



ANNUAL REPORT 1998-1999



# KENTUCKY INJURY PREVENTION & RESEARCH CENTER



**UK**

UNIVERSITY OF KENTUCKY

## **1998-1999 Report Contents**

Funding .....	4-5
Center Geographic Impact .....	6
Occupational Injury Prevention Program .....	6-8
Pediatric and Adolescent Injury Prevention Program .....	8-11
State Injury Prevention Program .....	11-14
Violence Prevention Program .....	14
KIPRC Staff .....	15



## Center Goals for 1999-2000

In my first year as Director, I have focused on making explicit the Center's goals and objectives and communicating our mission to a variety of audiences. We have attempted to expand our funding base through the submission of research-focused grants, intervention delivery grants, injury surveillance grants and contracts, as well as creation of WEB-based instructional materials and provision of consulting services. Next year we will continue to expand these services. We will try to create more partnerships with universities, private industry, and state and local health departments.

As you read through this report you will see the diverse type of work performed by the Center. Key research findings, outcomes from safety training, and results from injury prevention activities are included. Hopefully you will gain a better understanding of injury as a major public health problem, as a result of seeing the scope of projects that are in progress.

The many agencies who collaborate with the Kentucky Injury Prevention and Research Center (KIPRC) and help us make our projects successful are also listed. In recognition of one of these partnerships, the Center was presented with the 1999 Destiny Award from Kentucky Employers' Mutual Insurance (KEMI) for leadership and excellence in improving workplace safety at the Governor's Safety and Health Conference annual meeting in Louisville on May 6.

KIPRC's role will continue to expand as we move into the new School for Public Health. The Center will become a "learning lab" for students within the School. Collaboration across the University's departments and faculty should increase. With the assistance of our advisory panel, KIPRC will continue to refine a specific focus within the field of injury control.

A special thank you to all of the people who have supported our projects this year. Whether this was the top university or government official who approved funding for a project or the community, family, and individual who critiqued, co-developed, implemented, or tested the products developed out of the funding, your assistance was critical to our success. With your expertise and support, our efforts to make a difference in Kentucky are much stronger.

Dr. Pamela Kidd  
Director



## KIPRC Funding, 1998-1999

KIPRC has worked with a wide variety of funding agencies this year, including but not limited to: the National Highway Traffic Safety Administration, National Institute for Occupational Safety and Health, National Center for Injury Prevention and Control, and Kentucky Department for Public Health.

Funding Source	Amount/Project	Principal Investigator
HRSA/MCHB	\$249,129 Emergency Medical Services for Children in Kentucky	Pollack
NIOSH	\$196,842 Agricultural Disability Awareness and Risk Education	Reed (SE Center for Agricultural Health and Injury Prevention) and Kidd
NHTSA	\$119,415 Evaluation of Kentucky's Graduated Driver Licensing Program	Kidd and Agent, Pigman (Kentucky Transportation Center)
NIOSH	\$84,453 Fatality Control and Assessment Evaluation (FACE)	Struttman
KY Department for Public Health	\$100,000 General Pediatric and Adolescent Injury Prevention	Pollack
NIOSH	\$97,225 Community Partners, Agricultural Injury Surveillance	Struttman
NIOSH	\$164,405 Loss Education to Reduce Construction-Related Injuries	Kidd
KY Department for Public Health	\$361,654 State Injury Prevention Program	Spurlock
KY Department for Public Health	\$39,807 Ambulance Run Registry	Spurlock
NIOSH	\$ 18,995 Workcrew Performance Model	Kidd
NIOSH	\$ 17,499 Non-traumatic Musculoskeletal Disorders in Farm Youth	Kidd
NHTSA	\$195,692 Crash Outcome Data Evaluation System Project	Spurlock
CDC/NCIPC	\$ 123,731 Prevention of Fire-related Injuries	Spurlock
NIOSH	\$103,329 SENSOR-Occupational Burn Surveillance	Struttman

NIOSH National Institute for Occupational Safety and Health  
 NHTSA National Highway Traffic Safety Administration  
 NCIPC National Center for Injury Prevention and Control  
 HRSA Health Resources Service Administration  
 CDC Centers for Disease Control  
 MCHB Maternal Child Health Bureau

