

EMS Pre-hospital Ambulance Data

Data Description The EMS prehospital run data includes ambulance run reports for every emergency prehospital transport, interhospital transport or refusal of care incident for every participating vehicle service provider.

Limitations Participating jurisdictions and agencies varies by State and locality. Typically municipal fire departments participate along with volunteer and private ambulance services. However, completeness of data systems is unknown nationally and within state jurisdictions. Most states conform with national coding standards set by NEMSIS which provides a level of consistency across states and jurisdictions. However, in practice, the degree of completeness varies by EMS agency. While the dataset has many potentially useful variables, generally completeness is low to moderate for variables that are not related to the care of the patient in the field. Some demographic information and medical history data are frequently omitted. Another key limitation is that many individuals who suffer injuries are not transport by ambulance to a health care facility. Many are transported in private vehicles and delay care for hours to days.

Variables The EMS database includes the following variables: total call time (time to definitive care; time the call was received until the time of arrival at the hospital), mode of transport (ambulance, helicopter), emergency level of transport (Non-Emergent, Downgraded-No Lights/Sirens, Upgraded-L/S, Emergent-L/S), type of extrication used, factors that delayed in EMS access or detection (e.g. adverse road conditions, adverse weather, crowd control, hazardous materials, language barrier, prolonged extrication, unsafe scene, vehicle problems), protective equipment in car and passenger location in vehicle for motor vehicle crashes, patient status information (body part injured, pupil dilation, pulse, blood pressure, Glasgow coma score, skin temperature, respiratory rate, lung sounds, loss of consciousness, shock, cardiac arrest, drugs or alcohol, allergies, symptoms, and medical history), patient treatment variables (e.g. route and type of intravenous, route of medication, cardiopulmonary resuscitation, EKG findings, airway insertion, assisted ventilation, defibrillation, wound management, medications, cricothyroidotomy, spinal immobilization). Some states provide incident location information. See the data dictionary for details on all variables included in the dataset.

Case Definition for Identifying Civilian Injuries Caused by Law Enforcement

EMS data system uses ICD coding and codes for incident location and destination type. When using ICD-10 codes the sixth digit identifies whether the person is a suspect, bystander or law enforcement official. Omit all cases where the 6th digit is 1 (Y35.XX1). An internal record abstraction confirmed that most of the cases codes as “law enforcement official” involve injuries to security guards not sworn officers.

If eInjury.01 - Cause of Injury = Y35.0 – Y35.9 (ICD-9 then 970-979)

OR

If eDisposition.21 - Type of Destination = “4221019 Police/Jail” (Optional depending on research goals)

OR

If eScene.09 - Incident Location Type = “Y92.14 / Prison”

OR

If eOutcome.08 - Emergency Department Recorded Cause of Injury = Y35.0 – Y35.9 (ICD-9 then 970-979)