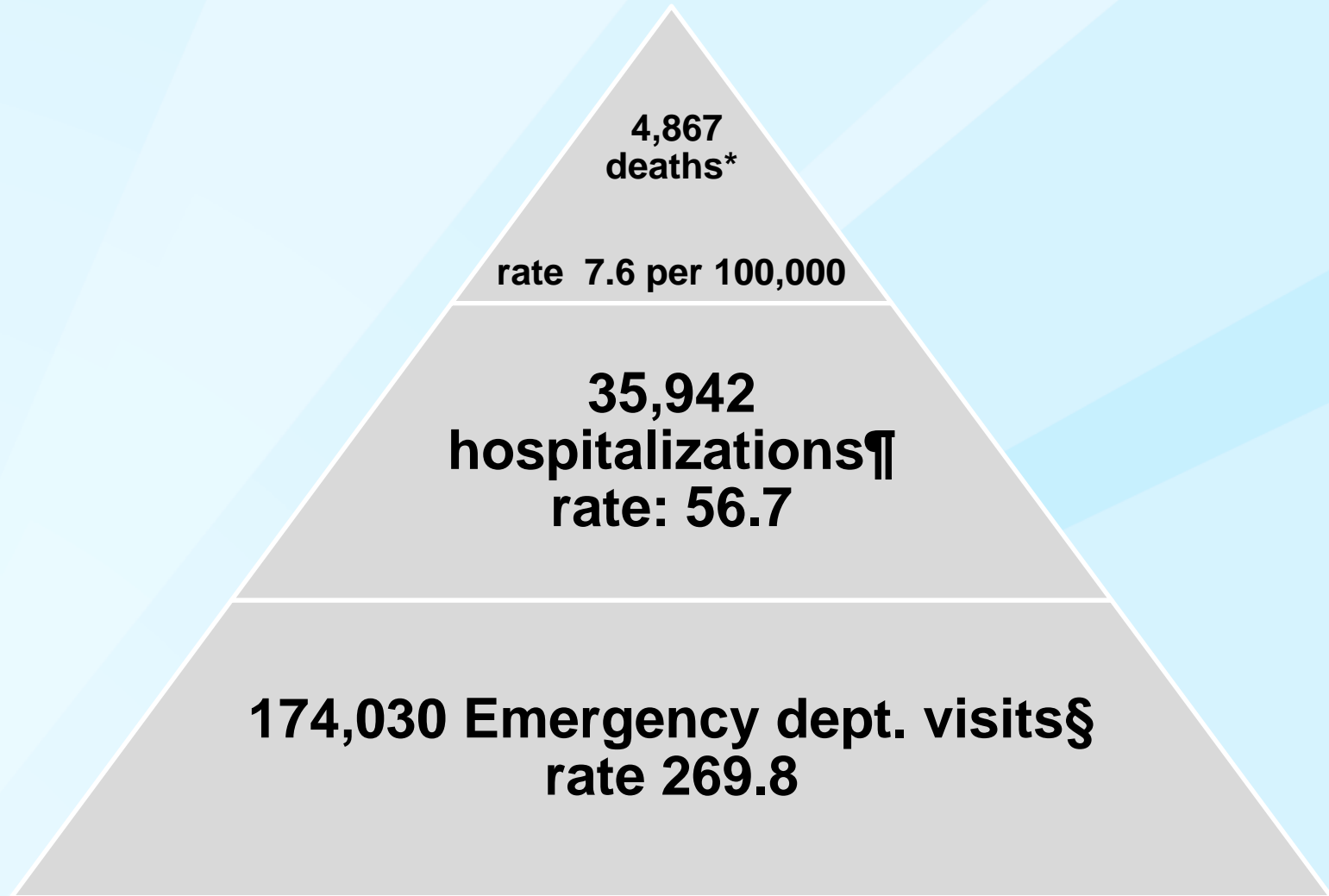
# Why Do We Need Injury Surveillance Systems?

- What's the problem and how big is it?
- Who is at risk?
- How do we design research to find out how to prevent the problem and test it in a community?
- Assess the result of programs (e.g., changes in deaths, injuries, impairments, disabilities, lost work days, loss of ability to perform daily activities, or behaviors)?

# Burden of injury



# Public Health Burden of self-directed violence among persons aged 10-24 years -- United States, 2010



\*Source: CDC's National Vital Statistics System,

¶Source: Agency for Healthcare Research and Quality's Healthcare Cost and Utilization Project - Nationwide Inpatient Sample (HCUP-NIS)

§ Source: CDC's National Electronic Injury Surveillance System (NEISS)

# Self-directed violence prevention Problem Description/Surveillance

## ■ Deaths

- Death Certificates
  - National, State, County
- National Violent Death Reporting System
  - 18 states
- School-Associated Violent Death Study
  - National