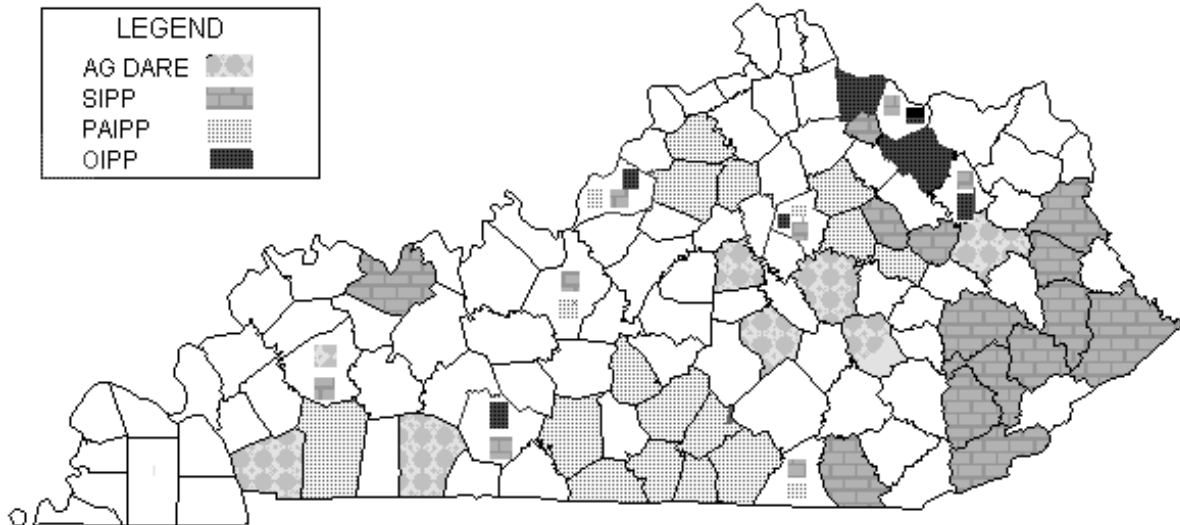


### Proposals Submitted for the Next Fiscal Year

Funding Source	Amount/Project	Principal Investigator
Kentucky Department of Juvenile Justice	\$69,000/ Youth Violence and Delinquency Prevention Program (funded)	Berry
NHTSA	\$296,000/ Evaluation of the Repeal of Kentucky's Protective Headgear Law (under review)	Kidd/Wojcik
NIOSH (sub-contract with GA Tech Research Institute)	\$10,000/ Evaluation of Receiver Frequency (RF) Units to Reduce Farm Vehicle Collisions (under review)	Kidd/Struttman
EMS-C/ MCH, targeted issues grant	\$150,000 / Support Group Network for Families of Severely Injured Children Using Telemedicine (under review)	Pollack
NHTSA/NIAAA	\$567,044/ A Hospital Based Intervention to Reduce DUI Recidivism (under review)	Kidd
NIOSH	\$560,000 Linking Existing Statewide Occupational Injury Data Sets (under review)	Struttman/Kidd
Kentucky Traumatic Brain Injury Board	\$45,246 / Traumatic Brain Injury Surveillance Pilot Study	Spurlock
Harvard Injury Prevention and Research Center	\$90,000/ Statewide Firearm Mortality Surveillance (in preparation)	Spurlock
KDPH/NHTSA	\$34,000/ Safe Communities: Surveillance System Development (under review)	Struttman
CDC	\$300,000/ Surveillance of Intimate Partner Violence (in preparation)	Spurlock
NIOSH	\$89,000/ Message Design to Change Behavior Among Loggers (under review)	Struttman
Buckle Up America	\$10,000 Promotional Campaign for Booster Seats in a Community Setting	Pollack

Refer to legend on previous page  
 EMS-C Emergency Medical Services-Children  
 NIAAA National Institute for Alcohol Abuse and Addiction  
 KDPH Kentucky Department for Public Health

## KIPRC'S GEOGRAPHIC IMPACT



*Legend: This map illustrates some of the KY counties involved in KIPRC projects. Projects are coded by program. OIPP= Occupational Injury Prevention Program, PAIPP= Pediatric and Adolescent Injury Prevention Program, SIPP= State Injury Prevention Program, AgDARE= Agricultural Disability Awareness and Risk Education Project.*

### Occupational Injury Prevention Program

#### *Fatality Assessment and Control Evaluation (FACE)*

Kentucky FACE is a population-based, statewide occupational fatality surveillance project with an investigation component. It began in 1994, as one of 14 states funded through cooperative agreements with NIOSH (there are currently 16 FACE states). Its activities involve statewide surveillance of all occupational fatalities and recording of case-specific factors into an epidemiologic software program for analysis. These data enable researchers to describe and compare events, and to identify trends in work-related fatal injuries. On-site investigations are conducted on certain types of fatal incidents (currently falls, machine-related and logging). Each case report includes how, where and when the incident occurred as well as its social and environmental contexts.

*Key personnel: Tim Struttman, Amy Scheerer*

#### *1998-1999 Accomplishments:*

- All reports and data are on the web page.
- Created a video for logging fatality prevention.
- Linked data set with Fatal Accident Reporting System (FARS).
- Established groundwork for survivor interview project.

#### *1999-2000 Goals:*

- Continue to identify all occupational fatalities
- Conduct field investigations
- Identify trends in occupational fatalities

#### *Community Partners for Healthy Farming-Surveillance (CPHF)*

This community-based agricultural injury surveillance system has been ongoing since October 1996. Cases of agricultural injury are identified through emergency departments and follow-up interviews are conducted with injured persons. In the case of minors,

interviews are conducted with a parent. This active surveillance system is conducted in Rowan, Bracken, Fleming, Mason, Barren and Warren Counties. *Key personnel: Tim Struttman, Vickie Brandt, Joan Muehlbauer*

#### *1998-1999 Accomplishments:*

Between January 1997 and January 1999, 462 injuries were recorded. Leading causes of farm injury are related to machinery, animals and falls. Average medical costs for these injuries was \$1280 (median \$342). A significant increase in the number of migrant injuries has been noted. A complete description of the



surveillance data is published in the May 1999 issue of *Kentucky Epidemiological Notes and Reports* and on the KIPRC Website.

- Established Mammoth Cave Farm Safety 4 Just Kids chapter.
- Since January 1996, we have recorded the sale of 54 Rollover Protection Structure (ROPS) in the two treatment counties in a collaboration project with Southeast Center for Agricultural Health and Injury Prevention.

**1999-2000 Goals:**

- Continue data collection and dissemination.
- Develop interventions.
- Evaluate the interventions.

**“After attending the Community Partners Farm Safety Program, we bought a new and safer tractor!”  
YMCA Official**



**Loss Education to Reduce Injury in Small Construction Companies**

KIPRC’s collaborative efforts with Kentucky Employers’ Mutual Insurance (KEMI) began with the Loss Education to Reduce Construction Related Injuries project. Through this project, six narrative latent image simulation exercises were developed targeting small construction companies. These exercises focus on the two most prevalent injuries occurring in the construction industry — back injuries and injuries due to fall. Qualitative data analysis has identified several critical work environment factors to address in intervention development such as dealing with the inexperienced worker, hurry, pacing, coaching, improper lifting, clutter, planning, communication, fatigue, workload, fall protection, and failure to check equipment. The simulation exercises highlight the economic consequences of a workplace injury and are mailed to small construction companies. *Key personnel:* Pam Kidd, Tim Struttman, Susan Wojcik, Mark Parshall

**1998-1999 Accomplishments:**

- 306 exercises returned
- Six simulations will be translated into WEB-based format by 7/1/99.

**1999-2000 Goals:**

- Analyze the data for changes post intervention

**Agricultural Repetitive Strain Injuries**

This project is designed to develop a data collection system for repetitive strain injuries resulting from farm work. The information gathered regarding the incidence and cause of this type of injury will be used to improve awareness and prevention. During the development of the data collection system, a variety of health care providers in two agricultural counties were interviewed to determine: 1) the prevalence of these types of injuries in their practice; and 2) the best way to implement a patient assessment process in their health care setting that would allow them to easily identify cases and collect the necessary data to ensure consistent reporting. *Key personnel:* Lorena Steenbergen, Tim Struttman, Pam Kidd

**1998-1999 Accomplishments:**

- Developed agricultural repetitive strain injury assessment form for primary care providers.

**1999-2000 Goals:**

- Set up the surveillance system based on the data collected in the interviews.
- Compile and analyze the data.

