Crash Outcome Data Evaluation System (CODES)

The Georgia CODES Project is a data-linking project federally funded by the National Highway Traffic Safety Administration (NHTSA) and also uses 408 funds through GOHS. The project is housed in the Injury Prevention Program of the Department of Community Health. Injuries resulting from motor vehicle crashes remain a major health concern. Any one data set alone (Crash, Hospital/ER, EMS) does not give a complete picture of the risks factors of crash-related injuries and fatalities. But by linking crash, vehicle, and data on risk and protective factors to their medical and financial outcomes, a more comprehensive view of crash injuries is created, and opportunities for prevention can be identified.

Programmatic decisions are data driven and based on the analysis of injury data. With the growing interest in injury prevention programs within the traffic safety, public health, and law enforcement communities, there are a number of local, state, and federal initiatives, which drive the development of injury data analysis. At best this analysis incorporates crash, pre-hospital (EMS), emergency department (ED), hospital admission/discharge, trauma registry, and long-term rehabilitation databases to track injury causes, magnitude, costs, and outcomes. Georgia CODES has been used to link data from crash records with EMS records and hospital records.

What is CODES?

- CODES uses linked electronic data to track persons involved in motor vehicle crashes from the scene through the health care system to determine crash outcome in terms of mortality, injury, severity, and health care costs.
- CODES uses probabilistic techniques to link crash and injury records.
  - Combinations of identifiers are used to identify records for specific individuals. For instance, geographic location, times, type of vehicle and other variables are used to identify a specific crash; age/date of birth, gender, description of injury, name or initials (if available) and other variables are used to locate a specific person.

What do linked crash and injury data tell us?

- Linked data identify the types of injuries and the costs that result from specific driver, vehicle, and crash characteristics. Below are examples of what linked data can identify:
  - Populations at greatest or least risk for different types of injuries
  - Hospitalization charges associated with crashes
  - Characteristics of driver and occupant behavior that resulted in crashes
  - Injuries in relation to bodily regions

The project uses the linked data to produce fact sheets and reports using identified prioritized motor vehicle areas of interest. Injury Prevention Section has worked toward institutionalizing CODES in Georgia by developing and maintaining relationships with data owners, users, and injury prevention stakeholders through the establishment of two groups, the CODES Board and CODES Data Subcommittee.

CONCLUSIONS

With the Governor’s SHSP, Georgia’s highway safety goals are more clearly defined. Measurable lifesaving strategies contribute to specific highway safety areas to achieve the desired, lifesaving outcomes. Existing highway safety plans and organizational contributions are aligned to leverage existing resources. The results are Georgia’s annual highway fatalities continue to decline. Georgia evaluates its progress using three-year averages through 2012. Georgia will review the statewide annual fatality reduction goal every three years. The 2012 annual highway fatality total should close out under previous year’s 1,250. And, Georgia continues to “strive for zero deaths and injuries on Georgia roads.”