Kentucky Traumatic Brain & Spinal Cord Injury Surveillance Project

Fiscal Year 2010 Final Report

1 July 2010

This project is located at the Kentucky Injury Prevention and Research Center, University of Kentucky, and funded by the Kentucky Traumatic Brain Injury Trust Fund under the Cabinet for Health and Family Services Department of Aging and Independent Living.

FOR MORE INFORMATION

This report was prepared by Shannon Beaven and Michael Singleton of the Kentucky Injury Prevention and Research Center (Director: Dr. Terry Bunn), with funding from the Kentucky Traumatic Brain Injury Trust Fund Board. Data requests, questions, or other correspondence should be directed to the address/phone numbers below.

Address: 333 Waller Avenue, Suite 206
Lexington, KY 40504

Telephone: (859) 323-4750

Fax: (859) 257-3909

E-mail: slbeav1@email.uky.edu

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Introduction

In 2007, traumatic brain injury (TBI) was a factor in the deaths of 1,007 Kentuckians, as well as the live discharges of 3,454 Kentuckians from licensed, acute-care hospitals across the state. TBI played a role in the death or hospitalization of over 12 state residents per day. Acquired brain injury (ABI) was diagnosed in 1,686 deaths and 2,584 live discharges (almost 11 ABI per day), and spinal cord injury (SCI) was reported in 58 deaths and 210 live discharges, or just over 5 SCI per week. See Tables 1, 19 and 32 for details.

Our results indicate a need to focus prevention efforts on the following causes and target populations:

- *Motor vehicle traffic crashes (TBI and SCI), especially among ages 15-24*
- *Falls (TBI and SCI), especially among ages 0-4 and 65 and older*
- *Anoxia (ABI), especially among ages 45 and older*
- *Exposure to toxic substances (ABI), especially among ages 25-44*

Motor vehicle traffic crashes in persons aged 15-24, and falls in persons aged 65 and older, again emerged as the leading causes of TBI. Anoxia was most common among persons aged 65 and older, whereas exposure to toxic substances was greatest among those aged 25-44. Overall, these two were the cause of over 92% of all ABI.

Geographically, rates of TBI and ABI were both highest in eastern Kentucky. The west-central part of the state is also high for TBI, and the western part is high for ABI.

Furthermore, the following counties have been identified as top priorities for prevention activities and programs. These counties have ranked in the top quarter of Kentucky counties in terms of both the number of cases reported ***and*** *the age-adjusted rate per 100,000 residents in at least four out of the last five years and can be considered excellent candidates for an in-depth pilot study leading to interventions to prevent and control TBI and ABI:*

- *TBI: Letcher and Perry*
- *ABI: McCracken, Hopkins, Knox, and Perry*
- *SCI: There were not enough total reported cases of SCI statewide to support a reliable geographic analysis.*

Jefferson county would also be a good choice for an in-depth pilot study as it represented 20% of all TBI in 2007 and had an age-adjusted rate that was higher than the statewide rate, and over 40% higher than the rate for Fayette county, which had the second highest number of TBI.

Methods

Data collection

Data used for surveillance were all received electronically. Hospital Discharge Data files from the Kentucky Office of Health Policy are routinely received by the Kentucky Injury Prevention and Research Center (KIPRC) for surveillance purposes. The National Center for Health Statistics' Multiple Cause of Death File (NCHS Death) was obtained through the state Vital Statistics Registrar, as this data set contains information on up to 20 supplemental causes of death, whereas the Kentucky computerized death certificate data file generally includes only the external cause of injury (E-code) for trauma cases. In addition to these data sets, we were able to obtain data on Kentucky residents treated in Tennessee from that state's TBI registry. We have reported the number of TBI identified on that dataset. However, those cases were not included in the data linkage or in the final count or rates.

Traumatic brain injury case definition

The Centers for Disease Control and Prevention (CDC) have established standards for TBI case identification (CDC, 1995). Hospitals commonly use ICD-9 codes for injury coding. For death certificates, state and federal authorities use ICD-10 codes. The following ICD-9 diagnosis codes (n-codes) were used for identifying TBI in HDD:

- Fracture of vault or base of skull: 800.0-801.9
- Other, unqualified, and multiple fractures of skull: 803.0-804.9
- Intracranial injury, including concussion, cerebral laceration, subdural hemorrhage, unspecified intracranial injury, etc: 850.0-854.1
- Head injury, unspecified: 959.01

ICD-10 codes were used to identify TBI in NCHS Death records:

- Open wound of head: S01.0-S01.9
- Fracture of skull and facial bones: S02.0-S02.1, S02.3, S02.7-S02.9
- Intracranial injury: S06.0, S06.2-S06.9
- Crushing injury of head: S07.0-S07.1, S07.8-S07.9
- Other unspecified injuries of head: S09.7-S09.9
- Open wounds involving head with neck: T01.0
- Fractures involving head with neck: T02.0

- Crushing injuries involving head with neck: T04.0
- Injuries of brain and cranial nerve with injuries of nerves and spinal cord at neck level: T06.0
- Sequelae of injuries of head: T90.1-T90.2, T90.4-T90.5, T90.8-T90.9

If one or more of these codes was found in any of the diagnosis code fields in HDD or NCHS Death, the record was determined to be a TBI.

Acquired brain injury case definition

In addition to CDC-defined TBI, there are many brain injuries that have non-traumatic etiologies. These we have classified as ABI. Because these diagnoses are not included in the CDC definition of TBI, they have been linked and analyzed separately. These conditions were also identified by ICD-9 diagnosis codes, as follows:

- Anoxia: 348.1, 668.2, 669.4, 768.1, 768.5, 768.6, 768.9, 799.01, 994.1, 994.7, 997.0
- Allergy/Anaphylaxis: 995.0, 999.4, 999.5
- Acute Medical Clinical Incidents: 320.0-320.9, 321.0-321.8
- Toxic Substances: 964.2, 967.0-967.9, 968.0-968.9, 980.0-980.9, 985, 986, 988.0-988.2, 989.0, 995.4, 995.5, 998.0

The following ICD-10 codes were used to identify ABI in NCHS Death records:

- Anoxia: G93.1, O29.2, O74.3, O75.4, O89.2, P21.0, P21.1, P21.9, R09.0, T71, T75.1
- Allergy/Anaphylaxis: T78.0, T78.2, T80.5, T80.6, T88.1, T88.6
- Acute Medical Clinical Incidents: G00.0, G00.1, G00.2, G00.3, G00.8, G01, G07, G02.0, G02.1, G02.8, G04.2, G04.8, G05.0, G05.1, G06.2
- Toxic Substances: G03.8, G03.9, G97.1, G97.2, G97.8, G97.9, N14.3, R29.1, T40.5, T41.0, T41.1, T41.2, T41.3, T41.4, T42.3, T42.4, T42.6, T42.7, T45.5, T49.0, T51.0, T51.1, T51.2, T51.3, T51.8, T51.9, T56.1, T56.2, T56.3, T56.4, T56.5, T56.6, T56.7, T56.8, T57.0, T57.2, T57.3, T57.8, T58, T60.4, T61.9, T62.0, T62.1, T62.2, T62.8, T62.8, T64, T65.0, T65.8, T65.9, T81.1, T88.2, T88.5

If one or more of these codes was found in any of the diagnosis code fields in HDD or NCHS Death, the record was classified as an ABI.

Spinal cord injury case definition

The CDC defines SCI by the following ICD-9 diagnosis codes (CDC, 1995):

- Fracture of vertebral column with spinal cord injury: 806.0-806.9
- Spinal cord injury without evidence of spinal bone injury: 952.0-952.9

The following ICD-10 codes were used to identify SCI in NCHS Death records:

- Fracture of neck: S12.0-S12.2, S12.7, S12.9
- Fracture of thoracic vertebra and thoracic spine: S22.0-S22.1
- Fracture of lumbar spine: S32.0, S32.7
- Injury of nerves and spinal cord at neck level: S14.0-S14.1
- Injury of nerves and spinal cord at thorax level: S24.0-S24.1
- Injury of nerves and lumbar spinal cord at abdomen, lower back, and pelvis level: S34.0-S34.1, S34.3
- Fracture of spine, level unspecified: T08
- Injury of nerves and spinal cord involving other multiple body regions: T06.1
- Injury of spinal cord, level unspecified: T09.3
- Sequelae of injury of spinal cord: T91.3

For this report, SCI records had to contain one of these codes in one of the first three diagnosis code fields in HDD or NCHS Death data.

Eliminating duplicate records

Probabilistic data linkage (PDL) has been described in scholarly depth by Jaro (1995, 1989). Briefly, PDL is a statistical method for matching records in unrelated databases. By comparing the frequencies of all individuals' characteristics, such as age, birth date, and zip code, the data linkage software decides which records in the different databases probably pertain to the same person. Thus, we avoid counting these cases more than once when calculating incidence.

Standardized variables were created from variables necessary for linkage. These included dates (of injury, admission, discharge, death, birth), geographic variables (resident county, resident state, zip codes), and demographic characteristics (age, gender, race, marital status) and others (hospital ID, TBI indicator, cause of injury).

Self match: As a first step, we matched each file against itself to determine the extent of duplication of cases within the datasets. We found that less than 0.5% of the HDD records, and almost none of the NCHS death records, appeared to be a duplicate. In other words, duplication of cases within the datasets appeared to be minimal.

File linkages and master dataset: Next we linked the HDD and NCHS death datasets. We then created a master dataset containing two sections: one for the HDD portion of the record and one for the NCHS death portion. For example, if a case was identified by data linkage in both the HDD and NCHS Death files, the master file would contain a single record with an HDD and a NCHS Death

portion. If it was found in the HDD only, the master file would contain a single record with only the HDD portion populated, and so on.

Create analytical file: From the master dataset we created a simplified dataset from which the tables and figures in this report were derived. In doing so we made several choices which we outline briefly here. First, we defined a master record to represent a TBI, ABI, or SCI case if there was a TBI, ABI, or SCI diagnosis on either of the two files. Second, we declared a master record to represent a fatality if there was an NCHS death record present, or if there was a HDD record with a patient disposition indicating death. Third, we established rules of precedence for the data source. For fatalities, if a NCHS death record was found its values were used to populate the analytical file. If a death was indicated on the HDD but no death record was found, then the HDD files were used to populate the analytical file.

Using these rules we reduced the master file to an analytical file with a single value for each data element (age, gender, diagnosis codes, etc.).

Incidence rates

Crude incidence rates were calculated for each injury type by dividing the number of injuries by 4,241,474, the estimated 2007 population of Kentucky according to the Kentucky State Data Center, and then multiplying by 100,000. This figure represents the number of TBI, ABI, or SCI that occurred per 100,000 residents of Kentucky. Age-adjusted rates were calculated using the Year 2000 Standard Population.

Data analysis

All data analysis, including mapping, was performed using SAS Version 9.2.

Results

Traumatic brain injury

There were 4,461 Kentucky-resident TBI cases identified for 2007 (Table 1). The crude incidence rate was 105.2 per 100,000 population. (Residents who were treated out-of-state are not included in any of any of the estimates in this report.)

The demographics of TBI in 2007 were consistent with those for 2006. Table 1 shows that the highest rates of TBI were again found among those aged 65 and over and 15-24. From Table 2 we find that 59% of non-fatal and 72% of fatal TBI occurred in males. However, in 2007 the leading mechanism of injury, having consistently been motor vehicle traffic crashes (MVTC) for years, was falls for the first time. Falls were the cause of 31% of all TBI, while MCTC caused 28% (Table 3). This reflects a drop in MVTC for 2007 as well as a slight increase in falls for the year. The drop in MVTC may be a direct result of the primary seat belt law enacted towards the end of 2006. The top three mechanisms varied by age group (Tables 4 to 9). For those aged 65 and over, falls were the leading cause (56%). MVTC's contributed to over half (57%) of TBI in those aged 15-24, and were the leading cause from ages 5 to 44. Falls led among young children (ages 0-4).

As one would expect, the incidence of TBI was highest in the larger counties (Figure 1). The top four in TBI incidence (Jefferson, Fayette, Kenton and Daviess) are among the top seven most populous counties in Kentucky in 2007. A notable exception was Clay couny, which was 13th in TBI incidence but 50th in population. Unsurprisingly, Clay County had the third highest age-adjusted rate in the state. Owsley also stood out with an age-adjusted rate that was first in the state in 2007 while being the 119th in population. Owsley has consistently been either the first or second highest rate since 2001. Another notable exception was Christian county, which was 10th in population but 34th in frequency (and 118th in age-adjusted rate) of TBI. Because it borders Tennessee, we can reasonable infer that a substantial number of TBI cases in Christian county residents are not treated in Kentucky. This conclusion is supported by Figure 3, which shows that 49 Christian county residents appeared in the 2007 Tennessee TBI registry. In general, Figure 3 shows that several southern border counties have significant numbers of residents treated in Tennessee hospitals. Prominent examples, in addition to Christian, include Whitley, Warren, Bell, Harlan, Graves, Logan, and McCracken. This illustrates an important point: *if this report shows a county to have a high rate of TBI, we can be confident that this is a county in need. Conversely, however, if a county is shown to have a low rate we cannot conclude that there is not a significant problem in that county, particularly if it is located on or near the state border.*

Viewing the state in terms of age-adjusted rates (Figure 2), again there were clusters of high-incidence counties in the eastern and central regions. A western

cluster previously seen in TBI data was slightly more pronounced than in 2006 where it appeared to fade slightly, though this does not take into account the cases seen in Tennessee. One useful way of determining priority counties is to find those that ranked among the top thirty in both frequency **and** age-adjusted rate of TBI. For 2007 there were five such counties: Clay, Laurel, Letcher, Perry, and Taylor. Tables 10 through 12 show the frequency and rates of TBI by county, ranked in order by county, frequency, and age-adjusted rate respectively.