**Sentinel Event Notification Systems for Occupational Risk (SENSOR) - Occupational Burn Surveillance**

Funding for the KY SENSOR project began in October 1997 with the purpose of establishing a surveillance system to identify workers who are burned on the job and seek medical treatment for their injury. The objectives are to identify causes and trends of work-related burns — including thermal, electrical, chemical, friction and radiation burns — and monitor progress toward reducing these injuries. Cases are identified through a network of more than 20 reporting facilities that includes hospitals, outpatient clinics and Kentucky Employers’ Mutual Insurance, the state’s largest workers’ compensation provider. Follow-up phone interviews are conducted with workers and employers to gather information about the injury events. The data collected from the interview questionnaires are stored electronically and will be used to direct prevention strategies. *Key personnel:* Amy Scheerer, Tim Struttman

**1998-1999 Accomplishments:**

Data collection began in late April 1998. We received notification of 129 burn injury cases that occurred during the period of April-December 1998. Males accounted for 72% of the cases and 40% occurred in the 20-29 age group (range 15-60 years). Most injuries (92%) were treated on an outpatient basis. The largest portion (41%) occurred in eating and drinking places.

The SENSOR 1998 Annual Report, which can be found on the KIPRC website, provides a summary of the data from the first year as well as further description of the project and reporting sources.

**1999-2000 Goals:**

- Collect cases of occupational burns.
- Identify trends.
- Develop and test interventions.
- Expand reporting sources.

***Application of the Workcrew Performance Model in the Construction Industry***

The dangers of the construction industry are a source of constant worry for employers and employees. Despite our best efforts, construction workers are faced today with tough safety choices. Falls result in costly injuries for construction workers. The correct use of extension ladders may prevent falls and their associated injuries. The goal of this project is to create and verify safety guidelines based on the practical experiences of veteran workers who use extension ladders in construction trades. Veteran workers not involved in the guideline verification process will be observed to determine the degree to which the developed safety guidelines are actually used in practice. Key personnel: Madhav Diwan, Pam Kidd

***1998-1999 Accomplishments:***

- Examination of existing safety guidelines by veteran workers.

***1999-2000 Goals:***

- Observe veteran workers using extension ladders at the jobsite.
- Modify existing safety guidelines to encourage adoption in practice.

***Agricultural Disability Awareness and Risk Education***

This three-state (Mississippi, Iowa, Kentucky) project targets freshman and sophomore vocational agriculture students. Students participate by completing four narrative, latent-image and four physical simulations that address prevention of hearing loss, hypersensitivity pneumonitis, spinal cord injury, and amputation. Students complete a series of questionnaires pre- and post-intervention that measure safety behavior change and safety knowledge. Key personnel: Deborah Reed (SE Center for Agricultural Health and Injury Prevention), Pam Kidd, Tim Struttman, Susan Pollack

***1998-1999 Accomplishments:***

- Both Iowa and Mississippi Vocational Agriculture Instructors replicated the physical simulations to use with other non-treatment and control schools due to success of the project.

***1999-2000 Goals:***

- Translate one of the simulations into Spanish.
- Develop a lesson plan for implementing the simulations within the agriculture curriculum.

**Pediatric and Adolescent Injury Prevention Program**

***General Injury Prevention Project***

The General Injury Prevention Project (GIPP) addresses a broad variety of injury topics including motor vehicle safety, fire and drowning prevention, infant sleeping conditions, and suicide. The project covers the age spectrum from birth to 18. Funded primarily through a contract with the Kentucky Department for Public Health (KDPH), Division of Adult and Child Health (ACH), this project has emphasized education of health professionals and the public. Injury prevention activities are conducted directly with the public, but emphasis has been placed on our role in providing people linkages and technical support to empower local professionals,



especially health department personnel, nurses, physicians, school personnel and child care providers to improve prevention in their own communities and counties. The Battle of the Belts project was instituted within the larger GIPP (See insert on next page). Key personnel: Susan Pollack, Kathy Adams, Madhav Diwan .

***Accomplishments 1998-1999:***

- Education of new professional partners in prevention such as coaches, school nurses, and health educators.
- Continued education of child care providers in conjunction with Healthy Start in Early Child Care.
- Continued education of University of Kentucky Medical Students.
- Continued support for SAFE KIDS Coalitions, including six new coalitions developed this year with our support.
- Linkage established with elementary school family resource centers.

***Goals 1999-2000:***

- Analysis of local health department injury material needs.
- Development of training materials to address local health department needs.
- Implement the motor vehicle activities of the state SAFE KIDS Coalition, including both car seat use and teen seat belt use.
- Injury education for physicians.
- Plans are being made for "Battle of the Belts" to be held in the 1999-2000 school year. The competition will be opened up to private schools and the public schools will again have the opportunity to participate.



**Child Fatality Review**

This project has worked in tandem with ACH to increase reporting of Coroner’s Cases through the Coroner Report Form mandated by law, to increase notification of the three parties required by statute (law enforcement, social services and KDPH), and to promote formation of Child Fatality Review Teams in every county. Coroner Report Form data for 1996-1997 were collected and analyzed at KIPRC.  
*Key personnel: Susan Pollack, Madhav Diwan, Bonnie McCaffrey*

**Accomplishments 1998-1999**

- Analysis of 1997 data was the basis for annual CFR report and recommendations from KIPRC were included.
- County coroners were contacted to promote team formation.
- More than 600 Family Practice and 60 Pediatric physicians attended presentations about CFR as a tool in pediatric injury prevention.

**Goals 1999-2000**

- Advocate for establishment of Child Fatality Review Teams in all KY counties.
- Translate relevant issues that arise in county-level review into action through physician networks.

