

## Annual Report of Major Outputs & Outcomes

July 2016 to June 2017

Illinois Occupational Safety and Health Surveillance, Fundamental Program Plus

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**Specific aims** of the Illinois Occupational Surveillance Program are to:

**Aim #1.** Enhance the use of federal and state data sources for occupational surveillance with a particular focus on low wage, immigrant, minority, and precarious workers and those employed by small businesses.

**Aim #2.** Conduct research based on secondary data analyses using cutting edge hypotheses, mixed methods approaches, and advanced quantitative statistical methods aimed at primary, secondary, and tertiary prevention of severe occupational injuries.

**Aim #3.** Re-establish the adult lead poisoning prevention program in Illinois

**Aim #4.** Improve sustainability of an active occupational surveillance program by collaboratively establishing real-time surveillance and reporting of OH sentinels; embedding academic personnel at state agencies, producing state approved publications; co-authoring manuscripts; jointly attending national occupational surveillance meetings; training the next wave of public/occupational health professionals; and collaborating with local health departments employers, and worker advocates to set priorities and initiate interventions.

## MAJOR OUTCOMES - Collaboration and Partnership

### Partnerships

- Intergovernmental agreement with Illinois Department of Public Health (IDPH) ongoing through 2020.
- Intergovernmental agreement with Illinois Workers' Compensation Commission ongoing through 2020.
- Coordination with IDPH to co-manage the Adult Blood Lead Registry. All call backs and data management is handled through UIC team.
- Collaborative projects with worker centers in Illinois – Chicago Workers Collaborative (addressing temp worker health and safety), Latino Union (addressing gender based violence at work), ARISE Chicago (advising on workers' compensation support group), Warehouse Workers for Justice (supervised OHIP interns who just published an article on this)
- Collaborative projects with community health centers – Community Health Partnership (migrant health center), Miles Square (underserved population), Salvation Army (transition from prison to work).
- IOSP2 convened a stakeholders meeting May 8, 2017 to discuss ways to support IL House Bill 690. Group discussed the difficulties in doing advocacy as governmental employee. Brainstormed ideas for communicating with the state legislature/senate to support this bill. Also renewed collaboration ideas and made plans for sharing data. The following organizations were represented:
  - Illinois Workers Compensation Commission
  - Illinois Department of Public Health
  - Worker Centers: Chicago Workers Collaborative. Arise Chicago. Latino Union
  - Illinois Poison Center
  - Unions: Chicago Federation of Labor
  - OSHA Region 5 Officers
  - OSHA Illinois Area Office Directors
  - Academic Investigators
  - Workers' Compensation Attorney
- IDPH was awarded the CDC/NCIPC. CDC-RFA-CE16-1602 Core State Violence and Injury Prevention Program. IOSP is supporting surveillance activities in the realm of traumatic brain injury, motor vehicle crashes, child abuse and neglect, and intimate partner violence, workplace injury.
- Participating in Strategic Planning for Injury Prevention in Illinois, convened by IDPH
- Collaboration on mining safety and respiratory health programs in Illinois, US, and internationally in coordination with Dr. Robert Cohen's research team. Dr. Friedman traveled to meet with PATHAUT research group in South Africa and overseeing epi research. Dr. Cohen's group received a renewal in funding from ALPHA to continue to research lung disease among coal miners (includes Dr. Friedman).

- Collaborating with New Lenox Safety Community Coalition to solicit businesses to complete the CDC's Worksite Health ScoreCard. Still in progress.
- 2016- Advisory Board, Illinois Injury Control Implementation Group. Illinois Dept of Public Health, [CDC grant]; member of strategic planning sub-group; member of "data" sub-group.
- Met with OSHA Region 5 and IDPH EMS/ambulance data manager. Latter will be providing data to OSHA to reconcile employer reporting of hospitalizations as part of new recordkeeping requirement.
- Received contract from NIOSH to report pesticide related illness in Illinois; working on establishment of new surveillance system on PRI in the State
- IDPH and UIC received contract from NIOSH to provide data regarding injuries to EMS workers occurring during ambulance transport work.
- Dr. Hebert Beirne oversaw an evaluation of IOSP—interviews of 13 key collaborators, describe the strengths of collaboration and recommendations for improvement.

### **Community Service Activities**

- Cook County Department of Public Health. Friedman and Holloway-Beth. Invited to serve on committee to develop a surveillance system to monitor injuries suffered by both law enforcement personnel and civilians injured during legal interventions.
- Health and Medicine Policy Research Group. Friedman and Holloway-Beth. Serving on a work group on surveillance of police and civilian injuries.
- Advisory board of Midwest Injury Prevention Alliance, an organization of injury professionals from state in Federal Health and Human Services Region V (Friedman)
- Miles Square Health Center research advisory board. (Forst).
- Little Village Community Health Assessment. (includes "work" in the survey). (Hebert-Beirne)
- American Association of Poison Control Centers, ICD9-10 mapping to AAPCC Generic Code Work Group. (Friedman)

### **MAJOR OUTPUTS - Advancement of Surveillance Methods and Activities**

#### **Increased credibility among peer reviewers/experts**

- Evaluation report, in poster form, is attached (Hebert-Beirne)
- 6 Solicitations for peer reviewing manuscripts by journals. (Forst & Friedman).
- Invitation to present at American College of Occupational and Environmental Medicine annual conference. April, 2017. (Forst)
- Service on ad hoc study section for NIOSH on ERC applications.