The length of stay (LOS) for hospitalized TBI (n=3,454) ranged from 1 day to 238 days. The mean LOS was 7.3 days with a median LOS of 4 days (Table 14). Table 13 indicates that 1,346 non-fatal TBI discharges had a disposition other than "routine". The three most frequent non-routine discharges were "skilled nursing facility", "home health", and "inpatient – other short term hospital". A total of 815 discharges had one of these three dispositions.

Table 15 presents an analysis of TBI in terms defined by the Barell Injury Diagnosis Matrix (Barell et al 2002). The definitions are as follows:

- A Type I TBI is one in which there is "recorded evidence of an intracranial injury or a moderate or a prolonged loss of consciousness (LOC), Shaken Infant Syndrome, or injuries to the optic nerve pathways."
- A Type 2 TBI is one in which there is "no recorded evidence of intracranial injury, and LOC of less than one hour, or LOC of unknown duration, or unspecified level of consciousness."
- A Type 3 TBI is one in which there is "no evidence of intracranial injury and no LOC."

From this Table we see that 1,873 (78%) non-fatal TBI discharges had a principal diagnosis indicating a "Type I" TBI. Falls were the highest contributor to these types of injuries (Type I TBI).

Table 17 shows that 38 fatal TBI's were work related and 77 non-fatal TBI's involved work related incidents. The length of stay for work related, non-fatal TBI's varied from 1 to 55 days and had a mean of 7.4 days.

Government (45%) or commercial (27%) sources were the primary payers billed for acute care charges in 72% of nonfatal TBI, based on discharges identified from the HDD (Table 16). Commercial payers were billed almost $59 million in 2007, and government payers just over $52 million. These charges show increases in both commercial and government payer charges when compared to 2006 totals. Please note that the amount billed by the hospital will generally be larger than the amount actually paid after adjudication of the claim.

Figures 6 through 10 demonstrate that the leading mechanism of TBI varies according to the primary insurance source billed. For example, MVTC was the mechanism of injury in 57% of TBI for which 'Commercial Insurance' was the

primary payer billed. Falls were the leading mechanism of TBI when "Government" was the primary payer, at 52%. These insurers should be viewed as stakeholders in programs to prevent those injuries that result in a substantial portion of their claims.

Table 18 shows that over half (1,921) of non-fatal TBI discharges had an injury severity score (ISS) of "severe" or "critical". It must be noted that ISS is based on injuries to six designated body regions, not only head injuries. It is therefore possible for a high ISS to result from, for example, a relatively mild head injury plus major injuries to the torso and/or lower extremities. So a high ISS does not necessarily indicate a severe head injury. Looking only at the injury score associated with the head region, over 4 out of 10 non-fatal TBI discharges were given an injury score of severe or higher. This score is specific to the head region and does not include injuries to other body regions.

Acquired brain injury

There were 4,270 ABI cases for Kentucky residents identified in 2007 (Table 19). The crude incidence rate for 2007 was 100.7 per 100,000 population.

ABI was slightly more skewed toward the middle and older age groups, with 87% occurring in persons aged 25 and older, compared to 80% of TBI (Table 19). Also in contrast to TBI, of which 62% occurred in males, ABI affected the genders in closer to equal proportions (Table 20). Under two thirds (61%) of ABI were nonfatal, compared to 77% of TBI.

As shown in Table 24, nearly all ABI (99% of fatal and 87% of nonfatal, hospitalized) were a result of either anoxia or exposure to toxic substances (ETS). Anoxia tends to affect older people (ages 45 and over) considerably more often than younger people, where as ETS affects persons 15 and older, and is most common among persons aged 25-44 (Tables 25 and 26). Anoxic brain damage (related to hereditary and degenerative diseases of the central nervous system) was the leading cause in both fatal and non-fatal anoxia. Complications related to medical care was the second leading cause in nonfatal anoxia. These complications were much less common in fatal cases. Alcohol and drugs were involved in most of the nonfatal ETS. Drugs were common in fatal ETS as well, as were carbon monoxide poisoning and postoperative shock.

Among those ABI discharges that were reported to have some relationship with an injury (i.e., included an E-code), over 8 out of 10 cases (86%) of the non-fatal cases were poisonings. Poisoning, suffocation or drowning were indicated in over 80% of the fatal, injury-related ABI (Table 27). (Note that we are making a distinction here between "injury-related" and traumatic, with trauma being considered one of several forms of injury. ABI is, by the statutory definition, non-traumatic).

In general, as with TBI, the more populous counties had high numbers of ABI (Figure 4). However, the ten most populous counties did not appear in the top forty counties when ranked by age-adjusted rate. Owsley, which ranks 119th with respect to county population, had the second highest age adjusted rate of ABI in the state. Leading the state was Clinton county, the 112th county when ranked by population size.

The counties with the highest rates were concentrated in eastern Kentucky with another cluster showing in the western region (Figure 5). As with TBI, we located the counties that ranked among the top thirty in both frequency and age-adjusted rate of ABI. There were 14 counties that met both criteria in 2007: Bell, Boyd, Clark, Floyd, Hardin, Harlan, Hopkins, Knox, Marshall, McCracken, Perry, Pike, Pulaski, and Whitley. These can be considered leading candidates for further study and intervention. Tables 21 through 23 show the frequency and rates of ABI cases by county, ranked in order by county, frequency, and age-adjusted rate respectively.

The length of stay (LOS) for hospitalized ABI patients varied from 1 day to 162 days. The mean LOS was 8.5 days with a median of 4 days (Table 28). Table 29 indicates that 47% of ABI discharges were other than "routine" – i.e., to destinations other than the home. The three most frequent non-routine discharges were "skilled nursing facility", "home health", and "inpatient – other type of facility".

Government (53%) or commercial (17%) sources were the primary payer billed for hospital charges in close to three quarters of non-fatal ABI, based on discharges identified from the HDD (Table 30). Government payers were billed over $62 million in 2007, and commercial payers over $20 million.

Spinal cord injury

SCI patients often are readmitted for problems stemming from the original injury. In an effort to avoid double counting in such cases, for SCI we looked only at the first three listed diagnosis codes. There were 268 SCI cases for Kentucky residents identified in 2007 (Table 32). The crude incidence rate was 6.3 per 100,000 population.

Age groups 65 and over had the highest age-specific rates (15.3 per 100,000) of SCI (Table 32). Persons aged 15-64 had lower rates but were similar across the groups. Males had over double the SCI rate of females, and had two thirds of fatal and almost three fourths of non-fatal SCI (Table 33).

Among SCI's for which an E-code was reported, MVTC and falls were the leading mechanisms of injury (Table 34). Unfortunately, over one out of three of the non-fatal SCI discharges had no E-code reported.

Hospitalized SCI patients had a length of stay (LOS) varying from 1 day to 152 days. The mean LOS was13.8 days with a median of 10 days (Table 35). Two thirds (67%) of the non-fatal SCI discharges had dispositions other than "routine", compared to under 40% for TBI (Table 36).

Government (40%) or commercial (31%) sources were the primary payer billed for acute care charges in 71% of nonfatal SCI, based on discharges identified from the HDD (Table 37). Commercial payers were billed over $8.5 million in 2007, and government payers over $6.5 million.

Limitations

We have tried to minimize the double counting of cases, however double counting is possible for several reasons. These include multiple representation of cases within individual data sets (e.g., transfers between hospitals), or across linked data sets (due to failure of data linkage to identify duplicate records).

"Non-fatal" in this report refers to Kentucky-resident inpatients discharged alive from a licensed, acute-care hospital *in Kentucky*. It does not include those treated and released at emergency departments, those treated by emergency medical services who refused transport to a hospital, or those hospitalized outside of Kentucky.

In 2008, the Kentucky Hospital Association (KHA) began collecting electronic records for outpatient encounters from Kentucky hospitals, including emergency department visits. Based on preliminary 2008 data we can report that the number of non-fatal TBI cases for Kentuckians treated and released from emergency departments each year in our state is somewhere between four and six times the number of non-fatal inpatient discharges for TBI reported here.

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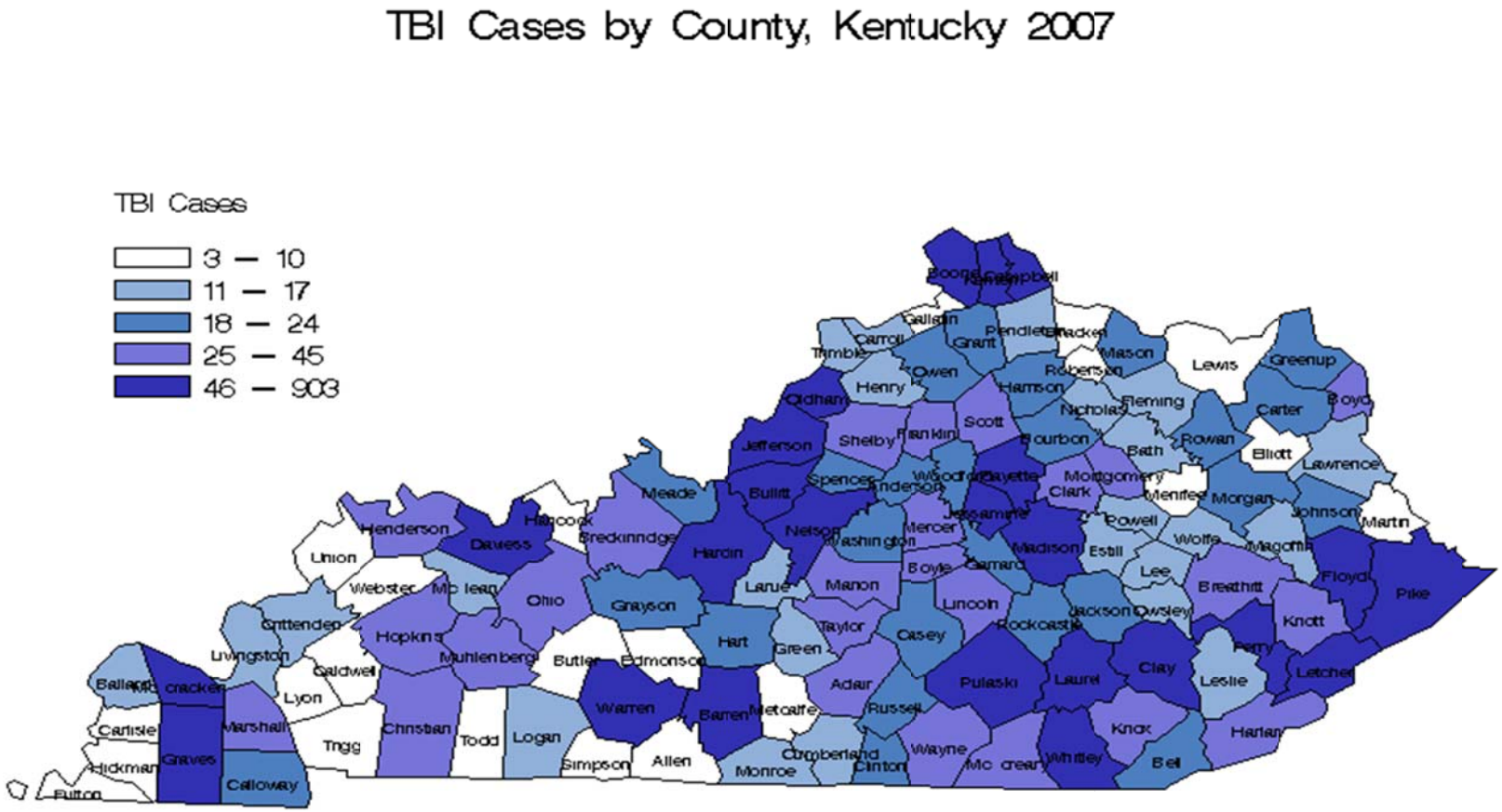
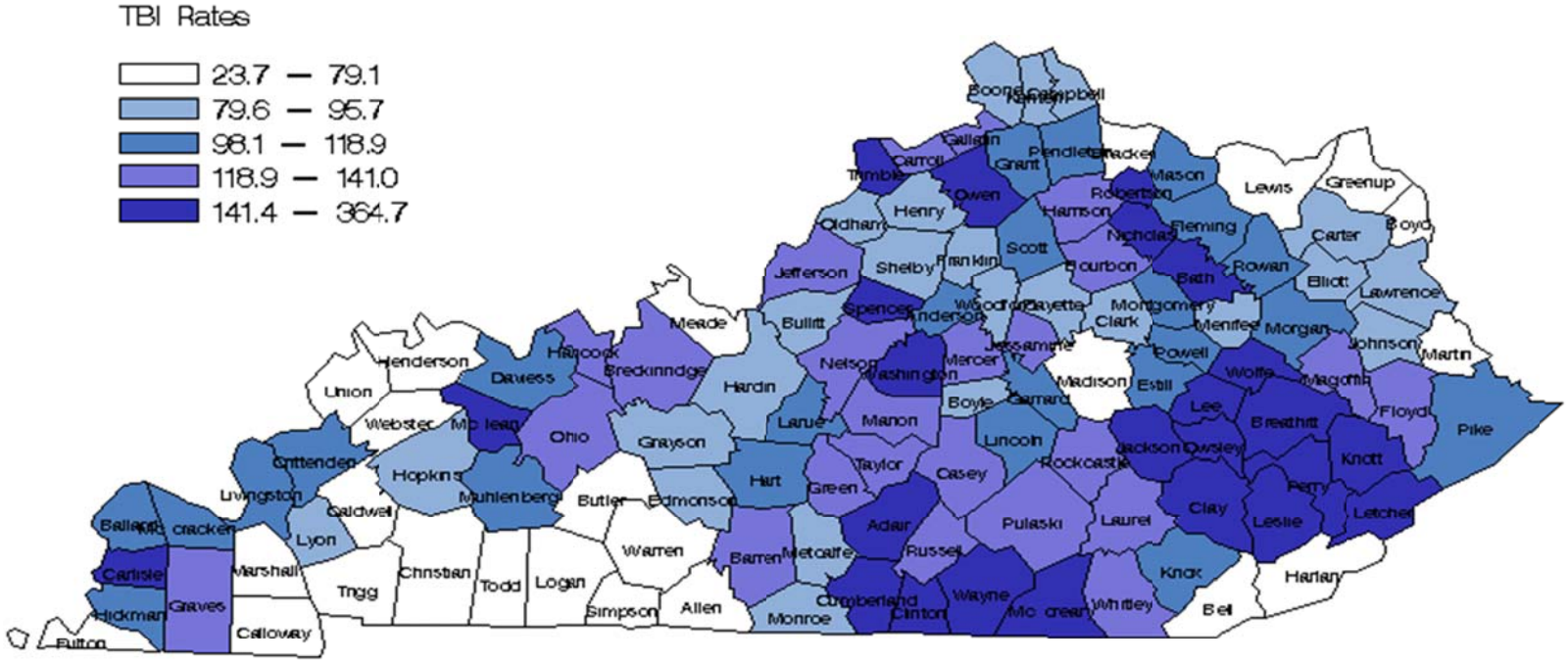
Figure 1.



