



Ohio Trauma Registry Annual Data Report 2003



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INTRODUCTION

The 2003 annual report from the Ohio Trauma Registry (OTR) is the first to report with data collected after the database revisions enacted in 2002. The OTR remains the most complete statewide data available to date on trauma in Ohio. The purpose of this report is to provide information to health care professionals, as well as the public about the current state of care for seriously injured patients in the hospitals of Ohio.

The OTR is operated and maintained by the Ohio Department of Public Safety, Division of Emergency Medical Services. The state Board of Emergency Medical Services has statutory authority over the OTR and supervises its operation via the state Trauma Committee and the Trauma Registry Advisory Subcommittee. Although this report is of primary interest to health care professionals who provide clinical care or who are administrators of health care facilities or EMS agencies, a broader audience of public health officials and health care policymakers will find this report useful and interesting.

This report follows the format and design used in the 2001-2002 OTR report and emulates several other national injury reports in order to make comparisons of data easier and more appropriate. A format similar to that of the National Trauma Data Bank™ (NTDB) report 2002, from the American College of Surgeons is used for this report in order to facilitate benchmarking with the NTDB™ report.

Data that reports age ranges is done in five-year blocks for patients between the ages of 1 and 25. This format is a common feature in a number of public health and federal health care reports and is the format used by the NTDB™ report. These age ranges will allow for a more focused understanding of the impact of injury on children and young adults in Ohio. Ages between 25 and 105 are reported in 10-year blocks.

The mechanism of injury groups in Appendix B are adopted from the Centers for Disease Control and Prevention (CDC) as published in MMWR 1997, 46(RR14):1-30. This is the framework that has been adopted as the standard for reporting mechanism of injuries. Although this format differs from the NTDB™ 2002 report, future NTDB™ reports will adopt this format.

ACKNOWLEDGEMENTS

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Joseph Luria, MD, Chair, State Trauma Committee
F. Barry Knotts, MD, PhD., Chair, Trauma Registry Advisory Subcommittee

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EXECUTIVE SUMMARY

The Ohio Trauma Registry (OTR) began collecting data January 1, 1999. This report presents data from calendar year 2003. Data are presented in formats similar to the 2001-2002 OTR Annual Report, in order to facilitate comparison of data, when appropriate. Ohio Revised Code and Ohio Administrative Code restrict the release of data that would identify, or tend to identify a recipient of trauma care. Additionally data that would, or would tend to identify a provider (hospital) of trauma care must be risk-adjusted before release.

OTR Data 2003

- The OTR began collecting data January 1, 1999. Between January 1, 1999 and December 31, 2003, 130,119 trauma records have been submitted.
- 31,618 trauma records submitted to OTR between January 1, 2003 and December 31, 2003 were evaluated for this report.
- 25,661 patients meeting OTR inclusion criteria were reported for calendar year 2003.
- Ninety-five percent (95.4%) of the patients who were treated at a hospital for an injury severe enough to be reported to the OTR survived to be discharged.
- In 2003, slightly more than twenty-eight percent (28.1%) of the reported patients who died in the hospital were injured in a fall. Just over twenty-two percent (22.6%) died from injuries received in a motor vehicle crash. Falls remain the number one cause of trauma in Ohio, followed by motor vehicle crashes and physical assaults.
- Traumatic incidents, meeting OTR inclusion criteria, peak in three distinct age groupings, older teens aged 15-19, and adults age 35-44 and 75-84. This has important connotations for injury prevention and the resources needed for acute care and rehabilitation of trauma patients. This data has not changed significantly from that reported in the 2001-2002 report.
- The OTR collects patient data on a limited subset of all injured patients. To be included in the OTR it must be the patient's first or initial admission for at least 48 hours, and who meet one of the following inclusion criteria. Patients who transfer into or out of any hospital, regardless of their length of stay, or patients that arrive dead on arrival (DOA), or patients that die after receiving any evaluation or treatment while on hospital premises, and who meet specific ICD-9-CM inclusion criteria. See [APPENDIX A](#) for the complete inclusion/exclusion criteria
- The patients' disposition from the emergency department may be a rough indication of the severity of injury. In 2003, slightly less than one in five trauma patients (18.9%) were transferred to a trauma center following evaluation in the emergency department and over twenty-four percent (24.1%) were admitted to the intensive care unit or the operating room. In 2002, almost seventeen percent (16.8%) were transferred to another hospital, while the admission rates to the ICU and OR remained just over twenty-four percent.

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A LOOK AHEAD...

This report of data from the Ohio Trauma Registry (OTR) from calendar year 2003 is the second in a series of annual data reports to be released. It is the intent of the Division of Emergency Medical Services and the State Board of Emergency Medical Services to produce a yearly report from the OTR.

The OTR data set was initially developed between 1997 and 1998. No changes were made to the dataset for the first three years of operation. In 2002 the Trauma Registry Advisory Subcommittee began the task of reviewing the 1999 dataset and recommending changes to the database. The first significant revision of the OTR was implemented January 1, 2003. A number of important changes were made to the OTR to address specific weaknesses.

Some of the important changes that have been implemented and whose effect will be seen in this data reported compared to 2001-2002 are:

- Addition of fields to record the hospital that **transfers out** a trauma patient. With the addition of this new field, both the sending and receiving hospitals can be identified and thus greatly improve our ability to report the number of “patients” versus the number of “records”. This will also permit better analysis of data on transferred patients.
- **Elimination of “Other”, “Unknown” and “Not Applicable”** in many fields. The original dataset allowed for the reporting of “Other, Unknown and Not Applicable” in many of the fields. In the vast majority of fields, use of these three variables is inappropriate. For example the patient’s gender is never “not applicable”, and should never be “unknown”. This change will result in much better reporting of information that is available.
- **Clearly defined uses for the variables of unknown, and not applicable.** In the few fields where the data is truly unknown or not applicable, very clearly defined parameters for using these are provided. **Additionally the variable of “Not Documented” was created.** Not documented is the more appropriate choice when the data required does exist, but is not documented in the medical record.
- Fields were added to **specifically record data for prehospital trauma triage.** These fields, in combination with data from EMSIRS, while not the complete answer to analysis of triage issues, will allow for some baseline evaluation of EMS trauma triage.
- **Addition of fields to allow for reporting of AIS and ISS data.** All trauma centers as well as a number of non-trauma center hospitals use AIS and ISS coding to measure injury acuity. This data will add an important new dimension to the analysis of injured patients. Special software to assign AIS codes to injuries from hospitals that do not perform this coding will permit an additional layer of injury severity analysis. The diagnosis codes are now categorized using a “primary” diagnosis and an ability to collect up to 19 additional injury diagnosis codes. This will facilitate use of other developing measures of severity that depend on analysis of diagnosis codes.
- Probabilistic Linkage software has been obtained and will be used to link records between the OTR and EMSIRS. This software, LinkSolv, is a very powerful and reliable process for matching records between different data sets within the next six months.

The changes implemented in 2002, some of which are reflected in this data, will increase the accuracy and reliability of the data in the OTR. **A statewide data validation study** has been performed. Review of 1000 randomly selected records will establish, for the first time, a baseline of validity of data in certain critical fields. Given the importance that the data in the OTR will have for policy makers, educators and researchers, validation of the database is crucial for maintaining high levels of confidence that the data are accurate and correct. We anticipate that this process will be an ongoing process improvement project and will lead to further improvements in data collection.

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CAVEATS

OTR Participation

Ohio Administrative Code (OAC) 4765-4-03 requires all hospitals to participate in the OTR, however the Division of EMS has no statutory authority to compel any facility to participate. Despite this fact, all eligible Ohio hospitals have at one time submitted data to the OTR. In 2003, 133 (79%) of the 168 eligible hospitals participated by submitting data. This is down 7% compared to 2002 when 147 (87.5%) of 168 eligible hospitals submitted data.

Trauma Center vs. Non-Trauma Center Data

Trauma centers employ dedicated Trauma Registrars that maintain a computerized database of trauma patient information. Individual hospital trauma registries are required by the American College of Surgeons for verification as a trauma center. Trauma Centers extract data from their hospital based registry to send to the OTR. In non-trauma center hospitals, the data collection and submission process is done by various hospital personnel. The Medical Records department is most often charged with this duty, although this is not uniformly the case. .

Records vs. Patients

The data presented in much of this report reflect the calculated number of patients reported to the OTR. The calculated number of patients was determined by subtracting the number of records for patients transferred to another hospital from the ED disposition field and the hospital disposition field. This was done to avoid double counting, once at the initial hospital and again at the receiving hospital. Changes to the OTR database for 2003 and the use of probabilistic linkage of records will permit better analysis of transferred patients in future reports.

Deaths

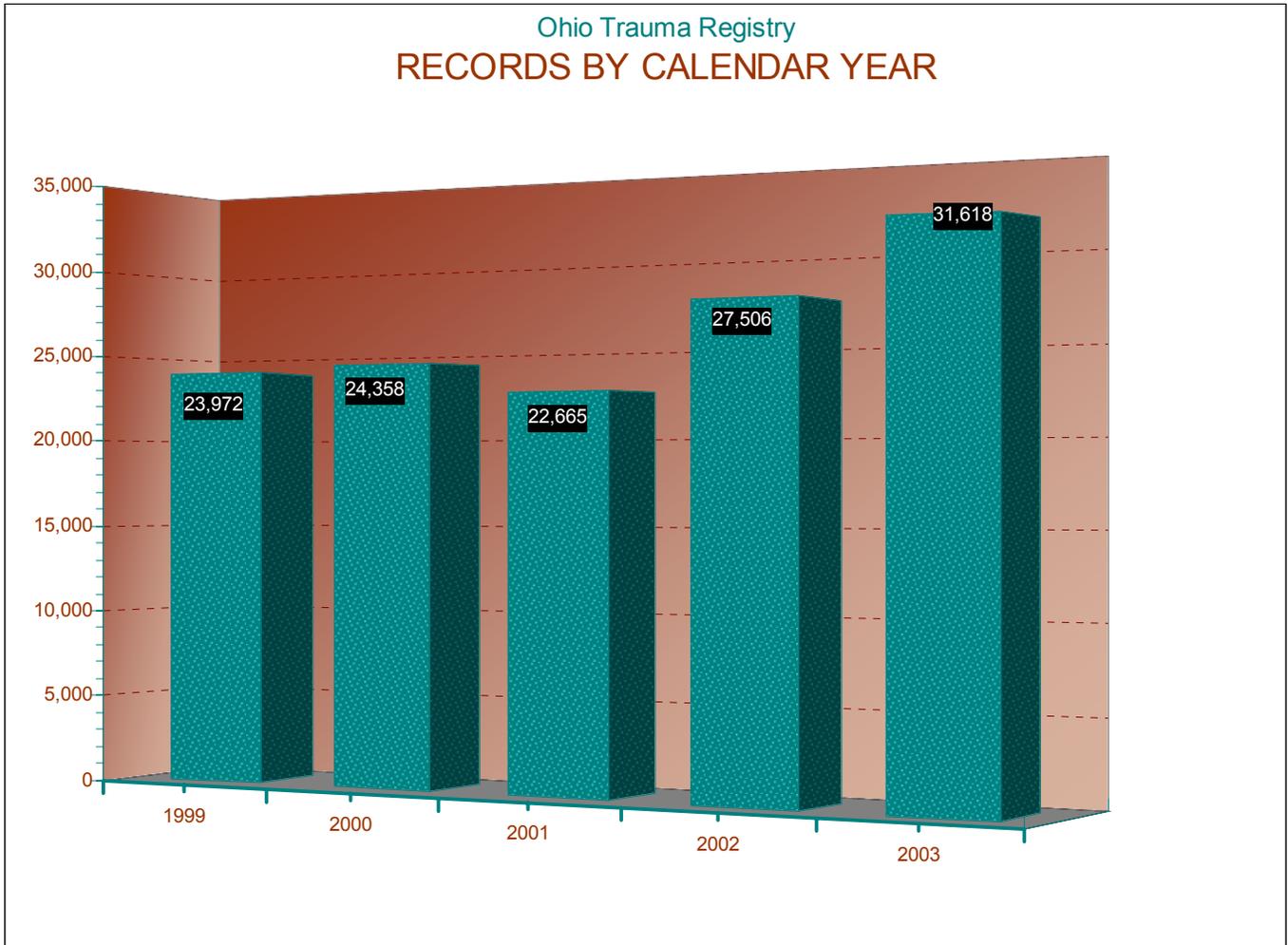
The data presented in these reports on deaths is limited. There is no data presented here from the vital statistics department at the Ohio Department of Health. All data on deaths reported here are deaths reported by the hospitals. **Patients who die outside of the hospital are not reported to the OTR.** Future reports will include deaths reported in Ohio from hospitals as well as those patients that die without being treated at a hospital or trauma center. Data from the Ohio Department of Health, Bureau of Vital Statistics will be used to develop a more comprehensive report on trauma deaths.

Percent Labels on Graphs

For ease of reading, the percent labels on the graphs have been rounded off to whole numbers. The data presented in the data tables is reported in tenths of a percent.

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RECORDS BY CALENDAR YEAR – 1999 – 2003



	1999	2000	2001	2002	2003
Records	23,972	24,358	22,665	27,506	31,618
Cumulative Total		48,330	70,995	98,501	130,119
Increase/Decrease From prior year		2%	-7%	18%	13%

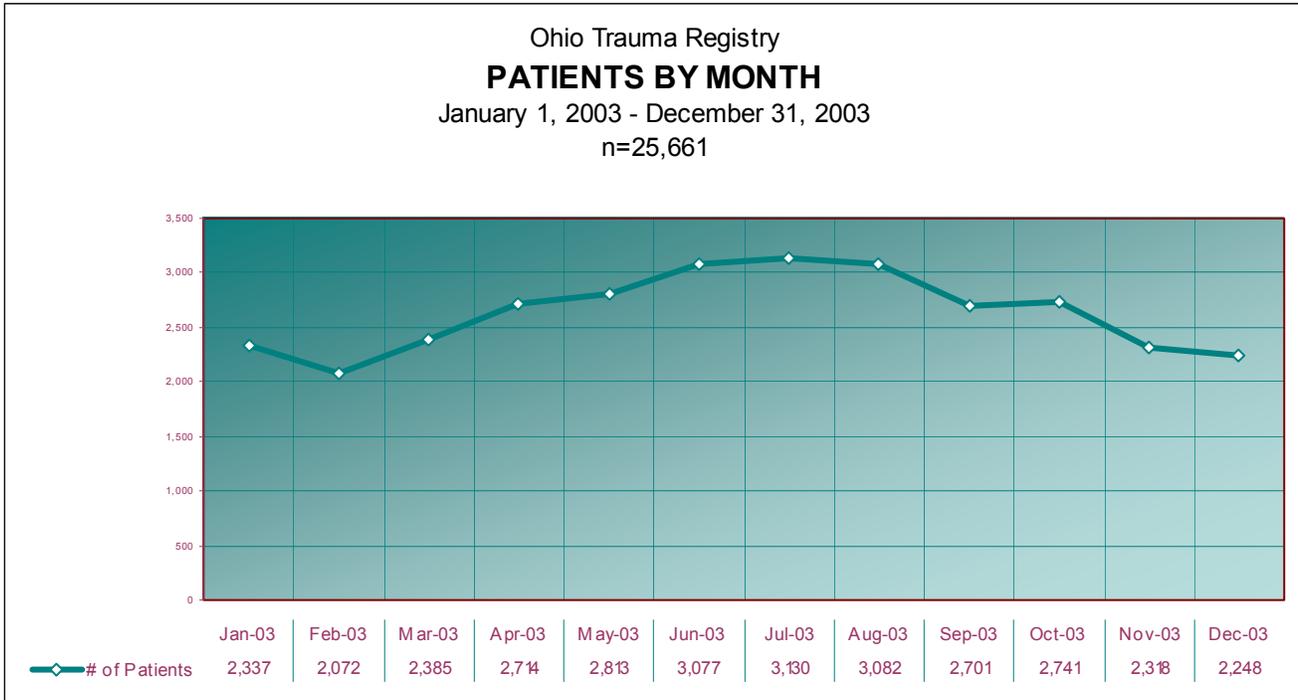
Trauma Records by Year

The total number of records submitted to the OTR for each calendar year. The number of records submitted over the first five years is 26,024. During 2003, 4112 more records were submitted compared to 2002. This increase in record submission most likely represents better case finding and more consistent reporting, rather than a significant increase in the incident of severe trauma.

These are records submitted, not patients. Some patients have more than one record if they are treated at more than one hospital following their injury. This means that the number of records submitted to the OTR cannot be interpreted as equaling the number of patients suffering an injury, but rather each record is reflective of one episode of utilization of healthcare resources and services for an injury. The following reports will indicate if the data presented are records or patients.

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PATIENTS BY MONTH – 2003



2003		
Month	# of Patients	% of Patients
Jan-03	1,940	8%
Feb-03	1,751	7%
Mar-03	1,964	8%
Apr-03	2,220	9%
May-03	2,310	9%
Jun-03	2,490	10%
Jul-03	2,519	10%
Aug-03	2,531	10%
Sep-03	2,132	8%
Oct-03	2,155	8%
Nov-03	1,858	7%
Dec-03	1,791	7%
total	25,661	100%

Patients by Month

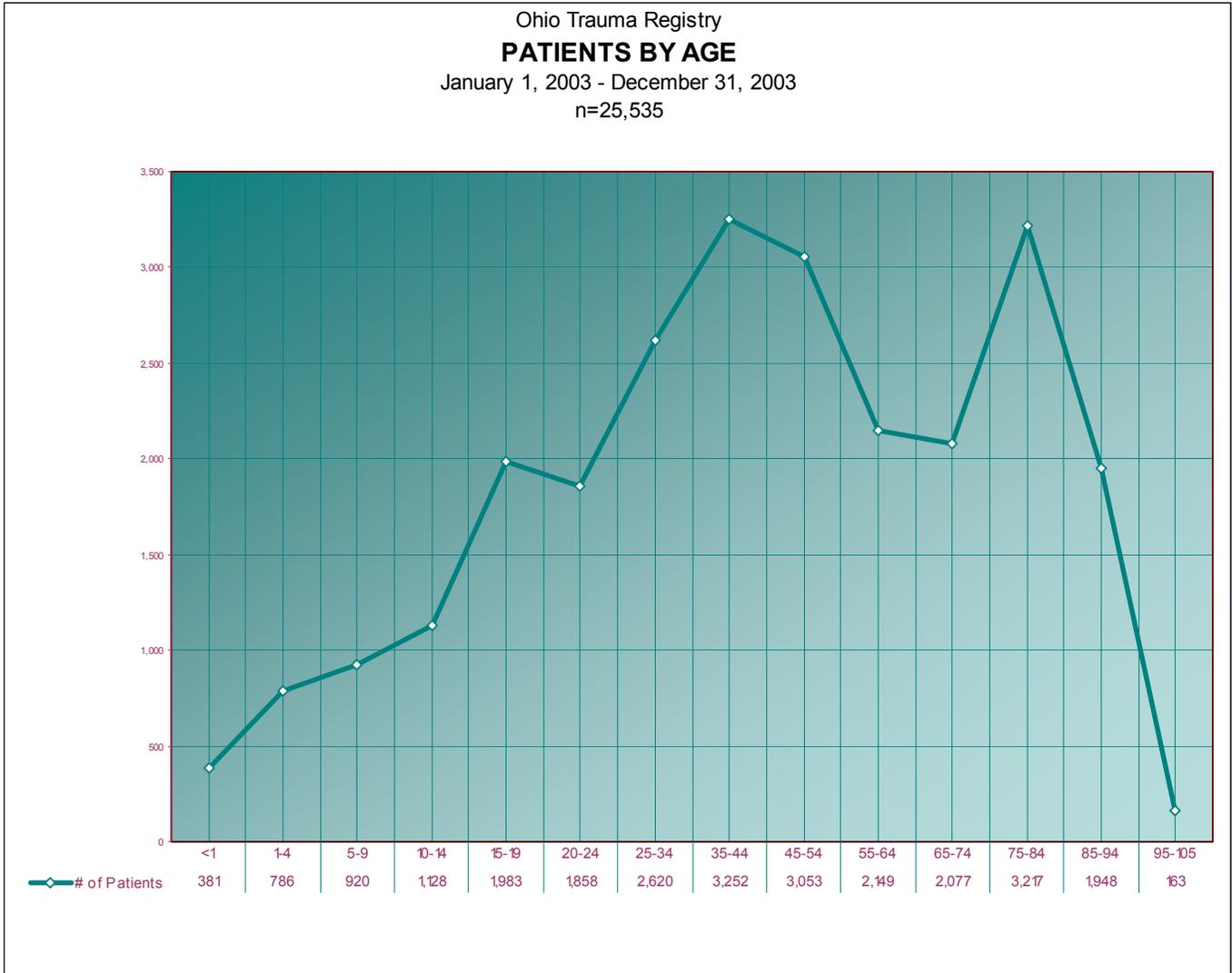
The number of patients submitted to the OTR by month. This reflects the month that the patient arrived at the hospital, not necessarily the month that the injury occurred. The number of patients admitted to the hospital in 2003 peaked in August and was lowest in February. The number of Patients is calculated by subtracting from the total number of records submitted, those who are transferred to another hospital.

