

Fall 2015: Injury Prevention and Control

Public Health 285A

2 units (3 units with a paper)

Meets weekly on Friday, 2-4 pm, 262 Dwinelle



Course Overview:

Injury is the leading cause of death for ages 1-44, and the leading cause of years of potential life lost to age 70, surpassing heart disease and cancer. The general topic of injury is very diverse, including unintentional and intentional injury. The semester will begin with an overview of the field of injury followed by a focus on several specific subject areas, examining current issues within those subject areas. Course activities include discussion based on key readings, web-based and observational assignments, and a paper and presentation at the end of the semester. An extra-unit is available for students who wish to prepare a paper for publication.

Public Health Burden of Injury

- Unintentional or intentional damage to the body resulting from acute exposure to thermal, mechanical, electrical, or chemical energy or from the absence of such essentials as heat or oxygen.
- Leading cause of death for ages 1-44, and leading cause of potential years of life to age 70, surpassing heart disease and cancer.

Course Aims

- Knowledge and understanding of injuries as a major public health problem. (size and scope of the problem, social costs of injury, financial burden to health care system).
- Understanding of methods and approaches in injury epidemiology (measuring exposure, risk assessment, models of accidents and injury).
- Understanding of current methods and approaches of controlling injuries. (range of methods and approaches, methods for choosing optimal approaches, approaches to implementation, and evaluation).

Topics for Fall Semester 2015

- Overview (Definition, scope of the burden of injury, sources of data)
- Motor vehicles (leading cause of U.S. injury deaths)
- Pedestrian and bicyclist Injury (critical with potential mode shift to walking and biking)
- Motorcyclist injury (high risk per mile travelled)
- Firearms (2nd leading cause of U.S. injury deaths)
- Domestic violence, bullying (physical and psychological injury)
- Global impact of injury (traffic injury, injury from military/political conflict)

Each of these topics, in addition to being of great importance in their own right, illustrate the role of data and information in understanding injury as well as the major approaches to injury prevention.

Course Requirements/Activities

1. Readings, attendance, and participation in class
2. Class exercises
3. Class project: Brief paper on a current injury incident; PowerPoint presentation summarizing the paper. (Optional, one credit): Extended paper in style of publishable manuscript.

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Injury Prevention and Control (PH 285A) – Fall 2015

| Session | Date | Topic |
|---------|-------|--|
| | | Introduction |
| 1 | 8/28 | Definition of Injury / Injury Trends and Patterns |
| | | Strategies for Injury Prevention / Unintentional vs Intentional Injury |
| 2 | 9/4 | <u>Focus Issues:</u> Sources of injury statistics Web-based statistics exercise |
| | | Motor Vehicles (Leading Cause of U.S. Injury Deaths) |
| 3 | 9/11 | Trends, patterns / driver, vehicle, roadway factors |
| 4 | 9/18 | <u>Focus Issues:</u> Impaired Driving (lower alcohol BAC level, implications of marijuana legalization for traffic safety?) Distracted Driving (risk, countermeasures?) |
| | | Pedestrians and Bicyclists (Critical with potential mode shift to walking and biking) |
| 5 | 9/25 | Trends, patterns |
| 6 | 10/2 | <u>Focus Issues:</u> Safety in multi-modal environments (how promote safety?) Safety in Numbers (mechanisms?) |
| | | Motorcycles (High risk per mile travelled) |
| 7 | 10/9 | Overview and data sources |
| 8 | 10/16 | <u>Focus Issues:</u> Helmet laws (controversy versus hard evidence?) Lane splitting (current legislative debate in California?) |
| | | Firearms (2nd leading cause of U.S. Injury Deaths) |
| 9 | 10/23 | Statistics for homicide, suicide, unintentional firearm injury |
| 10 | 10/30 | <u>Focus Issues:</u> Firearm ownership (is owning a firearm protective?) Firearm policy (2 nd amendment, historic trends, future directions?) |
| | | Domestic Violence / Bullying (Psychological and Physical Injury) |
| 11 | 11/6 | Available statistics |
| 12 | 11/13 | <u>Focus Issues:</u> Legislative and legal protections (are they adequate, changes needed?) Prevention strategies (what strategies are/could be effective?) |
| | | Global Impact of Injury |
| 13 | 11/20 | Historic trends, projections, global distribution |
| 14 | 12/4 | <u>Focus Issues:</u> Statistics (how compile comparable statistics globally?) Injury from political and military conflict (how extensive?) Injury as punishment (extent, past and future trends?) |
| | | Presentations/ Wrap-up / Evaluation / Final Paper |
| 15 | 12/11 | Presentations/ Wrap-up & Evaluation |
| 16 | 12/19 | Final Paper Due—No Class |