



Epidemiologic Notes & Reports

FIRE INJURY PREVENTION IN KENTUCKY

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State Injury Prevention Program

Residential house fires have been a major cause of mortality in Kentucky for many years. In 1995, 91 people died in residential fires in Kentucky. This was more than the number (73) who died from unintentional firearms incidents and drownings combined. While the number of fire deaths has decreased, to 48 in 1999, fire is still a leading cause of injury morbidity and mortality in Kentucky. Residential fires are the most deadly, usually accounting for more than 75% of the fire-related deaths in Kentucky each year.

The large number of residential fire-related deaths and injuries in Kentucky led the Department for Public Health to apply to the Centers for Disease Control and Prevention (CDC) for funding for a residential fire injury prevention project. The application was made by the State Injury Prevention Program (SIPP), which is housed at the Kentucky Injury Prevention and Research Center at the University of Kentucky. The project was funded and began operating in September, 1998 with the SIPP performing all project activities.

The project involves the provision of fire injury prevention interventions in three Kentucky counties each year during the three-year project period. These interventions focus primarily on the installation of residential smoke alarms within the project counties and on the provision of fire safety information to alarm recipients and other members of the community. Counties were selected for the project based upon residential fire fatality data, the availability of local support for the project, and the

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availability of SIPP field staff. The counties selected for the initial project year were Lawrence, McCreary, and Pike.

Initial telephone surveys in each county revealed prevalence rates for functional smoke alarms ranging from 70.7% to 79.6% (see Table 1). The goal for the project was to raise these rates to at least 92%, which is the state average as determined through the Behavioral Risk Factor Surveillance System (BRFSS).

The project involves the installation of lithium battery-powered smoke alarms in residences within each project county. These alarms have a 10-year service life without the need to replace the battery each year. They provide a more reliable source of protection than conventional alarms, which often become non-functional when the user fails to replace the battery regularly. The alarms are installed by local firefighters, nearly all of whom are volunteers, and by community service groups. SIPP's regional field coordinators provide training for alarm installers using videotape, reading materials, and guidelines developed by the SIPP. The regional coordinators, along with a local coalition that includes public health and fire service personnel as well as other community members, oversee the project in each county.

Households within the project counties -

FIRE INJURY PREVENTION IN KENTUCKY, Continued

nominate themselves for participation by submitting a project enrollment form. This form is often completed at the local health department or fire department, though most participating counties have also established other enrollment points. The SIPP regional coordinator collects the enrollment forms that have been submitted and distributes the forms to the appropriate installation agencies. Personnel from the installation agency then contact the applicant and visit his or her home to install smoke alarms. A sufficient number of smoke alarms are installed in the residence to meet the guidelines of the National Fire Protection Administration (NFPA) for residential smoke alarms. During the visit the installation team also provides fire prevention information to the residents and instructs them in how to maintain the alarm and how to develop and practice a fire escape plan. The final step in the process comes when the installation team completes the installation record portion of the enrollment form and returns it to the SIPP regional coordinator.

In addition to providing smoke alarm installations, the project also provides fire safety education to the entire community. Public safety announcements, newspaper stories, presentations to community groups and other activities are used to raise fire safety awareness in the community. The SIPP coordinators work in cooperation with the state Fire Marshal's office and various members of the fire service to promote the *Learn Not To Burn* fire safety education curriculum in local schools. The curriculum has been adopted by several schools in the project counties.

The first year of the residential fire injury prevention project was very successful. A total of 4,578 smoke alarms were installed (see Table 1) during the first project year. This represented approximately 2,044 households. In addition, an extensive public awareness campaign was conducted (see Table 2) that reached not only the project counties but numerous other counties in South-central and Eastern Kentucky.

The most impressive results, however, are shown by the post-intervention surveys. These surveys were conducted using the same methodology as the pre-intervention surveys, and they found marked increases in the prevalence of functional smoke alarms in each of the three project counties (see Table 1). The amount of increase ranged from 15.9 percent in Lawrence County to 18.8 percent in McCreary County. This represents a major increase in the number of households protected by smoke alarms in each of these counties.