# National Violent Death Reporting System

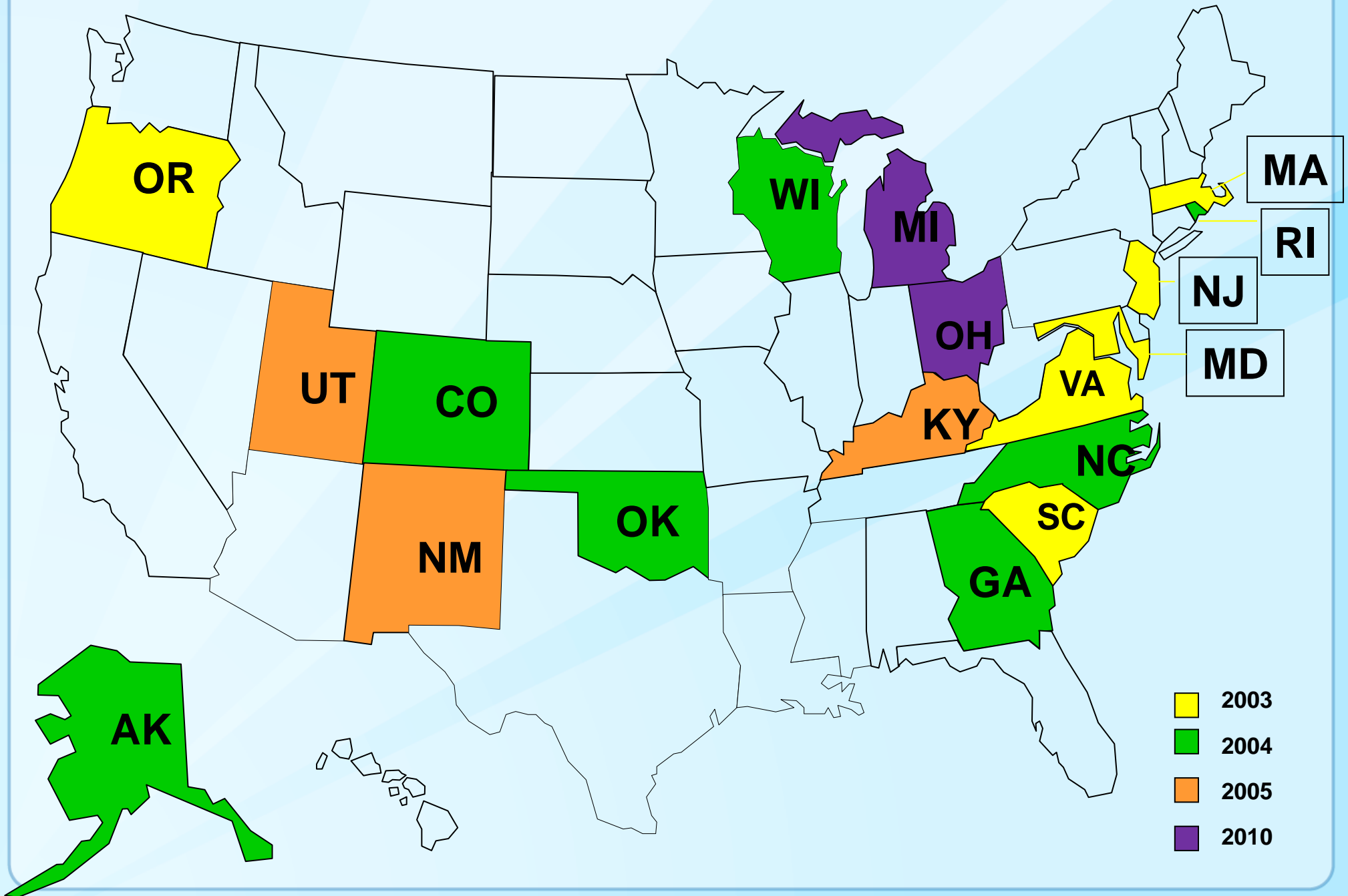
- Mission
  - To collect high quality detailed, timely information on all violent deaths in the US
- Primary sources:
  - Death Certificates (DC)
  - Coroner/Medical examiner (C/ME) records
  - Police Records (PR)
  - Crime lab data (Lab)
- Integrates data from diverse sources
- Reports faster than vital statistics



# NVDRS (continued)

- The system includes:
  - Suicides
  - Homicides
  - Events of undetermined intent
  - Unintentional firearm injury deaths
  - Legal intervention deaths (excluding executions)
- Plans to expand from 18 to ~28 states in 2014

# Current NVDRS States



# **Self-directed violence prevention Problem Description/Surveillance**

- Nonfatal injuries – official records
  - Natl. Electronic Injury Surveillance System – All Injury Program (NEISS-AIP)
    - Hospital emergency department (ED) visits
  - Other hospital ED records
    - Check with state hospital association or local hospital or trauma center
  - In-patient hospitalizations
    - Check with state hospital association

# **National Electronic Injury Surveillance System (NEISS-AIP)**

- Operated by the US Consumer Product Safety Commission
- Nationally representative sample of hospital emergency departments
- Collects data about all types and external causes of injuries and poisonings treated in US hospital emergency departments

