NEMSIS

TECHNICAL ASSISTANCE CENTER

National EMS Information System (NEMSIS)
Helping Unify EMS Data

Illinois Department of PUBLIC HEALTH

In this issue of The NEMSIS TAC Best Practices Spotlight, we focus on the Illinois Department of Public Health and their use of NEMSIS compliant prehospital care data to evaluate data quality. A year ago Dan Lee, data manager within the department's Division of EMS and Highway Safety, began preparing and posting annual reports focusing on some of the data elements that play a central role in characterizing an EMS response. Page 3 contains a link to the reports.

His main focus has been on the prevalence of missing values and "NOT" values, such as "Not Applicable," "Not Known," and "Not Available." Using EMS data submitted to the state of Illinois, he compiled tables for eight categor-ical data elements, each displaying the breakdown of statewide counts and percentages for the different values associated with these elements, and then sorted these tables, including "NOT" and missing values, in de-scending order of prevalence.
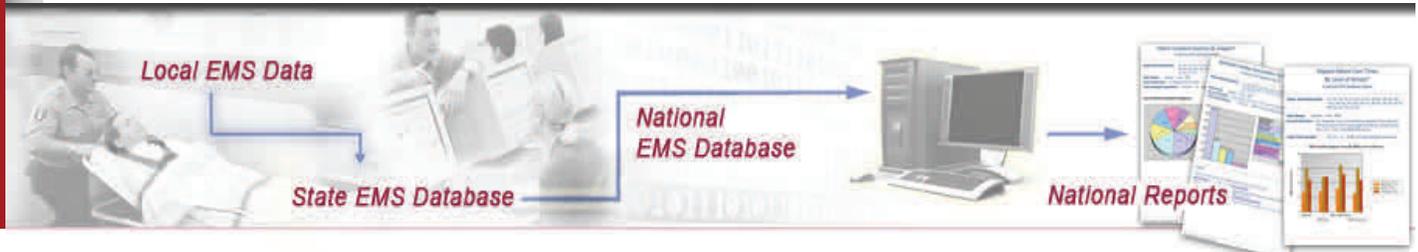
Similar findings at the EMS system level were also compiled for comparison with the statewide infor-mation described in the previous para-graph (in Illinois, an "EMS System" is defined by law as "an organization of hospitals, vehicle service providers and personnel approved by the Department in a specific geographic area, which coordinates and provides pre-hospital and inter-hospital emergency care and non-emergency medical transports"). The underlying idea behind the report is that EMS systems that have a lower usage of NOT values, relative to usage statewide, have better documentation practices and more meaningful data overall. The 2014 edition of this re-port can be accessed using this link:

http://www.emsdata-2.com/ILNEMSIS/
QualityReport_EMSData_2014_StatewideAndByEMSSystem.pdf

About Spotlight

This newsletter was developed to highlight utilizations of NEMSIS data to improve healthcare systems and EMS performance. Each issue will highlight success-ful programs/attributes associated with state or local EMS agencies that are integrating EMS data to serve local and state public health and safety needs.

In each quarterly issue we will focus on a state program or imple-mentation strategy that has been successful in utilizing NEMSIS data to enhance patient care, ensure workforce training and safety, reduce healthcare spend-ing, or advise healthcare reform.

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Eight important data elements drawn from the Illinois pre-hospital database

COMPLAINT REPORTED BY DISPATCH (E03_01)

The complaint dispatch reported to the responding unit.

CHIEF COMPLAINT ANATOMIC LOCATION (E09_11)

The primary anatomic location of the chief complaint as identified by EMS personnel.

CHIEF COMPLAINT ORGAN SYSTEM (E09_12)

The primary organ system of the patient injured or medically affected. This is to be completed by EMS personnel with a minimum of an EMT-Paramedic level of credentialing.

PRIMARY SYMPTOM E09_13

The primary sign and symptom present in the patient or observed by EMS personnel.

PROVIDERS PRIMARY IMPRESSION E09_15

The EMS personnel's impression of the patient's primary problem or most significant condition which led to the management given to the patient (treatments, medications, or procedures).

TRANSPORT MODE FROM SCENE E20_14

Indication whether or not lights and/or sirens were used on the vehicle while leaving scene.
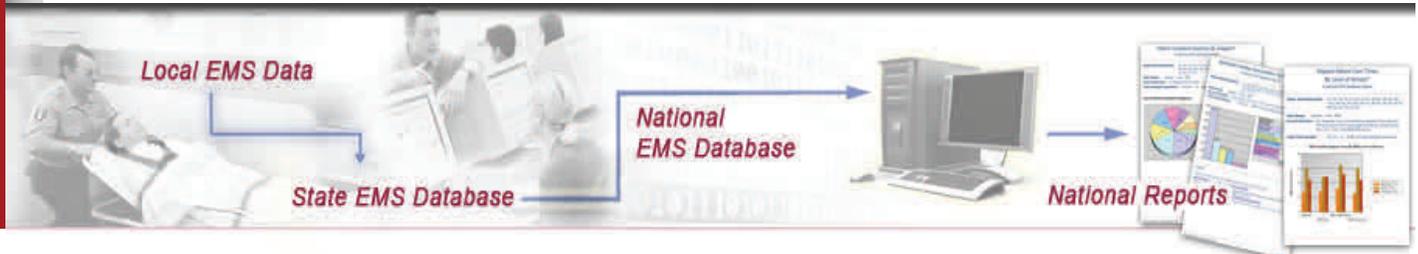
REASON FOR CHOOSING DESTINATION E20_16

The reason the unit chose to deliver or transfer the patient to the destination.

