Injury Surveillance Workgroup 7: Poisoning Surveillance

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CDC, National Center for Health Statistics
2011 Joint Annual Meeting of the SSA, SAVIR and CDC Core State Injury Grantees
The Injury Surveillance Workgroup (ISW-7) was formed at the Safe States Alliance Annual Meeting. Goal to provide consensus recommendations on poisoning surveillance. ISW 7 first convened in Summer 2009. Members include national, state, and partner agencies, and content experts on poisoning.
## ISW 7 Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Affiliation</th>
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<tbody>
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<td>SSA, AK</td>
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<td>NCIPC, CDC</td>
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<td>SSA, NC</td>
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<td>CSTE</td>
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History of ISWs

Previous Injury Surveillance Workgroups

ISW 4: Consensus Recommendations for Surveillance of Falls and Fall-Related Injuries, 2006
ISW 5: Consensus Recommendations for Injury Surveillance in State Health Departments, 2007
ISW 6: Assessing an Expanded Definition for Injuries in Hospital Discharge Data Systems, 2008

Lifespan of ISWs is typically < 2 years

End product is a Consensus or other discussion document
ISW 7 Tasks

Consensus recommendations to assist states and national-level organizations in poisoning surveillance.

Tasks include,

❖ Develop a conceptual definition of poisoning that differentiates poisoning by cause and type of poison
ISW 7 Task (con’t)

- Identify data sources which can be used for poisoning surveillance
- Provide operational definitions of poisonings for selected sources (e.g., ICD-10 codes)
- Provide analysis tools for applying definition including SAS code
A poisoning is an exposure to any extrinsic substance\(^1\) that results in at least one related adverse clinical effect\(^2\).

\(^1\)“extrinsic substances” can include solids, liquids, or gases and natural or synthetic chemicals.

\(^2\)A “clinical effect” is a sign, symptom, or laboratory abnormality.
Draft Poisoning Definition
Inclusions

Includes:
-- acute and chronic exposures,
-- adverse drug reactions\(^3\) and other adverse drug events\(^4\),

\(^3\) An “adverse drug reaction” is a harm directly caused by the correct drug properly administered in therapeutic, prophylactic, or diagnostic dosage. ADRs include what are commonly referred to as “side effects” of drugs.

\(^4\) An “adverse drug event” is a harm caused by any use of a drug. ADEs include harms resulting from drug misuse or abuse, accidental exposure to a drug, and wrong drugs given or taken in error. ADEs do not include medication errors that did not result in harm.
Draft Poisoning Definition

Inclusions:

Includes:

-- exposures to venoms and other biological toxins (Toxin exposures include bacterial foodborne intoxications, e.g., staphylococcal food poisoning and botulism, as well as seafood "poisoning," e.g., ciguatera and scombroid fish poisoning.), and

-- exposures to radioactive substances incorporated into the body.
Excludes:

--bites and stings without envenomation,
--infections (e.g., food and waterborne infections such as hepatitis A, cryptosporidiosis, and salmonella, and infections resulting from the injection of drugs), and
--exposure to radiation where the radiation source remains external to the individual
Data Sources for Surveillance

**Morbidity Sources**
- National Poison Data System
- Drug Abuse Warning Network
- Nationwide Inpatient Sample
- National Ambulatory Medical Care Survey
- Nationwide Emergency Department Sample
- National Electronic Injury Surveillance System—All Injury Program
- NEISS: Cooperative Adverse Drug Events Surveillance System (NEISS-CADES)
- National Emergency Medical Services
- National Hospital Ambulatory Medical Care Survey
- National Hospital Discharge Survey
- State-level Emergency Department Data
- State-level Hospital Inpatient Data

**Mortality Sources**
- Child Death Review
- Fatal Analysis Reporting System
- National Violent Death Reporting System

**Mortality Sources continued**
- National Vital Statistics System
- Medical Examiner/Coroner Data
- State-level Vital Statistics
- State-level Medical Examiner/Coroner Data

**Medication Monitoring Sources**
- Adverse Event Reporting System
- Automation of Reports and Consolidated Orders System
- Prescription Drug Monitoring Programs

**Self Report Survey Sources**
- Behavior Risk Factor Surveillance System
- Monitoring the Future
- National Survey of Drug Use and Health

**Workplace / Occupational Sources**
- Census of Fatal and Occupational Injuries
- Sentinel Event Notification System for Occupational Risk
- Workers Compensation
Information on Data Sources

- Contact Info/Sponsor
- Surveillance, i.e., Incident/Case Count or Risk Factor
- Data collection methodology (e.g., telephone survey)
- Geographic scope (e.g., national, state)
- Variables / Demographics
- Years available
- Codes used to ID poison cases
- Strengths of the data for poisoning surveillance
- Weaknesses of data for poisoning surveillance (e.g., specificity of poisoning data)
- Other relevant Information
ICD-10 Poisoning Matrix

<table>
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<tr>
<th>Type of Poison</th>
<th>Underlying Cause Codes*</th>
<th>Contributing Cause Codes**</th>
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<td>DRUG</td>
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<td>ALL TYPES OF POISON</td>
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Drug Abuse Warning Network (DAWN)

- Provide primer on DAWN including DAWN drug definitions
- Provide operational definitions of drug poisoning for DAWN based on ISW-7
- Compare/contrast DAWN drug classification to ICD based drug poisoning classification
Outline of ISW-7 Final Report Poisoning Surveillance

- Introduction
- Public health burden/ background
- Challenges
- Methods and data sources
- Recommendations for improving surveillance
- Data sources detail
- ICD-10 and ICD-9-CM matrices
- DAWN operational definition
We want your feedback …

This material was presented at

- American Public Health Association
- Safe States Alliance meetings
- Council on State & Territorial Epidemiologists
- World Injury Conference

Comments? Email:
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