**Emergency Medical Services for Children Project**

The Emergency Medical Services for Children in KY (EMSC) Project is a large federally-funded project, which began 7 years ago as a Tri-state (Kentucky, West Virginia, Ohio) Appalachian initiative emphasizing training in pediatric emergency care for prehospital providers in KY. The KY EMSC Implementation Grant is currently in its third year. One of the goals of our state’s EMSC project is to conduct surveillance of KY children with severe injuries, including spinal cord and traumatic brain injury. All trauma registries in KY plus Cincinnati, Knoxville and

Huntington currently report cases. Once these children are identified, 6 month and 1 year post-event interviews with the caregivers are conducted to assess follow-up care and to identify barriers encountered in accessing follow-up care. In most cases, the interview is the first chance the families have received to talk about the injury event and the impact it has had on the family. *Key personnel: Susan H. Pollack, Mary E. Fallat (Kosair Children’s Hospital), and James Svenson (formerly of UK, presently at University of Wisconsin, Department of Emergency Medicine), Julia Martin (UK), Coy Harris, Theresa Elza, Madhav Diwan, David Dinwiddie.*

**Accomplishments 1998-1999:**

- Supported network of reporting trauma registries within and surrounding Kentucky, including West Virginia, Ohio and Tennessee.
- Conducted 186 interviews with families to assess barriers to recommended follow-up.
- Family needs identified include: Psychological evaluation and possible treatment of post-trauma behavioral changes, assessment and support of educational needs, literature related to diagnosis, outcome, and behavior changes associated with head injury, homebound respite providers, state wide support network for the severely injured and their families.
- EMSC Targeted Issues grant was submitted in 1999 to address meeting education/mental health support needs identified by families.
- Training-Goals for every year have been surpassed. As of May 1999, more than 1400 healthcare providers have received training in 71 courses conducted across the state. Pediatric Advanced Life Support (PALS)- 521 people trained, including 95 instructors who will carry this work forward. North Carolina



**Battle of the Belts**

More than sixty Kentucky teenagers, 16 and 17 years of age, die every year in motor vehicle crashes (MVCs). This problem prompted the Fayette County SAFE KIDS Coalition, including KIPRC, to develop an intervention to decrease MVC-related injury and death. The community wide project “Battle of the Belts” was created to increase seat belt usage rates among teenagers through a school-based educational and incentive program. The “Battle of the Belts” is a project that promotes friendly competition between participating high schools. Schools compete for the highest and most improved rate of seat belt use. Over 6,500 students participated at four local public high schools. The four schools that agreed to be a

part of the project had a baseline seat belt usage rate observed at the beginning of the month. During the following month, several educational classes were given to the students at each school. The principals for each school determined which classes would receive the education. The number of students who received the education varied from school to school. Student groups from each school adopted the project and developed their own awareness campaign on the subject of seat belt safety. After one month of educational classes and awareness activities, another observation was performed to note changes (if any) in the rate of seat belt use. The findings indicated that the schools that had the most education and the most student involvement showed a higher increase in the seat belt usage rate at the end of the month. All schools with in-school campaigns increased their seat belt use. The school with the lowest initial rate had a 21% improvement in seat belt usage.



**No one can imagine the horror** of driving your 14 year old son to school on a beautiful March day and witnessing a 60 pound boulder come through the windshield and striking your child in the side of his head, leaving him unconscious, bleeding and suddenly battling for every breath. This young boy did not require admission to an inpatient rehabilitation facility, but was sent home 6 days post trauma after receiving Physical, Occupational, and Speech therapies prior to discharge. His physical limitations quickly disappeared, but Mom and Dad soon realized that they did not bring home the same child. Almost every personality trait that his family loved no longer existed. He would argue frequently with his siblings and parents. He refused to participate in his normal recreational activities, changed peer groups and was disrespectful to most all authority including his parents. The father was becoming very angry at the child and lashing out at both the boy and Mom. Mom stated, "Our marriage is falling apart, my husband thinks that these personality changes are due to normal teenage development and that the child can be strongly disciplined to correct the behavior." She continues to say, "I have always wondered if the head trauma could be causing my son's problems and my husband and I argue constantly." These parents were not educated about the possible personality changes related to head trauma and the psychological impact of trauma itself. It wasn't until the child's grades plummeted and complaints were being received by the school staff that the parents realized that a real problem existed, but the parents still did not know what resources were available to them. After our interview was over I provided some articles for the mother and father to read pertaining to the possible psychosocial changes related to Traumatic Brain Injuries and traumatic events in a person's life. I suggested that she make a follow-up appointment with the child's original neurosurgeon. Also I suggested that she meet with school officials as soon as possible to discuss his present problems and past traumatic events. I received a phone call from the patient's mother 3 weeks later, thanking me for saving their marriage and the family unit. She stated the articles were very helpful and that her husband is getting along much better with their child and her. Dad did not realize that the child's behavior might be related to his injury until Dad read these articles. *Teresa Elza*

EMSC (NCEMSC)- 597 people trained including 27 instructors. Pediatric Education for Prehospital Providers (PEP)- 313 people trained, including 34 instructors who will assist in continued teaching of this course. Advanced Pediatric Life Support (APLS)- two courses given and well received.

- Evaluation of training initiated through retesting of PALS.
- Standardized pediatric protocols for ALS and BLS ambulance services created and approved by EMS council, and are being disseminated.
- Technical Assistance Group, established in 1996, continues to provide consultation to state EMS council on pediatric technical issues.
- Collaborated with state EMS office on implementation of EMSC bill. (With support from Mary Lou Marzian, the sponsor, assisted in preparation and passage of 1998 HB 249, the EMSC Bill, which established a permanent EMSC program within the state office of EMS.)

#### **Goals 1999-2000:**

- Solidify network of instructors for PALS and PEP to insure sustainability of training.
- Evaluate training, particularly in areas with few pediatric cases per year.
- Develop recommendations for timing of retraining in rural states.
- Evaluate implementation of protocols, in conjunction with EMS Council.
- Continue to provide assistance to EMS Council and state on pediatric technical issues.
- Work towards implementation of the Trauma Plan that was developed.
- Assist the state in implementation of EMSC Bill, and in preparation of Federal Partnership Grant for 2000-2002.
- Publish analysis and discussion of surveillance data in peer-reviewed journals.

- Continue to use results of surveillance to work toward improved care for injured children, along the entire continuum from prevention through emergency care to rehabilitation and successful return to families, school and communities.