Source: Kentucky TBI Surveillance Project 2007.

Figure 2.

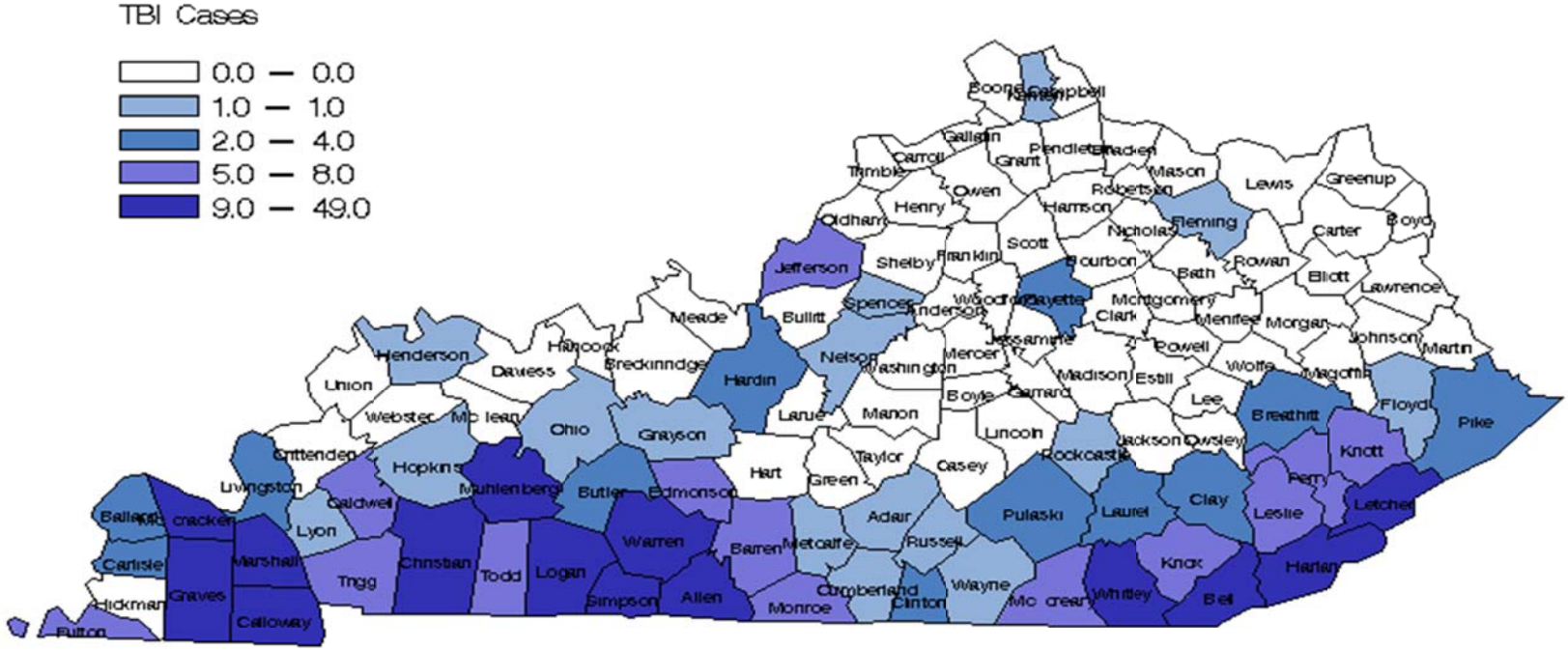
Age—Adjusted TBI Rates by County, Kentucky 2007



Source: Kentucky TBI Surveillance Project 2007.

Figure 3.

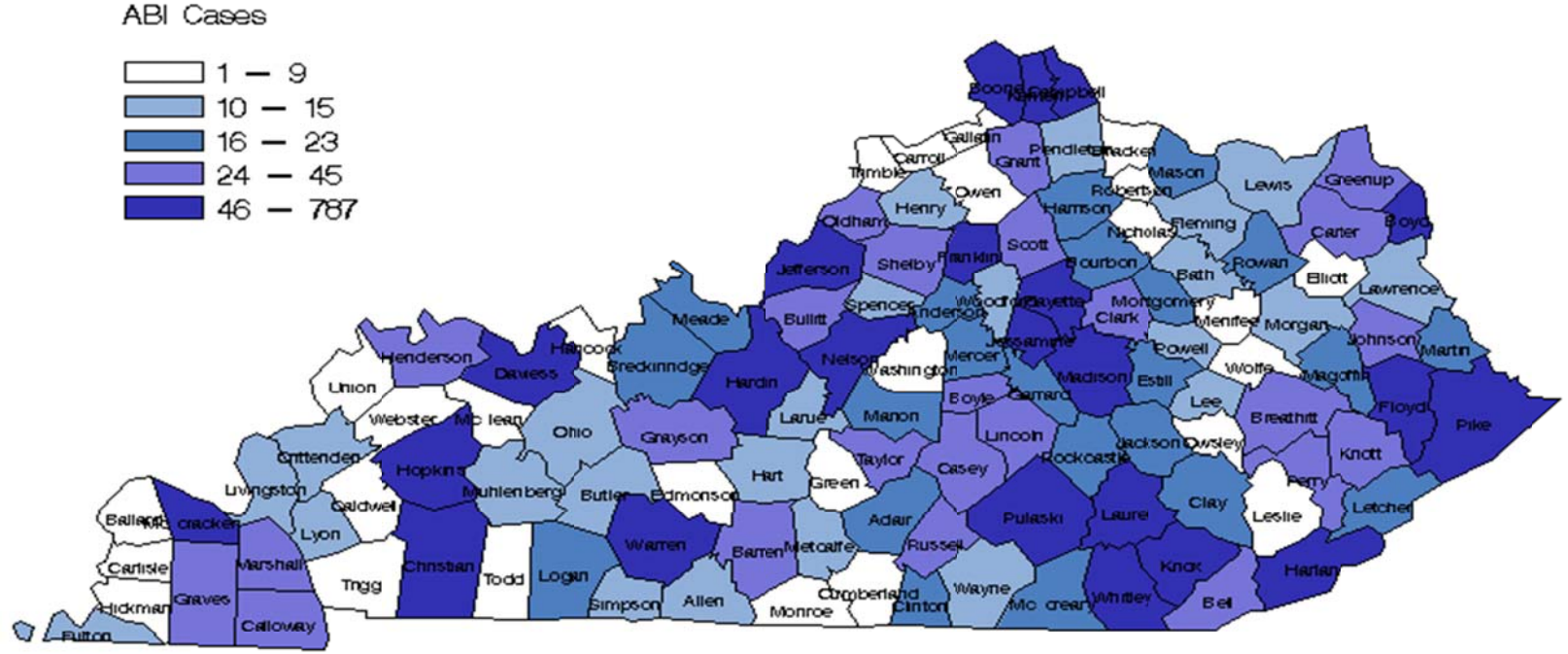
Kentucky TBI Cases by County, Seen in Tennessee 2007



Source: Kentucky TBI Surveillance Project 2007.

Figure 4.

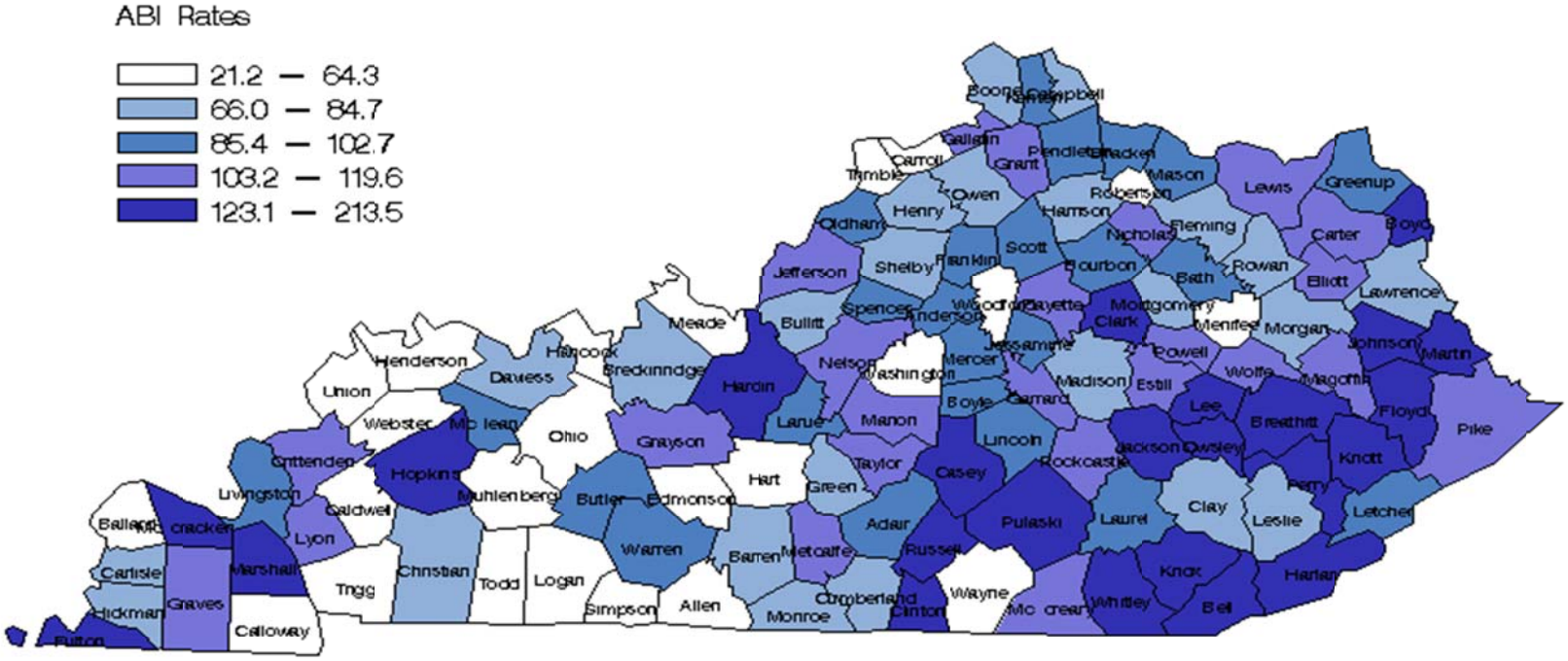
ABI Cases by County, Kentucky 2007



Source: Kentucky TBI Surveillance Project 2007.