Calculated Patients

of Records submitted - # of Records with ED Disposition = Transfer to another Ohio hospital or Transfer to an out of state hospital, or with Discharge Disposition = Transfer to another Ohio hospital or Transfer to an out of state hospital.

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PATIENTS BY AGE – 2003



Number of Patients by Age

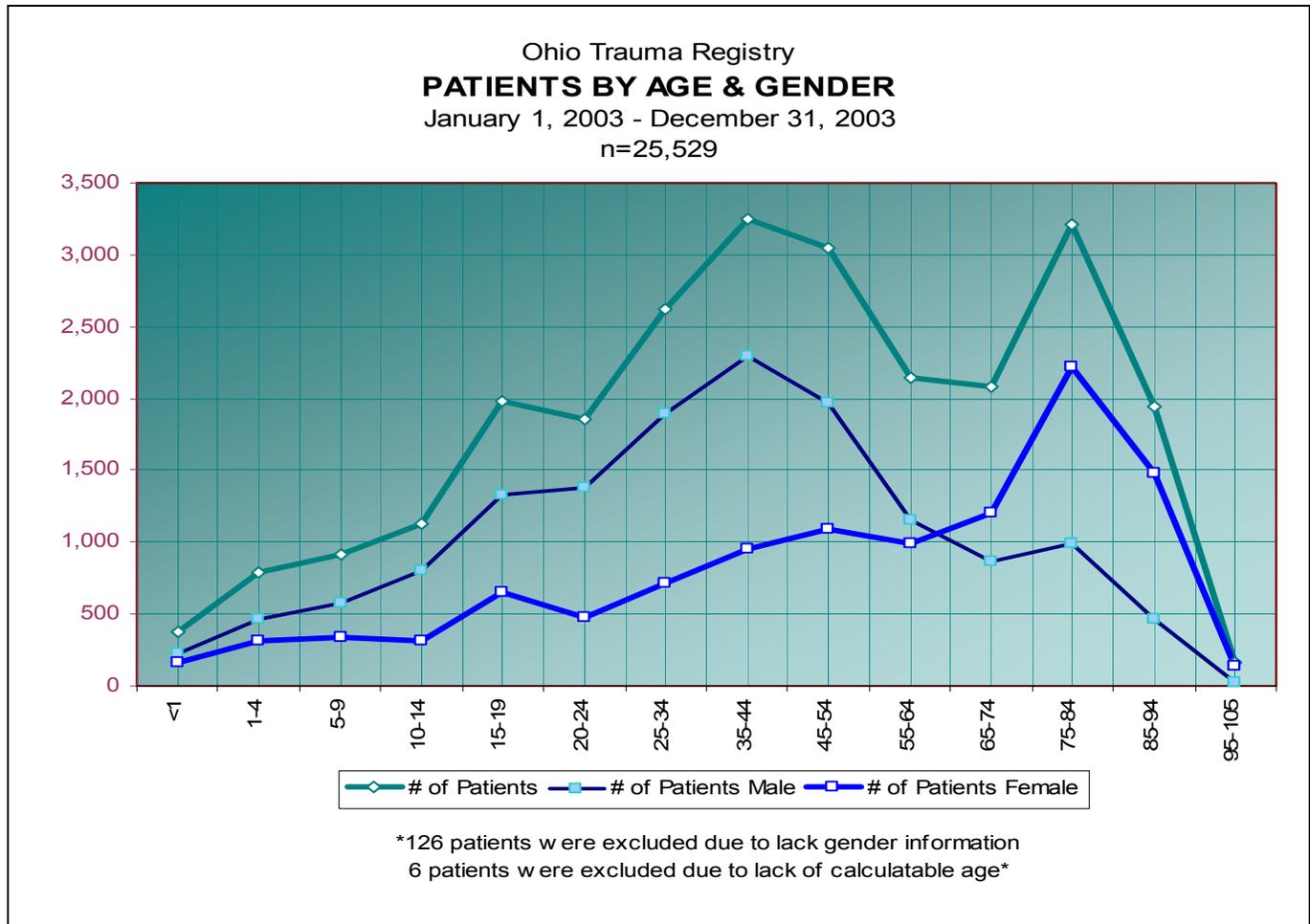
Three age groups stand out in this graph, the number of patients reported increases from birth through the age group 15-19. Then it begins to drop slightly, before rising to a peak in the **35-44 age group**. The number of patients declines through the 65-74 age group, and **sharply rises for the 75-84 age group**. Similar trends in these age groups are similar to those seen in national data.

These figures are similar to those reported in 2001 and 2002.

Information required for calculating an age was missing for 126 patients

2003		
Age Range	# of Patients	% of All Patients
<1	381	1.5%
1-4	786	3.1%
5-9	920	3.6%
10-14	1,128	4.4%
15-19	1,983	7.8%
20-24	1,858	7.3%
25-34	2,620	10.3%
35-44	3,252	12.7%
45-54	3,053	12.0%
55-64	2,149	8.4%
65-74	2,077	8.1%
75-84	3,217	12.6%
85-94	1,948	7.6%
95-105	163	0.6%
Total	25,535	100%

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PATIENTS BY AGE & GENDER – 2003

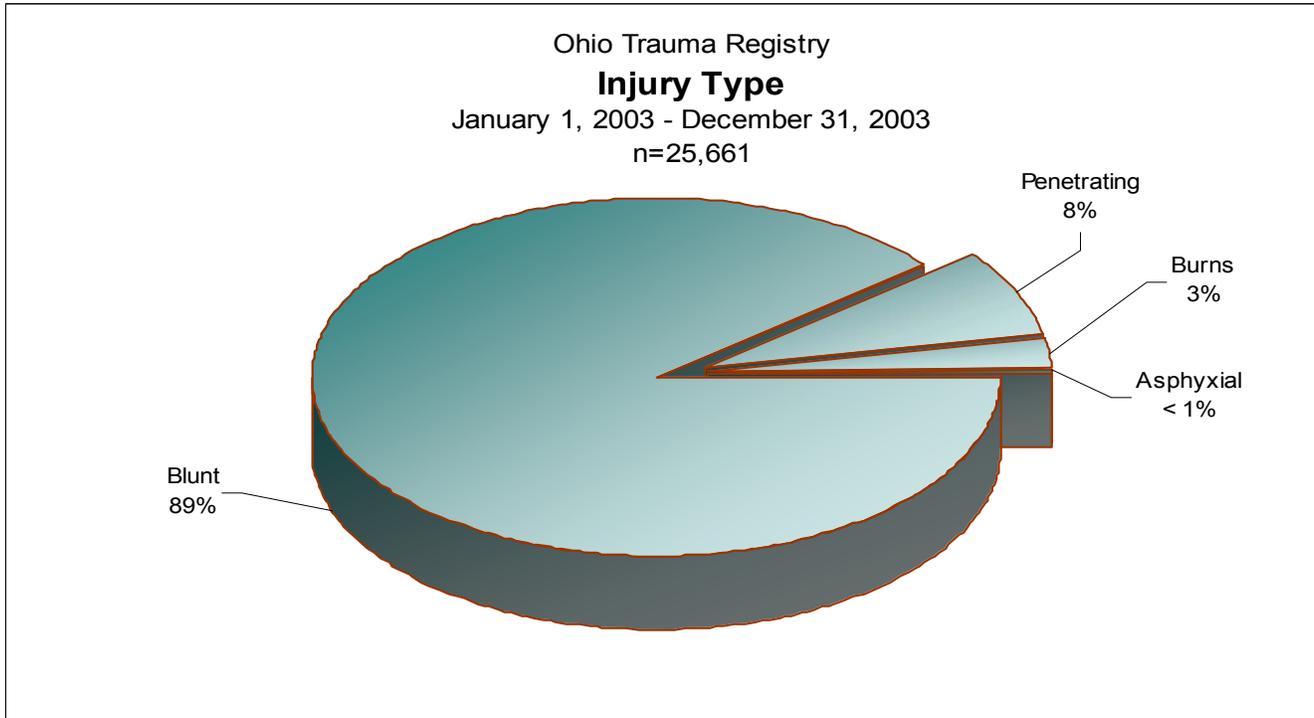
2003						
Age Range	# of Patients	% of all Patients	# of Patients Male	% of Age Group Male	# of Patients Female	% of Age Group Female
<1	381	1.5%	220	57.7%	161	42.3%
1-4	786	3.1%	470	59.8%	316	40.2%
5-9	920	3.6%	582	63.3%	338	36.7%
10-14	1,128	4.4%	809	71.7%	318	28.2%
15-19	1,983	7.8%	1,332	67.2%	650	32.8%
20-24	1,858	7.3%	1,383	74.4%	474	25.5%
25-34	2,620	10.3%	1,899	72.5%	721	27.5%
35-44	3,252	12.7%	2,297	70.6%	954	29.3%
45-54	3,053	12.0%	1,967	64.4%	1,086	35.6%
55-64	2,149	8.4%	1,153	53.7%	996	46.3%
65-74	2,077	8.1%	869	41.8%	1,207	58.1%
75-84	3,217	12.6%	994	30.9%	2,222	69.1%
85-94	1,948	7.6%	467	24.0%	1,481	76.0%
95-105	163	0.6%	31	19.0%	132	81.0%
Total	25,535	100%	14,473	56.7%	11,056	43.3%

Patients by Age and Gender

Distribution of patients submitted by age and gender are similar to national trends. Overall, **fifty-seven percent (56.7%)** of the patients reported **were male**, while **forty-three percent (43.3%)** were female. This is consistent with the data reported in 2002. 13% of all the patients reported are under the age of 15. This is an increase from 12% reported in 2002. In this pediatric group twice as many patients were male compared to female (65% vs. 35%).

These represent all injuries submitted to the OTR.

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INJURY TYPE – 2003

2003		
Injury Type	# of Patients	% of Patients
Blunt	22,894	89.2%
Penetrating	1,974	7.7%
Burns	711	2.8%
Asphyxial	82	0.3%
Total	25,661	100.0%

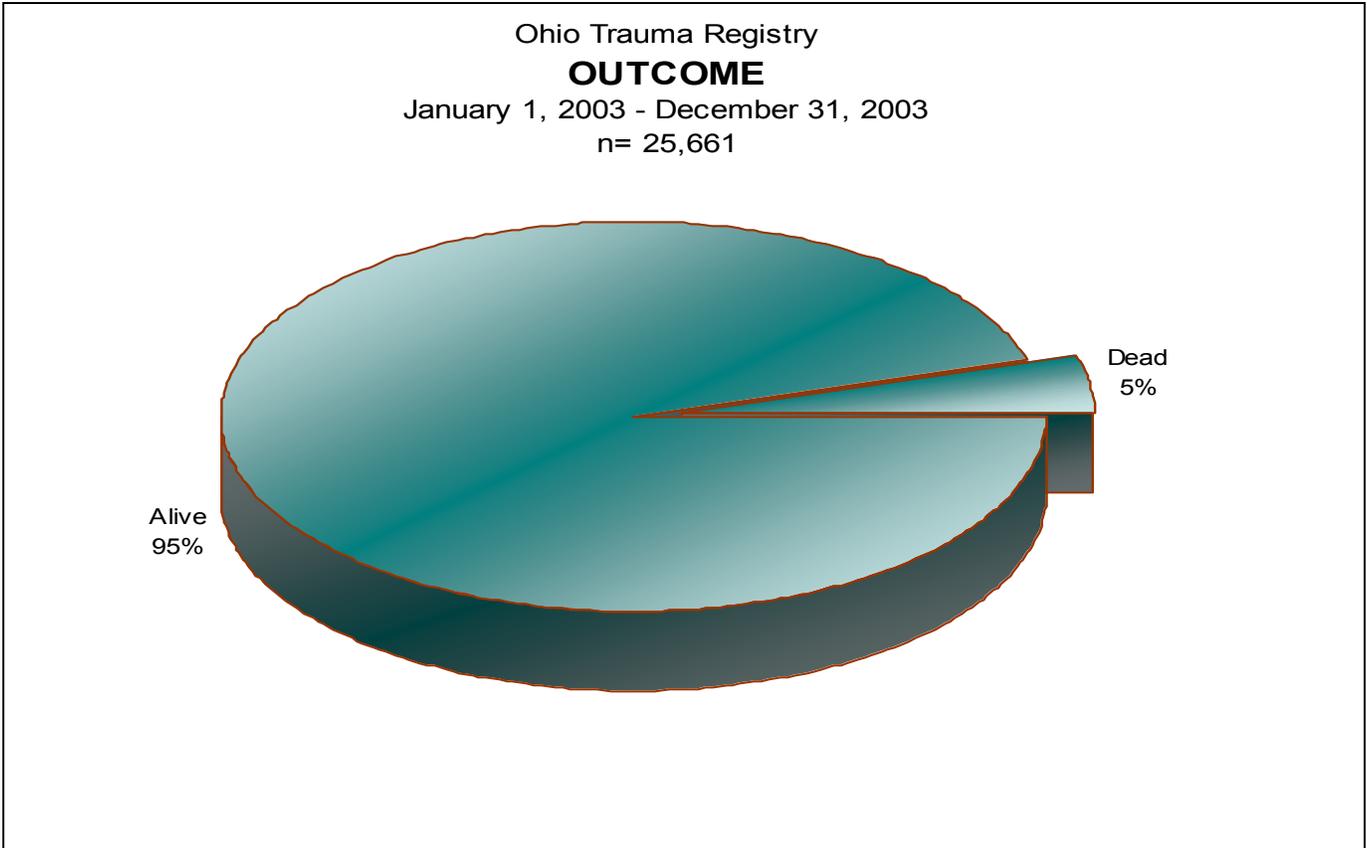
Injury Type

In 2003 over eighty-nine percent (89.2%) of the reported patients suffered blunt mechanism trauma. Eight percent (7.7%) had penetrating injuries. Compared to 2002 data, when “Other” was a reportable Injury Type, the number of asphyxial injuries has increased from 1 patient reported in 2002 to 82 cases reported in 2003. The increase in these numbers most likely represents better coding of these injuries rather than an increase in this type of injury.

Trauma has historically been categorized as either “blunt” or “penetrating”. Although exact definitions for these categories are not universally agreed upon, the generally accepted definition of penetrating injury is some type of penetration into a body cavity, such as that produced by a knife or bullet. Blunt injury is generally defined as injury produced by a force which doesn’t penetrate a body cavity, such as a motor vehicle crash or a fall. Burns are not classified as either and are presented here separately from blunt and penetrating.

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OUTCOME – 2003

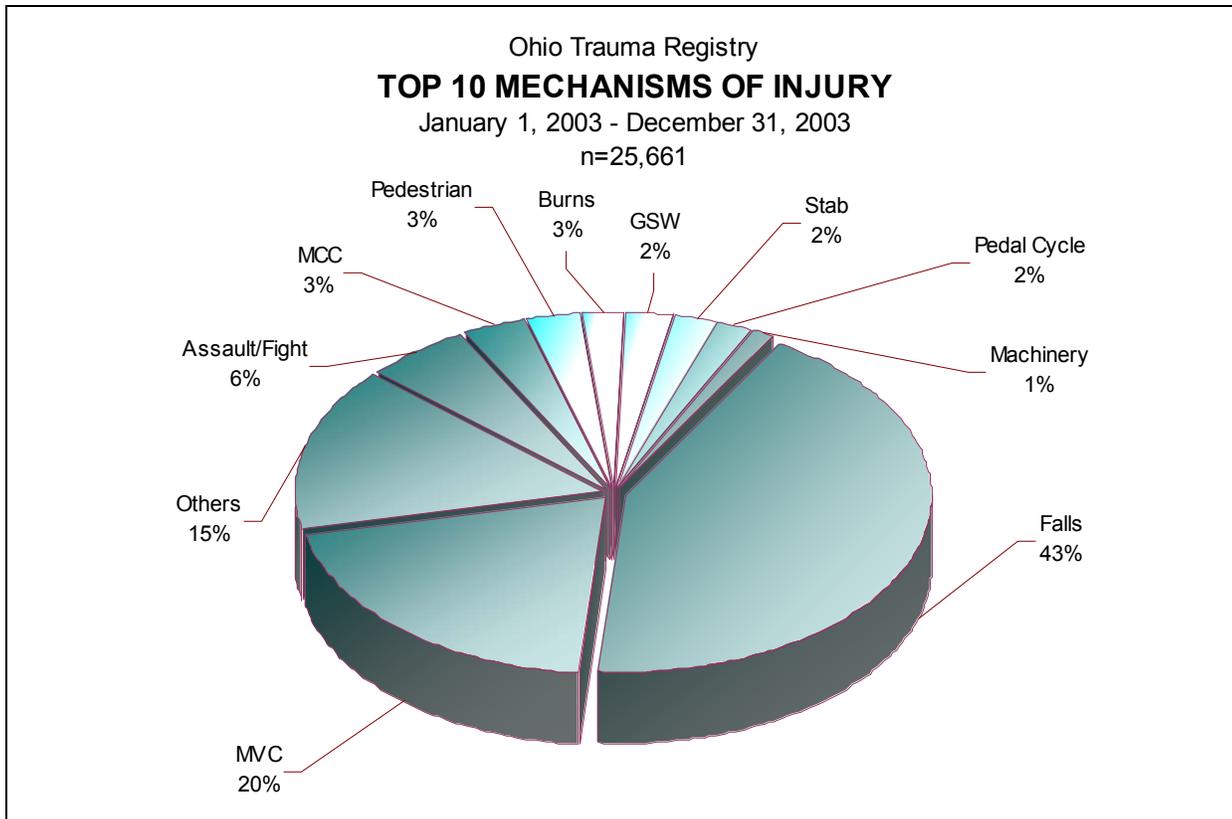


2003		
Status	# of Patients	% of Patients
Alive	24,474	95.4%
Dead	1,187	4.6%
Total	25,661	100%

Outcome

Almost five percent (4.6%) of the patients reported in 2003 died. A reminder that these data are only patients treated in the hospital; deaths occurring outside a medical facility **are not** included in this analysis.