Table 1. Fire Injury Prevention Program, Kentucky, County Data for October 1, 1998 – September 30, 1999

County	Initial Smoke Alarm Prevalence	Number of Households in County	Estimated Number of Alarms Needed	Number of Smoke Alarms Installed	Final Smoke Alarm Prevalence
Lawrence	79.6%	5,007	1,255	1,039	95.5%
McCreary	70.7%	5,479	1,978	1,614	89.5%
Pike	75.8%	26,148	1,674	1,925	93.7%

Table 2. Fire Injury Prevention Program, Kentucky, Public Awareness Activities for October 1, 1998 – September 30, 1999

Description of Activity	Estimated Audience
Radio PSA's	18,000
Television PSA's / series	250,000
Newspaper stories and ads	21,000
Health fairs / public events	5,000
Flyers, newsletters, etc.	1,000

The residential fire injury prevention project is currently in its second year. The project counties for the second year are Johnson, Pike and Russell. (Pike County was retained in the project beyond the first year due to its much larger population.) These counties are currently receiving smoke alarm installations and fire safety education interventions. Preliminary prevalence rates for these counties have

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been determined (see Table 3), but no evaluation data have been collected.

Table 3. Fire Injury Prevention Program, Kentucky, County Data for October 1, 1999 – September 30, 2000

County	Initial Smoke Alarm Prevalence	Number of Households in County	Estimated Number of Alarms Needed	Number of Alarms Installed By January, 2000	Final Smoke Alarm Prevalence
Johnson	69.2%	8,469	2,600	1,144	Unknown
Pike	93.7%	26,148	1,700	204	Unknown
Russell	80.5%	5,896	1,950	85	Unknown

* Note: Pike County prevalence data are based upon a partial sample; the actual figure is probably lower.

Fire deaths are dropping each year in Kentucky, but a great deal of work remains to be done. Fires still claim too many lives in the Commonwealth each year. The Residential Fire Injury Prevention Project is just one way to reduce fire-related deaths and injuries. Local public health agencies and health care providers can help by counseling their clients about fire safety. This is especially important for clients who smoke, because many fatal residential fires result from the improper use or disposal of smoking materials.

For additional information about fire safety or the residential fire injury prevention project, contact the State Injury Prevention Program at (606) 257-6741.

KENTUCKY'S 2-DAY CHILD PASSENGER SAFETY TRAINING PROGRAM

Robert H. McCool, MS EMT-B
State Injury Prevention Program

Child passenger safety (CPS) is an area of concern for many Kentuckians. In 1997, seventeen children aged birth to four years died in motor vehicle crashes in Kentucky. Of those children, 71% were not in child safety restraints. Even among those who were restrained, it is likely that they were not restrained properly. In some cases, parents or other caregivers simply don't make the effort to properly restrain children. In many other cases, however, a lack of knowledge about how to properly use child safety restraints leads well-meaning but untrained parents and caregivers to misuse a child restraint. An improperly used child restraint may not protect a child during a crash.

The Kentucky Injury Prevention and Research Center conducted a study of child safety restraint use in 1996¹ and found that 80% of children were improperly restrained, with 20% of these being totally unrestrained. Of those children who were restrained in some manner, 75% were restrained improperly. Later, when a stricter definition of proper restraint was applied, checks of child restraints found even greater levels of misuse. A recent series of checks across Kentucky found 98% of the 450 restraints checked were misused.² Unfortunately, despite the clear need for consumer training in the proper use of child restraint devices, such training has not always been easy to find.

In the mid-1990s, CPS training was not standardized in most areas. Many organizations provided CPS training and education, but there were few, if any, recognized standards, and each organization developed its own training curricula. To help reduce the confusion about appropriate child restraint installation and use, and to help institute a standard of training for CPS professionals, the National Highway Traffic Safety Administration (NHTSA) developed a standardized CPS training program. This

KENTUCKY'S 2-DAY CHILD PASSENGER SAFETY TRAINING PROGRAM, Continued

program, which consists of a 32-hour course plus a hands-on skill check off and a written certification examination, covers all types of child restraint devices in detail. Individuals who successfully complete the 32-hour NHTSA course may be certified by the American Automobile Association (AAA), as Child Passenger Safety Technicians.

The development of the NHTSA 32-hour course and the AAA certification program was a definite improvement in CPS training, but this program still did not meet the needs of all potential participants. Some organizations did not have the resources to send their personnel to a 4-day course, and others were unable to obtain the course in their area. NHTSA also recommends that individuals taking the CPS Technician course have prior child passenger safety experience, which was problematic for some individuals. Since some agencies will not allow their personnel to work with clients without formal training, it was difficult for many individuals to obtain CPS experience before attending the NHTSA course.

There is also a need for varying levels of child passenger safety expertise. Training CPS Technicians requires a relatively large amount of time and resources in order to cover the large number of potential problems and situations they may encounter. While some CPS problems are complicated, many problems commonly encountered by people attempting to install a child restraint properly can be resolved relatively easily. Supplementing the relatively limited number of CPS Technicians with a group of individuals trained to teach basic child restraint installation skills to consumers and to assist in resolving common installation problems offers a way to improve the child passenger safety situation in Kentucky. These individuals can provide basic CPS training for consumers and solve simple child restraint installation problems, allowing Technicians to focus on the more complex problems that require greater training and expertise to resolve.

