

Kentucky Occupational Safety and Health Surveillance (KOSHS)

**Coordinator:**

Terry Bunn, PhD
Kentucky Injury Prevention and Research Center
University of Kentucky
333 Waller Ave., Suite 206
Lexington, KY 40504
(859) 257-4955
tlbunn2@email.uky.edu

State Web Site:

<http://www.mc.uky.edu/kiprc/programs/koshs.html>

Sources of Information for the KOSHS Program

The Kentucky Occupational Safety and Health Surveillance (KOSHS) program is funded by the National Institute for Occupational Safety and Health (NIOSH) to conduct surveillance of 19 fatal and nonfatal occupational injuries and illnesses indicators, perform epidemiologic analysis of fatality data, develop priorities for intervention development based on high injury-risk worker population surveillance data, and to produce and disseminate prevention information to industries and occupations.

Since 2005, the KOSHS program has collected surveillance data on fatal and nonfatal occupational injuries and illnesses. A work-related injury is included in KOSHS datasets if it occurred in Kentucky and the decedent was performing work tasks. Multiple sources of information for occupational injury and illness surveillance include Bureau of Labor Statistics data, Kentucky Cancer Registry data, Adult Blood Lead Epidemiology Surveillance (ABLES) data, hospital discharge data, Census of Fatal Occupational Injuries (CFOI) data, National Academy of Social Insurance data, vital statistics data, Occupational Safety and Health Administration (OSHA) annual reports, and Office of Workers' Claims (OWC) data, among others. There is no Kentucky mandate that requires collection of occupational injury and illness data.

Description of Data Collected

Public access data sources include Bureau of Labor Statistics (BLS) Survey of Occupational Injuries and Illnesses, BLS Current Population Survey, Year 2000 US standard population data, US Census State Population data, National Academy of Social Insurance, CFOI, Bureau of Census County Business Patterns, OSHA annual reports, BLS statistics on covered employers and wages, and professional trade organization data.

Authorized resources (permission granted to the KOSHS program to use data) include data from the Kentucky inpatient hospitalization discharge set, death certificates, OWC, ABLES, Fatality Assessment and Control Evaluation (FACE), Collision Reporting and Analysis for Safer Highways (CRASH), Kentucky Cancer Registry data, and Kentucky Regional Poison Center data.

Electronic records are not identified by victim's name or employer's name. Data are updated and edited as new information is obtained. The KOSHS program works closely with other states, and NIOSH to facilitate data sharing through the ongoing development of common data input and output formats, and variables.

KOSHS data are analyzed with descriptive and advanced statistics using SAS®. Basic descriptive analysis on data variables is performed to assess data quality, validity, and to describe cases. Frequencies are determined for the datasets to account for any missing values. Routine cross-tabulations are performed to assess relationships between selected variables. Outliers are investigated for accuracy. Non-parametric statistics are run on all non-normally distributed variables, and chi-square and t-tests are performed where appropriate.

Strengths of the Data

The KOSHS program continues to build a solid foundation of surveillance, epidemiological studies, and innovative prevention strategies for translation of research into practice (R2P) for use by employers and policymakers. The strengths of the program are the timely, comprehensive multi-source surveillance, and epidemiologic analysis of fatal and nonfatal work-related injuries to identify risk factors. Also, research-to-practice (R2P) initiatives are promoted through effective dissemination of occupational injury and illness data, results, and materials to occupational safety and health stakeholders.

Data Limitations

Even though a multitude of data sources are used for the KOSHS program, not all occupational injuries and illnesses are being captured through the surveillance system. Undercounting of occupational injuries and illnesses is occurring due to increases in the temporary work force, self-employment status, and lack of workers' compensation coverage. Nevertheless, the KOSHS program provides an accurate indication of the scope of occupational injuries and illnesses in Kentucky to analyze trends within the state and to compare data to other states.

Specific Uses of Information

- Hazard alerts on specific types of occupational injuries.
- Peer-reviewed publications on occupational injuries and illnesses.
- Data requests from external and internal agencies, organizations, and associations.
- Production of prevention materials to educate legislators.
- Multi-state data collaborations.

System Evaluation

Evaluation of the KOSHS program is based on updated Centers for Disease Control and Prevention (CDC) guidelines to measure the program's impact on the reduction of occupational injuries in Kentucky, the validity of its goals, and the project's efficiency. Evaluation began in June 2005 so it is primarily a process evaluation to date. The indicators, prevention, and dissemination processes are included in the evaluation.

KOSHS

Data Set Availability

KOSHS data utilizes data from a number of proprietary and public data sets. For proprietary data sets, the user will be required to request the data set from the appropriate data custodian. For public data sets, the user should contact the Kentucky Injury Prevention and Research Center at (859) 257-4954.

Data Release Policy

KOSHS program data is derived from data sets maintained by other entities. Data release inquiries should be directed to the primary custodians of the data sets.

Data Publications

An annual KOSHS report, hazard alerts, and peer-reviewed publications are produced and available on the state KOSHS website.

Suggested Data Citation

Kentucky Injury Prevention and Research Center (KIPRC). Kentucky Occupational Safety and Health Surveillance (KOSHS) program. Lexington, Kentucky: University of Kentucky [**data year**].

References

Thomsen C, McClain J, Rosenman K, Davis L., Centers for Disease Control and Prevention (CDC)(2007). Indicators for occupational health surveillance. MMWR Recomm Rep. 56(RR-01):1-7.

Contributing Author

Terry Bunn, PhD, Kentucky Injury Prevention and Research Center