#### **Adolescent Occupational Injury Prevention Project**

The Adolescent Occupational Injury Prevention Project has as its primary purpose the education of health professionals and the public about the widespread existence of adolescent occupational injury and strategies for improving prevention. The Project has past support from NIOSH, but is currently between sources of direct financial support. *Key personnel: Susan Pollack*

#### **Accomplishments 1998-1999:**

- Member of National Research Council/Institute of Medicine Committee on the Health and Safety Implications of Child Labor, leading to the publication of Protecting Youth at Work.
- Epidemiology and prevention of adolescent occupational injury was included in injury teaching provided to all UK medical students as they rotate through Pediatrics.
- Lecture for UK Preventive Medicine residents on adolescent occupational exposures.
- Rubenstein, Pollack, Review article on adolescent occupational injury/exposures accepted to American Journal of Family Practice.
- "Adolescent Occupational Exposures," Chapter for new American Academy of Pediatrics manual on Pediatric Environmental Exposures, currently going through final review.
- Invited by NIOSH organizer/moderator to lecture on Occupational Exposures to Working Teens at "Pediatric Environmental Health: Putting it into Practice," the Children's Environmental Health Network's national conference for health care providers and faculty, San Francisco, June 4-6, 1999.

#### **Goals 1999-2000:**

- Have adolescent occupational injury/exposures included on curriculum of 2000-2001 UK Family Practice Update



(week-long course repeated a total of three times over a year, reaching 700-1000 Family Practice physicians from Kentucky and other states.

- Present interactive noon conferences to pediatric and family practice residents on farm safety for adolescents, emphasizing tractors and roll-over protection, in conjunction with Deborah Reed of Farm Safety 4 Just Kids/Preventive Medicine and Hank Cole. Publish analyses of KY data on adolescent occupational injury and adolescent occupational burns.

#### **Evaluation of Kentucky's Graduate Driver's License Program**

The Graduated Driver's Licensing (GDL) Program Project is an evaluation of the newly implemented 1996 GDL law. This project is funded through NHTSA and is a collaborative effort with the Kentucky Transportation Center at UK. It includes both a quantitative assessment of the impact of GDL on teen motor vehicle crashes, deaths and injuries and a qualitative assessment of the GDL program and its implementation. For the latter, interviews with youth and parents are being conducted to investigate attitudes toward GDL, parental enforcement of its requirements, and obstacles to its implementation. *Key personnel: Pam Kidd, Lorena Steenbergen, Susan Pollack, Jerry Pigman, \* Ken Agent\*, Neil Tollner\* (\*Kentucky Transportation Center)*

#### **Accomplishments 1998-1999:**

- Initial analysis shows a 28% decrease in the number of MVCs involving 16 year old drivers in 1997 as compared with years 1993 through 1995. There was a 14% reduction in 16-year old MVC-related fatalities in 1997.

#### **Goals 1999-2000:**

- Conduct miles traveled project to determine average miles traveled during the permit and license stage for calculation of rates.
- Conduct cost/benefit analysis.

### **State Injury Prevention Program**

The State Injury Prevention Program (SIPP) is a contractual extension of the KDPH. There are two major programmatic objectives. One is to maintain a state-of-the-art, population-based, public health injury surveillance system that collects and analyzes all general injury data from several sources. The second objective is to operate a community-based injury prevention program that focuses on the major causes of unintentional injury among Kentuckians and the regions of the Commonwealth where the injury problems are most prevalent. Directed by *Carl Spurlock, PhD*, \*SIPP is organized in three divisions: 1) Injury Surveillance; 2) Community Injury Prevention; and, 3) Administrative. (\*Kentucky Department for Public Health)

#### **Injury Surveillance Division**

The Injury Surveillance Division is responsible for: 1) general injury case identification from vital statistics death certificates and hospital discharge records; 2) emergency medical services (EMS) data collection and analysis; 3) computer data linking of these and other data sets using probabilistic linking software; 4) in-depth surveillance of traumatic brain injuries, domestic violence-related injuries, and firearm fatalities; and, 5) descriptive and analytical

injury epidemiologic studies. *Key personnel: Shannon Beaven, Melissa O'Toole, Mike Singleton, Jay Christian, Robert Williams, Michelle Greenwell*

#### **1998-1999 Accomplishments:**

- Produced the first-ever Kentucky EMS report in May of 1999. This report, which covers the 1998 Fiscal Year, was produced under contract for the State EMS Branch.
- Developed the technology for EMS agencies to upload their report data to the KIPRC web site through the Internet. This feature, which has been operational since January of 1999, has been very popular with those EMS agencies who prefer to submit their reports in electronic format.
- The Medic! EMS reporting software, which is licensed to KIPRC, is being distributed free of charge to EMS agencies in Kentucky. As of May 1, 1999, 45 agencies had received the software.
- Produced the electronic data format that was adopted by the Kentucky EMS Branch as the new official format for the submission of electronic EMS reports in Kentucky.
- Designed the new EMS run report form that has been adopted by the Kentucky EMS Branch to replace the older state run report form. The design and layout work for the form, including desktop publishing, was done by SIPP staff members and approved by the EMS Branch.
- Produced the first detailed analysis of Kentucky injury deaths. Contains 75 pages of tables and charts accompanied by written analysis (in review).
- Produced the first summary of the hospital discharge injury data set that was used by the Health Policy Branch, KDPH, to propose legislative adjustments in the KY reporting law.
- Initiated the Crash Outcome Data Evaluation System (CODES) project funded by NHTSA. The primary purpose of this project is to computer link police and medical records containing information about individuals involved in MVCs to allow a more complete picture of the cost and outcomes of MVCs to be developed. The data linkage technology used for this purpose can also be used to link other injury data, however, and the project team has already become involved in a project to link data for traumatic brain injury (TBI) surveillance in Kentucky.
- Entered 18,569 reports EMS reports that were found to involve motor vehicle crashes.
- The 1996 MVC, EMS, and hospital discharge files have been checked for completeness and duplicate records, and the files corrected where required.
- The project team has completed preliminary linkages of the 1996 crash, EMS, and hospital discharge data files.
- Developed data set descriptions for six data sets that contain cases of domestic violence (protective orders, uniform crime reports, social services reporting, hospital and emergency billings, battered women's shelters, rape crisis center data). Each description contains: 1) the legal basis for reporting; 2) the reporting form(s); 3) the data layout; and, 4) summary statistics for 1997.
- Organized Kentucky violence against women surveillance advisory board.