The State Injury Prevention Program (SIPP), which is funded and directed by the Kentucky Department for Public Health, has provided child restraint training and (CPS) education as part of a child restraint distribution program conducted through local health departments since 1995. Local personnel have been trained to teach clients how to properly install the child restraints they received through the program.

In an effort to develop a standardized Child Safety Restraint user course that would be useful to all organizations that were involved in child passenger safety training in Kentucky, the SIPP invited other agencies with an interest in CPS training to collaborate on the joint development of a CPS curriculum. Various CPS professionals from around Kentucky originally assembled in late 1997 to examine the possibility of developing uniform child passenger safety training materials for Kentucky. During this initial meeting the development of a short course designed to train consumers to use child restraints properly was initiated.

The limited number of CPS Technicians available in the Commonwealth prompted the group which developed the consumer training program, to consider developing a curriculum to train health care providers to a level that would allow them to properly present the consumer training. At this point, the group, which became the Child Passenger Safety Curriculum Committee (CPSCC), began work on a 2-day CPS training curriculum. Plans were also initiated to offer a formal state certification for course graduates through the Training Branch of the Department for Public Health.

Other states also discovered a need for CPS training courses less than 32 hours in length. Sufficient

KENTUCKY'S 2-DAY CHILD PASSENGER SAFETY TRAINING PROGRAM, Continued

interest existed among the southeastern states that a special session was held prior to the regular quarterly meeting of the Southeastern Regional Injury Control Network (SERICN) in September, 1998 to consider the development of regional guidelines for shorter CPS training courses. Representatives of six of the eight states represented by the region attended the special session on CPS training.

After a year of discussion, SERICN and NHTSA co-sponsored a meeting in Tampa, FL on September 23-24, 1999 to develop regional standards for CPS training courses less than 32 hours in length. After two days of intense discussion, debate and revision, draft standards for courses lasting 4 hours, 8 hours, and 16 hours were developed.³ Guidelines for the scope of practice of individuals trained at each of these levels were also developed.

To insure that the curriculum was based on sound technical principles, the Kentucky CPSCC selected the NHTSA's *Operation Kids*⁴ law enforcement training curriculum as the core of the training course. This curriculum was then modified to make it applicable to personnel from a wide variety of fields, not just law enforcement. The regional guideline that was established for the 16-hour course was extremely similar to the material already being used by the CPSCC, so only minor modifications were needed to bring the Kentucky curriculum in line with the regional guidelines.

With clear standards and guidelines established, the Kentucky Standardized Child Passenger Safety Trainer Course was ready for a pilot test. SIPP provided the editing and desktop publishing services and printed the course materials for the pilot courses. These courses were conducted in Pikeville (November, 1999) and Lexington (December, 1999) with a total of 32 participants.

The results from the pilot courses demonstrated the value of the effort and planning that had been put into the project. Participant scores on the final examination averaged 87%, and student evaluations of the course were overwhelmingly positive. Based upon the results of this pilot program, the decision was made by the CPSCC to begin full implementation of the program in the spring of 2000. The certification process is being finalized and it is expected to be in place by April 1.

A class schedule is currently being developed and plans call for at least one class per month beginning in April. Plans are also being developed with the Department of Criminal Justice Training to provide this course as an in-service training course for law enforcement officers. Anyone interested in attending this course, or scheduling a course in his or her area, should contact the Kentucky State Injury Prevention Program at (606) 257-6741.

NOTES:

1. Spurlock, C. W., et. al. Improper Use of Child Safety Seats - Kentucky, 1996. *Morbidity and Mortality Weekly Report*, v. 47, n. 26. July 10, 1998. pp. 541-544.
 2. Report from 2000 Child Passenger Safety Week child restraint checkups organized by the Governor's Drive Smart! Program with assistance from various agencies. Additional information is available by contacting the program coordinator at (502) 564-1438.
 3. NHTSA publication pending.
 4. Wall, R. T. and Bolton, J. *Operation Kids Participant Manual*. International Association of Chiefs of Police, Alexandria, VA, USA. 1999.
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SAFETY TIPS