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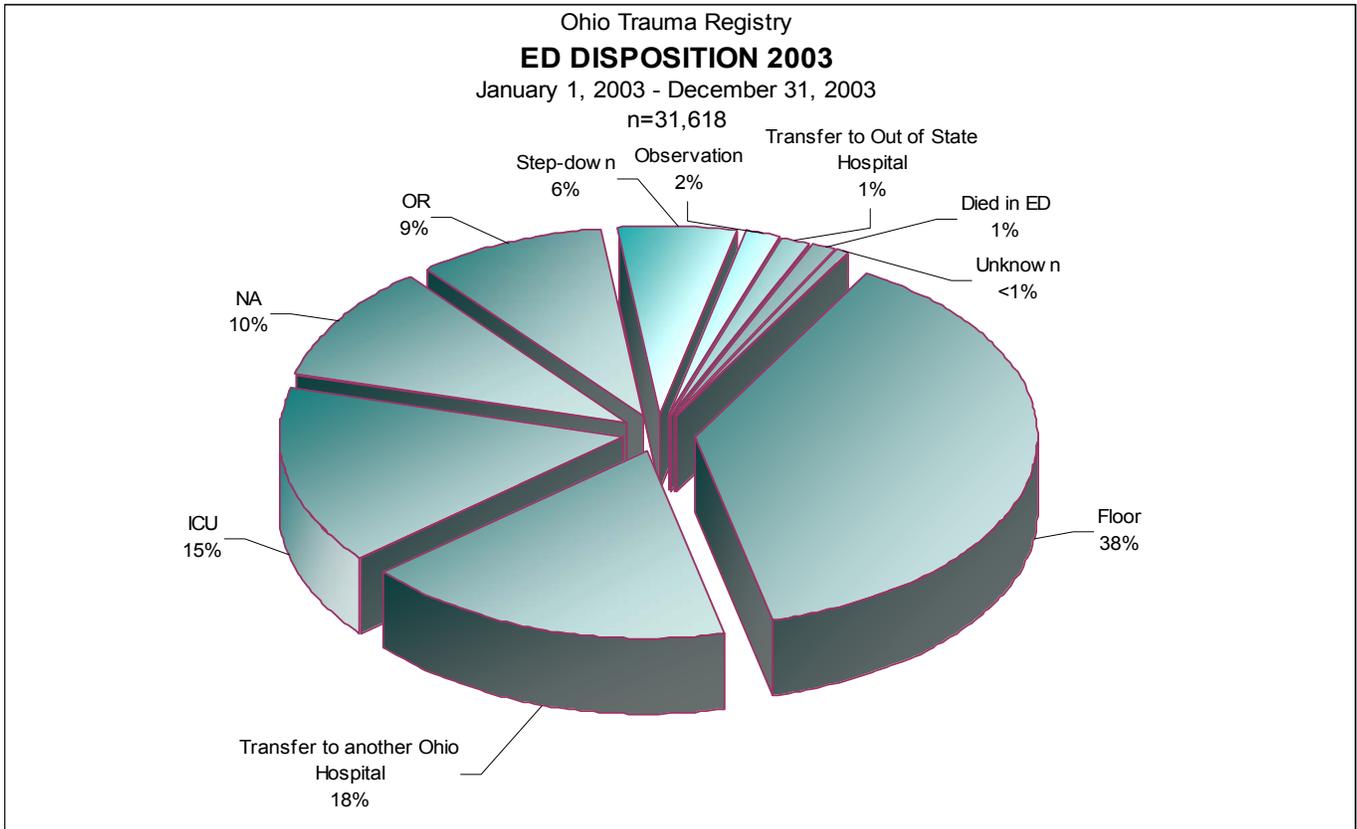
TOP TEN MECHANISMS OF INJURY – 2003

2003		
Top 10 Mechanisms of Injury	# of Patients	% of Patients
Falls	11,042	43.0%
MVC	5,223	20.4%
Others	3,826	14.9%
Assault/Fight	1,438	5.6%
MCC	837	3.3%
Pedestrian	695	2.7%
Burns	632	2.5%
GSW	619	2.4%
Stab	547	2.1%
Pedal Cycle	490	1.9%
Machinery	312	1.2%
Total	25,661	100%

Mechanism of Injury

Forty-three percent (43.0%) of all patients suffered injury due to a fall. Slightly more than twenty percent (20.4%) were injured as a result of a motor vehicle crash. In this graph, the mechanism of injury is reported as the External Cause of Injury code or E-code. The Centers for Disease Control and Prevention place E-codes into groupings reflective of similar causes of injury. This graph presents the top ten E-code groupings. More information about E-codes and the E-code groupings can be found in appendix B. The "Other" category consists of a large number of E-codes, ranging from injuries sustained on a train, to boating injuries. The break down of these codes can be found in [Appendix I](#).

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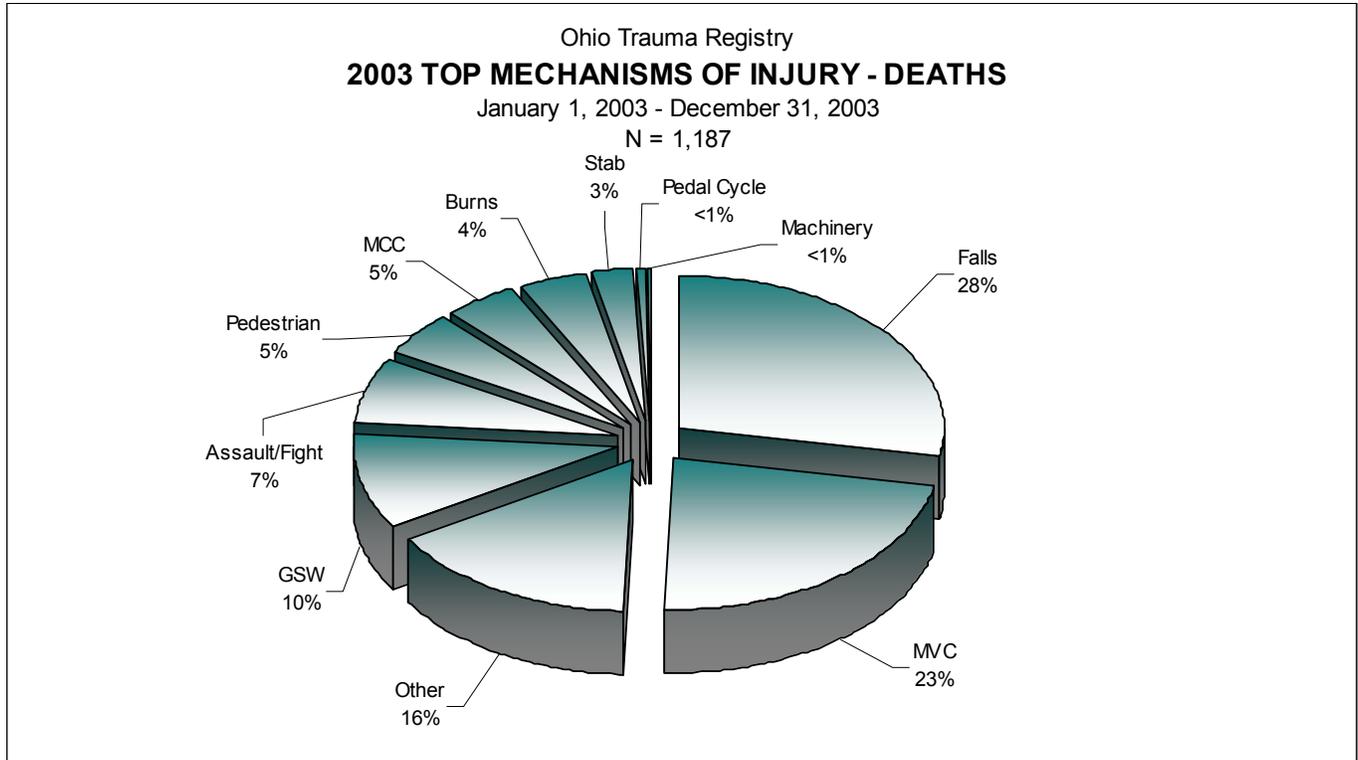
ED DISPOSITION – 2003

2003		
Disposition	# of Patients 2003	% of Patients 2003
Floor	12,059	38.1%
Transfer to another Ohio Hospital	5,523	17.5%
ICU	4,849	15.3%
NA	3,141	9.9%
OR	2,782	8.8%
Step-down	1,762	5.6%
Observation	504	1.6%
Transfer to Out of State Hospital	434	1.4%
Died in ED	431	1.4%
Unknown	133	0.4%
Total	31,618	100%

ED Disposition

This graph shows the first place the patient was sent after they were discharged from the emergency department in the first hospital in which they were treated. Thirty-eight percent (38.1%) of the patients were admitted to the floor (i.e. a regular medical/surgical hospital room). Twenty-four percent (24.1%) of patients were sent directly to the operating room or an intensive care unit, up from twenty-two percent reported in 2002. Nineteen percent (18.9%) were transferred to another hospital. Ten percent (10.3%) of the hospitals reported that this information was unknown or not applicable, this is down from eighteen percent reported in 2002, a significant improvement. This data is very rarely "Not Applicable" or "Unknown", efforts to improve this data will continue to be a high priority. *Note - the OTR collects data on a limited subset of all injured patients, see [APPENDIX A](#) for the complete inclusion/exclusion criteria.

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TOP TEN MECHANISM OF INJURY DEATHS – 2003

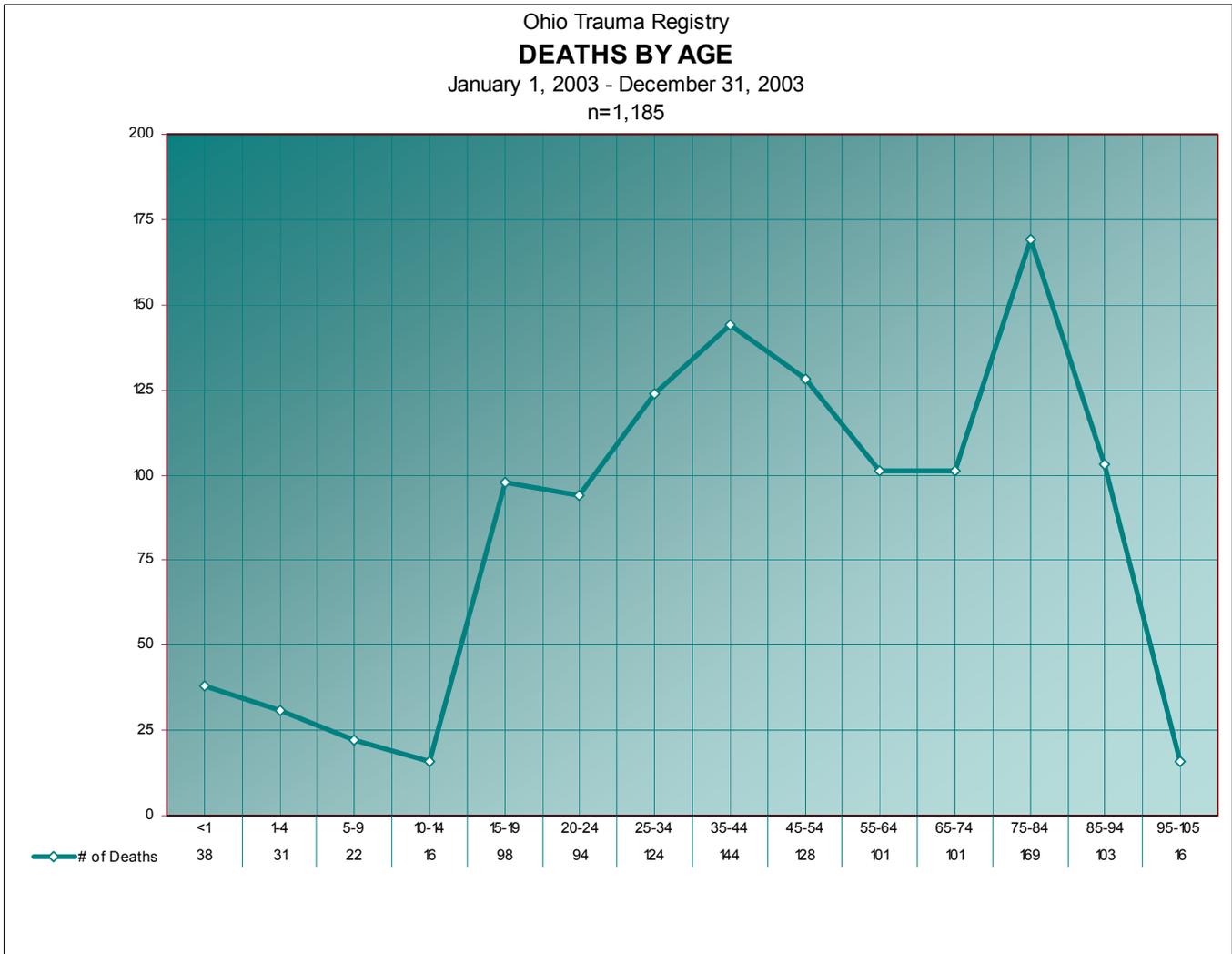
2003		
Top 10 Mechanisms of Injury - Deaths	# of Patients	% of Patients
Falls	333	28.1%
MVC	268	22.6%
Other	184	15.5%
GSW	121	10.2%
Assault/Fight	83	7.0%
Pedestrian	55	4.6%
MCC	53	4.5%
Burns	50	4.2%
Stab	31	2.6%
Pedal Cycle	5	0.4%
Machinery	4	0.3%
Total	1,187	100.0%

Deaths by Mechanism of Injury

Analysis of the patients who died in the hospital in 2003 reveals that Falls accounted for twenty-eight percent (28.1%) of patients who died before discharge; this is consistent with the data reported in 2002. Motor vehicle crashes were the cause for almost twenty-three percent (22.6%) of the in-hospital deaths, a decrease from the 27% in 2002 and 26% in 2001. Ten percent (10.2%) died because of a gunshot wound. Sixteen percent (15.5%) of the patients who died in the hospital had a mechanism of injury reported as "Other". The break down of these codes can be found in [Appendix I](#).

It is important to recognize that patients who die at the scene are not reported by the hospitals. These data reflect only patients that died in the hospital.

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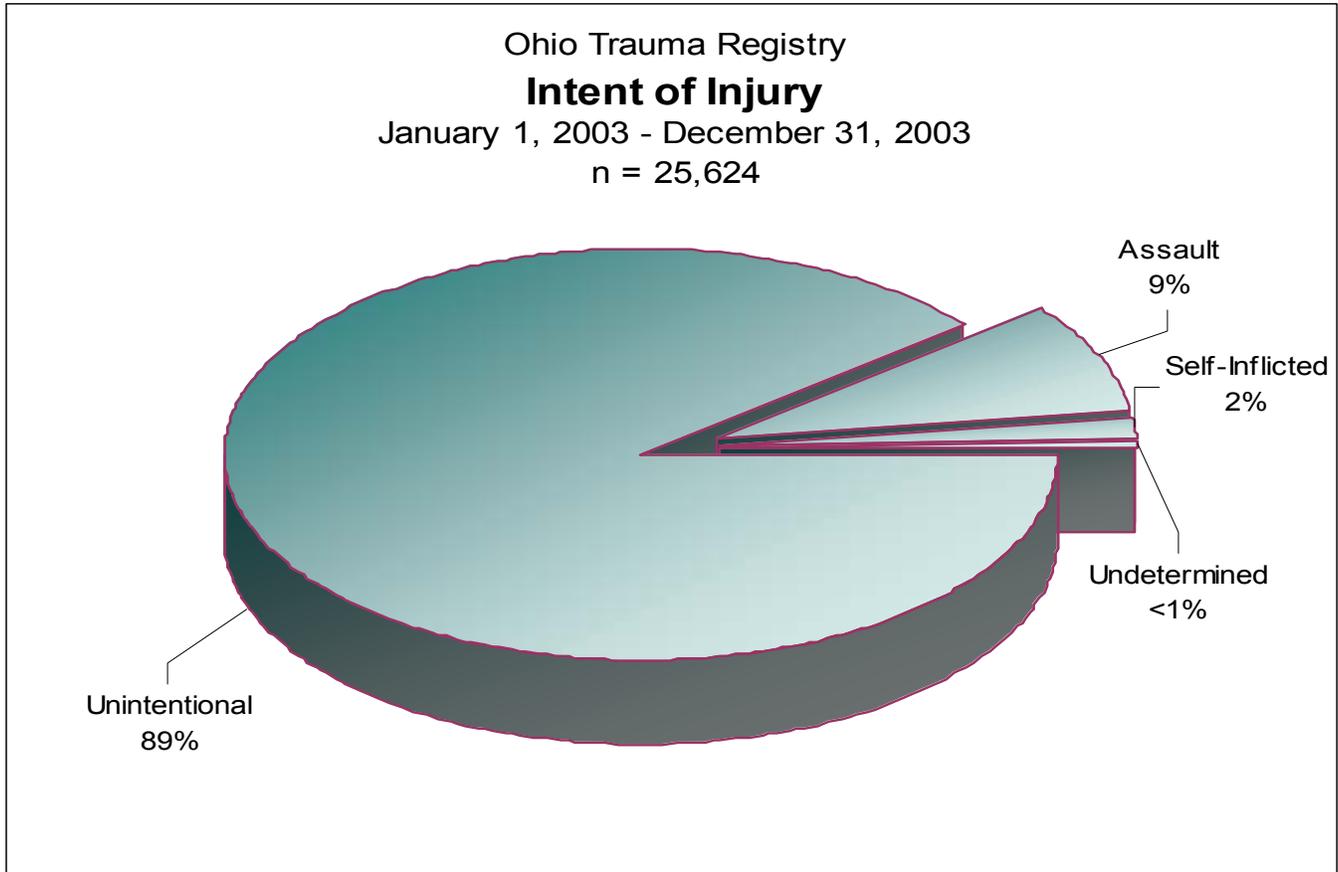
DEATHS BY AGE – 2003**Deaths by Age**

More patients (169) died in the 75-84 year old age group than in any other group. This represents fourteen percent (14.3%) of all deaths reported. The very young (<1 year old) and the very old (95-105 years old) have the highest death rates for their age group. This is consistent with other national trauma data that recognize the very elderly are at higher risk of death than teens and adult patients

Remember that these data reported are deaths occurring in the hospital setting (ED or inpatient). Trauma patients that die at the scene of an injury or following discharge from the hospital are not included in this report.

