

Injury

Assignment Description

The Bureau of Epidemiology directs multi-faceted public health surveillance and assessment programs in infectious and non-infectious diseases. Within BOE, the Division of Community Epidemiology supports activities for the Bureaus of Health Promotion & Risk Reduction, 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 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 2008 shows total injury-related hospital charges were at least \$7.17 billion. More than half of these costs were attributable to poisonings, falls, and motor vehicle crashes. The Bureau of Health Promotion & Risk Reduction (BHPRR) 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 along with other state and federally funded programs. Within the BHPRR 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 as well as, public health injury prevention and surveillance capacity.

Day-to- Day Activities

The trainee will have a day-to-day role in the evaluation of the quality and utility of these data sources for public health purposes. The fellow's work will involve assessment of available data for descriptive epidemiology, including analyses of disease measures, interpretation of findings and report development. This will lead to the creation of reports that will describe the distribution and impact of conditions related to injury surveillance in the state. The injury fellow will also have the opportunity to actively participate in other activities in the Bureau of Epidemiology, including outbreak investigations and bioterrorism preparedness exercises.

Potential Projects

Some of the potential projects include:

1. Monitor the frequency of selected injuries and describe the protective and risk factors by age, race, sex, and socio-economic status.
2. Describe trends in injury incidence and conduct cluster investigations.
3. Evaluate the relationship between adverse childhood experiences, unintentional injuries, and chronic diseases to support integration efforts.
4. Evaluate the Pennsylvania Injury Prevention and Control Plan in relation to program implementation and injury trends.
5. Develop at least two innovative approaches to describe, examine, and evaluate Pennsylvania injury data. Possible approaches include use of Behavior Risk Factor Surveillance System (BRFSS) records to conduct Case-control studies of injury related risk factors; almost 40,000 records are available from BRFSS for the 2005-2007 time period. Another approach is to use claims data to

describe injuries in Pennsylvania's Medicaid populations; more than 100 million Medicaid records are available for the 1997-2007 time period.

Preparedness Role

The fellow will work with the Planning & Preparedness section on wide range of topics related to Emergency Preparedness from Bioterrorism to Influenza. This fellow will also support on any public emergencies (i.e. pandemic H1N1 outbreak) that occur during the fellowship period. The fellow will also attend meetings and conferences that are attended by fellow bureaus and departments such as Office of Public Health Preparedness, Bureau of Laboratories Pennsylvania Emergency Management Agency (PEMA), and the Pennsylvania Department of Agriculture.

Assignment Location: Harrisburg, PA

Primary Mentor: Gene Weinberg, DrPH, MPH
Epidemiology Manager
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Secondary Mentor: Ronald Tringali, PhD
Epidemiologist
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