1. **Install and maintain** smoke alarms -- they are your best early warning system in the event of fire.
2. **Create a family fire escape plan**, and practice it, so that everyone knows what to do if the smoke alarm sounds or a fire is discovered.
3. **Do not allow** children to play with matches or lighters, and supervise them carefully around fire.
4. **Use portable space heaters carefully** and keep them at least three feet away from materials that might catch fire.
5. If you choose to smoke, dispose of smoking materials carefully, and **never smoke in bed** or while drinking alcohol or taking medication that might make you sleepy.
6. **Never leave a stove unattended** when you are cooking. Grease and cooking fires are a very common source of residential fires in Kentucky.
7. **Turn pot handles inward** on the stove to prevent them from being bumped or grabbed by small children.
8. **Don't** use electrical cords that are damaged and avoid overloading small cords. **Do not** plug several appliances into one outlet.
9. **Never** replace a fuse with any other object.
10. If your smoke alarm sounds, or you smell smoke, **get out quickly!** Follow your fire escape plan and crawl low to avoid dangerous smoke and hot gasses.
11. If your clothing catches fire, don't run -- **Stop, Drop and Roll.** Stop where you are, drop to the ground, cover your face with your hands and roll until the fire is out.



THE KENTUCKY CHILD PASSENGER SAFETY CURRICULUM COMMITTEE

Planning the development of the training curricula, selecting or developing the material to be included in the courses, and assembling and editing it into a format suitable for use in training CPS trainers from different backgrounds and professions was primarily task of the CPS Curriculum Committee (CPSCC). The CPSCC is a committee composed of representatives from various governmental organizations and private groups in Kentucky. The current members of the CPSCC are:

*Kathy Adams, RN
Pediatric Injury Prevention Program
Kentucky Injury Prevention and Research Center*

*Ron Clatos, MS
CIPP Northeastern Regional Coordinator
State Injury Prevention Program, Kentucky Injury Prevention and Research Center*

*Tina L. Cox
Program Manager
Highway Safety Branch, Kentucky State Police*

*Patti Parker Gaines
Child Passenger Safety Coordinator
Governor's Drive Smart! Program, Kentucky Transportation Cabinet*

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CIPP South Central Regional Coordinator
State Injury Prevention Program, Kentucky Injury Prevention and Research Center*

*Thomas D. Haynes, RN, EMT-B
CIPP Southeastern Regional Coordinator
State Injury Prevention Program, Kentucky Injury Prevention and Research Center*

*Shawn Marie Herron, JD, EMT-FR
Attorney and Police Instructor
Legal Section, Kentucky Department of Criminal Justice Training*

*Nancy Lang, RN
Chair, Curriculum Committee
National Child Passenger Safety Board*

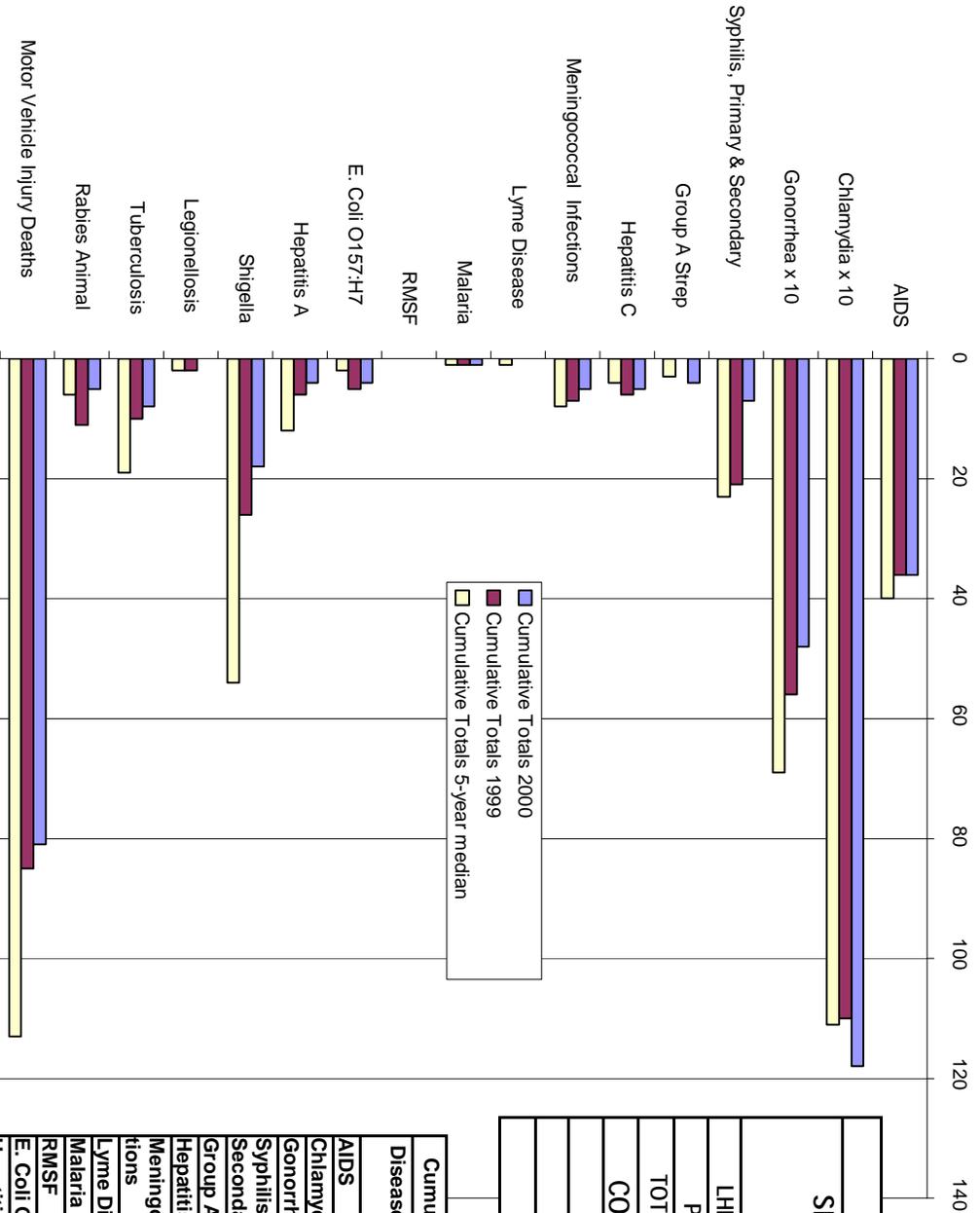
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Governor's Drive Smart! Program, Kentucky Transportation Cabinet*