Eight patients were excluded from this analysis due to lack of data to calculate an age

2003				
Age Range	# of Deaths	% of All Deaths	# of Patients in Age Group	% of Deaths in Age Group
<1	38	3.2%	372	10.2%
1-4	31	2.6%	758	4.1%
5-9	22	1.9%	892	2.5%
10-14	16	1.4%	1,077	1.5%
15-19	98	8.3%	1,855	5.3%
20-24	94	7.9%	1,734	5.4%
25-34	124	10.5%	2,446	5.1%
35-44	144	12.2%	3,076	4.7%
45-54	128	10.8%	2,878	4.4%
55-64	101	8.5%	2,035	5.0%
65-74	101	8.5%	1,961	5.2%
75-84	169	14.3%	3,049	5.5%
85-94	103	8.7%	1,840	5.6%
95-105	16	1.4%	153	10.5%
Total	1,185	100.0%	24,126	

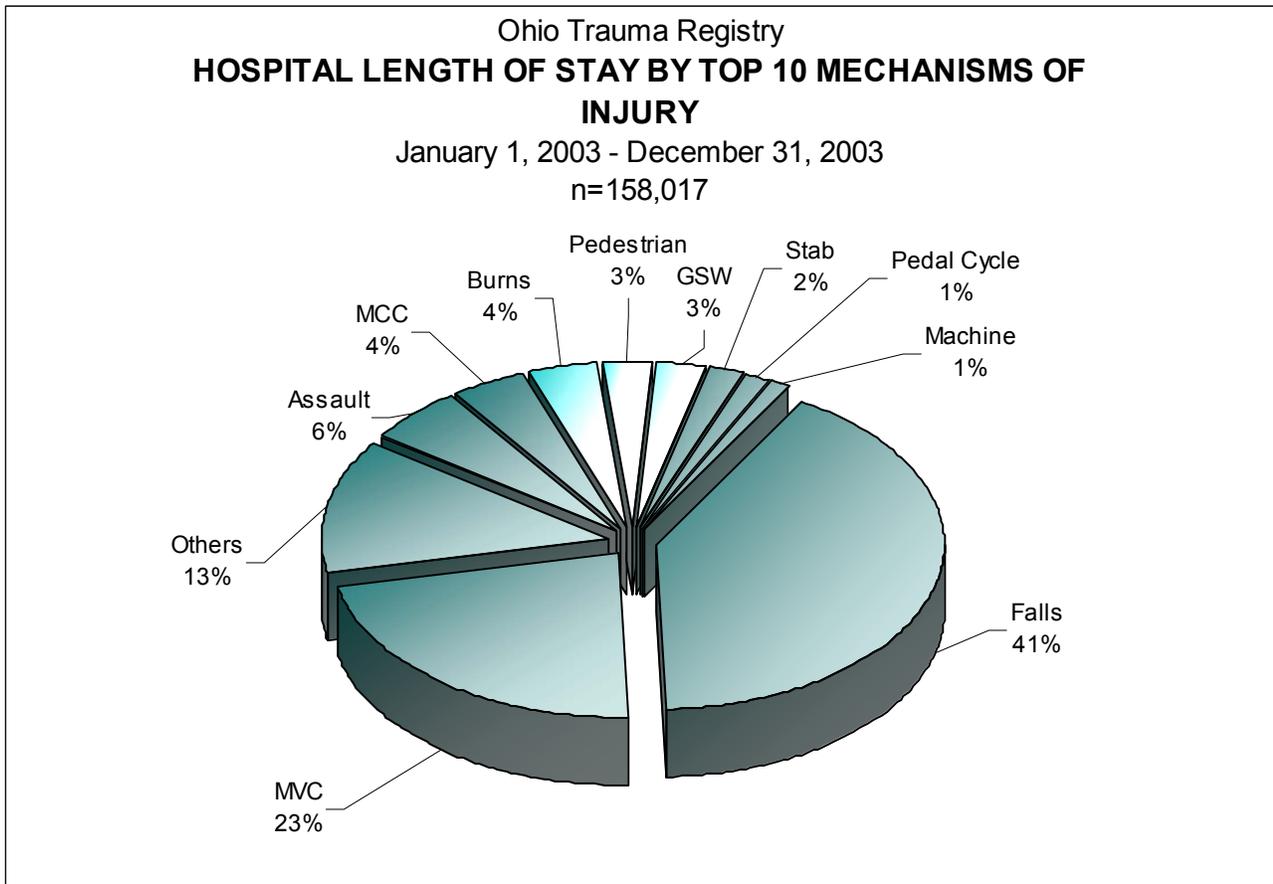
INTENT OF INJURY – 2003

2003		
Intent	# of Patients	% of Patients
Unintentional	22,883	89.3%
Assault	2,198	8.6%
Self-Inflicted	434	1.7%
Undetermined	109	0.4%
Total	25,624	100.0%

Intent of Injury

The intent by which the injury was caused is described by External Cause of Injury codes (E-codes). Assault includes all injuries inflicted by another person with the intent to injure or kill. The vast majority, eighty-nine percent (89.3%) of patients reported to the OTR in 2003 were injured unintentionally. These data are consistent with data reported in 2001 and 2002.

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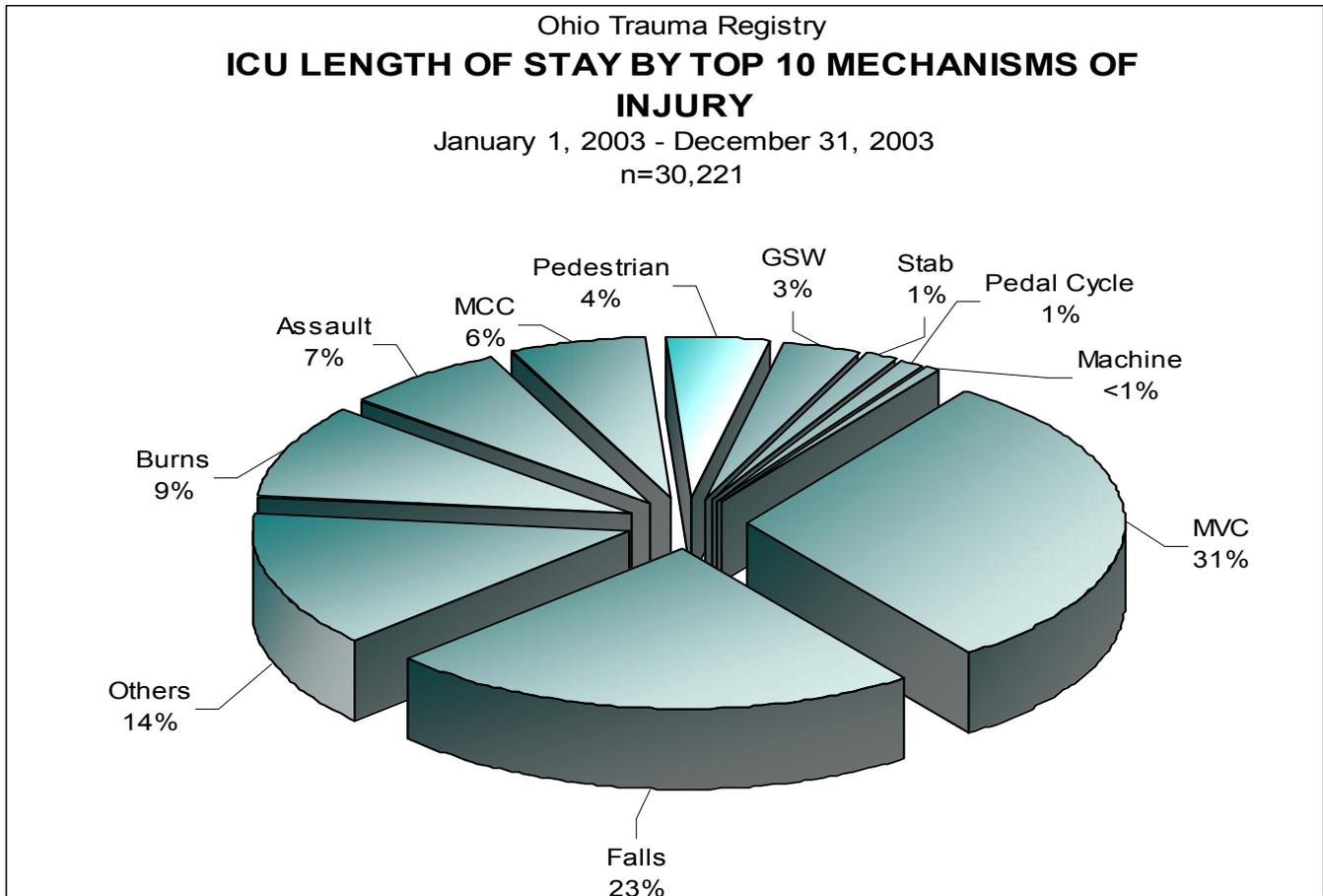
HOSPITAL LENGTH OF STAY FOR TOP TEN MECHANISMS OF INJURY – 2003

2003		
Mechanism of Injury	Hospital LOS (days)	% of Hospital LOS
Falls	64,773	41.0%
MVC	35,512	22.5%
Others	20,489	13.0%
Assault	8,837	5.6%
MCC	6,329	4.0%
Burns	6,118	3.9%
Pedestrian	4,696	3.0%
GSW	4,207	2.7%
Stab	2,991	1.9%
Pedal Cycle	2,261	1.4%
Machine	1,804	1.1%
Total	158,017	100.0%

LOS by Mechanism of Injury (MOI)

The total length of stay (LOS) in the hospital can be used as a general gauge of the utilization of healthcare resources for an injury. 158,017 total hospital days were reported for patients in 2003. Falls account for forty-one percent (41.0%) of hospital days reported to the OTR. Almost twenty-three percent (22.5%) of the hospital days reported are the result of a motor vehicle crash. Ten percent (10.2%) of the length of stay in hospital is attributable to assaults, gunshot wounds and stabbings. Thirteen percent (13.0%) or 20,489 hospital days, were coded with a variety of other MOI codes, aggregated here as "Other". The break down of these codes can be found in [Appendix I](#).

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ICU LENGTH OF STAY FOR TOP TEN MECHANISMS OF INJURY – 2003

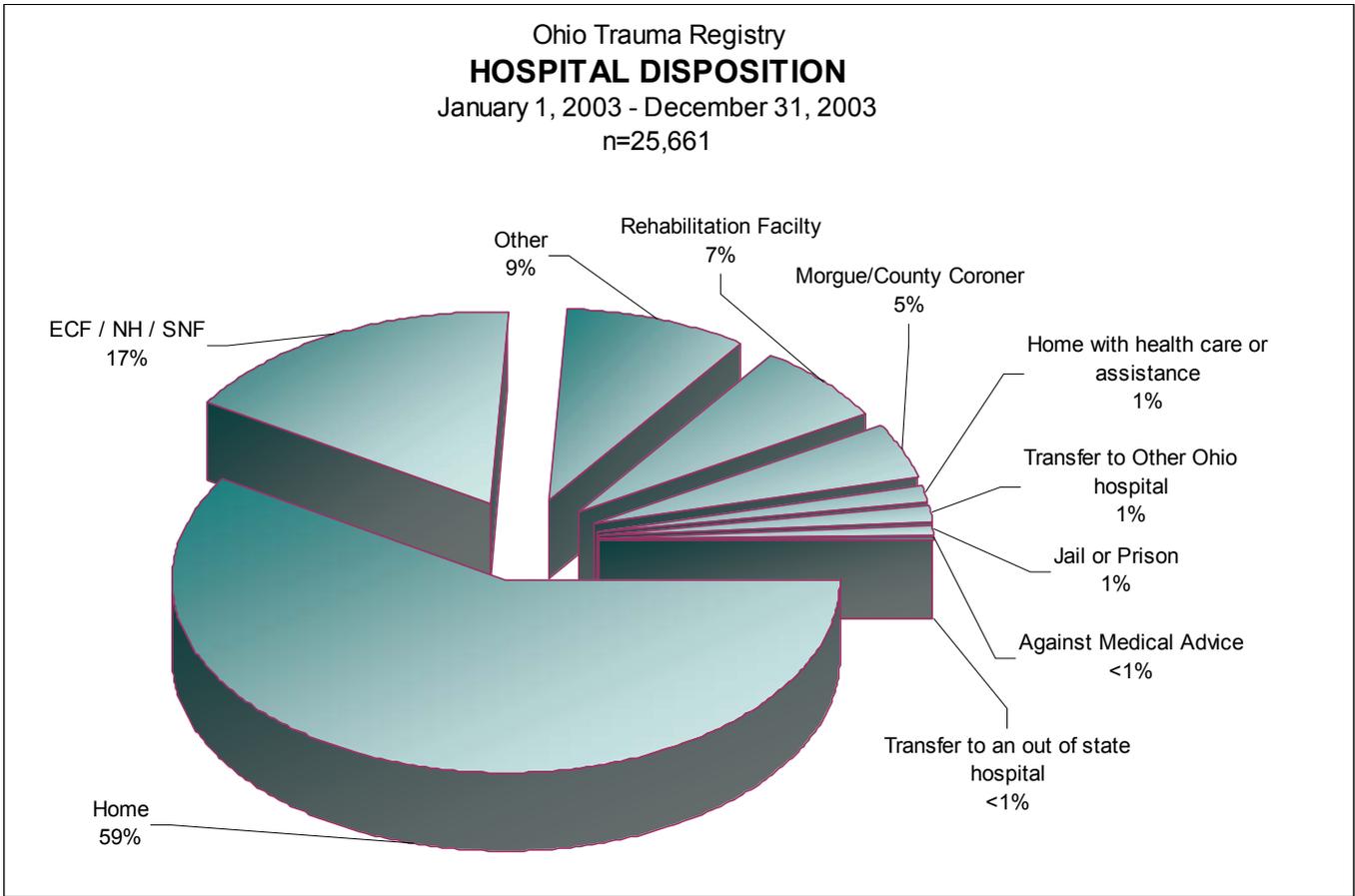
2003		
Mechanism of Injury	ICU LOS (days)	% of ICU LOS
MVC	9,138	30.2%
Falls	7,021	23.2%
Others	4,086	13.5%
Burns	2,813	9.3%
Assault	2,089	6.9%
MCC	1,800	6.0%
Pedestrian	1,343	4.4%
GSW	995	3.3%
Stab	403	1.3%
Pedal Cycle	360	1.2%
Machine	173	0.6%
Total	30,221	100.0%

Intensive Care Unit (ICU) Length of Stay by Mechanism of Injury (MOI)

Length of stay (LOS) in the intensive care unit (ICU), like overall hospital LOS, can be used as a gauge of the utilization of healthcare resources and severity of an injury. Patients requiring a stay in the ICU are, in general, more severely injured than those who do not require ICU care. A total of 30,221 ICU days were reported in 2003. Injuries sustained in an MVC account for the largest percentage, with just over thirty percent (30.2%), of the LOS in the ICU. Falls accounted for twenty-three percent (23.2%) of the overall hospital length of stay. Burn injuries resulted in nine percent (9.3%) of the ICU length of stay. Assaults, GSW and Stab injuries account for almost twelve percent (11.5%), up from ten percent reported in 2002. This data includes all records submitted, and includes patients that were transferred and admitted to more than one hospital for the same injury event. Fourteen percent (13.5%) or 4,086 ICU days, were coded with a variety of other MOI codes, aggregated here as "Other". The break down of these codes can be found in [Appendix I](#).

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HOSPITAL DISPOSITION – 2003



Hospital Disposition

Disposition of the patient upon discharge can be a very rough measure of the patients functional status. This reflects hospital disposition from the first hospital that treats the patient. Well over one half fifty-nine percent (58.8%) of patients are discharged home. Seventeen percent (17.1%) are discharged to an extended care facility or nursing home. Seven percent (6.7%) are sent to a rehabilitation facility, this is down 1.6% from the data reported in 2002. Two percent (1.5%) are sent to another acute care hospital following discharge.

Patients categorized as discharged to “Other” remains unusually high, nine percent (9.0%). Continued improvement in the accuracy of the coding for this field is a high priority.

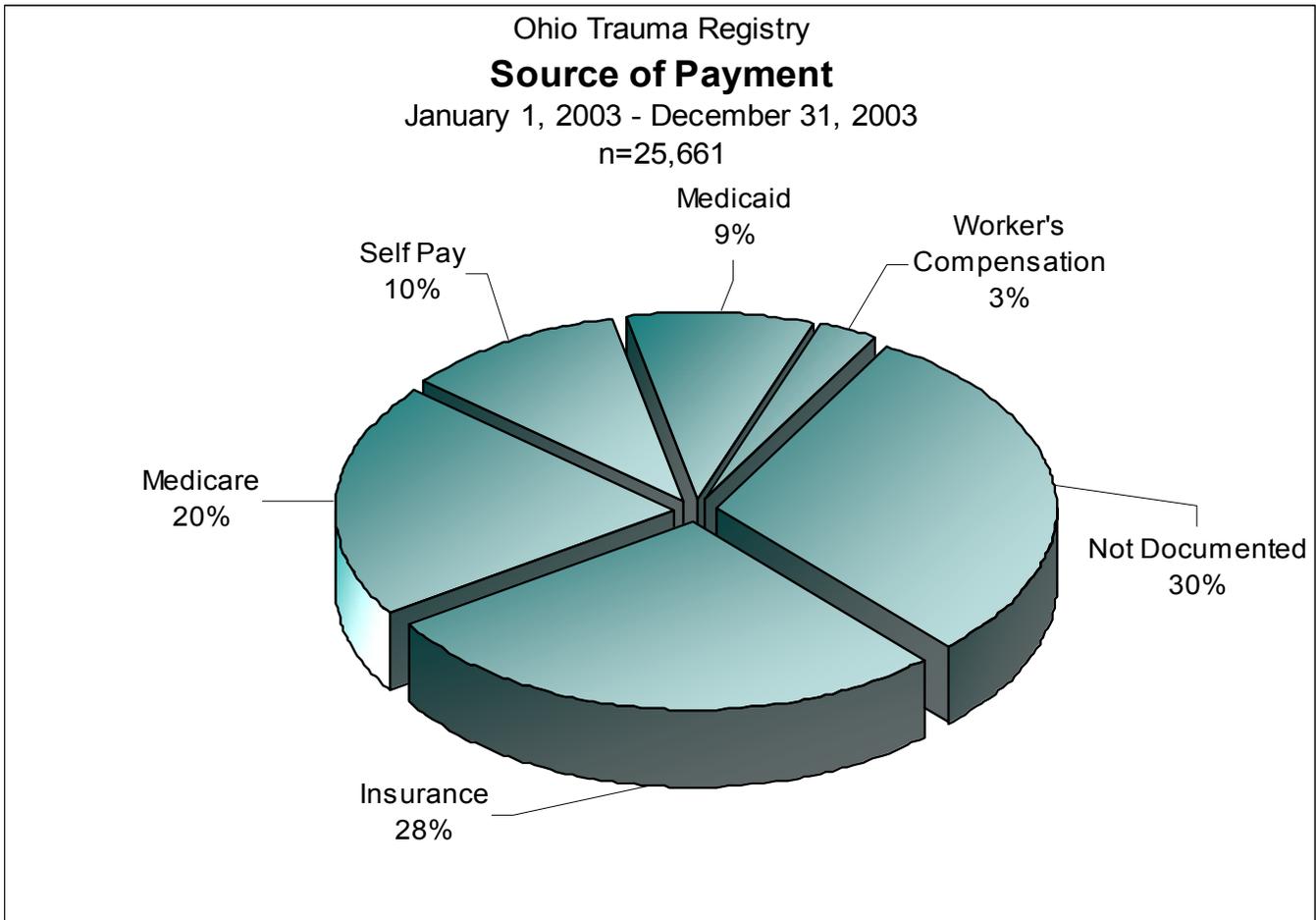
- *ECF – Extended Care Facility
- *NH – Nursing Home
- *SNF – Skilled Nursing Facility

*Note - the OTR collects data on a limited subset of all injured patients, see [APPENDIX A](#) for the complete inclusion/exclusion criteria.