Figure 5.

Age—Adjusted ABI Rates by County, Kentucky 2007



Source: Kentucky TBI Surveillance Project 2007.

Figure 6. Mechanism of injury for self-pay TBI, 2007

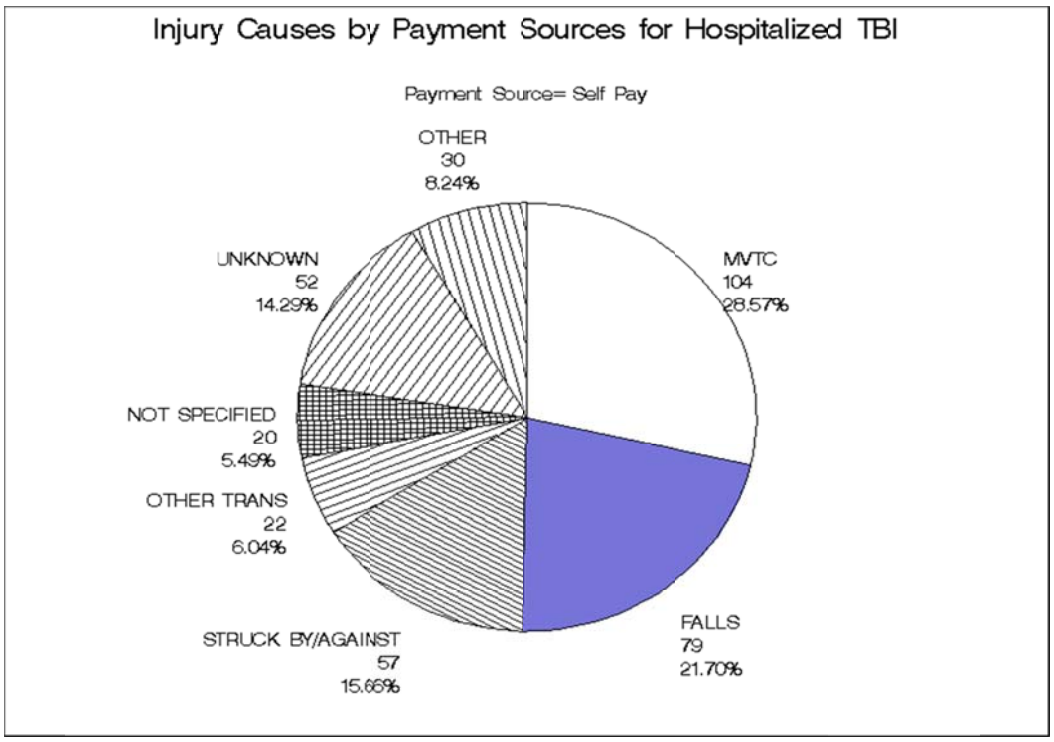


Figure 7. Mechanism of injury for TBI having 'Commercial Insurance' as primary payer, 2007

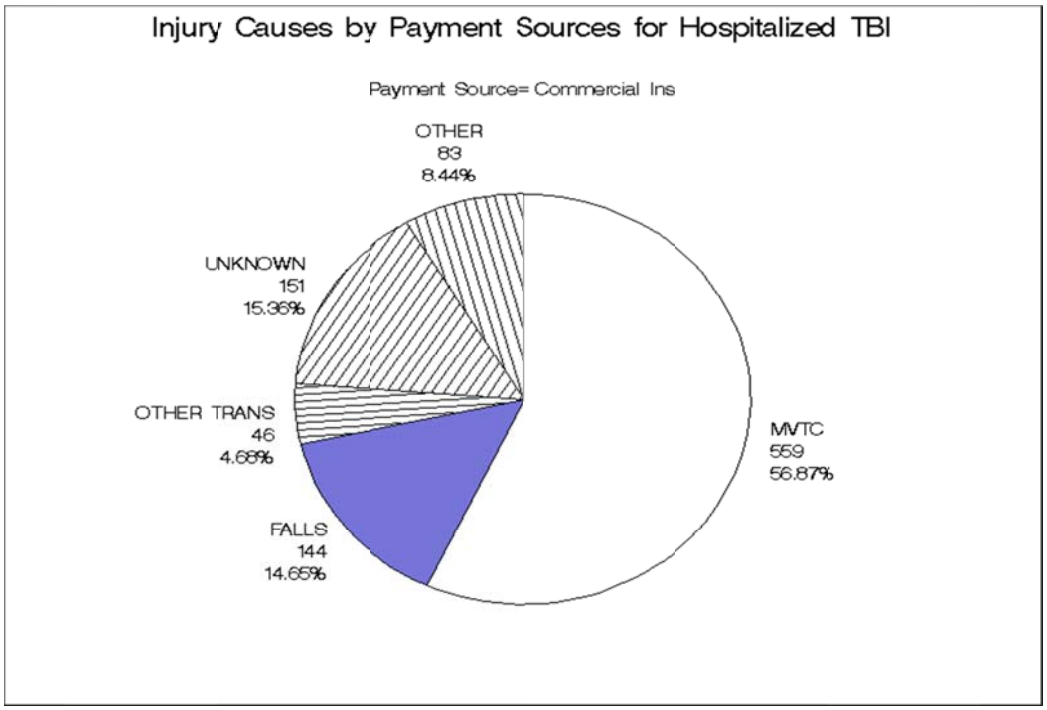


Figure 8. Mechanism of injury for TBI having 'Government' as primary payer, 2007

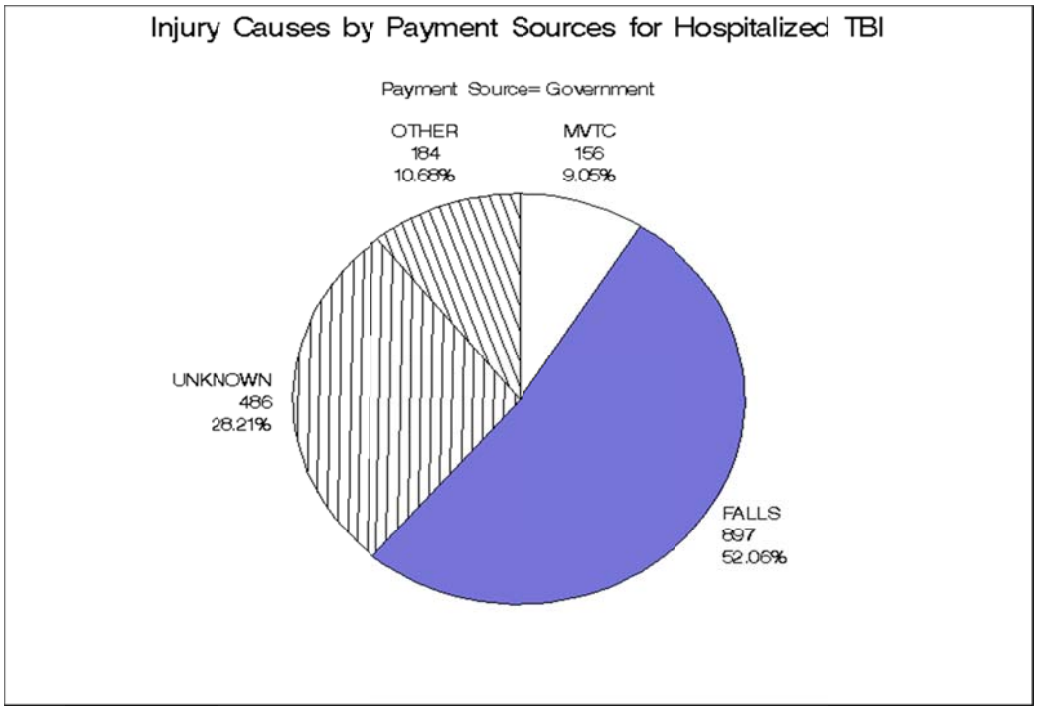


Figure 9. Mechanism of injury for TBI having 'Worker's Compensation' as primary payer, 2007

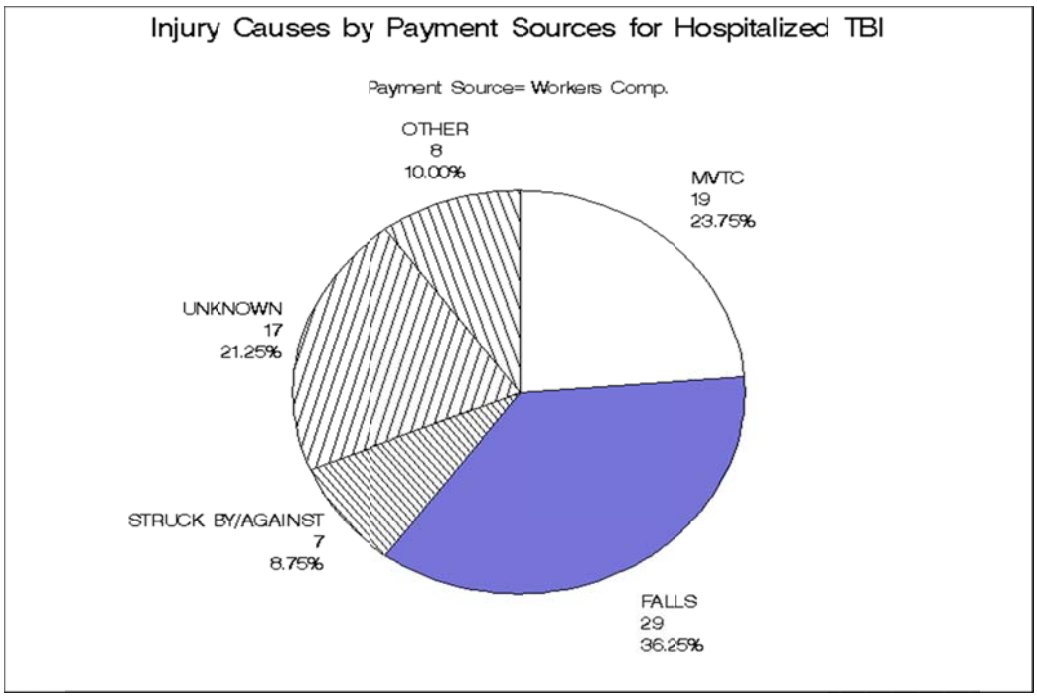
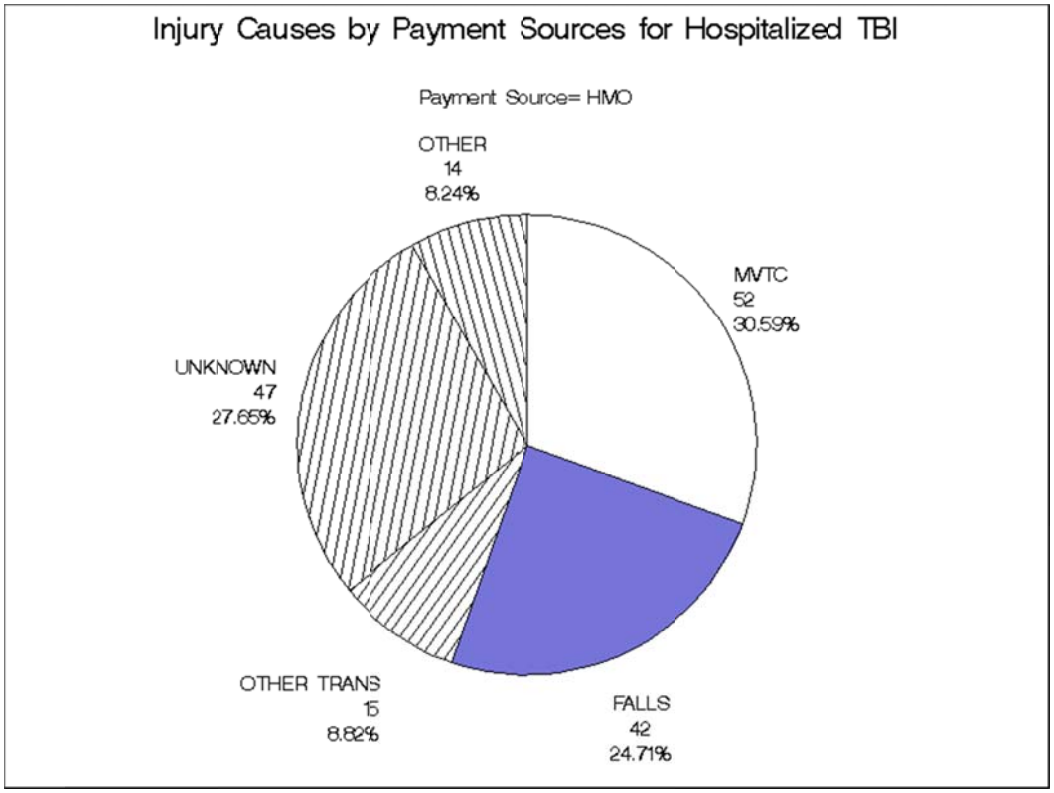