Kim Sparkman

**CASES OF SELECTED REPORTABLE DISEASES IN KENTUCKY, YEAR TO DATE (YTD) THROUGH
FEBRUARY 2000**



Disease numbers reflect only those cases which meet the CDC surveillance definition.
Contributed by: Patricia Beeler, Surveillance and Health Data Branch.

INFLUENZA		OCTOBER 1999 THRU	
SENTINEL REPORTS			
LHD FLU-LIKE SYMPTOMS			3,189
PHYSICIANS FLU-LIKE			377
TOTAL FLU-LIKE SYMPTOMS			3,566
CONFIRMED ISOLATES			
TYPE A			134
TYPE B			2
TOTAL CONFIRMED			136

Cumulative Totals			
Diseases/Conditions	2000	1999	5-year median
AIDS	36	36	40
Chlamydia x 10	118	110	111
Gonorrhea x 10	48	56	69
Syphilis, Primary & Secondary	7	21	23
Group A Strep	4	0	3
Hepatitis C	5	6	4
Meningococcal Infections	5	7	8
Lyme Disease	0	0	1
Malaria	1	1	1
RMSF	0	0	0
E. Coli O157:H7	4	5	2
Hepatitis A	4	6	12
Shigella	18	26	54
Legionellosis	0	2	2
Tuberculosis	8	10	19
Rabies Animal	5	11	6
Motor Vehicle Injury Deaths	81	85	113



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RETURN SERVICE REQUESTED



Remember:

**National Infant Immunization Week is April 16-22, 2000.
 May is National Arthritis Month**

Interpretation of the Hepatitis B Panel

TESTS	RESULTS	INTERPRETATION
HbsAg Anti-HBc Anti-HBs	Negative Negative Negative	Susceptible
HbsAg Anti-HBc Anti-HBs	Negative Negative or Positive Positive	Immune
HbsAg Anti-HBc IgM anti-HBc	Positive Positive Positive	Acutely infected
HbsAg Anti-HBc IgM anti-HBc	Positive Positive Negative	Chronically infected
HbsAg Anti-HBc Anti-HBs	Negative Positive Negative	Four interpretations Possible*

*

1. May be recovering from acute HBV infection.
2. May be distantly immune and test not sensitive enough to detect very low level of anti-HBs in serum.
3. May be susceptible with a false positive anti-HBc.
4. May be undetectable level of HbsAg present in the serum and the person is actually a carrier.

Laboratory Evaluation beyond the basic Hepatitis B panel

IgM anti-HBc will differentiate acute hepatitis B infection (IgM anti-HBc positive) from chronic hepatitis B infection (IgM anti-HBc negative). Persons who are chronically infected should be evaluated to determine if chronic liver disease is present and if treatment is indicated.

For more information on Hepatitis B

Hepatitis B Coalition..... 651-647-9009
 Hepatitis B Foundation 215-489-4900
 Hepatitis Foundation International 800-891-0707
 American Liver Foundation 800-223-0179