2003		
Disposition	# of Patients	% of Patients
Home	15,078	58.8%
ECF / NH / SNF*	4,397	17.1%
Other	2,298	9.0%
Rehabilitation Facility	1,710	6.7%
Morgue/County Coroner/Funeral Home	1,206	4.7%
Home with professional health care or assistance	363	1.4%
Transfer to Other Ohio hospital	350	1.4%
Jail or Prison	159	0.6%
Against Medical Advice	85	0.3%
Transfer to an out of state hospital	15	0.1%
Total	25,661	100.0%

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SOURCE OF PAYMENT – 2003



2003		
Payor Source	# of Patients	% of Patients
Not Documented	7,639	29.8%
Insurance	7,126	27.8%
Medicare	5,217	20.3%
Self Pay	2,674	10.4%
Medicaid	2,311	9.0%
Worker's Compensation	694	2.7%
Total	25,661	100.0%

Source of Payment

Source of payment is reported as the source of payment documented during the patient's hospitalization. It can give an estimate of how trauma care is reimbursed, but it does not reflect the final source of revenue to the hospital, as this is sometimes not known for many months post-discharge. Less than one-third of the records (27.8%) reported to the OTR had commercial insurance coverage. Slightly more than one third (32%) of the hospitals expected payment from Medicare, Medicaid or Worker's Compensation, with the vast majority of these reported as Medicare. The large percentage reported as unknown, thirty percent (29.8%) needs to be improved.

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APPENDIX A: Inclusion Criteria

Ohio Trauma Registry Patient Inclusion Criteria

Updated 2/18/03

1. Patient's first or initial admission for at least 48 hours, and who meet one of the following inclusion criteria; OR
2. Patients who transfer into or out of any hospital, regardless of their length of stay, and who meet one of the following inclusion; OR
3. Patients that arrive dead on arrival (DOA) and who meet one of the following inclusion criteria; OR
4. Patients that die after receiving any evaluation or treatment while on hospital premises, and who meet one of the following inclusion criteria:

Inclusion Criteria

ICD-9-CM Diagnosis Codes on discharge from acute care hospital	
ICD-9-CM Diagnosis Codes	ICD-9-CM Diagnoses Descriptions
800.00 – 819.1	Fractures
821.00 – 904.9	Fractures, dislocations/sprains, intracranial injury, internal injury of thorax, abdomen and pelvis, open wounds, injury to blood vessels
911.0, 911.1, 912.0, 912.1	Abrasions/friction burns to trunk, shoulder and upper arm
916.0, 916.1, 919.0, 919.1	Abrasions / friction burns hip, thigh, leg, ankle, other or multiple sites
920 – 929.9	Contusions and crush injury
940.0 – 959.9	Burns, injury to nerves and spinal cord, traumatic complications and unspecified injury
987.9	Smoke inhalation
991.0 – 991.6	Frostbite, hypothermia and external effects of cold
994.0, 994.1, 994.7, 994.8	Asphyxiation, strangulation, drowning, and electrocution
995.50 – 995.59	Child maltreatment and abuse
OR	
ICD-9-CM Diagnoses	E-CODE
348.4	Uncal herniation
348.5	Cerebral Edema
348.8	Pneumocephalus
372.72	Subconjunctival hemorrhage
518.5	Traumatic ARDS
784.7	Epistaxis
AND WITH ANY OF THE FOLLOWING External Cause Codes (E-Codes)	
E800 – E848.8 E878 – E905.0 E906.0 – E928.8 E950.0 – E998.9	

Codes separated by a hyphen indicate a range of codes including both codes AND all codes in between. Example 800.0 – 801.5 Codes separated by a comma indicate a single code. Example 901.1, 901.2, 901.8

ICD-9-CM Diagnoses Codes EXCLUDED	
820.0 – 820.9	Isolated hip fracture
905 – 909	Late effects of injury
910.0 – 910.9, 911.2 – 911.7, 912.2 - 912.9. 913.0 - 913.9, 914.0 - 914.9, 915.0 - 915.9, 916.2 - 916.9, 917.0 - 917.9, 918.0 - 918.9, 919.2 - 919.9	Superficial Abrasions, blisters, insect bites
930 – 939	Foreign bodies
External Cause Codes EXCLUDED	
E849 – E849.9	Place of occurrence
E850 – E869.9	Poisonings
E870 – E879.9	Misadventures during surgical and medical care
E905.1 – E905.9	Venomous animals and plants (except snakes)
E929 – E929.9	Late effects of Accidental Injury
E930 - E949	Drugs, medicinal and biological substances causing adverse effects in therapeutic use

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APPENDIX B E-Code Groupings

Matrix table with assignment of E codes for injury mortality data

MMWR August 29, 1997

Manner/intent	Mechanism/cause				
	Unintentional	Suicide	Homicide	Undetermined	Other*
Cut/pierce	E920.0–.9	E956	E966	E986	E974
Drowning/submersion	E830.0–.9, E832.0–.9, E910.0–.9	E954	E964	E984	—
Fall	E880.0–E886.9, E888	E957.0–.9	E968.1	E987.0–.9	—
Fire/burn	E890.0–E899, E924.0–.9	E958.1,.2,.7	E961; E968.0,.3	E988.1,.2,.7	—
Fire/flame	E890.0–E899	E958.1	E968.0	E988.1	—
Hot object/substance	E924.0–.9	E958 .2,.7	E961, E968.3	E988.2,.7	—
Firearm	E922.0–.9	E955.0–.4	E965.0–.4	E985.0–.4	E970
Machinery	E919 .0–.9	—	—	—	—
MV traffic†	E810–E819 (.0–.9§)	E958.5	—	E988.5	—
Occupant	E810–E819 (.0,.1)	—	—	—	—
Motorcyclist	E810–E819 (.2,.3)	—	—	—	—
Pedal cyclist	E810–E819 (.6)	—	—	—	—
Pedestrian	E810–E819 (.7)	—	—	—	—
Unspecified	E810–E819 (.9)	—	—	—	—
Pedal cyclist, other	E800–E807 (.3); E820–E825 (.6); E826.1,.9; E827–E829 (.1)	—	—	—	—
Pedestrian, other	E800–E807 (.2), E820–E825 (.7), E826–E829 (.0)	—	—	—	—
Transport, other	E800–E807 (.0,.1,.8,.9), E820–E825 (.0–.5,.8,.9), E826.2–.8, E827–E829 (.2–.9), 831.0–.9, E833.0–E845.9	E958.6	—	E988.6	—
Natural/environmental	E900.0–E909, E928.0–.2	E958.3	—	E988.3	—
Bites and stings	E905.0–.6,.9; E906.0–.4,.9	—	—	—	—
Overexertion	E927	—	—	—	—
Poisoning	E850.0–E869.9	E950.0–E952.9	E962.0–.9	E980.0–E982.9	E972
Struck by, against	E916–E917.9	—	E960.0, E968.2	—	E973, E975
Suffocation	E911–E913.9	E953.0–.9	E963	E983.0–.9	—

APPENDIX B — Continued

<u>Manner/intent</u>	<u>Mechanism/cause</u>				
	<u>Unintentional</u>	<u>Suicide</u>	<u>Homicide</u>	<u>Undetermined</u>	<u>Other*</u>
<u>Other specified, Classifiable</u>	E846–E848, E914–E915, E918, E921.0–.9, E923.0–.9, E925.0–.5	E955.5,.9; E958.0,.4	E960.1, E965.5–.9, E967.0–.9, E968.4	E985.5; E988.0,.4 E971, E978 E996	E990–E994, E926.9, E929.0– E997.0–.2
Other specified, not elsewhere classifiable	E928.8, E929.8	E958.8, E959	E968.8, E969	E988.8, E989	E977, E995, E997.8, E998, E999 E976, E997.9
Unspecified	E887, E928.9, E929.9	E958.9	E968.9	E988.9	
All injury¶	E800–E869, E880–E929	E950–E959	E960–E969	E980–E989	E970–E978, E990–E999
Adverse effects	—	—	—	—	E870–E879, E930.0–E949.9
Medical care**	—	—	—	—	E870–E879
Drugs††	—	—	—	—	E930.0–E949.9
All external causes	—	—	—	—	E800–E999

NOTE: “—” represents categories in which no E codes are assigned.

*Includes legal intervention (E970–E978) and operations of war (E990–E999).

†Three fourth-digit codes (.4—“occupant of streetcar,” .5—“rider of animal,” and .8—“other specified person”) are not separated because of the minimal number of deaths in these categories. However, because they are included in the overall “Motor Vehicle Traffic” category, the sum of these categories can be derived by subtraction.

§This parenthetical notation implies that the decimal should be applied to each individual three-digit E code in the grouping.

¶Adverse effects have been excluded from the “all injury” category but are included in the “all external causes” category.

**Includes a) adverse effects to patients during surgical and medical care and b) surgical and medical procedures as the cause of abnormal reactions or later complications without mention of negative events at the time of procedure.

†† Includes drugs and medicinal and biological substances causing adverse effects when used therapeutically.

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APPENDIX C

ICD-9 CM Diagnosis Code Groupings http://www.cdc.gov/nchs/data/ice/final_matrix_post_ice.pdf

The Barell Injury Diagnosis Matrix, Classification by Body Region and Nature of the Injury

based on 5 digit icd-9 CM codes

ICD-9-CM codes	FRACTURE		DISLOCATION		SPRAINS & STRAINS		INTERNAL		OPEN WOUND		AMPUTATIONS		BLOOD VESSELS		CONTUSION / SUPERFICIAL		CRUSH		BURNS		NERVES		UNSPECIFIED		
	800-820	830-839	840-848	850-854,860-869	870-884, 890-894	885-887, 895-897	900-904	910-924	925-929	940-949	950-951	952-955	960-969	970-974	980-989	990-994	995-999	000-009	010-019	020-029	030-039	040-049	050-059	060-069	
Head and Neck																									
1 Type 1 TBI	800,801,803,804(.1-4, 6-9), (.03-.05, 53-55), 850(.2-4), 851-854, 950(.1-3), 956-55	800,801,803,804(.1-4, 6-9), 800,801,803,804(.03-.05, 53-55)	/	/	/	/	950(.2-4), 851-854*, 956-55	/	/	/	/	/	/	/	/	/	/	/	/	/	/	950.1-3	/	/	
2 Type 2 TBI	800,801,803,804(.00, .02, .06, .09), (.50, .52, .56, .59), 950(.0, 1, 5, 9)	800,801,803,804(.00, .02, .06, .09), 800,801,803,804(.50, .52, .56, .59)	/	/	/	/	850(.0, 1, 5, 9)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
3 Type 3 TBI	800,801,803,804(.01, .51)	800,801,803,804(.01, .51)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
4 Other Head	873(.0-1, 8-9), 941 x8, 951, 959.01	/	/	/	/	/	/	/	873.0-1, 8-9	/	/	/	/	/	/	/	/	/	941x8	951	959.01*	/	/		
5 Face	802, 830, 848.0-1, 872, 873.2-7, 941(x1, x3-x5, x7)	802	830	848.0-1	/	/	/	/	872, 873.2-7	/	/	/	/	/	/	/	/	/	941.x1, x3-x5, x7	/	/	/	/		
6 Eye	870-871, 918, 921, 940, 941.x2, 950(.0, 9)	/	/	/	/	/	/	/	870-871	/	/	/	/	/	918, 921	/	/	/	940, 941.x2	950(.0, 9)	/	/	/		
7 Neck	807.5-8, 848.2, 874, 925.2, 941 x8, 953.0, 954.0	807.5-8	/	848.2	/	/	/	/	874	/	/	/	/	/	/	/	/	941x8	953.0, 954.0	/	/	/	/		
8 Head, Face and Neck Unspecified	800, 910, 920, 925.1, 941.x0, x9, 947.0, 957.0, 959.09	/	/	/	/	/	/	/	/	/	/	/	900	910, 920	925.1	941.x0, x9, 947.0	957.0	959.09	/	/	/	/	/	/	
Spinal Cord (SCI)																									
9 Cervical SCI	806(.0-1), 952.0	806(.0-1)	/	/	/	/	952.0	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
10 Thoracic Dorsal SCI	806(.2-3), 952.1	806.2-3	/	/	/	/	952.1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
11 Lumbar SCI	806(.4-5), 952.2	806.4-5	/	/	/	/	952.2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
12 Sacrum Coccyx SCI	806(.6-7), 952(.3-4)	806.6-7	/	/	/	/	952.3-4	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
13 Spine- Neck Unspecified SCI	806(.8-9), 952(.8-9)	806.8-9	/	/	/	/	952.8-9	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
14 Cervical VCI	805(.0-1), 839(.0-1), 847.0	805.0-1	839.0-1	847.0	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
15 Thoracic (Dorsal) VCI	805(.2-3), 839(.21, 31), 847.1	805.2-3	839.21, 31	847.1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
16 Lumbar VCI	805(.4-5), 839(.20, 30), 847.2	805.4-5	839.20, 30	847.2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
17 Sacrum Coccyx VCI	805(.6-7), 839(.41-42), 839(.51-52), 847.3-4	805.6-7	839(.41-42, 51-52)	847.3-4	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
18 Spine- Neck Unspecified VCI	805(.8-9), 839(.40, 49), 839(.50, 59)	805.8-9	839(.40, 49, 50, 59)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
Torso																									
19 Chest (Thorax)	807(.0-4), 839(.61, 71), 848(.3-4), 860-862, 875, 879(.0-1), 901, 922(.0-1, 33), 929.19, 942.x1-x2, 953.1	807.0-4	839.61, 71	848.3-4	860-862, 875, 879(.0-1), 901, 922(.0-1, 33), 929.19, 942.x1-x2, 953.1	/	/	863-866, 868	879.2-5	/	902.0-4	922.2	929.19	942.x1-x2	953.1	/	/	/	/	/	/	/	/	/	
20 Abdomen	803-806, 809, 879(.2-5), 902(.0-4), 922.2, 942.x3, 947.3, 953(.2, 5)	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
21 Pelvis	808, 839(.69, 79), 846, 848.5, 867, 877-879	808	839.69, 79	846, 848.5	/	/	867	877-879	/	902(.5, 81-82)	922.4	929(.0, 12)	942.x5, 947.4	953.3	/	/	/	/	/	/	/	/	/	/	
22 Perineal	902(.5, 81-82), 922.4, 929(.0, 12), 942.x5, 947.4, 953.3	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
23 Trunk	809, 879(.6-7), 911, 922(.8-9)	809	/	/	/	/	/	879.6-7	/	/	/	/	911, 922.8-9	922.8-9	942.x0, 942.x9	954.1, 8-9	959.1	/	/	/	/	/	/	/	
24 Other & Unspecified	923(.8-9), 942(x0, x9), 954(.1, 8-9), 959.1	/	/	/	/	/	/	/	/	/	/	/	922.31-32	929.11	942.x4	/	/	/	/	/	/	/	/	/	
25 Back and Backlog	847.9, 870, 922(.31-32), 929.11, 942.x4	/	/	/	/	/	/	847.9	/	/	/	/	912, 923.0	927.0	943.x3-x8	/	959.2	/	/	/	/	/	/	/	
Upper																									
26 Shoulder & Upper Arm	810-812, 831, 840, 880, 887(.2-3), 912, 923.0, 927.0, 943(x3-x8), 959.2	810-812	831	840	/	/	/	/	880	887.2-3	/	/	/	/	912, 923.0	927.0	943.x3-x8	/	959.2	/	/	/	/	/	
27 Forearm & Elbow	813, 832, 841, 881(x0, x1), 887(.0-1), 923.1, 927.1, 943(x1-x2)	813	832	841	/	/	/	/	881.x0-x1	887.0-1	/	/	923.1	927.1	943.x1-x2	/	/	/	/	/	/	/	/	/	
28 Wrist, Hand & Fingers	814-817, 833-834, 842, 881.x2, 882, 883, 885-886, 914-915, 923(.2-3), 927(.2-3), 944, 959(.4-5)	814-817	833, 834	842	/	/	/	/	881.x2, 882, 883	/	/	985-890	/	914-915, 923.2-3	927.2-3	944	/	/	969.4-5	/	/	/	/	/	
29 Other & Unspecified	818, 884, 887(.4-7), 903, 913, 923(.8-9), 927(.8-9), 943(x0, x9), 953.4, 955, 959.3	818	/	/	/	/	/	/	884	887.4-7	903	913, 923.8-9	927.8-9	943.x0, x9	953.4, 955	959.3	/	/	/	/	/	/	/	/	
Lower																									
30 Hip	820, 835, 843, 924.D1, 928.D1	820	835	843	/	/	/	/	/	/	/	/	924.D1	928.D1	/	/	/	/	/	/	/	/	/	/	
31 Upper leg & thigh	821, 907(.2-3), 924.D0, 928.D0, 945.x8	821	/	/	/	/	/	/	907.2-3	/	/	/	924.D0	928.D0	945.x8	/	/	/	/	/	/	/	/	/	
32 Knee	822, 836, 844.0-3, 924.11, 928.11, 945.x5	822	836	844.0-3	/	/	/	/	/	/	/	/	924.11	928.11	945.x5	/	/	/	/	/	/	/	/	/	
33 Lower leg & ankle	823-824, 837, 845.0, 907(.0, 1), 924(.10, 21), 928(.10, 21), 945(x3-x4)	823-824	837	845.0	/	/	/	/	907.0-1	/	/	/	924.10, 21	928.10, 21	945.x3-x4	/	/	/	/	/	/	/	/	/	
34 Foot & toes	825-826, 839, 845.1, 902-893, 895-896, 917, 924(.3, 20), 928(.3, 20), 945(x1-x2)	825-826	839	845.1	/	/	/	/	902-893	895-896	/	917, 924.3, 20	928.3, 20	945.x1-x2	/	/	/	/	/	/	/	/	/	/	
35 Other & Unspecified	827, 844(.8-9), 890-891, 894, 907(.4-7), 904(.0-8), 916, 924(.4-5), 928(.8-9), 945(x0, x9), 959.6-7	827	/	844.8-9	/	/	/	/	890-891, 894	907.4-7	904.0-8	916, 924.4-5	928.8, 9	945.x0-x9	/	/	959.6-7	/	/	/	/	/	/	/	
36 Other multiple	819, 828, 902(.87, 89), 947(.1-2), 953.8, 956	819, 828	/	/	/	/	/	/	/	/	902.87, 89	/	/	/	947.1-2	953.8, 956	/	/	969.8, 9	/	/	/	/	/	
37 Unspecified site	829, 839(.8-9), 848(.8-9), 839, 879(.8, 9), 902.9, 904.9, 919, 924(.8, 9), 92	829	839.8-9	848.8-9	839, 879(.8, 9), 902.9, 904.9, 919, 924(.8, 9), 92	/	/	869	879(.8-9)	/	902.87, 89	902.9, 904.9	919, 924.8, 9	929	946, 947.8, 9	969.8, 9	969.8, 9	969.8, 9	969.8, 9	969.8, 9	969.8, 9	969.8, 9	969.8, 9	969.8, 9	
38 Systemic side & site effects	905-908, 909(.0, 1, 2, 4, 9), 930-939, 958, 960-994, 995.50-54, 59, 996(.80-85)	Foreign body (900-909), Early complications of trauma (958), Poisoning (960-909), Toxic Effects (960-969), Other and unspecified effects of external cause (960-994) Child and adult maltreatment (969.50-54, 59, 969.80-85) Late effects of injuries, poisonings, toxic effects and other external causes (905-909) excluding 909(3, 5)																							