Figure 10. Mechanism of injury for TBI having 'HMO' as primary payer, 2007



TABLES

Table 1. TBI by age, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
0-4	10	7.1	3.6	130	92.9	46.7	140	100.0	50.3
5-14	12	7.3	2.2	153	92.7	27.8	165	100.0	30.0
15-24	128	21.0	22.9	481	79.0	85.9	609	100.0	108.8
25-44	284	28.4	23.8	715	71.6	60.0	999	100.0	83.9
45-64	243	24.3	21.8	756	75.7	67.9	999	100.0	89.7
65+	330	21.3	60.1	1219	78.7	221.8	1,549	100.0	281.9
Total	1,007	22.6	23.7	3,454	77.4	81.4	4,461	100.0	105.2

Table 2. TBI by gender, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Male	724	26.2	34.8	2,043	73.8	98.3	2,767	100.0	133.1
Female	283	16.7	13.1	1,411	83.3	65.2	1,694	100.0	78.3
Total	1,007	22.6	23.7	3,454	77.4	81.4	4,461	100.0	105.2

Table 3. Leading causes of TBI, all ages, 2007

	Fatal			Non-fatal			Total		
Mechanism of Injury	Number	Pct.	Rate	Number	Pct.	Rate	Number	Pct.	Rate
Motor vehicle traffic crash	282	23.0	6.6	944	77.0	22.3	1,226	100.0	28.9
Fall	211	15.5	5.0	1,150	84.5	27.1	1,361	100.0	32.1
Firearm	357	94.9	8.4	19	5.1	0.4	376	100.0	8.9
Non-traffic land transport	22	12.4	0.5	155	87.6	3.7	177	100.0	4.2
Struck by object or person	13	7.0	0.3	174	93.0	4.1	187	100.0	4.4
Non-traffic pedal cycle	3	11.5	0.1	23	88.5	0.5	26	100.0	0.6
Machinery	3	33.3	0.1	6	66.7	0.1	9	100.0	0.2
Other	77	31.4	1.8	168	68.6	4.0	245	100.0	5.8
Unknown (missing E-code)	39	4.6	0.9	815	95.4	19.2	854	100.0	20.1
Total	1,007	22.6	23.7	3,454	77.4	81.4	4,461	100.0	105.2

Table 4. Leading causes of TBI for ages 0-4, 2007

	Fatal		Non-fatal		Total	
Mechanism of Injury	Number	Percent	Number	Percent	Number	Percent
Fall	0	0.0	55	42.3	55	39.3
Motor vehicle traffic crash	3	30.0	10	7.7	13	9.3
Struck by or against object or person	0	0.0	10	7.7	10	7.1
Non-traffic land transportation	1	10.0	4	3.1	5	3.6
Other (including non-specific codes)	6	60.0	31	23.8	37	26.4
Unknown (missing E-code)	0	0.0	20	15.4	20	14.3
Total	10	100.0	130	100.0	140	100.0

Table 5. Leading causes of TBI for ages 5-14, 2007

	Fatal		Non-fatal		Total	
Mechanism of Injury	Number	Percent	Number	Percent	Number	Percent
Motor vehicle traffic crash	4	33.3	43	28.1	47	28.5
Fall	0	0.0	28	18.3	28	17.0
Non-traffic land transportation	1	8.3	23	15.0	24	14.5
Other pedal cycle	0	0.0	12	7.8	12	7.3
Struck by or against object or person	0	0.0	16	10.5	16	9.7
Firearm	3	25.0	0	0.0	3	1.8
Other (including non-specific codes)	4	33.3	10	6.5	14	8.5
Unknown (missing E-code)	0	0.0	21	13.7	21	12.7
Total	12	100.0	153	100.0	165	100.0

Table 6. Leading causes of TBI for ages 15-24, 2007

	Fatal		Non-fatal		Total	
Mechanism of Injury	Number	Percent	Number	Percent	Number	Percent
Motor vehicle traffic crash	74	57.8	272	56.5	346	56.8
Firearm	39	30.5	5	1.0	44	7.2
Non-traffic land transportation	6	4.7	37	7.7	43	7.1
Fall	2	1.6	35	7.3	37	6.1
Struck by or against object or person	2	1.6	31	6.4	33	5.4
Other (including non-specific codes)	5	3.9	24	5.0	29	4.8
Unknown (missing E-code)	0	0.0	77	16.0	77	12.6
Total	128	100.0	481	100.0	609	100.0

Table 7. Leading causes of TBI for ages 25-44, 2007

	Fatal		Non-fatal		Total	
Mechanism of Injury	Number	Percent	Number	Percent	Number	Percent
Motor vehicle traffic crash	108	38.0	309	43.2	417	41.7
Firearm	139	48.9	10	1.4	149	14.9
Fall	10	3.5	96	13.4	106	10.6
Struck by or against object or person	2	0.7	57	8.0	59	5.9
Non-traffic land transportation	5	1.8	53	7.4	58	5.8
Machinery	0	0.0	2	0.3	2	0.2
Other (including non-specific codes)	18	6.3	58	8.1	76	7.6
Unknown (missing E-code)	2	0.7	130	18.2	132	13.2
Total	284	100.0	715	100.0	999	100.0

Table 8. Leading causes of TBI for ages 45-64, 2007

	Fatal		Non-fatal		Total	
Mechanism of Injury	Number	Percent	Number	Percent	Number	Percent
Fall	31	12.8	239	31.6	270	27.0
Motor vehicle traffic crash	53	21.8	215	28.4	268	26.8
Firearm	115	47.3	4	0.5	119	11.9
Struck by or against object or person	6	2.5	46	6.1	52	5.2
Non-traffic land transportation	4	1.6	32	4.2	36	3.6
Other (including non-specific codes)	27	11.1	42	5.6	69	6.9
Unknown (missing E-code)	7	2.9	178	23.5	185	18.5
Total	243	100.0	756	100.0	999	100.0

Table 9. Leading causes of TBI for ages 65+, 2007

	Fatal		Non-fatal		Total	
Mechanism of Injury	Number	Percent	Number	Percent	Number	Percent
Fall	168	50.9	697	57.2	865	55.8
Motor vehicle traffic crash	40	12.1	95	7.8	135	8.7
Firearm	61	18.5	0	0.0	61	3.9
Struck by or against object or person	3	0.9	14	1.1	17	1.1
Non-traffic land transportation	5	1.5	6	0.5	11	0.7
Other (including non-specific codes)	23	7.0	18	1.5	41	2.6
Unknown (missing E-code)	30	9.1	389	31.9	419	27.0
Total	330	100.0	1,219	100.0	1,549	100.0

Table 10. Incidence of TBI by county, sorted by county name, 2007

County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate
Adair	27	0.6	147.3	151.4	Grant	23	0.5	107.3	91.4	McLean	15	0.3	151.9	154.1
Allen	9	0.2	47.0	47.6	Graves	49	1.1	118.9	130.5	Meade	18	0.4	71.7	66.0
Anderson	22	0.5	107.8	103.6	Grayson	24	0.5	84.0	94.7	Menifee	6	0.1	83.8	88.7
Ballard	11	0.2	113.3	132.4	Green	17	0.4	134.6	146.9	Mercer	29	0.7	132.4	132.9
Barren	51	1.1	121.5	123.8	Greenup	20	0.4	51.6	53.7	Metcalfe	10	0.2	94.5	97.4
Bath	17	0.4	153.9	146.7	Hancock	10	0.2	128.2	116.1	Monroe	13	0.3	94.0	111.5
Bell	19	0.4	63.5	65.5	Hardin	86	1.9	90.4	87.8	Montgomery	30	0.7	118.9	118.9
Boone	83	1.9	90.6	73.8	Harlan	25	0.6	78.5	80.5	Morgan	18	0.4	116.2	126.4
Bourbon	24	0.5	125.6	121.5	Harrison	23	0.5	124.5	124.0	Muhlenberg	35	0.8	101.9	111.7
Boyd	37	0.8	68.7	76.3	Hart	20	0.4	101.0	108.6	Nelson	52	1.2	127.1	122.3
Boyle	28	0.6	94.1	97.7	Henderson	31	0.7	62.3	68.4	Nicholas	13	0.3	187.4	188.7
Bracken	7	0.2	79.1	81.6	Henry	13	0.3	86.5	82.7	Ohio	32	0.7	133.3	135.8
Breathitt	31	0.7	195.6	198.1	Hickman	7	0.2	113.2	141.8	Oldham	46	1.0	89.7	82.2
Breckinridge	26	0.6	132.3	136.2	Hopkins	39	0.9	82.0	84.3	Owen	22	0.5	192.8	193.2
Bullitt	56	1.3	85.4	75.7	Jackson	22	0.5	167.8	161.9	Owsley	16	0.4	364.7	346.8
Butler	6	0.1	44.8	45.3	Jefferson	903	20.2	122.7	127.3	Pendleton	14	0.3	98.4	93.0
Caldwell	8	0.2	57.2	62.7	Jessamine	55	1.2	126.5	120.7	Perry	54	1.2	183.4	184.8
Calloway	22	0.5	51.3	60.8	Johnson	23	0.5	93.5	95.8	Pike	78	1.7	116.3	119.0
Campbell	73	1.6	81.2	84.0	Kenton	135	3.0	91.7	86.2	Powell	14	0.3	98.4	101.4
Carlisle	8	0.2	156.1	154.9	Knott	26	0.6	149.3	150.5	Pulaski	74	1.7	122.2	123.0
Carroll	13	0.3	125.2	123.5	Knox	38	0.9	114.8	116.8	Robertson	6	0.1	276.6	272.5
Carter	23	0.5	79.6	83.9	Larue	14	0.3	100.4	102.5	Rockcastle	20	0.4	124.9	119.9
Casey	21	0.5	128.3	129.9	Laurel	82	1.8	141.0	143.0	Rowan	23	0.5	99.1	102.0
Christian	32	0.7	42.3	39.6	Lawrence	13	0.3	81.8	79.6	Russell	23	0.5	126.8	134.2
Clark	34	0.8	94.8	95.6	Lee	16	0.4	215.3	215.0	Scott	41	0.9	100.5	95.5
Clay	59	1.3	246.9	248.6	Leslie	16	0.4	141.4	135.9	Shelby	33	0.7	87.6	81.6
Clinton	18	0.4	180.8	188.8	Letcher	48	1.1	200.4	199.9	Simpson	6	0.1	34.6	35.1
Crittenden	11	0.2	98.1	120.5	Lewis	9	0.2	69.7	64.8	Spencer	24	0.5	161.5	142.5
Cumberland	17	0.4	219.6	247.2	Lincoln	29	0.7	113.7	114.9	Taylor	36	0.8	138.6	150.5
Daviess	112	2.5	111.3	119.5	Livingston	11	0.2	103.3	114.5	Todd	8	0.2	56.9	66.4
Edmonson	10	0.2	79.9	83.5	Logan	12	0.3	42.5	44.2	Trigg	7	0.2	44.8	52.2
Elliott	7	0.2	89.7	98.1	Lyon	10	0.2	95.7	121.2	Trimble	13	0.3	153.7	144.7
Estill	17	0.4	109.2	113.5	Madison	60	1.3	77.0	74.0	Union	*	-	-	-
Fayette	236	5.3	85.6	84.6	Magoffin	15	0.3	119.9	113.8	Warren	50	1.1	50.6	48.1
Fleming	17	0.4	108.5	115.7	Marion	28	0.6	140.6	147.9	Washington	19	0.4	160.1	164.4
Floyd	50	1.1	119.7	119.0	Marshall	28	0.6	76.7	89.6	Wayne	29	0.7	143.4	140.5
Franklin	45	1.0	93.4	92.9	Martin	7	0.2	65.2	60.1	Webster	9	0.2	62.0	64.8
Fulton	*	-	-	-	Mason	20	0.4	106.0	116.3	Whitley	51	1.1	129.1	133.0
Gallatin	10	0.2	132.9	124.5	McCracken	87	2.0	116.8	134.3	Wolfe	11	0.2	146.9	156.2
Garrard	19	0.4	113.1	111.5	McCreary	25	0.6	149.3	144.3	Woodford	21	0.5	93.1	86.4

* At least one but fewer than five

- Percentage or rate suppressed to prevent disclosure of the value on which it was based

