FIGURE 1. Simplified flow chart for a generic surveillance system

An infectious, chronic, or zoonotic disease; injury; adverse exposure; risk factor or protective behavior; or other surveilled event associated with public health action

Identification by whom and how

Reporting process
- Data entry and editing possible
- Assurance of confidentiality

Reporting sources
- Physicians
- Health-care providers
- Veterinarians
- Survey respondents
- Laboratories
- Hospitals
- Health-care organizations
- Schools
- Vital records
- Other

Data recipients
- Primary level (e.g., county health department)
- Secondary level (e.g., state health department)
- Tertiary level (e.g., Federal agency)

Data management
- Collection
- Entry
- Editing
- Storage
- Analysis
- Report generation
- Report dissemination
- Assurance of confidentiality

Feedback and dissemination of information for public health action

Audiences
Updated Guidelines for Evaluating Public Health Surveillance Systems, Recommendations from the Guidelines Working Group,
MMWR July 27, 2001 / 50(RR13);1-35

Simplified flow chart of Trauma Registry System

Trauma Event

Trauma case definition

**Reporting sources**
- Trauma registries
- SPARCS
- Vital Records
- NEMSIS

**Audiences**
- Providers
- Public/Media
- Policy makers

**Data Recipients**

**Primary Level**
- Trauma Centers
- Injury control directors
- Prehospital Care Providers

**Secondary Level**
- Trauma Program, BEMS, STAC
- Injury Control, CEH

**Tertiary Level**
- Researchers
- NTDB
Registry Standards

Data
• Completeness
  – Case ascertainment (sensitivity)
  – Unknown or nonspecific data values
• Quality
  – Reliability of data elements
  – Specificity
• Timeliness

Performance
• Simplicity
• Flexibility
• Acceptability
• Representativeness
• Stability
Trauma Registry

2010-2012 Analytic Dataset
- Trauma data in NTDB layout
- Injury related inpatient and ED discharges from SPARCS

Follow-back of unmatched cases to determine reportability

Linkage between TR and SPARCS

SPARCS Inpatient

SPARCS ED

- Documentation of analytic dataset
- Release process for research use of data

- Annual Report
- Support for quality improvement

DRAFT
2010-2012 Analytic Dataset
• Trauma data in NTDB layout
• Injury related inpatient and ED discharges from SPARCS

Goal: Compile Combined Trauma Registry and SPARCS Injury dataset
Q1

Reporting lag

Q2

Collection of quarterly data, processing, match to SPARCS, quarterly SPARCS follow-back

Quarterly process improvement feedback, cleaning and updating of year-to-date records

Q3

End-of-year processing, cleaning, and analysis

Q4

Preparation and dissemination of annual report

End-of-year Process Improvement feed-back

Dissemination of analytic dataset

Expect 24 month lag in data: 2014 data will be available for analysis by end of 2015
The image illustrates the relationship between the Trauma Registry, SPARCS (Statewide Planning and Research Cooperative System), ED (Emergency Department), and Death Certificates. The key points are:

- **Trauma Registry**
  - SPARCS Inpatient
  - SPARCS ED
  - Linkage between TR, SPARCS, and Vital Records
  - 2010-2014 Analytic Dataset
    - Trauma data in NTDB layout
    - Injury related inpatient and ED discharges from SPARCS
    - Injury Deaths
  - Annual Report
  - Support for quality improvement
  - Documentation of analytic dataset
  - Release process for research use of data

- **SPARCS Inpatient**
- **SPARCS ED**
- **Death Certificates**

- **Death Certificate Follow-back?**

- **SPARCS Follow-back**
Trauma Registry

SPARCS Inpatient

SPARCS ED

Prehospital Care

ePCR/NEMSIS Follow-forward?

Linkage between NEMSIS, TR, SPARCS, Vital Records

2010-2015 Analytic Dataset
- Injury related Prehospital Care rpts
- Trauma data in NTDB layout
- Injury related inpatient and ED discharges from SPARCS
- Injury Deaths

Death Certificate Follow-back?

SPARCS Follow-back

Death Certificates

Death Certificate Follow-back?

SPARCS Inpatient

SPARCS ED

Trauma Registry

• Documentation of analytic dataset
• Release process for research use of data

• Annual Report
• Support for quality improvement

DRAFT
Trauma Registry

SPARCS Inpatient
SPARCS ED

Prehospital Care

ePCR/NEMSIS Follow-forward?

Linkage between NEMSIS, TR, SPARCS, Vital Records

2010-2015 Analytic Dataset
- Injury related Prehospital Care rpts
- Trauma data in NTDB layout
- Injury related inpatient and ED discharges from SPARCS
- Injury Deaths

Death Certificates

Death Certificate Follow-back?

SPARCS Follow-back

SPARCS Inpatient

SPARCS ED

Death Certificates

Death Certificate Follow-back?

CODES Traffic data, All Payor Database, EHR, etc

• Documentation of analytic dataset
• Release process for research use of data

• Annual Report
• Support for quality improvement

DRAFT
Goal: Compile Comprehensive Injury dataset