Special diagnosis codes for Trauma: TBI1 Chest (807.4) Pneumothorax (865)
 For purposes of classification, head injuries are labeled as **Type 1 TBI** if there is recorded evidence of an intracranial injury or a moderate or a prolonged loss of consciousness (LOC), Shaken Infant Syndrome (SIS), or injuries to the optic nerve pathways.
Type 2 TBI includes injuries with no recorded evidence of intracranial injury, and LOC of less than one hour, or LOC of unknown duration, or unspecified level of consciousness. **Type 3 TBI** includes patients with no evidence of intracranial injury and no LOC.
 *Note from CDC: 959.01 (added to ICD-9-CM in 1997) is not intended to be assigned to TBI cases; however, in the USA it has been assigned incorrectly to a substantial proportion of cases previously coded 854.
 The Matrix is available on the net at www.cdc.gov/nchs/about/otheract/ice/barellmatrix.htm

**APPENDIX D:
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APPENDIX E OHIO HOSPITALS REQUIRED TO REPORT TO THE OTR

Ohio Hospitals 2003

Closed	hosplD	HOSPITAL	CITY	COUNTY	EMS REGION
	1100	Adams County Hospital	West Union	Adams	1
	1029	Adena Regional Medical Center	Chillicothe	Ross	5
	1275	Akron City Hospital	Akron	Summit	8
	1276	Akron General Medical Center	Akron	Summit	8
	1219	Allen Memorial Hospital	Oberlin	Lorain	9
	1269	Alliance Community Hospital	Alliance	Stark	7
	1215	Amherst Hospital (EMH)	Amherst	Lorain	9
	1106	Ashtabula County Medical Center	Ashtabula	Ashtabula	10
	1270	Aultman Hospital	Canton	Stark	7
	1279	Barberton Citizen's Hospital	Barberton	Summit	8
	1112	Barnesville Hospital Association	Barnesville	Belmont	6
	1178	Bay Park Community Hospital	Oregon	Lucas	4
	1113	Belmont Community Hospital	Bellaire	Belmont	6
	1254	Berger Health System	Circleville	Pickaway	5
	1024	Bethesda North	Cincinnati	Hamilton	1
	1194	Blanchard Valley Regional Health Center	Findlay	Hancock	3
	1101	Blanchard Valley Reg. Health Ctr-Bluffton Campus	Bluffton	Allen	3
	1115	Brown County General Hospital	Georgetown	Brown	1
	1107	Brown Memorial Hospital	Conneaut	Ashtabula	10
	1130	Bucyrus Community Hospital	Bucyrus	Crawford	7
	1277	Children's Hospital Medical Center Of Akron	Akron	Summit	8
	1186	Cincinnati Children's Hospital Medical Center	Cincinnati	Hamilton	1
	1028	Clermont Mercy Hospital	Batavia	Clermont	1
	1151	Cleveland Clinic Foundation	Cleveland	Cuyahoga	9
	1124	Clinton Memorial Hospital	Wilmington	Clinton	1
	1169	Columbus Children's Hospital	Columbus	Franklin	5
3/1/01	1174	Columbus Community Hospital	Columbus	Franklin	5
	1018	Community Health Partners (West Campus)	Lorain	Lorain	9
	1122	Community Hospital of Springfield	Springfield	Clark	2
	1293	Community Hospitals of Williams County - Bryan Community Hospitals of Williams County -	Bryan	Williams	4
	1294	Montpelier	Montpelier	Williams	4
	1161	Community Memorial Hospital	Hicksville	Defiance	4
	1129	Coshocton County Memorial Hospital	Coshocton	Coshocton	6
	1280	Cuyahoga Falls General Hospital	Cuyahoga Falls	Summit	8
	1190	Deaconess Hospital	Cincinnati	Hamilton	1
	1152	Deaconess Hospital Of Cleveland	Cleveland	Cuyahoga	9
	1160	Defiance Hospital	Defiance	Defiance	3
	1015	Doctors Hospital -- West	Columbus	Franklin	5
	1016	Doctors Hospital -- Massillon	Massillon	Stark	7
12/31/01	1176	Doctors Hospital -- North	Columbus	Franklin	5
	1110	Doctors Hospital Of Nelsonville	Nelsonville	Athens	6
	1291	Dunlap Memorial Hospital	Orrville	Wayne	7
	1127	East Liverpool City Hospital	East Liverpool	Columbiana	10
	1114	East Ohio Regional Hospital	Wheeling	Belmont	6
	1217	EMH Regional Medical Center	Elyria	Lorain	9
	1133	Euclid Hospital	Euclid	Cuyahoga	9
	1167	Fairfield Medical Center	Lancaster	Fairfield	5

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Closed	hospID	HOSPITAL	CITY	COUNTY	EMS REGION
	1145	Fairview Health System	Cleveland Washington Court House	Cuyahoga	9
	1168	Fayette County Memorial Hospital	House	Fayette	5
	1164	Firelands Community Hospital	Sandusky	Erie	4
	1165	Providence Hospital	Sandusky	Erie	4
	1204	Fisher-Titus Medical Center	Norwalk	Huron	4
	1227	Flower Hospital	Sylvania	Lucas	4
	1117	Fort Hamilton-Hughes Memorial Hospital	Hamilton	Butler	1
	1231	Forum Health/Northside Med Center/Tod Children's Hospital	Youngstown	Mahoning	10
	1195	Fostoria Community Hospital	Fostoria	Seneca	4
	1026	Franciscan Hospital – Mt. Airy	Cincinnati	Hamilton	1
	1183	Franciscan Hospital-Western Hills	Cincinnati	Hamilton	1
	1177	Fulton County Health Center	Wauseon	Fulton	4
	1132	Galion Community Hospital	Galion	Crawford	7
	1250	Genesis Healthcare System - Bethesda Hospital	Zanesville	Muskingum	6
	1245	Good Samaritan Hospital & Health Center	Dayton	Montgomery	2
	1251	Good Samaritan Medical Center - Genesis Health	Zanesville	Muskingum	6
	1163	Grady Memorial Hospital	Delaware	Delaware	5
	1246	Grandview Hospital	Dayton	Montgomery	2
	1173	Grant Medical Center	Columbus	Franklin	5
	1817	Greene Memorial Hospital	Xenia	Greene	2
	1200	Greenfield Area Medical Center	Greenfield	Highland	1
	1252	H.B. Magruder Memorial Hospital	Port Clinton	Ottawa	4
	1196	Hardin Memorial Hospital	Kenton	Hardin	3
	1022	Harrison Community Hospital	Cadiz	Harrison	6
	1198	Henry County Hospital	Napoleon	Henry	4
	1199	Highland District Hospital	Hillsboro	Highland	1
	1019	Hillcrest Hospital	Mayfield Heights	Cuyahoga	9
	1201	Hocking Valley Community Hospital	Logan	Hocking	6
	1021	Holzer Medical Center	Gallipolis	Gallia	6
	1438	Holzer Medical Center - Jackson	Jackson	Jackson	6
	1148	Huron Hospital	Cleveland	Cuyahoga	9
	1111	Joint Township District Memorial Hospital	St. Mary's	Auglaize	3
	1017	Kettering Memorial Medical Center	Kettering	Montgomery	2
	1030	Knox Community Hospital	Mount Vernon	Knox	5
	1211	Lake East Hospital	Painesville	Lake	9
	1006	Lake West Hospital	Willoughby	Lake	9
	1134	Lakewood Hospital	Lakewood	Cuyahoga	9
	1213	Licking Memorial Hospital	Newark	Licking	5
	1102	Lima Memorial Hospital	Lima	Allen	3
	1234	Lodi Community Hospital	Lodi	Medina	9
	1218	Lorain Community --St. Joseph's	Lorain	Lorain	9
	1149	Lutheran Hospital	Cleveland	Cuyahoga	9
	1011	Madison County Hospital	London	Madison	5
	1289	Marietta Memorial Hospital	Marietta	Washington	6
	1233	Marion General Hospital	Marion	Marion	5
	1214	Mary Rutan Hospital	Bellefontaine	Logan	3
	1136	Marymount Hospital	Garfield Heights	Cuyahoga	9
	1272	Massillon Community Hospital	Massillon	Stark	7
	1119	Mc Cullough-Hyde Memorial Hospital, Inc.	Oxford	Butler	1
	1131	Med. Central Health Syst. - Crestline	Crestline	Crawford	7
	1259	Med. Central Health Syst./ Shelby Hospital	Shelby	Richland	7

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Closed	hospID	HOSPITAL	CITY	COUNTY	EMS REGION
	1257	Med Central Health System - Mansfield	Mansfield	Richland	7
	1228	Medical College Hospitals	Toledo	Lucas	4
	1236	Medina General Hospital	Medina	Medina	9
	1263	Memorial Hospital Fremont	Fremont	Sandusky	4
	1108	Memorial Hospital Geneva	Geneva	Ashtabula	10
	1286	Memorial Hospital Of Union County	Marysville	Union	5
	1240	Mercer County Joint Twp. Community Hospital	Coldwater	Mercer	3
	1193	Mercy Hospital -- Anderson	Cincinnati	Hamilton	1
	1205	Mercy Hospital -- Willard	Willard	Huron	4
6/1/02	1118	Mercy Hospital Hamilton/Fairfield	Hamilton	Butler	1
	1033	Mercy Hospital Of Fairfield	Fairfield	Butler	1
	1267	Mercy Hospital Of Tiffin	Tiffin	Seneca	4
	1271	Mercy Medical Center - Canton	Canton	Stark	7
	1123	Mercy Medical Center -- Springfield	Springfield	Clark	2
	1121	Mercy Memorial Hospital	Urbana	Champaign	2
	1150	MetroHealth Medical Center	Cleveland	Cuyahoga	9
	1247	Miami Valley Hospital	Dayton	Montgomery	2
	1116	Middletown Regional Hospital	Middletown	Butler	1
	1249	Morrow County Hospital	Mt. Gilead	Morrow	5
	1027	Mount Carmel East Hospital	Columbus	Franklin	5
	1175	Mount Carmel West	Columbus	Franklin	5
	1606	Mt. Carmel St. Ann's Hospital	Westerville	Franklin	5
	1109	O'Bleness Memorial Hospital	Athens	Athens	6
	1171	Ohio State University Medical Center	Columbus	Franklin	5
	1170	OSU East	Columbus	Franklin	5
	1007	Parma Community General	Parma	Cuyahoga	9
	1253	Paulding County Hospital	Paulding	Paulding	3
	1299	Pike Community Hospital	Waverly	Pike	5
	1202	Pomerene Hospital	Millersburg	Holmes	7
	1008	Richmond Heights Hospital	Richmond Hgts	Cuyahoga	9
1/27/01	1212	River Valley Health System	Ironton	Lawrence	6
8/26/02	1222	Riverside Mercy Hospital	Toledo	Lucas	4
	1005	Riverside Methodist Hospital	Columbus	Franklin	5
	1255	Robinson Memorial Hospital	Ravenna	Portage	8
	1125	Salem Community Hospital	Salem	Columbiana	10
	1104	Samaritan Regional Health System	Ashland	Ashland	7
	1288	Selby General Hospital	Marietta	Washington	6
	1297	South Pointe Hospital	Warrensville Hgts	Cuyahoga	9
	1181	Southeastern Ohio Regional Medical Center	Cambridge	Guernsey	6
	1264	Southern Ohio Medical Center	Portsmouth	Scioto	5
	1035	Southview Hospital & Family Health Center	Dayton	Montgomery	2
	1140	Southwest General Health Center	Middleburg Hgs.	Cuyahoga	9
	1223	St. Charles Mercy Hospital	Oregon	Lucas	4
	1230	St. Elizabeth Health Center	Youngstown	Mahoning	10
	1034	St. John West Shore Hospital	Westlake	Cuyahoga	9
	1000	St. Joseph Health Center	Warren	Trumbull	10
	1224	St. Luke's Hospital	Maumee	Lucas	4
1/1/00	1154	St. Luke's Medical Center	Cleveland	Cuyahoga	9
	1158	St. Michael Hospital	Cleveland	Cuyahoga	9
	1103	St. Rita's Medical Center	Lima	Allen	3
	1155	St. Vincent Charity	Cleveland	Cuyahoga	9
	1225	St. Vincent Mercy Hospital	Toledo	Lucas	4

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Closed	hospID	HOSPITAL	CITY	COUNTY	EMS REGION
	1031	Sycamore Hospital	Miamisburg	Montgomery	2
	1261	The Bellevue Hospital	Bellevue	Sandusky	4
	1411	The Children's Medical Center	Dayton	Montgomery	2
	1187	The Christ Hospital	Cincinnati	Hamilton	1
	1226	The Toledo Hospital	Toledo	Lucas	4
	1189	The University Hospital, Cincinnati	Cincinnati	Hamilton	1
	1441	Three Gables Surgery Center	Procterville	Lawrence	6
	1191	Tri-Health Good Samaritan Hospital	Cincinnati	Hamilton	1
	1208	Trinity Medical Center-East	Steubenville	Jefferson	6
	1004	Trinity Medical Center-West	Steubenville	Jefferson	6
	1283	Trumbull Memorial Hospital	Warren	Trumbull	10
	1284	Twin City Hospital	Dennison	Tuscarawas	7
	1141	UHHS Bedford Medical Center	Bedford	Cuyahoga	9
	1001	UHHS Geauga Regional Hospital	Chardon	Gauga	9
	1142	UHHS Rainbow Babies and Children's Hospital	Cleveland	Cuyahoga	9
	1285	Union Hospital	Dover	Tuscarawas	7
	1242	Upper Valley Medical Center	Troy	Miami	2
	1287	Van Wert County Hospital	Van Wert	Van Wert	3
	1235	Wadsworth-Rittman Hospital	Wadsworth	Medina	9
	1159	Wayne Hospital	Greenville	Darke	2
	1268	Wilson Hospital	Sidney	Shelby	2
	1295	Wood County Hospital	Bowling Green	Wood	4
	1292	Wooster Community Hospital	Wooster	Wayne	7
	1296	Wyandot Memorial Hospital	Upper Sandusky	Wyandot	5

Eligible Hospitals – Hospitals registered with the Ohio Department of Health as an acute care general hospital (adult or pediatric)

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APPENDIX F:

OTR 1999 - 2002 DATA POINT LIST	2003 OTR DATA POINT LIST
<u>DEMOGRAPHICS</u> Hospital Code Patient Identifier Medical Record Number Date Exported Zip Code of Residence Patient's Date of Birth Gender Race/Ethnicity Work Relatedness of Injury Safety Equipment Site at Which Injury Occurred E-Code - Description of Injury Date Injury Occurred State in Which Injury Occurred County in Which Injury Occurred	<u>DEMOGRAPHICS</u> Hospital Code Unique Patient Admission Number Date Exported Zip Code of Residence Patient's Date of Birth Gender Race/Ethnicity Work Relatedness of Injury Safety Equipment Site at Which Injury Occurred E-Code - Description of Injury Date Injury Occurred State in Which Injury Occurred County in Which Injury Occurred
<u>EMS</u> Glasgow Eye Component at Scene Glasgow Verbal Component at Scene Glasgow Motor Component at Scene GCS Assessment Qualifier at Scene Intubated - Scene CPR - Scene MAST - Scene Fluids- Scene Chest Decompression - Scene Thoracentesis/Thoracostomy - Scene Spinal Immobilization - Scene	<u>EMS</u> EMS Run Sheet Present Adult EMS Field Trauma Triage Criteria Pediatric EMS Field Trauma Triage Criteria Glasgow Eye Component at Scene Glasgow Verbal Component at Scene Glasgow Motor Component at Scene GCS Assessment Qualifier at Scene Intubated - Scene EMS CPR - Scene Fluids- Scene Needle/Thoracostomy Chest Decompression - Scene Spinal Immobilization - Scene
<u>EMERGENCY DEPARTMENT</u> ED Arrival Date ED Arrival Time Systolic Blood Pressure (First) Respiratory Rate (Unassisted) Injury Type First Glasgow Eye Component in ED First Glasgow Verbal Component in ED First Glasgow Motor Component in ED First GCS Assessment Qualifier in ED Alcohol Present Drugs Present Drug Category ED Disposition ED Transfer to Hospital ED Transfer Date ED Transfer Time First Temperature in ED Endotracheal Intubation in ED CPR – ED MAST - ED	<u>EMERGENCY DEPARTMENT</u> Hospital Arrival Source Transfer from Hospital Hospital Arrival Date Hospital Arrival Time Systolic Blood Pressure (First) Respiratory Rate (Unassisted) Injury Type First Glasgow Eye Component in Hospital First Glasgow Verbal Component in Hospital First Glasgow Motor Component in Hospital First GCS Assessment Qualifier in Hospital Alcohol Level Range Drug Category ED Disposition ED Transfer to Hospital ED Transfer Date ED Transfer Time First Temperature in Hospital Endotracheal Intubation in ED Chest Compressions – ED (usually indicated as

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Fluids - ED Chest Decompression - ED Thoracentesis/Thoracostomy - ED Spinal Immobilization - ED Head CT Results - ED Abdominal Evaluation - ED	CPR) Needle or Tube Thoracostomy Chest Decompression - ED Spinal Immobilization Initiated- ED Head CT Results - ED Abdominal Evaluation - ED
<u>INPATIENT COURSE</u> Admitting Specialty Total Days in ICU Ventilator Support Days ICD-9-CM Diagnosis Codes Complications Pre-existing Comorbidity Factors	<u>INPATIENT COURSE</u> Admitting Specialty Total Days in ICU Ventilator Support Days ICD-9-CM Principal Diagnosis Code Additional ICD-9-CM Diagnosis Codes/Description for Injuries AIS Severity Score - Hospital Assigned AIS Full Injury Description Code - Hospital Assigned ISS Injury Severity Score - Hospital Assigned Complications Pre-existing Comorbidity Factors
<u>OR VISITS</u> OR Date OR Time ICD-9 Codes for OR Visit	<u>OR VISITS</u> OR Date OR Time ICD-9 Codes for OR Visit
<u>DISABILITY ASSESSMENT- DISCHARGE</u> Self Feeding Score Upon Discharge Status of self-feeding Score Locomotion Score Upon Discharge Status of locomotion score Expression Score Upon Discharge Status of expression score Discharge Disposition Transfer to Other Hospital Date of Discharge or Death Discharge Status Billed Hospital Charges Principal Payment Source Length of Stay in Hospital Organs/Tissue Requested Organs/Tissue Granted Organs/Tissue Taken Autopsy Performed	<u>DISABILITY ASSESSMENT- DISCHARGE</u> Disability Assessment - self-feeding Disability Assessment - locomotion Disability Assessment - expression Discharge Disposition Transfer to Other Hospital Date of Discharge or Death Discharge Status Billed Hospital Charges Principal Payment Source Length of Stay in Hospital Organs/Tissue Requested Organs/Tissue Granted Organs/Tissue Taken Autopsy Performed

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APPENDIX G: Glossary

AIS - Abbreviated Injury Score – A system of classification of injuries by severity and body region. The AIS is used to calculate an injury severity score.

BARELL MATRIX - A system of classification of injury by body region and the nature of the injury.

CDC - Centers for Disease Control and Prevention

DOA - Dead on Arrival

E-CODE - External Cause of Injury Code

ED - Emergency Department

EMS - Emergency Medical Services

EMSIRS - Emergency Medical Services Incident Reporting System

FLOOR - A general medical surgical room or bed in a hospital. Generally advanced patient monitoring is not performed on a floor bed.

GSW - Gunshot Wound

ICD-9-CM - International Classification of Disease, 9th Revision, Clinical Modification.

ICU - Intensive Care Unit

INTENT - The intention of causing harm or injury to another human being.