Table 11. Incidence of TBI by county, sorted by frequency, 2007

County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate
Jefferson	903	20.2	122.7	127.3	Wayne	29	0.7	143.4	140.5	Leslie	16	0.4	141.4	135.9
Fayette	236	5.3	85.6	84.6	Boyle	28	0.6	94.1	97.7	Owsley	16	0.4	364.7	346.8
Kenton	135	3.0	91.7	86.2	Marion	28	0.6	140.6	147.9	Magoffin	15	0.3	119.9	113.8
Daviess	112	2.5	111.3	119.5	Marshall	28	0.6	76.7	89.6	McLean	15	0.3	151.9	154.1
McCracken	87	2.0	116.8	134.3	Adair	27	0.6	147.3	151.4	Larue	14	0.3	100.4	102.5
Hardin	86	1.9	90.4	87.8	Breckinridge	26	0.6	132.3	136.2	Pendleton	14	0.3	98.4	93.0
Boone	83	1.9	90.6	73.8	Knott	26	0.6	149.3	150.5	Powell	14	0.3	98.4	101.4
Laurel	82	1.8	141.0	143.0	Harlan	25	0.6	78.5	80.5	Carroll	13	0.3	125.2	123.5
Pike	78	1.7	116.3	119.0	McCreary	25	0.6	149.3	144.3	Henry	13	0.3	86.5	82.7
Pulaski	74	1.7	122.2	123.0	Bourbon	24	0.5	125.6	121.5	Lawrence	13	0.3	81.8	79.6
Campbell	73	1.6	81.2	84.0	Grayson	24	0.5	84.0	94.7	Monroe	13	0.3	94.0	111.5
Madison	60	1.3	77.0	74.0	Spencer	24	0.5	161.5	142.5	Nicholas	13	0.3	187.4	188.7
Clay	59	1.3	246.9	248.6	Carter	23	0.5	79.6	83.9	Trimble	13	0.3	153.7	144.7
Bullitt	56	1.3	85.4	75.7	Grant	23	0.5	107.3	91.4	Logan	12	0.3	42.5	44.2
Jessamine	55	1.2	126.5	120.7	Harrison	23	0.5	124.5	124.0	Ballard	11	0.2	113.3	132.4
Perry	54	1.2	183.4	184.8	Johnson	23	0.5	93.5	95.8	Crittenden	11	0.2	98.1	120.5
Nelson	52	1.2	127.1	122.3	Rowan	23	0.5	99.1	102.0	Livingston	11	0.2	103.3	114.5
Barren	51	1.1	121.5	123.8	Russell	23	0.5	126.8	134.2	Wolfe	11	0.2	146.9	156.2
Whitley	51	1.1	129.1	133.0	Anderson	22	0.5	107.8	103.6	Edmonson	10	0.2	79.9	83.5
Floyd	50	1.1	119.7	119.0	Calloway	22	0.5	51.3	60.8	Gallatin	10	0.2	132.9	124.5
Warren	50	1.1	50.6	48.1	Jackson	22	0.5	167.8	161.9	Hancock	10	0.2	128.2	116.1
Graves	49	1.1	118.9	130.5	Owen	22	0.5	192.8	193.2	Lyon	10	0.2	95.7	121.2
Letcher	48	1.1	200.4	199.9	Casey	21	0.5	128.3	129.9	Metcalfe	10	0.2	94.5	97.4
Oldham	46	1.0	89.7	82.2	Woodford	21	0.5	93.1	86.4	Allen	9	0.2	47.0	47.6
Franklin	45	1.0	93.4	92.9	Greenup	20	0.4	51.6	53.7	Lewis	9	0.2	69.7	64.8
Scott	41	0.9	100.5	95.5	Hart	20	0.4	101.0	108.6	Webster	9	0.2	62.0	64.8
Hopkins	39	0.9	82.0	84.3	Mason	20	0.4	106.0	116.3	Caldwell	8	0.2	57.2	62.7
Knox	38	0.9	114.8	116.8	Rockcastle	20	0.4	124.9	119.9	Carlisle	8	0.2	156.1	154.9
Boyd	37	0.8	68.7	76.3	Bell	19	0.4	63.5	65.5	Todd	8	0.2	56.9	66.4
Taylor	36	0.8	138.6	150.5	Garrard	19	0.4	113.1	111.5	Bracken	7	0.2	79.1	81.6
Muhlenberg	35	0.8	101.9	111.7	Washington	19	0.4	160.1	164.4	Elliott	7	0.2	89.7	98.1
Clark	34	0.8	94.8	95.6	Clinton	18	0.4	180.8	188.8	Hickman	7	0.2	113.2	141.8
Shelby	33	0.7	87.6	81.6	Meade	18	0.4	71.7	66.0	Martin	7	0.2	65.2	60.1
Christian	32	0.7	42.3	39.6	Morgan	18	0.4	116.2	126.4	Trigg	7	0.2	44.8	52.2
Ohio	32	0.7	133.3	135.8	Bath	17	0.4	153.9	146.7	Butler	6	0.1	44.8	45.3
Breathitt	31	0.7	195.6	198.1	Cumberland	17	0.4	219.6	247.2	Menifee	6	0.1	83.8	88.7
Henderson	31	0.7	62.3	68.4	Estill	17	0.4	109.2	113.5	Robertson	6	0.1	276.6	272.5
Montgomery	30	0.7	118.9	118.9	Fleming	17	0.4	108.5	115.7	Simpson	6	0.1	34.6	35.1
Lincoln	29	0.7	113.7	114.9	Green	17	0.4	134.6	146.9	Union	*	-	-	-
Mercer	29	0.7	132.4	132.9	Lee	16	0.4	215.3	215.0	Fulton	*	-	-	-

* At least one but fewer than five

- Percentage or rate suppressed to prevent disclosure of the value on which it was based

Table 12. Incidence of TBI by county, sorted by age-adjusted rate, 2007

County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate
Owsley	16	0.4	364.7	346.8	Rockcastle	20	0.4	124.9	119.9	Kenton	135	3.0	91.7	86.2
Robertson	6	0.1	276.6	272.5	Harrison	23	0.5	124.5	124.0	Boone	83	1.9	90.6	73.8
Clay	59	1.3	246.9	248.6	Jefferson	903	20.2	122.7	127.3	Hardin	86	1.9	90.4	87.8
Cumberland	17	0.4	219.6	247.2	Pulaski	74	1.7	122.2	123.0	Oldham	46	1.0	89.7	82.2
Lee	16	0.4	215.3	215.0	Barren	51	1.1	121.5	123.8	Elliott	7	0.2	89.7	98.1
Letcher	48	1.1	200.4	199.9	Magoffin	15	0.3	119.9	113.8	Shelby	33	0.7	87.6	81.6
Breathitt	31	0.7	195.6	198.1	Floyd	50	1.1	119.7	119.0	Henry	13	0.3	86.5	82.7
Owen	22	0.5	192.8	193.2	Graves	49	1.1	118.9	130.5	Fayette	236	5.3	85.6	84.6
Nicholas	13	0.3	187.4	188.7	Montgomery	30	0.7	118.9	118.9	Bullitt	56	1.3	85.4	75.7
Perry	54	1.2	183.4	184.8	McCracken	87	2.0	116.8	134.3	Grayson	24	0.5	84.0	94.7
Clinton	18	0.4	180.8	188.8	Pike	78	1.7	116.3	119.0	Menifee	6	0.1	83.8	88.7
Jackson	22	0.5	167.8	161.9	Morgan	18	0.4	116.2	126.4	Hopkins	39	0.9	82.0	84.3
Spencer	24	0.5	161.5	142.5	Knox	38	0.9	114.8	116.8	Lawrence	13	0.3	81.8	79.6
Washington	19	0.4	160.1	164.4	Lincoln	29	0.7	113.7	114.9	Campbell	73	1.6	81.2	84.0
Carlisle	8	0.2	156.1	154.9	Ballard	11	0.2	113.3	132.4	Edmonson	10	0.2	79.9	83.5
Bath	17	0.4	153.9	146.7	Hickman	7	0.2	113.2	141.8	Carter	23	0.5	79.6	83.9
Trimble	13	0.3	153.7	144.7	Garrard	19	0.4	113.1	111.5	Bracken	7	0.2	79.1	81.6
McLean	15	0.3	151.9	154.1	Daviess	112	2.5	111.3	119.5	Harlan	25	0.6	78.5	80.5
McCreary	25	0.6	149.3	144.3	Estill	17	0.4	109.2	113.5	Madison	60	1.3	77.0	74.0
Knott	26	0.6	149.3	150.5	Fleming	17	0.4	108.5	115.7	Marshall	28	0.6	76.7	89.6
Adair	27	0.6	147.3	151.4	Anderson	22	0.5	107.8	103.6	Meade	18	0.4	71.7	66.0
Wolfe	11	0.2	146.9	156.2	Grant	23	0.5	107.3	91.4	Lewis	9	0.2	69.7	64.8
Wayne	29	0.7	143.4	140.5	Mason	20	0.4	106.0	116.3	Boyd	37	0.8	68.7	76.3
Leslie	16	0.4	141.4	135.9	Livingston	11	0.2	103.3	114.5	Martin	7	0.2	65.2	60.1
Laurel	82	1.8	141.0	143.0	Muhlenberg	35	0.8	101.9	111.7	Bell	19	0.4	63.5	65.5
Marion	28	0.6	140.6	147.9	Hart	20	0.4	101.0	108.6	Henderson	31	0.7	62.3	68.4
Taylor	36	0.8	138.6	150.5	Scott	41	0.9	100.5	95.5	Webster	9	0.2	62.0	64.8
Green	17	0.4	134.6	146.9	Larue	14	0.3	100.4	102.5	Caldwell	8	0.2	57.2	62.7
Ohio	32	0.7	133.3	135.8	Rowan	23	0.5	99.1	102.0	Todd	8	0.2	56.9	66.4
Gallatin	10	0.2	132.9	124.5	Powell	14	0.3	98.4	101.4	Greenup	20	0.4	51.6	53.7
Mercer	29	0.7	132.4	132.9	Pendleton	14	0.3	98.4	93.0	Callow ay	22	0.5	51.3	60.8
Breckinridge	26	0.6	132.3	136.2	Crittenden	11	0.2	98.1	120.5	Warren	50	1.1	50.6	48.1
Whitley	51	1.1	129.1	133.0	Lyon	10	0.2	95.7	121.2	Allen	9	0.2	47.0	47.6
Casey	21	0.5	128.3	129.9	Clark	34	0.8	94.8	95.6	Butler	6	0.1	44.8	45.3
Hancock	10	0.2	128.2	116.1	Metcalfe	10	0.2	94.5	97.4	Trigg	7	0.2	44.8	52.2
Nelson	52	1.2	127.1	122.3	Boyle	28	0.6	94.1	97.7	Fulton	3	0.1	42.9	44.2
Russell	23	0.5	126.8	134.2	Monroe	13	0.3	94.0	111.5	Logan	12	0.3	42.5	44.2
Jessamine	55	1.2	126.5	120.7	Johnson	23	0.5	93.5	95.8	Christian	32	0.7	42.3	39.6
Bourbon	24	0.5	125.6	121.5	Franklin	45	1.0	93.4	92.9	Simpson	*	-	-	-
Carroll	13	0.3	125.2	123.5	Woodford	21	0.5	93.1	86.4	Union	*	-	-	-

* At least one but fewer than five

- Percentage or rate suppressed to prevent disclosure of the value on which it was based

Table 13. Hospital discharges by disposition for non-fatal TBI, 2007

Discharge Disposition	Number	Percent
Routine discharge (home/self care)	2,108	61.0
Skilled nursing facility (SNF)	425	12.3
Home health	317	9.2
Inpatient-other short-term hospital	73	2.1
Intermediate care facility (ICF)	18	0.5
Inpatient-other type facility	29	0.8
Other	484	14.0
Total	3,454	100.0

Table 14. Length of stay for non-fatal TBI, 2007

Length of Stay	Number	Percent*
1 day	556	16.1
More than one day but less than 1 week	1815	52.5
1 week to less than 2 weeks	602	17.4
2 weeks to less than 3 weeks	243	7.0
3 weeks to less than 4 weeks	102	3.0
4 weeks or more	136	3.9
Total	3454	100.0

*Percent of hospitalized TBI

Table 15. Barrell Matrix Type I/II/III TBI by mechanism for non-fatal TBI, 2007

	Type of TBI								
	Type I		Type II		Type III		Other		
Injury Mechanism	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Total
Motor vehicle traffic crash	436	23.3	107	31.2	10	12.0	20	20.4	573
Falls	759	40.5	100	29.2	28	33.7	47	48.0	934
Non-traffic land transportation	66	3.5	29	8.5	8	9.6	1	1.0	104
Struck by or against object or person	108	5.8	24	7.0	9	10.8	2	2.0	143
Non-traffic pedal cycle	14	0.7	5	1.5	3	3.6	0	0.0	22
Firearm	30	1.6	0	0.0	3	3.6	0	0.0	33
Other	103	5.5	17	5.0	3	3.6	5	5.1	128
Unknown	357	19.1	61	17.8	19	22.9	23	23.5	460
Total	1,873	100.0	343	100.0	83	100.0	98	100.0	2,397

Table 16. Primary payers for hospitalized TBI, 2007
(Hospital Discharge Dataset only)

Payer	Number of Discharges	Percent of Discharges	Total Hospital Charges
Government	1,550	44.9	$ 52,292,770
Commercial Ins	922	26.7	$ 58,732,463
Self Pay	351	10.2	$ 19,218,697
Workers Compensation	73	2.1	$ 3,771,498
HMO	161	4.7	$ 5,593,007
Other	397	11.5	$ 14,545,788
Total	3,454	100.0	$ 154,154,223

Table 17. Work related TBI, 2007

Work Related	Number
Fatalities	38
Non-Fatal	77
Total Work Related	115

Table 18. Overall Injury Severity Score (ISS) for non-fatal TBI by mechanism, 2007

