

## Central Nervous System Injury Surveillance System (CNSI)

### Coordinator:

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**State Website:** <https://kiprc.uky.edu/programs/central-nervous-system-injury-surveillance>

**National Website:** <http://www.cdc.gov/ncipc/tbi/TBI.html>

### Why is it used?

- To track cases of traumatic brain injury, spinal cord injury, non-traumatic brain injury and stroke as defined by the CDC and Kentucky Revised Statutes, [KRS 211.470](#).
- To produce the annual CNSI surveillance report.
- For ad-hoc data requests and reporting.

### What data is collected?

- Demographics such as age, gender and county of residence.
- Cause of injury including mechanism, manner and external cause of injury code.
- Information about injury severity including fatality indicator, injury severity score, length of stay in hospital and discharge diagnosis.
- Name of the hospital.
- Payers billed and total charges billed for those who were hospitalized.

### How is data collected?

Data is taken from two sources:

- Kentucky Hospital Discharge Database (HDD) for inpatient hospital records and emergency department visits for CNSI.
- National Center for Health Statistics annual Multiple Cause of Death (MCOB) files for fatalities.

### Data Strengths:

- Population-based rather than relying on a sampling strategy.
- Follows the 2002 CDC's Central Nervous System Injury data submission standards, meaning Kentucky's results are comparable to those of many other states who conduct CNSI surveillance.

**Data Limitations:**

- MCODE files are based on cases collected by Kentucky's Office of Vital Statistics (OVS) and can sometimes be incomplete.
- HDD records do not capture Kentucky residents treated out-of-state.
- HDD records are de-identified making it impossible to ascertain whether the visit is for a new first-time injury or a repeat visit.

**How is the system evaluated?**

- MCODE files are based on death certificate files provided to the National Center for Health Statistics (NCHS) by OVS.
  - OVS entry evaluation measures apply to CNSI as well.
- The system is also evaluated by computerized edit checks put in place by the collecting source for the HDD.

**Data Set Availability:**

- Case level data release from the CNSI database is not permitted.
- Aggregated data may be requested by contacting the coordinator listed above.

**Data Release Policy:**

- Data is not made generally available.
- Ad-hoc data requests are filled by way of summary data, with suppression of counts less than five in areas where confidentiality may be threatened.

**Data Publications:**

- Kentucky Injury Prevention and Research Center (KIPRC) publishes an annual report of the Traumatic Brain Injury and Spinal Cord Injury Project.
- Once finalized, the 2023 report will be available on the website:  
<https://kiprc.uky.edu/programs/kentucky-brain-and-spinal-cord-injury-surveillance>

**Suggested Citation:**

Kentucky Injury Prevention and Research Center (KIPRC). Central Nervous System Injury Surveillance Project. Lexington, Kentucky: University of Kentucky [data year].

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