ISS - Injury Severity Score. A system for scoring the overall severity of injuries. Ranging from 1 to 75. An ISS of greater than 15 is generally considered a severe injury

LOS - Length of Stay

MCC - Motorcycle Crash

MOI - Mechanism of Injury

MVC - Motor Vehicle Crash

NTDB - National Trauma Data Bank. A trauma database operated by the American College of Surgeons

OBSERVATION - A level of hospital care most frequently utilized for lower acuity, short stays, or during an intermediate period while a decision is being made to admit or release the patient.

OR - Operating Room

OTR - Ohio Trauma Registry

OUTCOME - Used to describe the patients outcome, alive or dead.

STEP-DOWN - An intermediate level of care between the “floor” and the ICU.

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APPENDIX H OHIO REVISED CODE

§ 4765.06. Incidence reporting system for collecting information on delivery and frequency of services; trauma registries; confidentiality of information.

(A) The state board of emergency medical services shall establish an emergency medical services incidence reporting system for the collection of information regarding the delivery of emergency medical services in this state and the frequency at which the services are provided. All emergency medical service organizations shall submit to the board any information that the board determines is necessary for maintaining the incidence reporting system

(B) The board shall establish a state trauma registry to be used for the collection of information regarding the care of adult and pediatric trauma victims in this state. The registry shall provide for the reporting of adult and pediatric trauma-related deaths, identification of adult and pediatric trauma patients, monitoring of adult and pediatric trauma patient care data, determination of the total amount of uncompensated adult and pediatric trauma care provided annually by each facility that provides care to trauma victims, and collection of any other information specified by the board. All persons designated by the board shall submit to the board any information it determines is necessary for maintaining the state trauma registry. At the request of the board any state agency possessing information regarding adult or pediatric trauma care shall provide the information to the board. The board shall maintain the state trauma registry in accordance with rules adopted under [section 4765.11](#) of the Revised Code.

Rules relating to the state trauma registry adopted under this section and [section 4765.11](#) of the Revised Code shall not prohibit the operation of other trauma registries and may provide for the reporting of information to the state trauma registry by or through other trauma registries in a manner consistent with information otherwise reported to the state trauma registry. Other trauma registries may report aggregate information to the state trauma registry, provided the information can be matched to the person that reported it. Information maintained by another trauma registry and reported to the state trauma registry in lieu of being reported directly to the state trauma registry is a public record and shall be maintained, made available to the public, held in confidence, risk adjusted, and not subject to discovery or introduction into evidence in a civil action as provided in [section 149.43](#) of the Revised Code and this section. Any person who provides, maintains, or risk adjusts such information shall comply with this section and rules adopted under it in performing that function and has the same immunities with respect to that function as a person who performs that function with respect to the state trauma registry.

(C) The board and any employee or contractor of the board or the department of public safety shall not make public information it receives under [Chapter 4765](#), of the Revised Code that identifies or would tend to identify a specific recipient of emergency medical services or adult or pediatric trauma care

(D) Not later than two years after the effective date of this amendment, the board shall adopt and implement rules under [section 4765.11](#) of the Revised Code that provide written standards and procedures for risk adjustment of information received by the board under [Chapter 4765](#), of the Revised Code. The rules shall be developed in consultation with appropriate medical, hospital, and emergency medical service organizations and may provide for risk adjustment by a contractor of the board. Before risk adjustment standards and procedures are implemented, no member of the board and no employee or contractor of the board or the department of public safety shall make public information received by the board under [Chapter 4765](#), of the Revised Code that identifies or would tend to identify a specific provider of emergency medical services or adult or pediatric trauma care. After risk adjustment standards and procedures are implemented, the board shall make public such information only on a risk adjusted basis.

(E) The board shall adopt rules under [section 4765.11](#) of the Revised Code that specify procedures for ensuring the confidentiality of information that is not to be made public under this section. The rules shall

specify the circumstances in which deliberations of the persons performing risk adjustment functions under this section are not open to the public and records of those deliberations are maintained in confidence. Nothing in this section prohibits the board from making public statistical information that does not identify or tend to identify a specific recipient or provider of emergency medical services or adult or pediatric trauma care.

(F) No provider that furnishes information to the board with respect to any patient the provider examined or treated shall, because of this furnishing, be deemed liable in damages to any person or be held to answer for betrayal of a professional confidence in the absence of willful or wanton misconduct. No such information shall be subject to introduction in evidence in any civil action against the provider. No provider that furnishes information to the board shall be liable for the misuse or improper release of the information by the board or any other person.

No person who performs risk adjustment functions under this section shall, because of performing such functions, be held liable in a civil action for betrayal of professional confidence or otherwise in the absence of willful or wanton misconduct.

HISTORY: 144 v S 98 (Eff 11-12-92); 148 v H 138. Eff 11-3-2000

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APPENDIX I Details of “OTHER” CATEGORIES**TOP TEN MECHANISMS OF INJURY – Detail of “Other”**

ECODE	Description	Count
E8000	Railway Accident	4
E8001	Railway Accident	3
E8009	Railway Accident	1
E8020	Railway Accident	1
E805	Railway Accident	1
E806	Railway Accident	1
E810	Railway Accident	17
E811	MVC involving re-entrant collision with another motor vehicle	4
E813	MVC involving collision with another other vehicle	86
E8134	MVC involving collision with another other vehicle	1
E8135	MVC involving collision with another other vehicle	5
E8138	MVC involving collision with another other vehicle	4
E814	MVC involving collision with pedestrian	3
E8148	MVC involving collision with pedestrian	3
E817	Non-collision motor vehicle traffic accident while boarding or alighting	10
E8178	Non-collision motor vehicle traffic accident while boarding or alighting	2
E818	Other non-collision motor vehicle traffic accident	34
E8188	Other non-collision motor vehicle traffic accident	18
E819	Motor vehicle traffic accident of unspecified nature	178
E8191	Motor vehicle traffic accident of unspecified nature	120
E8194	Motor vehicle traffic accident of unspecified nature	1
E8198	Motor vehicle traffic accident of unspecified nature	2
E820	Non-traffic accident involving motor-driven snow vehicle	20
E8201	Non-traffic accident involving motor-driven snow vehicle	4
E8208	Non-traffic accident involving motor-driven snow vehicle	1
E8209	Non-traffic accident involving motor-driven snow vehicle	3
E821	Non-traffic accident involving other off-road motor vehicle	299
E8210	Non-traffic accident involving other off-road motor vehicle	16
E8211	Non-traffic accident involving other off-road motor vehicle	43
E8212	Non-traffic accident involving other off-road motor vehicle	121
E8213	Non-traffic accident involving other off-road motor vehicle	6
E8218	Non-traffic accident involving other off-road motor vehicle	12
E8219	Non-traffic accident involving other off-road motor vehicle	15
E822	Other motor vehicle non-traffic accident involving collision with moving object	5
E8221	Other motor vehicle non-traffic accident involving collision with moving object	2
E8223	Other motor vehicle non-traffic accident involving collision with moving object	1
E8228	Other motor vehicle non-traffic accident involving collision with moving object	1
E823	Other motor vehicle non-traffic accident involving collision with stationary object	126
E8230	Other motor vehicle non-traffic accident involving collision with stationary object	3
E8231	Other motor vehicle non-traffic accident involving collision with stationary object	30
E8232	Other motor vehicle non-traffic accident involving collision with stationary object	11
E8238	Other motor vehicle non-traffic accident involving collision with stationary object	1
E8239	Other motor vehicle non-traffic accident involving collision with stationary object	2
E824	Other motor vehicle non-traffic accident while boarding and alighting	12
E8240	Other motor vehicle non-traffic accident while boarding and alighting	1
E8241	Other motor vehicle non-traffic accident while boarding and alighting	18
E8242	Other motor vehicle non-traffic accident while boarding and alighting	2

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E8244	Other motor vehicle non-traffic accident while boarding and alighting	1
E8248	Other motor vehicle non-traffic accident while boarding and alighting	3
E8249	Other motor vehicle non-traffic accident while boarding and alighting	7
E825	Other motor vehicle non-traffic accident of other and unspecified nature	23
E8250	Other motor vehicle non-traffic accident of other and unspecified nature	3
E8251	Other motor vehicle non-traffic accident of other and unspecified nature	12
E8252	Other motor vehicle non-traffic accident of other and unspecified nature	25
E8258	Other motor vehicle non-traffic accident of other and unspecified nature	12
E8259	Other motor vehicle non-traffic accident of other and unspecified nature	5
E826	Pedal cycle accident	7
E8268	Pedal cycle accident	4
E827	Animal-drawn vehicle accident	1
E8272	Animal-drawn vehicle accident	1
E8273	Animal-drawn vehicle accident	9
E828	Accident involving animal being ridden	3
E8282	Accident involving animal being ridden	108
E8288	Accident involving animal being ridden	3
E829	Other road vehicle accidents	1
E8298	Other road vehicle accidents	14
E8299	Other road vehicle accidents	3
E830	Accident to watercraft causing submersion	4
E831	Accident to watercraft causing other injury	1
E8311	Accident to watercraft causing other injury	3
E8312	Accident to watercraft causing other injury	1
E8313	Accident to watercraft causing other injury	5
E8314	Accident to watercraft causing other injury	2
E8318	Accident to watercraft causing other injury	1
E832	Other accidental submersion or drowning in water transport accident	1
E8323	Other accidental submersion or drowning in water transport accident	1
E8331	Fall on stairs or ladders in water transport	1
E8333	Fall on stairs or ladders in water transport	1
E8342	Other fall from one level to another in water transport	1
E8343	Other fall from one level to another in water transport	1
E835	Other and unspecified fall in water transport	1
E8351	Other and unspecified fall in water transport	3
E8378	Explosion, fire or burning in watercraft	1
E8381	Other and unspecified water transport accident	2
E8382	Other and unspecified water transport accident	1
E8383	Other and unspecified water transport accident	3
E8384	Other and unspecified water transport accident	2
E8388	Other and unspecified water transport accident	3
E8405	Accident to powered aircraft at takeoff or landing	4
E8409	Accident to powered aircraft at takeoff or landing	1
E8412	Accident to powered aircraft, other and unspecified	1
E8413	Accident to powered aircraft, other and unspecified	1
E8414	Accident to powered aircraft, other and unspecified	1
E8415	Accident to powered aircraft, other and unspecified	1
E8426	Accident to unpowered aircraft	4
E8432	Fall in, on or from aircraft	1
E8445	Other specified air transport accidents	1
E8447	Other specified air transport accidents	4

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E846	Accidents involving powered vehicles used solely within the buildings and premises of industrial or commercial establishment	3
E847	Accidents involving cable cars not running on rails	1
E848	Accidents involving other vehicles, not elsewhere classifiable	15
E849	Place of occurrence	13
E8490	Place of occurrence - Home	25
E8493	Place of occurrence - Industrial place and premises	5
E8494	Place of occurrence - Place for recreation and sport	4
E8495	Place of occurrence - Street and highway	4
E8496	Place of occurrence - Public building	2
E8497	Place of occurrence - Residential institution	8
E8498	Place of occurrence - Other specified places	1
E8499	Place of occurrence - Unspecified place	2
E901	Excessive cold	13
E9010	Excessive cold	6
E9011	Excessive cold	1
E9018	Excessive cold	1
E9019	Excessive cold	2
E904	Hunger, thirst, exposure, and neglect	1
E906	Other injury caused by animals	89
E9060	Other injury caused by animals - Dog Bite	9
E9061	Other injury caused by animals - Rat Bite	1
E9063	Other injury caused by animals - Bite of other animal except arthropod	45
E9068	Other injury caused by animals - Other specified injury caused by animal	59
E9069	Other injury caused by animals - Unspecified injury caused by animal	3
E907	Lightning	8
E9081	Cataclysmic storms, and floods resulting from storms	1
E9083	Cataclysmic storms, and floods resulting from storms	1
E9093	Cataclysmic earth surface movements and eruptions	1
E910	Accidental drowning and submersion	1
E9101	Accidental drowning and submersion	1
E9102	Accidental drowning and submersion	5
E9104	Accidental drowning and submersion	9
E9108	Accidental drowning and submersion	30
E9109	Accidental drowning and submersion	2
E912	Inhalation and ingestion of other object causing obstruction of respiratory tract or suffocation	2
E913	Accidental mechanical suffocation	2
E9133	Accidental mechanical suffocation	1
E9138	Accidental mechanical suffocation	7
E9139	Accidental mechanical suffocation	3
E914	Foreign body accidentally entering eye and adnexa	3
E915	Foreign body accidentally entering other orifice	3
E916	Struck accidentally by falling object	214
E917	Striking against or struck accidentally by objects or persons	185
E9170	Striking against or struck accidentally by objects or persons	12
E9172	Striking against or struck accidentally by objects or persons	1
E9173	Striking against or struck accidentally by objects or persons	18
E9174	Striking against or struck accidentally by objects or persons	50
E9175	Striking against or struck accidentally by objects or persons	70
E9176	Striking against or struck accidentally by objects or persons	3
E9177	Striking against or struck accidentally by objects or persons	7

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E9178	Striking against or struck accidentally by objects or persons	24
E9179	Striking against or struck accidentally by objects or persons	251
E918	Caught accidentally in or between objects	111
E920	Accidents caused by cutting and piercing instruments or objects	35
E9200	Accidents caused by cutting and piercing instruments or objects	3
E9201	Accidents caused by cutting and piercing instruments or objects	48
E9202	Accidents caused by cutting and piercing instruments or objects	3
E9203	Accidents caused by cutting and piercing instruments or objects	27
E9204	Accidents caused by cutting and piercing instruments or objects	20
E9205	Accidents caused by cutting and piercing instruments or objects	2
E9208	Accidents caused by cutting and piercing instruments or objects	120
E9209	Accidents caused by cutting and piercing instruments or objects	9
E9211	Accident caused by explosion of pressure vessel	2
E9218	Accident caused by explosion of pressure vessel	9
E9219	Accident caused by explosion of pressure vessel	3
E923	Accident caused by explosive material	15
E9230	Accident caused by explosive material	2
E9231	Accident caused by explosive material	3
E9232	Accident caused by explosive material	34
E9238	Accident caused by explosive material	7
E9239	Accident caused by explosive material	15
E925	Accident caused by electric current	9
E9250	Accident caused by electric current	2
E9251	Accident caused by electric current	4
E9252	Accident caused by electric current	9
E9258	Accident caused by electric current	6
E9259	Accident caused by electric current	11
E9261	Exposure to radiation	1
E927	Overexertion and strenuous movements	139
E928	Other and unspecified environmental and accidental causes.	1
E9283	Other and unspecified environmental and accidental causes.	7
E9288	Other and unspecified environmental and accidental causes.	64
E9289	Other and unspecified environmental and accidental causes.	109
E950	Suicide and self-inflicted poisoning by solid or liquid substances	4
E9503	Suicide and self-inflicted poisoning by solid or liquid substances	4
E9504	Suicide and self-inflicted poisoning by solid or liquid substances	2
E9505	Suicide and self-inflicted poisoning by solid or liquid substances	1
E9507	Suicide and self-inflicted poisoning by solid or liquid substances	1
E9509	Suicide and self-inflicted poisoning by solid or liquid substances	1
E9511	Suicide and self-inflicted poisoning by gases in domestic use	2
E953	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	42
E9530	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	1
E9538	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	1
E9539	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	2
E954	Suicide and self-inflicted injury by submersion [drowning]	2
E955	Suicide and self-inflicted injury by firearms, air guns and explosives	49
E9559	Suicide and self-inflicted injury by firearms, air guns and explosives	4
E958	Suicide and self-inflicted injury by other and unspecified means	4
E9580	Suicide and self-inflicted injury by other and unspecified means	1
E9588	Suicide and self-inflicted injury by other and unspecified means	5
E9589	Suicide and self-inflicted injury by other and unspecified means	7
E973	Injury due to legal intervention by blunt object	3

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E975	Injury due to legal intervention by other specified means	8
E976	Injury due to legal intervention by unspecified means	4
E983	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	3
E9830	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	1
E9838	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	1
E984	Submersion [drowning], undetermined whether accidentally or purposely inflicted	4
E985	Injury by firearms, air guns and explosives, undetermined whether accidentally or purposely inflicted	7
E986	Injury by cutting and piercing instruments, undetermined whether accidentally or purposely inflicted	5
E9881	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	2
E9882	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	2
E9886	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	1
E9888	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	7
E9889	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	28
E9912	Injury due to war operations by bullets and fragments	1
E9972	Injury due to war operations by other forms of unconventional warfare	1
		3,826

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TEN MECHANISM OF INJURY DEATHS - Detail of "Other"

ECODE	ECODE Description	Count
E813	MVC involving collision with another other vehicle	1
E8138	MVC involving collision with another other vehicle	2
E814	MVC involving collision with pedestrian	1
E8148	MVC involving collision with pedestrian	1
E818	Other non-collision motor vehicle traffic accident	1
E819	Motor vehicle traffic accident of unspecified nature	10
E8191	Motor vehicle traffic accident of unspecified nature	4
E820	Non-traffic accident involving motor-driven snow vehicle	1
E821	Non-traffic accident involving other off-road motor vehicle	3
E8211	Non-traffic accident involving other off-road motor vehicle	1
E8218	Non-traffic accident involving other off-road motor vehicle	1
E8219	Non-traffic accident involving other off-road motor vehicle	1
E823	Other motor vehicle non-traffic accident involving collision with stationary object	7
E8231	Other motor vehicle non-traffic accident involving collision with stationary object	5
E8232	Other motor vehicle non-traffic accident involving collision with stationary object	1
E8241	Other motor vehicle non-traffic accident while boarding and alighting	1
E825	Other motor vehicle non-traffic accident of other and unspecified nature	2
E8258	Other motor vehicle non-traffic accident of other and unspecified nature	1
E8268	Pedal cycle accident	1
E8282	Accident involving animal being ridden	2
E830	Accident to watercraft causing submersion	1
E832	Other accidental submersion or drowning in water transport accident	1
E8323	Other accidental submersion or drowning in water transport accident	1
E8409	Accident to powered aircraft at takeoff or landing	1
E8412	Accident to powered aircraft, other and unspecified	1
E8426	Accident to unpowered aircraft	1
E848	Accidents involving other vehicles, not elsewhere classifiable	1
E849	Place of occurrence	1
E8495	Place of occurrence - Street and highway	1
E8497	Place of occurrence - Residential institution	1
E8498	Place of occurrence - Other specified places	1
E901	Excessive cold	1
E9018	Excessive cold	1
E9019	Excessive cold	1
E906	Other injury caused by animals	1
E9068	Other injury caused by animals - Other specified injury caused by animal	2
E907	Lightning	1
E910	Accidental drowning and submersion	1
E9104	Accidental drowning and submersion	4
E9108	Accidental drowning and submersion	15
E9109	Accidental drowning and submersion	1
E913	Accidental mechanical suffocation	2
E9138	Accidental mechanical suffocation	3
E9139	Accidental mechanical suffocation	2
E916	Struck accidentally by falling object	10
E9174	Striking against or struck accidentally by objects or persons	1
E9179	Striking against or struck accidentally by objects or persons	5
E918	Caught accidentally in or between objects	1
E920	Accidents caused by cutting and piercing instruments or objects	1