**Goals 1999-2000:**

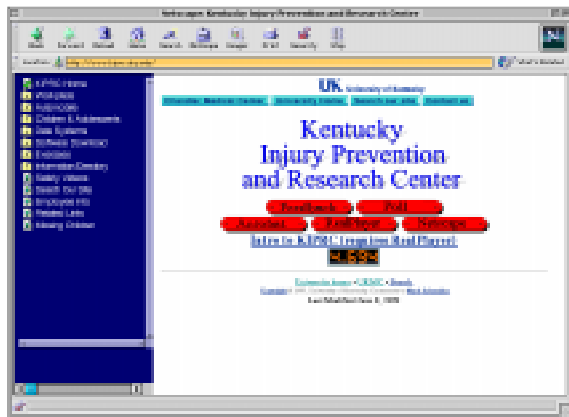
- Design and initiate an e-code statistical validity study to understand and improve the accuracy of the e-coded hospital discharge data.
- Enter 1997 EMS reports.
- Conduct a TBI surveillance pilot study.
- Develop a firearm death registry.
- Develop a domestic violence registry.

**Administrative Division**

The Administrative Division (AD) is assigned 50% time with SIPP and 50% with KIPRC. The Division responsibilities include computer network administration and web publishing services for KIPRC and SIPP. Staff assistant services ranging through payroll, time and attendance, and telephone call distribution are also shared. *Key personnel:* Mark Schneider, Freda Francis

**1998-1999 Accomplishments:**

- Expansion of the KIPRC WEB site. The site includes products developed from the OIPP, PAIPP, and SIPP. The site now features safety education videos and slide shows which can be viewed directly over the Internet, as well as safety quizzes, games and other interactive safety education tools. The WEB site also contains research results, intervention strategies and projects, data, newsletters and other documents from most of the programs and projects conducted at KIPRC. It is the home for the Kentucky Farm Safety Contacts database, with other community safety contacts databases to follow soon.



**1999-2000 Goals:**

- Migrate data from dBase 5 to Visual FoxPro and ultimately to a client/server model.
- Upgrade the file server.
- Use new technology to help programs meet their stated goals.
- Institute Video conferencing.
- Incorporate Geographical Information System applications on KIPRC's WEB server.

**Community Injury Prevention Program**

The Community Injury Prevention Program (CIPP) is the section of the SIPP dedicated to the provision of preventive programs for unintentional injury. This program, which is funded by the KDPH, provides services to 60 of Kentucky's 120 counties. Additional services, such as the provision of data to local health departments and others engaged in injury prevention, are provided on a state-wide basis. Unlike many of the other programs at KIPRC, which are oriented toward research or data collection and surveillance, the primary mission of the CIPP is the provision of public health services, in the form of injury prevention programs, to Kentuckians.

Unintentional injuries cover a broad spectrum, and it is impractical for the CIPP to try to address all injury problems at once. Instead, using data generated by other programs at KIPRC and by other governmental agencies, the CIPP has identified the types of injuries that are most prevalent in Kentucky. Based upon this information, and the resources available to address the problem, the CIPP currently concentrates on two broad areas of injury prevention. These areas are MVC reduction and traffic safety, with a particular emphasis on child passenger safety, and residential fire injury prevention.

**Residential Fire Injury Prevention Project**

The goals of this 3-year project are to provide fire safety education and install smoke alarms in homes that do not currently have functional smoke alarms. This project has brought together Federal, state and local governments, volunteer agencies and organizations, private industry and advocacy groups in an effort to improve fire safety in rural Kentucky. The primary portion of this project is funded through a cooperative agreement with the NCIPC at the CDC. This portion of the project provides fire safety education and smoke alarms for installation in three KY counties each year for the 3-year project period. The project is currently in its first year, with Lawrence, McCreary and Pike counties participating.

In this portion of the project, the CIPP regional coordinators work with local health departments to enroll households that do not have a smoke alarm in the project. Local volunteers, principally firefighters, then install one or more lithium battery-powered 10-year smoke alarms in the home, and provide fire safety education to the residents. Additional fire safety awareness and education activities are conducted at the community level. By the end of the first year of the project, the CIPP expects to have approximately 5,200 smoke alarms installed through this portion of the project. In addition to the support received from the NCIPC, the Radio Shack Corporation has contributed 6,500 smoke alarms to the project. These alarms, which are powered by regular 9-volt batteries, have been distributed through local health departments and fire departments in 23 Kentucky counties. These agencies have installed the alarms in homes without smoke alarms through home visitor programs, door-to-door canvassing and other installation programs. Finally, the state Fire Marshal has endorsed this program, and his office has pledged funding for approximately 1,300 additional lithium battery-powered smoke alarms which will be installed through this project. Overall, this project is expected to install



approximately 13,000 smoke alarms in KY during the current project year. *Key personnel:* Robert McCool, Amy Goff, Tom Haynes, Ron Clatos

**1998-1999 Accomplishments:**

- Developed fire safety materials and smoke alarm installer training video.
- Trained personnel from 36 fire departments and several service organizations in smoke alarm installation procedures.
- Provided fire safety education and smoke alarm installer training materials to 23 local health departments.
- By the end of the project year, approximately 13,000 smoke alarms will have been installed in Kentucky homes which did not previously have working smoke alarms.
- Developed a cooperative effort between public health, the fire service, the private sector and service organizations to implement a major fire safety project.

**1999-2000 Goals:**

- Maintain locally sustainable programs in place in the counties served by the CDC project.
- Train at least 15 additional fire departments in smoke alarm installation procedures.
- Install at least 12,000 smoke alarms in Kentucky homes.
- Continue to build upon the existing public-private partnership and expand support for fire safety programs in Kentucky.

**Alternative Sentencing Program for Child Passenger Restraint Law Violators**

This program was designed to offer a constructive alternative to fines for first-time violators of KY's child passenger restraint law. In this program, first-time violators are sentenced to a mandatory 3-4 hour education program in lieu of a monetary fine. Violators receive education in why child safety restraints are critical to protect children riding in motor vehicles, as well as training in how to properly use a child safety restraint. Those violators who do not already have a child restraint are given one as part of the training program.