	Injury Severity Score										
	Mild		Moderate		Severe		Critical		Unknown		
Injury Mechanism	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Total
Motor vehicle traffic crash	178	27.2	216	33.2	347	22.2	189	52.4	14	6.1	944
Falls	216	33.0	212	32.6	567	36.3	56	15.5	99	43.4	1,150
Non-traffic land transportation	41	6.3	27	4.1	63	4.0	22	6.1	2	0.9	155
Struck by or against object or person	21	3.2	47	7.2	80	5.1	12	3.3	14	6.1	174
Firearm	0	0.0	3	0.5	9	0.6	7	1.9	0	0.0	19
Non-traffic pedal cycle	7	1.1	6	0.9	9	0.6	1	0.3	0	0.0	23
Other	33	5.0	24	3.7	101	6.5	10	2.8	6	2.6	174
Unknown	158	24.2	116	17.8	384	24.6	64	17.7	93	40.8	815
Total	654	100.0	651	100.0	1,560	100.0	361	100.0	228	100.0	3,454

Table 19. ABI by age, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
0-4	45	31.5	16.2	98	68.5	35.2	143	100.0	51.4
5-14	17	23.3	3.1	56	76.7	10.2	73	100.0	13.3
15-24	89	27.3	15.9	237	72.7	42.3	326	100.0	58.2
25-44	324	31.2	27.2	714	68.8	60.0	1,038	100.0	87.2
45-64	512	38.0	46.0	836	62.0	75.1	1,348	100.0	121.1
65+	699	52.1	127.2	643	47.9	117.0	1,342	100.0	244.2
Total	1,686	39.5	39.8	2,584	60.5	60.9	4,270	100.0	100.7

Table 20. ABI by gender, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Male	969	44.5	46.6	1,208	55.5	58.1	2,177	100.0	104.7
Female	717	34.3	33.1	1,376	65.7	63.6	2,093	100.0	96.8
Total	1,686	39.5	39.8	2,584	60.5	60.9	4,270	100.0	100.7

Table 21. Incidence of ABI by county, sorted by county name, 2007

County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate
Adair	16	0.4	85.6	89.7	Grant	26	0.6	113.0	103.3	McLean	8	0.2	95.8	82.2
Allen	11	0.3	55.9	58.2	Graves	45	1.1	112.5	119.8	Meade	16	0.4	59.4	58.7
Anderson	19	0.4	85.6	89.4	Grayson	28	0.7	107.0	110.4	Menifee	5	0.1	60.8	73.9
Ballard	5	0.1	44.0	60.2	Green	9	0.2	75.5	77.8	Mercer	23	0.5	100.2	105.4
Barren	38	0.9	83.9	92.3	Greenup	36	0.8	89.1	96.6	Metcalfe	13	0.3	115.7	126.6
Bath	12	0.3	92.6	103.5	Hancock	*	-	-	-	Monroe	9	0.2	72.9	77.2
Bell	41	1.0	130.2	141.4	Hardin	120	2.8	123.1	122.5	Montgomery	21	0.5	83.1	83.2
Boone	70	1.6	66.1	62.2	Harlan	58	1.4	177.7	186.7	Morgan	11	0.3	75.3	77.3
Bourbon	20	0.5	94.3	101.2	Harrison	17	0.4	76.7	91.6	Muhlenberg	13	0.3	39.5	41.5
Boyd	70	1.6	133.8	144.4	Hart	11	0.3	60.8	59.8	Nelson	49	1.1	115.1	115.2
Boyle	32	0.7	102.7	111.6	Henderson	25	0.6	50.9	55.2	Nicholas	8	0.2	119.3	116.1
Bracken	9	0.2	99.4	105.0	Henry	12	0.3	72.8	76.4	Ohio	12	0.3	44.2	50.9
Breathitt	24	0.6	140.6	153.3	Hickman	*	-	-	-	Oldham	44	1.0	89.1	78.7
Breckinridge	16	0.4	84.7	83.8	Hopkins	71	1.7	135.0	153.4	Owen	9	0.2	73.7	79.0
Bullitt	44	1.0	66.0	59.5	Jackson	19	0.4	140.0	139.9	Owsley	9	0.2	211.7	195.1
Butler	13	0.3	96.3	98.1	Jefferson	787	18.4	106.0	111.0	Pendleton	14	0.3	92.6	93.0
Caldwell	8	0.2	61.3	62.7	Jessamine	46	1.1	102.7	101.0	Perry	39	0.9	136.6	133.5
Calloway	24	0.6	62.7	66.3	Johnson	32	0.7	131.9	133.3	Pike	80	1.9	116.1	122.1
Campbell	71	1.7	80.3	81.7	Kenton	151	3.5	98.8	96.4	Powell	15	0.4	110.9	108.6
Carlisle	*	-	-	-	Knott	26	0.6	142.0	150.5	Pulaski	101	2.4	156.1	167.9
Carroll	6	0.1	57.0	57.0	Knox	61	1.4	173.2	187.5	Robertson	*	-	-	-
Carter	29	0.7	104.7	105.7	Larue	15	0.4	94.9	109.8	Rockcastle	21	0.5	114.6	125.8
Casey	28	0.7	163.7	173.2	Laurel	54	1.3	89.1	94.2	Rowan	18	0.4	83.1	79.8
Christian	57	1.3	78.5	70.5	Lawrence	13	0.3	76.0	79.6	Russell	38	0.9	203.7	221.7
Clark	45	1.1	124.6	126.6	Lee	11	0.3	151.0	147.8	Scott	37	0.9	97.4	86.1
Clay	21	0.5	83.8	88.5	Leslie	9	0.2	79.6	76.4	Shelby	27	0.6	69.1	66.7
Clinton	18	0.4	213.5	188.8	Letcher	22	0.5	86.4	91.6	Simpson	11	0.3	59.6	64.4
Crittenden	12	0.3	112.7	131.4	Lewis	15	0.4	108.3	108.0	Spencer	15	0.4	89.2	89.1
Cumberland	6	0.1	67.2	87.3	Lincoln	26	0.6	102.3	103.0	Taylor	26	0.6	103.2	108.7
Daviess	75	1.8	74.6	80.0	Livingston	10	0.2	86.2	104.1	Todd	*	-	-	-
Edmonson	*	-	-	-	Logan	17	0.4	58.6	62.7	Trigg	*	-	-	-
Elliott	7	0.2	115.6	98.1	Lyon	11	0.3	115.1	133.3	Trimble	5	0.1	64.3	55.7
Estill	18	0.4	119.6	120.2	Madison	54	1.3	72.2	66.6	Union	9	0.2	60.4	59.6
Fayette	282	6.6	104.5	101.1	Magoffin	16	0.4	111.8	121.3	Warren	87	2.0	85.4	83.6
Fleming	12	0.3	76.6	81.7	Marion	20	0.5	106.3	105.6	Washington	6	0.1	46.1	51.9
Floyd	56	1.3	128.3	133.3	Marshall	43	1.0	127.7	137.6	Wayne	13	0.3	59.5	63.0
Franklin	47	1.1	93.8	97.1	Martin	18	0.4	170.4	154.6	Webster	6	0.1	37.8	43.2
Fulton	10	0.2	144.6	147.2	Mason	18	0.4	98.8	104.7	Whitley	52	1.2	133.3	135.6
Gallatin	9	0.2	108.7	112.0	McCracken	87	2.0	130.3	134.3	Wolfe	9	0.2	116.4	127.8
Garrard	19	0.4	108.0	111.5	McCreary	18	0.4	104.2	103.9	Woodford	11	0.3	46.2	45.2

* At least one but fewer than five

- Percentage or rate suppressed to prevent disclosure of the value on which it was based

Table 22. Incidence of ABI by county, sorted by frequency, 2007

County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate
Jefferson	787	18.4	106.0	111.0	Grant	26	0.6	113.0	103.3	Crittenden	12	0.3	112.7	131.4
Fayette	282	6.6	104.5	101.1	Knott	26	0.6	142.0	150.5	Fleming	12	0.3	76.6	81.7
Kenton	151	3.5	98.8	96.4	Lincoln	26	0.6	102.3	103.0	Henry	12	0.3	72.8	76.4
Hardin	120	2.8	123.1	122.5	Taylor	26	0.6	103.2	108.7	Ohio	12	0.3	44.2	50.9
Pulaski	101	2.4	156.1	167.9	Henderson	25	0.6	50.9	55.2	Allen	11	0.3	55.9	58.2
McCracken	87	2.0	130.3	134.3	Breathitt	24	0.6	140.6	153.3	Hart	11	0.3	60.8	59.8
Warren	87	2.0	85.4	83.6	Callow ay	24	0.6	62.7	66.3	Lee	11	0.3	151.0	147.8
Pike	80	1.9	116.1	122.1	Mercer	23	0.5	100.2	105.4	Lyon	11	0.3	115.1	133.3
Daviess	75	1.8	74.6	80.0	Letcher	22	0.5	86.4	91.6	Morgan	11	0.3	75.3	77.3
Campbell	71	1.7	80.3	81.7	Clay	21	0.5	83.8	88.5	Simpson	11	0.3	59.6	64.4
Hopkins	71	1.7	135.0	153.4	Montgomery	21	0.5	83.1	83.2	Woodford	11	0.3	46.2	45.2
Boone	70	1.6	66.1	62.2	Rockcastle	21	0.5	114.6	125.8	Fulton	10	0.2	144.6	147.2
Boyd	70	1.6	133.8	144.4	Bourbon	20	0.5	94.3	101.2	Livingston	10	0.2	86.2	104.1
Knox	61	1.4	173.2	187.5	Marion	20	0.5	106.3	105.6	Bracken	9	0.2	99.4	105.0
Harlan	58	1.4	177.7	186.7	Anderson	19	0.4	85.6	89.4	Gallatin	9	0.2	108.7	112.0
Christian	57	1.3	78.5	70.5	Garrard	19	0.4	108.0	111.5	Green	9	0.2	75.5	77.8
Floyd	56	1.3	128.3	133.3	Jackson	19	0.4	140.0	139.9	Leslie	9	0.2	79.6	76.4
Laurel	54	1.3	89.1	94.2	Clinton	18	0.4	213.5	188.8	Monroe	9	0.2	72.9	77.2
Madison	54	1.3	72.2	66.6	Estill	18	0.4	119.6	120.2	Ow en	9	0.2	73.7	79.0
Whitley	52	1.2	133.3	135.6	Martin	18	0.4	170.4	154.6	Ow sley	9	0.2	211.7	195.1
Nelson	49	1.1	115.1	115.2	Mason	18	0.4	98.8	104.7	Union	9	0.2	60.4	59.6
Franklin	47	1.1	93.8	97.1	McCreary	18	0.4	104.2	103.9	Wolfe	9	0.2	116.4	127.8
Jessamine	46	1.1	102.7	101.0	Row an	18	0.4	83.1	79.8	Caldw ell	8	0.2	61.3	62.7
Clark	45	1.1	124.6	126.6	Harrison	17	0.4	76.7	91.6	McLean	8	0.2	95.8	82.2
Graves	45	1.1	112.5	119.8	Logan	17	0.4	58.6	62.7	Nicholas	8	0.2	119.3	116.1
Bullitt	44	1.0	66.0	59.5	Adair	16	0.4	85.6	89.7	Elliott	7	0.2	115.6	98.1
Oldham	44	1.0	89.1	78.7	Breckinridge	16	0.4	84.7	83.8	Carroll	6	0.1	57.0	57.0
Marshall	43	1.0	127.7	137.6	Magoffin	16	0.4	111.8	121.3	Cumberland	6	0.1	67.2	87.3
Bell	41	1.0	130.2	141.4	Meade	16	0.4	59.4	58.7	Washington	6	0.1	46.1	51.9
Perry	39	0.9	136.6	133.5	Larue	15	0.4	94.9	109.8	Webster	6	0.1	37.8	43.2
Barren	38	0.9	83.9	92.3	Lew is	15	0.4	108.3	108.0	Ballard	5	0.1	44.0	60.2
Russell	38	0.9	203.7	221.7	Pow ell	15	0.4	110.9	108.6	Menifee	5	0.1	60.8	73.9
Scott	37	0.9	97.4	86.1	Spencer	15	0.4	89.2	89.1	Trimble	5	0.1	64.3	55.7
Greenup	36	0.8	89.1	96.6	Pendleton	14	0.3	92.6	93.0	Carlisle	*	-	-	-
Boyle	32	0.7	102.7	111.6	Butler	13	0.3	96.3	98.1	Edmonson	*	-	-	-
Johnson	32	0.7	131.9	133.3	Law rence	13	0.3	76.0	79.6	Hickman	*	-	-	-
Carter	29	0.7	104.7	105.7	Metcalfe	13	0.3	115.7	126.6	Todd	*	-	-	-
Casey	28	0.7	163.7	173.2	Muhlenberg	13	0.3	39.5	41.5	Trigg	*	-	-	-
Grayson	28	0.7	107.0	110.4	Wayne	13	0.3	59.5	63.0	Hancock	*	-	-	-
Shelby	27	0.6	69.1	66.7	Bath	12	0.3	92.6	103.5	Robertson	*	-	-	-

* At least one but few er than five

- Percentage or rate suppressed to prevent disclosure of the value on w hich it w as based