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E9208	Accidents caused by cutting and piercing instruments or objects	1
E923	Accident caused by explosive material	1
E9232	Accident caused by explosive material	3
E9238	Accident caused by explosive material	1
E9239	Accident caused by explosive material	3
E9250	Accident caused by electric current	1
E9252	Accident caused by electric current	3
E9259	Accident caused by electric current	1
E927	Overexertion and strenuous movements	1
E9289	Other and unspecified environmental and accidental causes.	4
E9511	Suicide and self-inflicted poisoning by gases in domestic use	2
E953	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	13
E9530	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	1
E954	Suicide and self-inflicted injury by submersion [drowning]	1
E955	Suicide and self-inflicted injury by firearms, air guns and explosives	27
E9559	Suicide and self-inflicted injury by firearms, air guns and explosives	1
E976	Injury due to legal intervention by unspecified means	1
E983	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	1
E9830	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	1
E9886	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	1
E9888	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	1
E9889	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	4
		184

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HOSPITAL LENGTH OF STAY FOR TOP TEN MECHANISMS OF INJURY – Detail of “Other”

ECODE		LOS
E8000	Railway Accident	35
E8001	Railway Accident	11
E8009	Railway Accident	2
E8020	Railway Accident	3
E805	Railway Accident	4
E806	Railway Accident	4
E810	Railway Accident	125
E811	MVC involving re-entrant collision with another motor vehicle	20
E813	MVC involving collision with another other vehicle	708
E8134	MVC involving collision with another other vehicle	7
E8135	MVC involving collision with another other vehicle	23
E8138	MVC involving collision with another other vehicle	12
E814	MVC involving collision with pedestrian	8
E8148	MVC involving collision with pedestrian	6
E817	Non-collision motor vehicle traffic accident while boarding or alighting	89
E8178	Non-collision motor vehicle traffic accident while boarding or alighting	12
E818	Other non-collision motor vehicle traffic accident	247
E8188	Other non-collision motor vehicle traffic accident	120
E819	Motor vehicle traffic accident of unspecified nature	1,155
E8191	Motor vehicle traffic accident of unspecified nature	652
E8194	Motor vehicle traffic accident of unspecified nature	4
E8198	Motor vehicle traffic accident of unspecified nature	8
E820	Non-traffic accident involving motor-driven snow vehicle	100
E8201	Non-traffic accident involving motor-driven snow vehicle	14
E8208	Non-traffic accident involving motor-driven snow vehicle	9
E8209	Non-traffic accident involving motor-driven snow vehicle	13
E821	Non-traffic accident involving other off-road motor vehicle	1,614
E8210	Non-traffic accident involving other off-road motor vehicle	75
E8211	Non-traffic accident involving other off-road motor vehicle	248
E8212	Non-traffic accident involving other off-road motor vehicle	552
E8213	Non-traffic accident involving other off-road motor vehicle	25
E8218	Non-traffic accident involving other off-road motor vehicle	105
E8219	Non-traffic accident involving other off-road motor vehicle	59
E822	Other motor vehicle non-traffic accident involving collision with moving object	43
E8221	Other motor vehicle non-traffic accident involving collision with moving object	6
E8223	Other motor vehicle non-traffic accident involving collision with moving object	9
E8228	Other motor vehicle non-traffic accident involving collision with moving object	5
E823	Other motor vehicle non-traffic accident involving collision with stationary object	791
E8230	Other motor vehicle non-traffic accident involving collision with stationary object	14
E8231	Other motor vehicle non-traffic accident involving collision with stationary object	212
E8232	Other motor vehicle non-traffic accident involving collision with stationary object	56
E8238	Other motor vehicle non-traffic accident involving collision with stationary object	4
E8239	Other motor vehicle non-traffic accident involving collision with stationary object	22
E824	Other motor vehicle non-traffic accident while boarding and alighting	60
E8240	Other motor vehicle non-traffic accident while boarding and alighting	9
E8241	Other motor vehicle non-traffic accident while boarding and alighting	123
E8242	Other motor vehicle non-traffic accident while boarding and alighting	10
E8244	Other motor vehicle non-traffic accident while boarding and alighting	4
E8248	Other motor vehicle non-traffic accident while boarding and alighting	19

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E8249	Other motor vehicle non-traffic accident while boarding and alighting	41
E825	Other motor vehicle non-traffic accident of other and unspecified nature	128
E8250	Other motor vehicle non-traffic accident of other and unspecified nature	12
E8251	Other motor vehicle non-traffic accident of other and unspecified nature	72
E8252	Other motor vehicle non-traffic accident of other and unspecified nature	131
E8258	Other motor vehicle non-traffic accident of other and unspecified nature	66
E8259	Other motor vehicle non-traffic accident of other and unspecified nature	32
E826	Pedal cycle accident	24
E8268	Pedal cycle accident	10
E827	Animal-drawn vehicle accident	3
E8272	Animal-drawn vehicle accident	6
E8273	Animal-drawn vehicle accident	57
E828	Accident involving animal being ridden	9
E8282	Accident involving animal being ridden	516
E8288	Accident involving animal being ridden	8
E829	Other road vehicle accidents	20
E8298	Other road vehicle accidents	87
E8299	Other road vehicle accidents	12
E830	Accident to watercraft causing submersion	26
E831	Accident to watercraft causing other injury	5
E8311	Accident to watercraft causing other injury	26
E8312	Accident to watercraft causing other injury	6
E8313	Accident to watercraft causing other injury	26
E8314	Accident to watercraft causing other injury	21
E8318	Accident to watercraft causing other injury	3
E832	Other accidental submersion or drowning in water transport accident	1
E8323	Other accidental submersion or drowning in water transport accident	1
E8331	Fall on stairs or ladders in water transport	4
E8333	Fall on stairs or ladders in water transport	2
E8342	Other fall from one level to another in water transport	6
E8343	Other fall from one level to another in water transport	2
E835	Other and unspecified fall in water transport	4
E8351	Other and unspecified fall in water transport	17
E8378	Explosion, fire or burning in watercraft	10
E8381	Other and unspecified water transport accident	7
E8382	Other and unspecified water transport accident	4
E8383	Other and unspecified water transport accident	23
E8384	Other and unspecified water transport accident	15
E8388	Other and unspecified water transport accident	15
E8405	Accident to powered aircraft at takeoff or landing	38
E8409	Accident to powered aircraft at takeoff or landing	2
E8412	Accident to powered aircraft, other and unspecified	1
E8413	Accident to powered aircraft, other and unspecified	3
E8414	Accident to powered aircraft, other and unspecified	6
E8415	Accident to powered aircraft, other and unspecified	15
E8426	Accident to unpowered aircraft	17
E8432	Fall in, on or from aircraft	4
E8445	Other specified air transport accidents	8
E8447	Other specified air transport accidents	50
E846	Accidents involving powered vehicles used solely within the buildings and premises of industrial or commercial establishment	12
E847	Accidents involving cable cars not running on rails	7

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E848	Accidents involving other vehicles, not elsewhere classifiable	68
E849	Place of occurrence	93
E8490	Place of occurrence - Home	135
E8493	Place of occurrence - Industrial place and premises	44
E8494	Place of occurrence - Place for recreation and sport	19
E8495	Place of occurrence - Street and highway	12
E8496	Place of occurrence - Public building	17
E8497	Place of occurrence - Residential institution	43
E8498	Place of occurrence - Other specified places	1
E8499	Place of occurrence - Unspecified place	8
E901	Excessive cold	95
E9010	Excessive cold	30
E9011	Excessive cold	4
E9018	Excessive cold	19
E9019	Excessive cold	40
E904	Hunger, thirst, exposure, and neglect	5
E906	Other injury caused by animals	374
E9060	Other injury caused by animals - Dog Bite	60
E9061	Other injury caused by animals - Rat Bite	4
E9063	Other injury caused by animals - Bite of other animal except arthropod	176
E9068	Other injury caused by animals - Other specified injury caused by animal	274
E9069	Other injury caused by animals - Unspecified injury caused by animal	8
E907	Lightning	36
E9081	Cataclysmic storms, and floods resulting from storms	3
E9083	Cataclysmic storms, and floods resulting from storms	7
E9093	Cataclysmic earth surface movements and eruptions	2
E910	Accidental drowning and submersion	1
E9101	Accidental drowning and submersion	3
E9102	Accidental drowning and submersion	25
E9104	Accidental drowning and submersion	57
E9108	Accidental drowning and submersion	90
E9109	Accidental drowning and submersion	3
E912	Inhalation and ingestion of other object causing obstruction of respiratory tract or suffocation	7
E913	Accidental mechanical suffocation	2
E9133	Accidental mechanical suffocation	3
E9138	Accidental mechanical suffocation	25
E9139	Accidental mechanical suffocation	7
E914	Foreign body accidentally entering eye and adnexa	14
E915	Foreign body accidentally entering other orifice	15
E916	Struck accidentally by falling object	1,009
E917	Striking against or struck accidentally by objects or persons	753
E9170	Striking against or struck accidentally by objects or persons	59
E9172	Striking against or struck accidentally by objects or persons	3
E9173	Striking against or struck accidentally by objects or persons	89
E9174	Striking against or struck accidentally by objects or persons	194
E9175	Striking against or struck accidentally by objects or persons	281
E9176	Striking against or struck accidentally by objects or persons	12
E9177	Striking against or struck accidentally by objects or persons	31
E9178	Striking against or struck accidentally by objects or persons	168
E9179	Striking against or struck accidentally by objects or persons	1,212
E918	Caught accidentally in or between objects	581
E920	Accidents caused by cutting and piercing instruments or objects	215

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E9200	Accidents caused by cutting and piercing instruments or objects	9
E9201	Accidents caused by cutting and piercing instruments or objects	190
E9202	Accidents caused by cutting and piercing instruments or objects	6
E9203	Accidents caused by cutting and piercing instruments or objects	115
E9204	Accidents caused by cutting and piercing instruments or objects	71
E9205	Accidents caused by cutting and piercing instruments or objects	9
E9208	Accidents caused by cutting and piercing instruments or objects	505
E9209	Accidents caused by cutting and piercing instruments or objects	37
E9211	Accident caused by explosion of pressure vessel	34
E9218	Accident caused by explosion of pressure vessel	42
E9219	Accident caused by explosion of pressure vessel	42
E923	Accident caused by explosive material	146
E9230	Accident caused by explosive material	3
E9231	Accident caused by explosive material	15
E9232	Accident caused by explosive material	300
E9238	Accident caused by explosive material	126
E9239	Accident caused by explosive material	111
E925	Accident caused by electric current	24
E9250	Accident caused by electric current	3
E9251	Accident caused by electric current	17
E9252	Accident caused by electric current	32
E9258	Accident caused by electric current	28
E9259	Accident caused by electric current	63
E9261	Exposure to radiation	5
E927	Overexertion and strenuous movements	654
E928	Other and unspecified environmental and accidental causes.	3
E9283	Other and unspecified environmental and accidental causes.	32
E9288	Other and unspecified environmental and accidental causes.	380
E9289	Other and unspecified environmental and accidental causes.	633
E950	Suicide and self-inflicted poisoning by solid or liquid substances	28
E9503	Suicide and self-inflicted poisoning by solid or liquid substances	34
E9504	Suicide and self-inflicted poisoning by solid or liquid substances	10
E9505	Suicide and self-inflicted poisoning by solid or liquid substances	11
E9507	Suicide and self-inflicted poisoning by solid or liquid substances	7
E9509	Suicide and self-inflicted poisoning by solid or liquid substances	7
E9511	Suicide and self-inflicted poisoning by gases in domestic use	2
E953	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	262
E9530	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	4
E9538	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	7
E9539	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	17
E954	Suicide and self-inflicted injury by submersion [drowning]	5
E955	Suicide and self-inflicted injury by firearms, air guns and explosives	403
E9559	Suicide and self-inflicted injury by firearms, air guns and explosives	37
E958	Suicide and self-inflicted injury by other and unspecified means	30
E9580	Suicide and self-inflicted injury by other and unspecified means	4
E9588	Suicide and self-inflicted injury by other and unspecified means	29
E9589	Suicide and self-inflicted injury by other and unspecified means	35
E973	Injury due to legal intervention by blunt object	9
E975	Injury due to legal intervention by other specified means	21
E976	Injury due to legal intervention by unspecified means	22
E983	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	6
E9830	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	1

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E9838	Hanging, strangulation, or suffocation, undetermined whether accidentally or purposely inflicted	4
E984	Submersion [drowning], undetermined whether accidentally or purposely inflicted	10
E985	Injury by firearms, air guns and explosives, undetermined whether accidentally or purposely inflicted	44
E986	Injury by cutting and piercing instruments, undetermined whether accidentally or purposely inflicted	15
E9881	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	26
E9882	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	24
E9886	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	1
E9888	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	35
E9889	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	184
E9912	Injury due to war operations by bullets and fragments	2
E9972	Injury due to war operations by other forms of unconventional warfare	5
		20,489

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ICU LENGTH OF STAY FOR TOP TEN MECHANISMS OF INJURY – Detail of “Other”

ECODE	ECODE Description	DAYS in ICU
E8000	Railway Accident	4
E8001	Railway Accident	2
E8020	Railway Accident	1
E806	Railway Accident	1
E810	Railway Accident	45
E811	MVC involving re-entrant collision with another motor vehicle	2
E813	MVC involving collision with another other vehicle	299
E8135	MVC involving collision with another other vehicle	1
E8138	MVC involving collision with another other vehicle	3
E817	Non-collision motor vehicle traffic accident while boarding or alighting	10
E818	Other non-collision motor vehicle traffic accident	74
E8188	Other non-collision motor vehicle traffic accident	53
E819	Motor vehicle traffic accident of unspecified nature	344
E8191	Motor vehicle traffic accident of unspecified nature	125
E8194	Motor vehicle traffic accident of unspecified nature	1
E820	Non-traffic accident involving motor-driven snow vehicle	4
E8201	Non-traffic accident involving motor-driven snow vehicle	3
E821	Non-traffic accident involving other off-road motor vehicle	303
E8210	Non-traffic accident involving other off-road motor vehicle	3
E8211	Non-traffic accident involving other off-road motor vehicle	50
E8212	Non-traffic accident involving other off-road motor vehicle	88
E8213	Non-traffic accident involving other off-road motor vehicle	4
E8218	Non-traffic accident involving other off-road motor vehicle	28
E8219	Non-traffic accident involving other off-road motor vehicle	8
E822	Other motor vehicle non-traffic accident involving collision with moving object	23
E8221	Other motor vehicle non-traffic accident involving collision with moving object	1
E823	Other motor vehicle non-traffic accident involving collision with stationary object	307
E8230	Other motor vehicle non-traffic accident involving collision with stationary object	2
E8231	Other motor vehicle non-traffic accident involving collision with stationary object	79
E8232	Other motor vehicle non-traffic accident involving collision with stationary object	7
E824	Other motor vehicle non-traffic accident while boarding and alighting	1
E8241	Other motor vehicle non-traffic accident while boarding and alighting	48
E825	Other motor vehicle non-traffic accident of other and unspecified nature	6
E8251	Other motor vehicle non-traffic accident of other and unspecified nature	5
E8252	Other motor vehicle non-traffic accident of other and unspecified nature	3
E8258	Other motor vehicle non-traffic accident of other and unspecified nature	5
E8259	Other motor vehicle non-traffic accident of other and unspecified nature	6
E826	Pedal cycle accident	5
E8268	Pedal cycle accident	1
E8273	Animal-drawn vehicle accident	18
E828	Accident involving animal being ridden	1
E8282	Accident involving animal being ridden	84
E829	Other road vehicle accidents	3
E8298	Other road vehicle accidents	23
E830	Accident to watercraft causing submersion	9
E831	Accident to watercraft causing other injury	2
E8343	Other fall from one level to another in water transport	1
E8382	Other and unspecified water transport accident	2

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E8388	Other and unspecified water transport accident	1
E8405	Accident to powered aircraft at takeoff or landing	15
E8409	Accident to powered aircraft at takeoff or landing	1
E8414	Accident to powered aircraft, other and unspecified	4
E8415	Accident to powered aircraft, other and unspecified	5
E8447	Other specified air transport accidents	35
E848	Accidents involving other vehicles, not elsewhere classifiable	12
E849	Place of occurrence	14
E8493	Place of occurrence - Industrial place and premises	10
E8494	Place of occurrence - Place for recreation and sport	5
E8496	Place of occurrence - Public building	6
E8497	Place of occurrence - Residential institution	3
E9010	Excessive cold	11
E9018	Excessive cold	18
E904	Hunger, thirst, exposure, and neglect	3
E906	Other injury caused by animals	49
E9068	Other injury caused by animals - Other specified injury caused by animal	71
E907	Lightning	6
E9102	Accidental drowning and submersion	1
E9104	Accidental drowning and submersion	20
E9108	Accidental drowning and submersion	47
E9138	Accidental mechanical suffocation	6
E915	Foreign body accidentally entering other orifice	5
E916	Struck accidentally by falling object	155
E917	Striking against or struck accidentally by objects or persons	116
E9170	Striking against or struck accidentally by objects or persons	2
E9172	Striking against or struck accidentally by objects or persons	2
E9173	Striking against or struck accidentally by objects or persons	9
E9174	Striking against or struck accidentally by objects or persons	4
E9175	Striking against or struck accidentally by objects or persons	29
E9177	Striking against or struck accidentally by objects or persons	1
E9178	Striking against or struck accidentally by objects or persons	15
E9179	Striking against or struck accidentally by objects or persons	158
E918	Caught accidentally in or between objects	94
E9201	Accidents caused by cutting and piercing instruments or objects	3
E9203	Accidents caused by cutting and piercing instruments or objects	4
E9204	Accidents caused by cutting and piercing instruments or objects	1
E9208	Accidents caused by cutting and piercing instruments or objects	14
E9211	Accident caused by explosion of pressure vessel	14
E9218	Accident caused by explosion of pressure vessel	13
E9219	Accident caused by explosion of pressure vessel	11
E923	Accident caused by explosive material	20
E9230	Accident caused by explosive material	1
E9231	Accident caused by explosive material	3
E9232	Accident caused by explosive material	176
E9238	Accident caused by explosive material	88
E9239	Accident caused by explosive material	33
E925	Accident caused by electric current	8
E9250	Accident caused by electric current	1
E9251	Accident caused by electric current	11
E9252	Accident caused by electric current	6
E9258	Accident caused by electric current	6

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E9259	Accident caused by electric current	32
E9261	Exposure to radiation	1
E927	Overexertion and strenuous movements	19
E9288	Other and unspecified environmental and accidental causes.	99
E9289	Other and unspecified environmental and accidental causes.	76
E9504	Suicide and self-inflicted poisoning by solid or liquid substances	2
E9507	Suicide and self-inflicted poisoning by solid or liquid substances	4
E9511	Suicide and self-inflicted poisoning by gases in domestic use	2
E953	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	122
E9530	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	3
E9539	Suicide and self-inflicted injury by hanging, strangulation, and suffocation	3
E955	Suicide and self-inflicted injury by firearms, air guns and explosives	209
E9559	Suicide and self-inflicted injury by firearms, air guns and explosives	28
E958	Suicide and self-inflicted injury by other and unspecified means	8
E9589	Suicide and self-inflicted injury by other and unspecified means	1
E973	Injury due to legal intervention by blunt object	1
E975	Injury due to legal intervention by other specified means	1
E984	Submersion [drowning], undetermined whether accidentally or purposely inflicted	2
E985	Injury by firearms, air guns and explosives, undetermined whether accidentally or purposely inflicted	10
E9888	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	2
E9889	Injury by other and unspecified means, undetermined whether accidentally or purposely inflicted	15
E9912	Injury due to war operations by bullets and fragments	1
E9972	Injury due to war operations by other forms of unconventional warfare	1
		4,086

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