Ohio’s EMS Data Systems
Ohio’s EMS Data Systems: Purpose

- To reliably inform performance improvement, education, research and system design of the state’s EMS and trauma systems.
Ohio’s EMS Data Systems: Components

- EMS Incident Reporting System
- Ohio Trauma Registry – Acute Care
- Ohio Trauma Registry – Rehabilitation
Ohio’s EMS Data Systems: Components

- EMS Incident Reporting System
  - Collects data from EMS agencies on all requests for emergency medical service
  - Online January 1, 2002
    - 8,366,610 records
    - 978 EMS agencies reporting
    - ≈1,000,000 records annually
Ohio’s EMS Data Systems: Components

- EMS Incident Reporting System
  - Data collected (80 data elements):
    - Incident demographics
      - Date, time, place of incident
      - All EMS times from 911 call to return to service
    - Patient demographics
    - Patient assessment
    - Treatment
      - Procedures, medications
    - Disposition
Ohio’s EMS Data Systems: Components

- Ohio Trauma Registry – Acute Care
  - Collects data from all inpatient hospitals on patients admitted for treatment of injuries.
    - Currently limited to “severe injuries” (48-hour rule)
  - Online January 1, 1999
    - 404,553 records
    - 194 hospitals reporting
    - ≈45,000 records annually
Ohio’s EMS Data Systems: Components

- Ohio Trauma Registry – Acute Care
  - Data collected (77 data elements):
    - Patient Demographics
    - Cause of injury
      - Place, work-relatedness, motivation
    - EMS assessment / treatment
    - ED assessment / treatment
    - Inpatient course
      - Vent days, ICU LOS, complications
Ohio’s EMS Data Systems: Components

- Ohio Trauma Registry – Acute Care
  - Data collected:
    - Diagnoses
      - Severity
    - Operative procedures
    - Discharge status / disposition
    - Autopsy information
Ohio’s EMS Data Systems: Components

- Ohio Trauma Registry – Rehabilitation
  - Collects data from all inpatient rehab facilities on patients admitted for rehabilitation following injury
  - Online January 1, 2005
    - 6,183 records
    - 30 facilities reporting
    - ≈1,000 records annually
Ohio’s EMS Data Systems: Components

- Ohio Trauma Registry – Rehabilitation
  - Data collected (36 data elements):
    - Patient demographics
    - Disability assessment on admission
    - Disability assessment on discharge
    - Discharge status and disposition
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- What’s being done with the data?
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Scientific publications

1. Farm Injuries in Ohio, 2003-2006: A Report from the Emergency Medical Services Prehospital Database
   L Forst, T Erskine
   Journal of Agricultural Safety and Health. 15(2): 171-183

2. Using data linkage to assess the impact of motorized recreational vehicle-related injuries in Ohio
   KA Conner, H Xiang, JI Groner, GA Smith

3. Level I Versus Level II Trauma Centers: An Outcomes-Based Assessment
   MT Cudnik, CD Newgard, MR Sayre, SM Steinberg

4. The contribution of traumatic brain injury to the medical and economic outcomes of motor vehicle-related injuries in Ohio
   LM Rochette, KA Conner, GA Smith
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- Scientific publications
  6. Identification of an age cutoff for increased mortality in patients with elderly trauma
     JM Caterino, T Valasek, HA Werman
  7. Identification of appropriate Glasgow Coma Score trauma criteria in elderly patients
     JM Caterino, MT Cudnik
  8. The impact of a standard enforcement safety belt law on fatalities and hospital charges in Ohio
     KA Conner, H Xiang, GA Smith
  9. Development of statewide geriatric patients trauma triage criteria
     HA Werman, T Erskine, J Caterino, JF Riebe, T Valasek, Members of the Trauma Committee of the State of Ohio EMS Board
     Prehospital & Disaster Medicine. 2011;26(3):1–10
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- Other Reports
  - Burden of Stroke in Ohio
  - Burden of Heart Disease in Ohio
  - Biennial Report on the Incidence of Traumatic Brain Injury in Ohio
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- CODES Program
- FARS Program
- OVDRS Program
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- Ad hoc public records requests
  - 716 requests since 2003
  - Average of 90 requests annually
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- EMS Benchmark Reports
  - 2003-2010
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- Ohio Trauma Registry Data Report
  - 2001-2003, 2009
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What do you want to know? We can help.