This program was pilot tested in two counties during 1998-1999. It has been well-received by local law enforcement officials, prosecutors and judges, as well as by child passenger safety advocates, and current data indicate a low recidivism rate among violators. This program has been reviewed by a representative of the Japanese government for possible inclusion in the national child safety restraint program being developed for Japan. *Key personnel:* Robert McCool, Ron Clatos, Amy Goff, Tom Haynes

**1998-1999 Accomplishments:**

- Pilot testing of the program in two counties resulted in a 329 percent increase in the number of citations issued for child restraint violations in one county, and a 275 percent increase in the second county
- Only one case of recidivism by a program participant has been documented
- The program has gained the support of local law enforcement agencies, prosecutors and judges, as well as traffic safety advocates at the local and state level

**1999-2000 Goals:**

- Implement the program in at least nine counties in three or more CIPP regions
- Design an evaluation protocol
- Develop a model program for use state-wide

**Standardized Child Passenger Safety Training**

The National Highway Traffic Safety Administration (NHTSA) has developed a 4-day training course to train individuals in child passenger safety. If graduates complete a fifth day of practical exercises, including working at an actual child safety seat checkup event, they may be certified as child passenger safety (CPS) technicians. This program is excellent, but it has some drawbacks. First, it is too long to be practical for many individuals who do not work regularly in child passenger safety programs. Volunteer firefighters, local law enforcement officers and many members of local health department staffs are not able to obtain the NHTSA course in their area, and cannot obtain support to attend the course in another location. Further, NHTSA recommends that individuals have prior child passenger safety experience before they attend the CPS technician course. Many agencies want their personnel to receive training prior to working with clients, and this makes obtaining experience difficult for many individuals.





To address these issues, the CIPP has brought together a committee of child passenger safety advocates from around the state, including CPS technicians, to develop an introductory CPS trainer course. This course, which is expected to be a two-day program, will prepare individuals to do limited child passenger safety education in their communities. The CIPP is working with the Kentucky Department for Public Health to develop a formal certification credential for successful course graduates. This is expected to help reduce local agency concerns about potential liability issues and encourage participation in child passenger safety projects. *Key personnel: Robert McCool, Amy Goff, Tom Haynes, Ron Clatos, Kathy Adams*

**1998-1999 Accomplishments:**

- Developed a state-level CPS training curriculum committee. Worked with NHTSA and the Southeast Regional Injury Control Network (SERICN) to secure NHTSA involvement in the course design process, and tentative NHTSA approval for a regional model course.
- Developed standardized child passenger safety education materials for use by CPS trainers.

**1999-2000 Goals:**

- Finalize the trainer curriculum by August 31, 1999.
- Begin offering trainer courses and certification by October 15, 1999.
- Work with NHTSA and SERICN member states to create a regional curriculum used by several states.
- Train at least 200 individuals by June 30, 2000.

**Other CIPP Activities**

In addition to the major activities already mentioned, CIPP personnel have been active in teaching child safety restraint training courses for both end users and local health department personnel. They have also served as members of regional and state traffic safety and injury prevention coalitions, provided injury data and injury prevention assistance to local governments and organizations, presented safety programs and information at schools, health fairs and conferences, and served as community advocates for safety and injury prevention. The CIPP provided and coordinated the distribution of more than 850 child safety seats to low income KY families, conducted recall programs to collect and dispose of recalled or unsafe child safety seats, and trained emergency services providers in injury prevention. The CIPP manager also drafted highway safety "Fast Clearance" legislation that was adopted by the Kentucky Transportation Cabinet as the basis for a legislative proposal to be presented to the Kentucky General Assembly at the 2000 legislative session. The aim of the legislation is to move crash-involved vehicles out of travel lanes quickly after a crash.

In addition to serving Kentuckians within the state, the CIPP is also active at the regional and national levels. The CIPP provides Kentucky's public health representative to the Southeast Regional

Injury Control Network (SERICN), and manages electronic mail communications lists for both SERICN and the State and Territorial Injury Prevention Directors' Association (STIPDA). CIPP staff members also represented the program at national meetings and conferences.

**Violence Prevention Program**

This program was initiated in 1999 and is managed by Dr. Regina Berry. Initial efforts have focused on increasing KIPRCs role in preventing school-related violence. Dr. Berry serves on the local Fayette County state mandated School Safety Committee (House Bill 330). The responsibility of this committee is to oversee the work of ad hoc committees charged with planning and implementing the recommendation of House Bill 330 for maintaining safe schools, monitoring and evaluating the implementation process, adopting new school safety goals and objectives as the need arises, and reporting to the Board of Education. Dr. Berry also serves on the Safeguarding Our Children Planning Committee, a coalition established by the Fayette County Public School System, the Lexington Fayette-Urban County Government, and the 16<sup>th</sup> District PTA to create a forum where parents, students, teachers, and other community members can plan, develop, and implement strategies for safeguarding children. Eventually the Violence Prevention Program will also address intimate partner violence and will work collaboratively with the Occupational Injury Prevention Program to prevent violence in the workplace.

**Youth Violence and Delinquency Prevention Project**

This project (funded 5/99) will take a risk-focused approach to reduce youth violence and delinquency. The project consists of three components: (a) Mental Health Services, (b) Intensive Academic Intervention, and (c) Career Transitional Support. The Mental Health Services component includes, (a) Youth Life Skills Development and Support, (b) Parenting Education and Support, (c) Youth Substance Abuse Education and Prevention, and (d) Family Therapy. The Intensive Academic Intervention component will utilize the Motivation, Assessment, Structure, Support, and Instruction (MASSI) Achievement Planning Framework to increase youth participants engagement and achievement in school. The Career Transitional Support services will be provided by the Mayor's Training Center School-To-Work Opportunities Program.

**1999-2000 Goals:**

- Create a strong support system for youth participants who are at-risk for continued delinquency, school drop out, and violent behavior.
- Reduce the incidents of youth problem behaviors, including terroristic threatening and assaults, and any other infractions that are a violation of probation.
- Contribute to the development of a national youth violence prevention strategy directed at assessing and influencing adolescents' acquisition of violence prevention knowledge and skills, assessing their risk for violent behavior, the modification of unsafe behavior, and the alteration of hazardous attitudes.

## KIPRC STAFF

**KATHY ADAMS** - BS, RN from Eastern Kentucky University. Kathy provides outreach support and education with the Pediatric and Adolescent Injury Prevention Program.

**REGINA BERRY** – RN, Ph.D, has a Ph.D. in Educational Psychology and a Masters of Science in Family Studies, with specialization in Marriage and Family Therapy from the University of Kentucky. Dr. Berry is manager of the Violence Prevention Program. She specializes in treating youth with problems of delinquency, aggression, and violent behavior.

**VICKIE BRANDT** - BS, RN, Western Kentucky University is a Farm Safety and Health Coordinator the County Community Partners for Healthy Farming (CPHF) Project. She is the Chapter Representative for Mammoth Cave Farm Safety 4 Just Kids. She assists with the Fatality Assessment and Control Evaluation (FACE) Project and the SENSOR Project.

