Background

Injuries are a significant public health challenge for Kentucky. Not only are they the leading cause of death for Kentuckians age 1 to 44, but they are also the number one cause of visits to emergency departments in the Commonwealth. Thousands of residents each year experience disability and chronic pain due to injuries from traffic crashes, falls, poisoning and many other mechanisms.

The Commonwealth’s Inpatient and Outpatient (IPOP) hospital data collection system is an invaluable resource for identifying and reducing injury risks. IPOP data are used extensively by the public health community to identify and prioritize injury and safety problems, select appropriate countermeasures and design interventions. IPOP data have already played an important educational role in major safety-related policy initiatives such as the establishment of a primary enforcement seat belt law (see sidebar at right).

Policy opportunity

In May 2012, the Trust for America’s Health and the Robert Wood Johnson Foundation released a report titled, *The Facts Hurt: A State-By-State Injury Prevention Policy Report*. This report identifies ten key state safety policy indicators. Kentucky currently meets 3 of the 10 safety indicators. One of the indicators that Kentucky did not meet relates to the reporting of E-codes on injury-related discharges. The criterion for meeting this indicator requires that at least 90 percent of injury-related discharge records for emergency department (ED) patients include an E-code. As the report explains, these codes help researchers track trends and develop prevention strategies.

Only 23 states met this indicator. In Kentucky in 2011, 85% of injury-related ED discharges reported to IPOP included an E-code. Meeting this indicator is well within our reach.

IPOP data improve safety policy

- In 2006, the Kentucky legislature upgraded the statute governing safety belt use (KRS 189.125) to allow citation for failure to use a safety belt as a primary offense.
- Prior to the implementation of primary enforcement, the rate of restraint use in Kentucky had been level at around 66% since 2003.
- **IPOP data played an important role** in educating policymakers about the economic and public health impacts of this proposed policy change. In a report titled, *Economic Costs of Low Safety-Belt Usage in Kentucky*, it was estimated that a primary enforcement law would result in savings of $118 million in direct medical costs between 2006 and 2015. *This projection was based on IPOP data* on Kentuckians known to have been hospitalized as a result of a traffic crash. The report was distributed to all Kentucky legislators prior to the 2006 session.
- Since implementation of primary enforcement, restraint use has increased to 82%, and in 2011 there were 192 fewer traffic fatalities in KY than there were in 2006 (a decrease of 21%).

![Kentucky traffic fatalities, 2006-2011](image-url)
Recommendations

1. For all discharges for which the principal or first-listed diagnosis is an injury (800-994, 995.5 or 995.80-995.85, excluding 909.3 and 909.5), do the following:

   o Include at least one E-code to identify the mechanism and manner of injury, i.e. any E-code other than the following: E849, E967, E869.4, E870-E879, or E930-E949.

   o Include an E-code in the range E849.0 – E849.9 to identify the location where the injury occurred

   o If appropriate, include an E-code in the range E000 – E030 (an “Activity code”) that identifies an activity in which the patient was involved at the time of injury

   o Include any other E-codes that would provide additional relevant details, e.g. E967.x (perpetrator of abuse or maltreatment), etc.

   o Minimize the use of non-specific E-codes, such as E888.9, “Unspecified fall” (see sidebar)

2. To aid in tracking progress, KIPRC will provide OHP and KHA with a confidential annual report on E-code utilization for injury encounters.

Implementation

Implementation of these recommendations may require changes to the way that data is collected on the medical record. Clearly, coders can only code what’s been captured on the record.

The IPOP reporting format provides space for up to three E-codes and 25 diagnostic codes to be reported. If sufficient information is available to specify more than three E-codes, the additional codes may be reported in unused diagnostic code fields.

Benefits

The effect of improving E-code utilization will be more complete information about the causes of injuries, which will lead to greater ability to select appropriate countermeasures and implement them effectively (see sidebar on falls in adults for a specific example).

Using IPOP data to reduce fall risks for seniors

What IPOP data tell us:

- In 2011, there were more than 34,000 fall-related inpatient and outpatient discharges of Kentuckians ages 65+
- On 72% of those fall-related discharges the patient was female
- We can identify counties where the risk of such occurrences is substantially higher than the state average

What IPOP data sometimes tell us, but often don’t:

- In 2011, only 15% of fall-related discharge records included information in the E-code(s) about the cause or circumstances of the fall
- The two most commonly reported fall-related E-codes were E888.9, “Unspecified fall,” and E885.9, “Fall from other slipping, tripping or stumbling”

What IPOP data usually don’t tell us, but could:

- Where the fall occurred (home, farm, residential institution, place of recreation, etc.)
- Activities that may have contributed to the fall, e.g. household maintenance, gardening and landscaping, bathing, sports/athletics, walking/running, etc.

How more complete injury coding would make a difference:

- If we know that a majority of falls requiring hospital treatment occur at private residences, we can target fall prevention efforts at homeowners
- If we know that certain activities (e.g. using stairs) account for a majority of fall-related hospital encounters, we can direct risk-reduction efforts towards those activities

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