Table 23. Incidence of ABI by county, sorted by age-adjusted rate, 2007

County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate	County	Freq	Percent	Age-Adjusted Rate	Crude Rate
Clinton	18	0.4	213.5	188.8	Garrard	19	0.4	108.0	111.5	Christian	57	1.3	78.5	70.5
Owsley	9	0.2	211.7	195.1	Grayson	28	0.7	107.0	110.4	Harrison	17	0.4	76.7	91.6
Russell	38	0.9	203.7	221.7	Marion	20	0.5	106.3	105.6	Fleming	12	0.3	76.6	81.7
Harlan	58	1.4	177.7	186.7	Jefferson	787	18.4	106.0	111.0	Lawrence	13	0.3	76.0	79.6
Knox	61	1.4	173.2	187.5	Carter	29	0.7	104.7	105.7	Green	9	0.2	75.5	77.8
Martin	18	0.4	170.4	154.6	Fayette	282	6.6	104.5	101.1	Morgan	11	0.3	75.3	77.3
Casey	28	0.7	163.7	173.2	McCreary	18	0.4	104.2	103.9	Daviess	75	1.8	74.6	80.0
Pulaski	101	2.4	156.1	167.9	Taylor	26	0.6	103.2	108.7	Owen	9	0.2	73.7	79.0
Lee	11	0.3	151.0	147.8	Jessamine	46	1.1	102.7	101.0	Monroe	9	0.2	72.9	77.2
Fulton	10	0.2	144.6	147.2	Boyle	32	0.7	102.7	111.6	Henry	12	0.3	72.8	76.4
Knott	26	0.6	142.0	150.5	Lincoln	26	0.6	102.3	103.0	Madison	54	1.3	72.2	66.6
Breathitt	24	0.6	140.6	153.3	Mercer	23	0.5	100.2	105.4	Hickman	*	-	-	-
Jackson	19	0.4	140.0	139.9	Bracken	9	0.2	99.4	105.0	Shelby	27	0.6	69.1	66.7
Perry	39	0.9	136.6	133.5	Kenton	151	3.5	98.8	96.4	Cumberland	6	0.1	67.2	87.3
Hopkins	71	1.7	135.0	153.4	Mason	18	0.4	98.8	104.7	Boone	70	1.6	66.1	62.2
Boyd	70	1.6	133.8	144.4	Scott	37	0.9	97.4	86.1	Bullitt	44	1.0	66.0	59.5
Whitley	52	1.2	133.3	135.6	Butler	13	0.3	96.3	98.1	Trimble	5	0.1	64.3	55.7
Johnson	32	0.7	131.9	133.3	McLean	8	0.2	95.8	82.2	Calloway	24	0.6	62.7	66.3
McCracken	87	2.0	130.3	134.3	Larue	15	0.4	94.9	109.8	Caldwell	8	0.2	61.3	62.7
Bell	41	1.0	130.2	141.4	Bourbon	20	0.5	94.3	101.2	Hart	11	0.3	60.8	59.8
Floyd	56	1.3	128.3	133.3	Franklin	47	1.1	93.8	97.1	Menifee	5	0.1	60.8	73.9
Marshall	43	1.0	127.7	137.6	Pendleton	14	0.3	92.6	93.0	Union	9	0.2	60.4	59.6
Clark	45	1.1	124.6	126.6	Bath	12	0.3	92.6	103.5	Simpson	11	0.3	59.6	64.4
Hardin	120	2.8	123.1	122.5	Spencer	15	0.4	89.2	89.1	Wayne	13	0.3	59.5	63.0
Estill	18	0.4	119.6	120.2	Oldham	44	1.0	89.1	78.7	Meade	16	0.4	59.4	58.7
Nicholas	8	0.2	119.3	116.1	Greenup	36	0.8	89.1	96.6	Logan	17	0.4	58.6	62.7
Wolfe	9	0.2	116.4	127.8	Laurel	54	1.3	89.1	94.2	Carroll	6	0.1	57.0	57.0
Pike	80	1.9	116.1	122.1	Letcher	22	0.5	86.4	91.6	Allen	11	0.3	55.9	58.2
Metcalfe	13	0.3	115.7	126.6	Livingston	10	0.2	86.2	104.1	Henderson	25	0.6	50.9	55.2
Elliott	7	0.2	115.6	98.1	Adair	16	0.4	85.6	89.7	Woodford	11	0.3	46.2	45.2
Lyon	11	0.3	115.1	133.3	Anderson	19	0.4	85.6	89.4	Washington	6	0.1	46.1	51.9
Nelson	49	1.1	115.1	115.2	Warren	87	2.0	85.4	83.6	Ohio	12	0.3	44.2	50.9
Rockcastle	21	0.5	114.6	125.8	Breckinridge	16	0.4	84.7	83.8	Ballard	5	0.1	44.0	60.2
Grant	26	0.6	113.0	103.3	Barren	38	0.9	83.9	92.3	Muhlenberg	13	0.3	39.5	41.5
Crittenden	12	0.3	112.7	131.4	Clay	21	0.5	83.8	88.5	Webster	6	0.1	37.8	43.2
Graves	45	1.1	112.5	119.8	Montgomery	21	0.5	83.1	83.2	Edmonson	*	-	-	-
Magoffin	16	0.4	111.8	121.3	Rowan	18	0.4	83.1	79.8	Trigg	*	-	-	-
Powell	15	0.4	110.9	108.6	Carlisle	*	-	-	-	Robertson	*	-	-	-
Gallatin	9	0.2	108.7	112.0	Campbell	71	1.7	80.3	81.7	Todd	*	-	-	-
Lewis	15	0.4	108.3	108.0	Leslie	9	0.2	79.6	76.4	Hancock	*	-	-	-

* At least one but fewer than five

- Percentage or rate suppressed to prevent disclosure of the value on which it was based

Table 24. Causes of ABI (based on diagnosis code), 2007

	Fatal		Non-fatal	
ABI Category	Number	Percent	Number	Percent
Anoxia	1328	77.8	1132	43.4
Exposure to toxic substances	358	21.0	1123	43.1
Allergy/anaphylaxis	5	0.3	123	4.7
Acute medical clinical incidents	16	0.9	228	8.7

* Because there are multiple diagnoses and/or causes of death listed for each individual, it is possible for the same case to fall into more than one ABI category. Therefore, the column sums in this table are slightly higher than the total number of ABI cases shown in previous tables.

Table 25. Anoxia by age group, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
0-4	40	53.3	14.4	35	46.7	12.6	75	100.0	26.9
5-14	13	38.2	2.4	21	61.8	3.8	34	100.0	6.2
15-24	60	37.5	10.7	100	62.5	17.9	160	100.0	28.6
25-44	183	43.8	15.4	235	56.2	19.7	418	100.0	35.1
45-64	383	52.3	34.4	350	47.7	31.4	733	100.0	65.8
65+	649	62.4	118.1	391	37.6	71.2	1,040	100.0	189.3
Total	1,328	54.0	31.3	1,132	46.0	26.7	2,460	100.0	58.0

Table 26. Exposure to toxic substances by age group, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
0-4	6	15.0	2.2	34	85.0	12.2	40	100.0	14.4
5-14	3	11.1	0.5	24	88.9	4.4	27	100.0	4.9
15-24	31	20.1	5.5	123	79.9	22.0	154	100.0	27.5
25-44	149	26.2	12.5	420	73.8	35.3	569	100.0	47.8
45-64	125	27.1	11.2	337	72.9	30.3	462	100.0	41.5
65+	44	19.2	8.0	185	80.8	33.7	229	100.0	41.7
Total	358	24.2	8.4	1,123	75.8	26.5	1,481	100.0	34.9

Table 27. Injury-related causes of ABI (based on E-code), 2007

	Fatal			Non-fatal			Total		
Mechanism of Injury	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Poisoning	298	26.2	7.0	841	73.8	19.8	1,139	100.0	26.9
Suffocation	171	91.0	4.0	17	9.0	0.4	188	100.0	4.4
Drowning	52	86.7	1.2	8	13.3	0.2	60	100.0	1.4
Falls	23	45.1	0.5	28	54.9	0.7	51	100.0	1.2
Motor vehicle traffic crash	32	69.6	0.8	14	30.4	0.3	46	100.0	1.1
Fire/burn	25	80.6	0.6	6	19.4	0.1	31	100.0	0.7
Other	43	40.6	1.0	63	59.4	1.5	106	100.0	2.5
Total	644	39.7	15.2	977	60.3	23.0	1,621	100.0	38.2

Table 28. Length of stay for non-fatal ABI, 2007

Length of Stay	Number	Percent*
1 day	493	19.1
More than one day but less than 1 week	1126	43.6
1 week to less than 2 weeks	483	18.7
2 weeks to less than 3 weeks	221	8.6
3 weeks to less than 4 weeks	125	4.8
4 weeks or more	136	5.3
Total	2584	100.0

*Percent of hospitalized ABI

Table 29. Hospital discharge disposition for nonfatal ABI, 2007

Discharge Disposition	Number	Percent
Routine discharge (home/self care)	1,365	52.8
Skilled nursing facility (SNF)	274	10.6
Home health	263	10.2
Inpatient-other type facility	120	4.6
Inpatient-other short-term hospital	100	3.9
Intermediate care facility (ICF)	16	0.6
Other	446	17.3
Total	2,584	100.0

Table 30. Primary payers for hospitalized ABI, 2007
(Hospital Discharge Dataset only)

Payer	Number of Discharges	Percent of Discharges	Total Hospital Charges
Government	1,363	52.7	$ 62,379,363
Commercial Insurance	431	16.7	$ 20,068,313
Self Pay	252	9.8	$ 7,034,229
Workers Compensation	17	0.7	$ 867,309
HMO	185	7.2	$ 4,968,691
Other	336	13.0	$ 15,130,484
Total	2,584	100.0	$ 110,448,389

Table 31. Work related ABI, 2007

Work Related	Number
Fatalities	6
Non-Fatal	26
Total Work Related	32

Table 32. SCI by age, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
0-4	0	0.0	0.0	0	0.0	0.0	0	100.0	0.0
5-14	0	0.0	0.0	7	100.0	1.3	7	100.0	1.3
15-24	8	22.2	1.4	28	77.8	5.0	36	100.0	6.4
25-44	14	23.7	1.2	45	76.3	3.8	59	100.0	5.0
45-64	10	12.2	0.9	72	87.8	6.5	82	100.0	7.4
65+	26	31.0	4.7	58	69.0	10.6	84	100.0	15.3
Total	58	21.6	1.4	210	78.4	5.0	268	100.0	6.3

Table 33. SCI by gender, 2007

	Fatal			Non-fatal			Total		
Age	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Male	38	20.0	1.8	152	80.0	7.3	190	100.0	9.1
Female	20	25.6	0.9	58	74.4	2.7	78	100.0	3.6
Total	58	21.6	1.4	210	78.4	5.0	268	100.0	6.3

Table 34. Leading causes of SCI, all ages, 2007

	Fatal			Non-fatal			Total		
Mechanism of Injury	Number	Percent	Rate	Number	Percent	Rate	Number	Percent	Rate
Motor vehicle traffic crash	26	38.2	0.6	42	61.8	1.0	68	100.0	1.6
Fall	12	18.5	0.3	53	81.5	1.2	65	100.0	1.5
Non-traffic land transportation	3	23.1	0.1	10	76.9	0.2	13	100.0	0.3
Struck by or against object or person	1	8.3	0.0	11	91.7	0.3	12	100.0	0.3
Firearm	0	0.0	0.0	2	100.0	0.0	2	100.0	0.0
Other	5	27.8	0.1	13	72.2	0.3	18	100.0	0.4
Unknown (missing E-code)	11	12.2	0.3	79	87.8	1.9	90	100.0	2.1
Total	58	21.6	1.4	210	78.4	5.0	268	100.0	6.3

Table 35. Length of stay for non-fatal SCI, 2007

Length of Stay	Number	Percent*
1 day	14	6.7
More than one day but less than 1 week	70	33.3
1 week to less than 2 weeks	45	21.4
2 weeks to less than 3 weeks	30	14.3
3 weeks to less than 4 weeks	29	13.8
4 weeks or more	22	10.5
Total	210	100.0

*Percent of hospitalized SCI

Table 36. Hospital discharge disposition for non-fatal SCI, 2007

Discharge Disposition	Number	Percent
Routine discharge (home/self care)	70	33.3
Home health	20	9.5
Skilled nursing facility (SNF)	22	10.5
Inpatient-other short-term hospital	12	5.7
Inpatient-other type facility	3	1.4
Other	83	39.5
Total	210	100.0

Table 37. Primary payers for hospitalized SCI, 2007
(Hospital Discharge Dataset only)

Payer	Number of Discharges	Percent of Discharges	Total Hospital Discharges
Government	83	39.5	6,502,593
Commercial Ins	64	30.5	8,551,910
Workers Compensation	5	2.4	545,488
Self Pay	22	10.5	3,333,726
HMO	14	6.7	679,593
Other	22	10.5	1,221,947
Total	210	100.0	$14,332,664

Table 38. Work related SCI, 2007

Work Related	Number
Fatalities	0
Non-Fatal	5
Total Work Related	5