CAUSE OF INJURY E10_01

The category of the reported/suspected external cause of the injury

Tables are limited to 911 responses resulting in patient transport to a hospital

COMPLAINT_REPORTED_BY_DISPATCH	Frequency	Percent
Sick Person	95420	14.59
Breathing Problem	80389	12.29
Unknown Problem Man Down	57537	8.80
Fall Victim	56503	8.64
Chest Pain	46477	7.11
** MISSING OR 'NOT' VALUE **	46293	7.08
Abdominal Pain	32580	4.98
Psychiatric Problem	32323	4.94
Traffic Accident	32272	4.93
Unconscious/Fainting	29920	4.57
Convulsions/Seizure	25293	3.87
Traumatic Injury	14563	2.23
Stroke/CVA	12965	1.98
Back Pain	10844	1.66
Diabetic Problem	10748	1.64
Hemorrage/Laceration	10635	1.63
Ingestion/Poisoning	10424	1.59
Assault	9844	1.50
Pregnacy/Childbirth	8031	1.23
Transfer/Interfacility/Palliative Care	5531	0.85
Headache	5163	0.79
Allergies	4074	0.62
Cardiac Arrest	3943	0.60
Stab/Gunshot Wound	3306	0.51
Heart Problems	3271	0.50
Burns	1413	0.22
Choking	1159	0.18
Animal Bite	816	0.12
Heat/Cold Exposure	776	0.12
Eye Problem	728	0.11
CO Poisoning/Hazmat	294	0.04

Local EMS Data → State EMS Database → National EMS Database → National Reports

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Regional EMS System: St Francis, Evanston

COMPLAINT_ANATOMIC_LOCATION	Frequency	Percent
General/Global	6886	41.94
Chest	2025	12.33
Head	1764	10.74
Extremity-Lower	1468	8.94
** MISSING OR 'NOT' VALUE **	1331	8.11
Abdomen	1030	6.27
Back	801	4.88
Extremity-Upper	762	4.64
Neck	231	1.41
Genitalia	120	0.73

Regional EMS System: Stroger Hospital, Chicago

COMPLAINT_ANATOMIC_LOCATION	Frequency	Percent
** MISSING OR 'NOT' VALUE **	149761	64.49
Abdomen	17765	7.65
Head	15440	6.65
Extremity-Lower	13800	5.94
Chest	13276	5.72
Extremity-Upper	9668	4.16
Back	5930	2.55
General/Global	2987	1.29
Genitalia	2785	1.20
Neck	797	0.34

Illinois Statewide Data

COMPLAINT_ANATOMIC_LOCATION	Frequency	Percent
** MISSING OR 'NOT' VALUE **	343217	52.47
General/Global	102565	15.68
Chest	52446	8.02
Head	39368	6.02
Abdomen	37960	5.80
Extremity-Lower	32671	4.99
Extremity-Upper	19510	2.98
Back	17211	2.63
Genitalia	4873	0.74
Neck	4302	0.66

This data can be accessed at:
http://www.emsdata-2.com/ILNEMSIS/
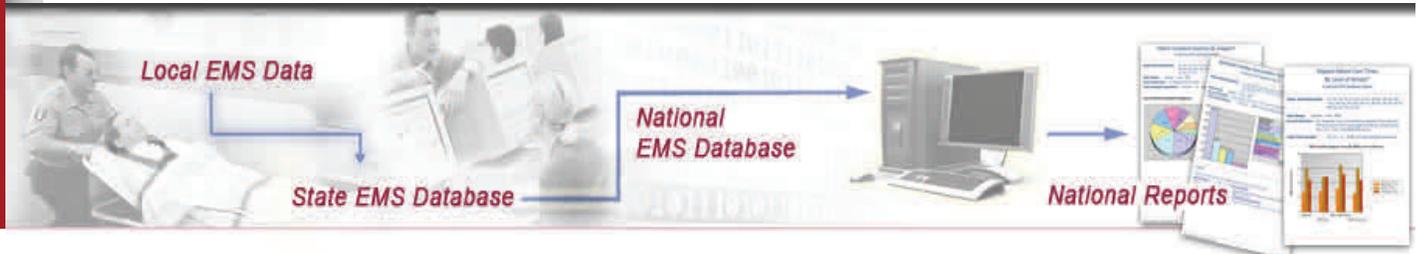
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Reference Materials

www.nemsis.org

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Do you know of an agency or project that deserves to be in the "Spotlight"?

As you have seen in this issue, we intend to highlight systems that have utilized NEMSIS compliant data to improve health systems, and to shorten the gap between EMS field care and hospital care.

In order to be featured in a future issue of The NEMSIS TAC Best Practices Spotlight, gather your relevant data, graphs and narratives and submit them to The NEMSIS TAC using the contact information provided.

Technical Assistance Center
Salt Lake City, UT

Local EMS Data → State EMS Database → National EMS Database → National Reports