**JAY CHRISTIAN** - Jay works on the CODES (Crash Outcome Data Evaluation System). Jay received his bachelor's degree from Washington University in St. Louis in 1998.

**RON CLATOS** – B.A. Sociology, Marshall University, M.A. Sociology, Morehead State University. Ron is an Injury Prevention Coordinator with the Community Injury Prevention Program. His geographical focus is Northeastern KY.

**MADHAV DIWAN** - M.A. in Sociology with specialties in anthropology and statistics from Marshall University in West Virginia; MSPH and MPA Candidate at University of Kentucky. Madhav is a data analyst at the Center and manager of the Workcrew Performance Project. He is also the data coordinator and computer specialist for the Emergency Medical Services for Children Project at KIPRC.

**FREDA FRANCIS** - Staff Support II, assists the Center Director, SIPP Director, Administrative Business Officer and Program Managers and all employees of the Kentucky Injury Prevention and Research Center. She provides clerical support to all programs, and other business functions.

**AMY GOFF** – BSPH, WKU. Amy is an Injury Prevention Coordinator with the Community Injury Prevention Program. Her geographical focus is South central KY.

**MICHELE GREENWELL** – Michele is a data entry operator for the Crash Outcome Data Evaluation System (CODES) project.

**THOMAS HAYNES** – LPN, Appalachian Regional Hospital, Harlan, KY. Tom is an Injury Prevention Coordinator with the Community Injury Prevention Program. His geographical focus is Southeastern KY.

**BRADLEY JESSUP** – MS, CSP is The Fatality Assessment and Control Evaluation (FACE) Project Manager.

**PAMELA KIDD** – KIPRC Director, is a Family Nurse Practitioner and Associate Professor in the College of Nursing. She completed her BSN degree at University of Kentucky, her MSN degree at University of Cincinnati, and her Ph.D. degree at University of Arizona. Her funded research and publications have been in the area of driving risk taking, educational interventions to prevent agriculture- and construction-related injuries, and the relationship between economics and safety behavior.

**DENISE LANSAW** - Denise, as KIPRC's Business Officer, is responsible for financial oversight of the departmental and project budgets. Denise received her undergraduate degree from Transylvania University - a BA in Business Administration with an emphasis in Accounting. She completed her MBA at Morehead State University.

**KAREN McCLANAHAN** - MA in Communications, University of Kentucky, with an emphasis on health communication. Karen assists with the Community Partners for Healthy Farming (CPHF) Project and the SENSOR Project

**ROBERT McCOOL** - MS in Criminal Justice, Eastern Kentucky University, with emphasis in Police Administration. Robert is the manager for the Community Injury Prevention Program.

**THERESA MIMS-ELZA** - RN is a graduate of Eastern Kentucky University. She is the Clinical Coordinator of the Kentucky Emergency Medical Services for Children project since 1997.

**JOAN MUEHLBAUER** - Diploma in Nursing St. Elizabeth School of Nursing, Covington KY. Joan is a Farm Safety and Health Coordinator for the Community Partners for Healthy Farming (CPHF) Project. She assists with the Fatality Assessment and Control Evaluation (FACE) Project and the SENSOR Project.

**MELISSA O'TOOLE** - B. A. Sociology and French, University of Wales. M.S.C. University of Dublin. Melissa is currently working as the coordinator of the violence surveillance project.

**MARK PARSHALL** - MSN Adult Nursing, PhD Candidate in Nursing, University of Kentucky. Mark is a data analyst for the loss education / construction safety initiative with primary responsibility for qualitative data analysis and reporting

**SUSAN POLLACK** - MD is a physician Board Certified in both Pediatrics and Occupational Medicine. She manages the Pediatric and Adolescent Injury Prevention Program at KIPRC, and is also an Assistant Professor in the General Pediatric Division of the UK Department of Pediatrics and in the UK Department of Preventive Medicine. She completed her undergraduate education at Smith College, her MD at Eastern Virginia Medical School, and her postgraduate training at West Virginia University- Morgantown and at Mt. Sinai in New York City.

**AMY SCHEERER** - MSPH, Industrial Hygiene, University of Kentucky. Amy manages the Occupational Burn Injury Surveillance Project. She also assists with KY FACE and Community Partners for Healthy Farming.

**MARK SCHNEIDER** - BS in Biology, Chemistry, Transylvania University. Mark is the Network Administrator for KIPRC. His certifications include Novell's CNE and Microsoft's MCP. Mark administers the NT Database Server, Netware File Server and UNIX Web Server to warehouse and disseminate injury surveillance data.

**MICHAEL SINGLETON** - MS in Mathematics, Eastern Kentucky University. Michael is the manager for the Kentucky CODES project. Previous responsibilities with KIPRC include administration and analysis of Kentucky hospital discharge and death certificate data sets.

**CARL SPURLOCK** – B.A. ECU, M.S. UK, Ph.D. University of Oklahoma. Carl is the Director of the State Injury Prevention Program. He is an epidemiologist and biostatistician. Carl's funded projects have been in injury surveillance and safety product dissemination.

**LORENA STEENBERGEN** – BSN degree from San Diego State University. Lorena is the research assistant for both the Non-Traumatic Work-related Musculoskeletal Injuries in Farm Youth project and the Evaluation of the Graduated Driver's Licensing Program project.

**TIM STRUTTMANN** - MSPH Industrial Hygiene, University of Kentucky. Tim manages the Occupational Injury Prevention Program (OIPP) at KIPRC. Special areas of interest include surveillance of occupational injury, translating surveillance data into interventions and evaluation of occupational injury prevention initiatives.

**BOB WILLIAMS** -Certified EMT-B from Hazard Community College in 1989. Bob is the EMS Data coordinator for the injury surveillance division of the State Injury Prevention Program.

**SUSAN WOJCIK** - MS in Biomedical Engineering, University of Kentucky, BS in Ceramic Engineering, Alfred University and Certified Athletic Trainer. Susan manages the Loss Education to Reduce Construction Related Injuries Project. Special areas of interest include sports related injury and biomedical implant research.

University of Kentucky  
Kentucky Injury Prevention & Research Center  
333 Waller Avenue  
Suite 202  
Lexington, KY 40504  
606-257-4954  
FAX 606-257-3909  
[www.kiprc.uky.edu](http://www.kiprc.uky.edu)