# NEISS-AIP (continued)

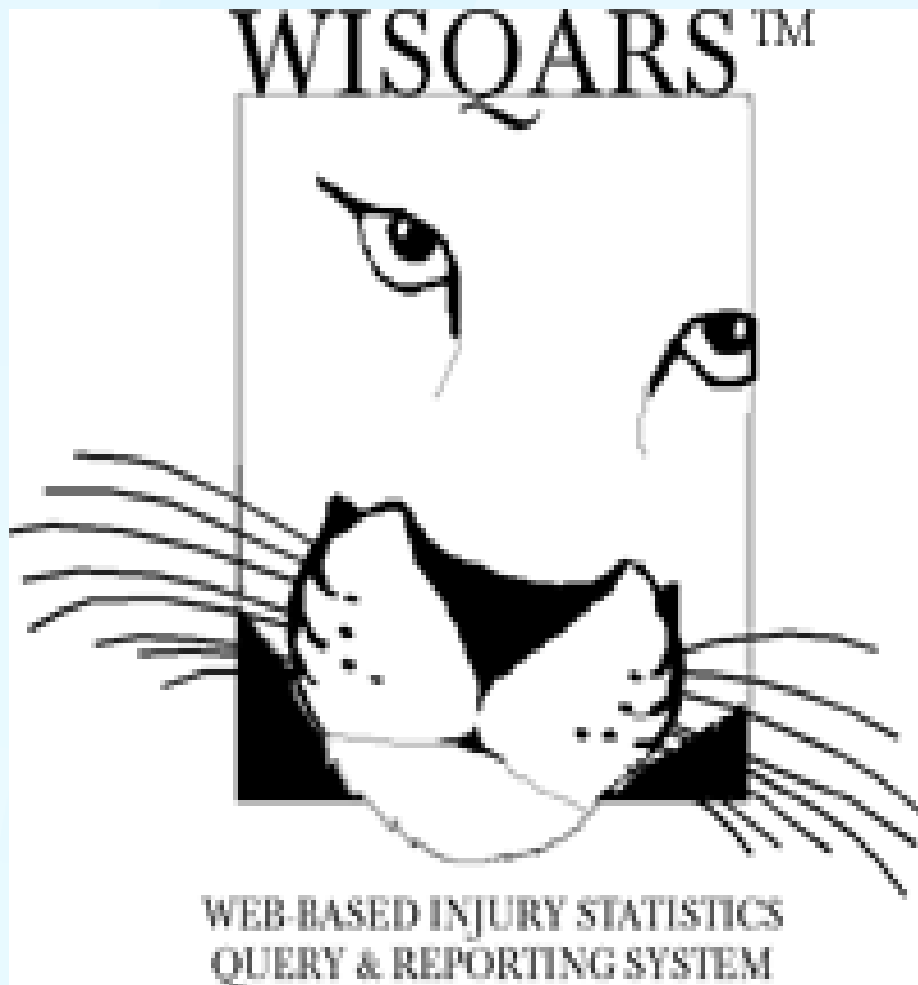
## Case Definition for Self-Harm

*Injury or poisoning resulting from a deliberate violent act inflicted on oneself with the intent to take one's own life or with the intent to harm oneself.*

# NEISS-AIP (continued)

- Data elements:
  - demographic characteristics
  - disposition
  - underlying cause/mechanism of injury
  - intent
  - principal diagnosis
  - primary body part affected
  - location where injury occurred
  - whether injury was related to work

# Web-Based Statistics



- [www.cdc.gov/ncipc/wisqars/default.htm](http://www.cdc.gov/ncipc/wisqars/default.htm)
- Injury mortality and leading cause of death statistics available by:
  - Intent, Method
  - Year
  - State
  - Demographics
    - Age, Sex, Race
- Injury morbidity
  - Hospital emergency dept events

# Self-directed violence prevention Problem Description/Surveillance

## ■ Nonfatal injuries - surveys

- Youth Risk Behavior Surveillance System (CDC)
  - High school students
  - 4 items on suicidal thoughts and behavior
  - National, 43 states, and 21 large urban school districts
- National Survey on Drug Use and Health (SAMHSA)
  - Adults (18+ years)
  - 6 items on suicidal thoughts and behavior
  - National, 50 states + Wash., D.C., and 33 large metropolitan areas



# Population-based Surveys

- Youth Risk Behavior Survey
  - Biennial survey (every other year)
  - Administered in school computer-assisted
  - Provides national, state, and sub-state representative estimates on a variety of health risk behaviors
  - Suicide-related information covers a 12 month period

# Population-based Surveys

- National Survey on Drug Use and Health (NSDUH)
  - Annual household survey of civilian, non-institutionalized population aged 12 years or older
  - Administered in-person, computer-assisted
  - Provides national, state, and sub-state representative estimates of substance abuse and mental health issues
  - Suicide-related information covers a 12 month period

# Considerations for data on suicide-related problems

- Information
  - Diverse data sources
  - Circumstances at time of injury event
- Sources
  - Emergency medical services data (EMS)
  - Linking data between systems [e.g., law enforcement, ME/C, medical records]?
- Access and Dissemination
  - Timeliness
  - Reporting requirements

# Conclusion

- Assessment is a foundation for public health action
- Existing systems for assessing self-directed violence are useful but have limitations
- Need exists for improved and expanded surveillance systems regarding self-directed violence

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333

Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) Web: [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov)



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