

Injury

The Pennsylvania Department of Health's (PADOH, Department), Bureau of Epidemiology is seeking an epidemiology fellow for projects that relate to morbidity and mortality resulting from injuries in the state. A Public Health Fellow in Epidemiology would enhance the ability of the Department to use its many data sources, to fully describe the impact of intentional and non-intentional injuries on human health, characterize the determinants of injury in sub-populations, and evaluate prevention efforts.

The Bureau of Epidemiology (BOE) directs multi-faceted public health surveillance and assessment programs in infectious and non-infectious disease categories. Within the Bureau, the Division of Community Epidemiology supports activities for the Bureaus of Chronic Diseases and Injury, Family Health, Emergency Medical Services, and Drug and Alcohol Programs. These require data-driven decision-making that enhances the Department's ability to better; a) define the disease burden in the state, b) design interventions, and c) assess outcomes. Analyses are also performed on perceived clusters of specific non-communicable diseases as well, for the purpose of identifying cause and effect relationships and providing direction on intervention strategies. Critical to these functions is the analysis of available morbidity and mortality data.

Violence and injuries are major public health problems. Statewide hospital discharge data for 2005, compiled by the Pennsylvania Health Care Cost Containment Council (PHC4), shows total hospital charges, for all injuries, were at least \$4.68 billion. The largest expenses were attributable to fire/flames, firearms, motor vehicle-related injuries to pedestrians and motorcyclists, motor vehicle occupants, suffocations, with nearly half that total cost from falls. Of hospital charges for all injuries, 64.2 percent were paid by governmental sources such as Medicare/Medicaid, with 32.7 percent paid by non-governmental sources, such as Blue Cross and other commercial insurance providers. Pennsylvania's Behavioral Risk Factor Surveillance System (BRFSS) 2006 data show for adults the risk of being injured (incidence rate) is greater for females (6%), compared to males (4%). It also shows increasing risk with decreasing socioeconomic status, for a rate of 11 % in the lowest income group.

The Bureau of Chronic Diseases and Injury Prevention (BCDIP) is the organizational unit within PADOH that focuses on preventing diseases and injury and promoting wellness among targeted populations. The Bureau has the responsibility to manage the Preventive Health Services Block Grant among other state and federally funded programs.

Within the BCDIP is the Division of Health Risk Reduction, which houses the Violence and Injury Prevention Program (VIPP) Section. The purpose of the VIPP is to prevent deaths and disabilities from intentional and unintentional injury by assessing the incidence of injury and developing programs to reduce injury risks. Publicly-funded activities include sexual violence prevention and education, public health injury and surveillance capacity, and the Pennsylvania Injury Reporting and Intervention System (PIRIS). PIRIS is the only initiative in the country that couples a data acquisition system

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with a real-time, multi-system, intervention component. It serves as a pilot program to test our ability to collect and utilize information about firearm injuries to target activities, develop new programs, and evaluate current violence reduction efforts.

Potential projects

Some of the potential projects include:

1. Monitor the frequency of injuries and describe the protective and risk factors for the incidence by age, race, sex, and socio-economic status.
2. Describe trends in injury incidence and identify clusters for timely investigations for field studies.
3. Evaluate the relationship between adverse childhood experiences, due to unintentional injuries, and chronic diseases.
4. Evaluate the Pennsylvania Injury Prevention and Control Plan in relation to program growth and injury incidence.
5. Evaluate PIRIS and describe the populations served.
6. Evaluate available data to identify protective and risk factors for the PIRIS populations.

Assignment Location:

Harrisburg, PA

Primary Supervisor:	Gregory Bogdan, Dr.PH, MS Chronic Diseases Epidemiologist Pennsylvania Department of Health
Advanced Degrees:	DrPH, University of Texas (1982) MSPH, University of Massachusetts (1974)
Secondary Supervisor:	Ronald Tringali, PhD, MS Maternal and Child Health Epidemiologist Pennsylvania Department of Health
Advanced Degrees:	PhD University of Pittsburgh, Epidemiology (2001) MS, Boston University (1977)