#### **Publications**

- Madigan D, Forst L, Friedman L. Workers' compensation filings of temporary workers compared to direct hire workers in Illinois, 2007-2012. *Am J Ind Med.* 2017 Jan;60(1):11-19.
- Friedman LS, Friedman M. Response to Comments by Ryan et al. *J Occup Environ Med.* 2016 Sep;58(9):e339-40.
- Huang Z, Friedman LS. Work-Related Burn Injuries Hospitalized in US Burn Centers: 2002 to 2011. *J Occup Environ Med.* 2017 Mar;59(3):282-288.
- Lale A, Krajewski A, Friedman LS. Under-triage of Firearm-Related Injuries in a Major Metropolitan Area. *JAMA Surg.* 2017 May 1;152(5):467-474
- (Several other general, non-occupational injury publications from databases obtained under IOSP agreements; not listed as outputs of IOSP)

#### **Presentations**

- Forst L. Invited Speaker. University-Community Collaborations. National Safety Council. Safe Communities Coalitions Annual Conference. August 8, 2016
- Velonis A, Forst L. Invited Workshop Presenter. Concept Mapping for Public Health Professionals. Council of State and Territorial Epidemiologists. Boise, Idaho. June 4, 2017
- Forst Occupational Illness Surveillance in the US. International Labour Organization meeting and Continuing Medical Education program. Milan, Italy. June 26, 2017
- Madrigal J, Forst L. Occupational Health in the Illinois Behavioral Risk Factor Surveillance System. EPICOH. Barcelona, Spain. September 2016
- Forst L. Global Activities to Develop Diagnostic Criteria for Occupational Diseases. Council of State and Territorial Epidemiologists. Boise, Idaho, June 2017

### **Funded Research (based on IOSP surveillance data)**

- IDPH + UIC. Pre-hospital Surveillance of Occupational Injuries among EMS Personnel. Funding Period. 2017-9. \$32,000
- UIC. Pesticide Surveillance in Illinois. NIOSH/CDC. Funding period: 2016-8. \$105,000
- Co-Investigator. Community Level Total Worker Health. R01 part of Total Worker Health program. NIOSH/CDC. Funding period: 2016-9 (IOSP is providing surveillance data)
- UIC. Community Concept Mapping to Explain Work as a Determinant of Health. NIOSH/CDC. Pilot Project. Funding period: 2016-7. \$20,000
- UIC. Alpha Foundation. For the improvement of mine safety and health. Funding period: 2017-2020. \$300,000. (Friedman Co-Investigator).

### **Reports**

- Occupational Health Indicators, 2014. Reported to NIOSH, Illinois State Based Surveillance

### **Press Releases/Interviews/Testimonies**

- Forst L. Workers' Compensation in Illinois. Testimony on new legislation to IL Legislature. June 2016
- Forst L. Workers Compensation in Illinois. Testimony on new legislation to IL Senate. March 2017
- Forst L. Illinois House Bill 690. Job Creation Act. Press conference presentation. 2017

### **State Based Datasets used for Occupational Surveillance Program**

- Hospital outpatient and inpatient databases – used to describe work-related heat and cold injuries, law enforcement injuries, pesticide poisoning, cost to employers from lost productivity caused by common foodborne pathogens, and common occupational respiratory diseases.
- Emergency Medical Services pre-hospital ambulance data – planning use for injuries among EMS personnel
- Illinois Workers' Compensation Commission Claims Database. Used in a wide array of analyses including injuries to law enforcement personnel, temp workers, public transportation workers, taxi drivers, workers in the oil refinery industry, professional athletes and hospital workers. In addition, we are conducting an analysis evaluating the impact of recent legislative changes in Illinois on the WC system.
- Illinois Poison Center Data. Used to evaluate the efficacy of poison centers in reducing hospital costs, heavy metal exposures from occupational and non-occupational sources, and pesticide exposures.
- Illinois Police Crash Report Data – used to evaluate truck driver crashes, EMS personnel crashes and safety of all wheel drive vehicles.
- Department of Energy data files – used to assess association between employment in a plutonium manufacturing plant and mortality.
- National Burn Repository – used to create a definition to identify work-related injuries and characterize burns by industry. Currently being used in a text analysis to identify hazards and processes associated with burn injuries by industry.
- National Health Interview Survey – used to assess injury and illness among miners, employment history and psychosocial status of persons suffering epilepsy, and triage of burn injuries suffered by U.S. workers.

### **Program Evaluation**

- Evaluated program evaluation tool available for use in future years

### **Website**

- <http://illinoisinjuryprevention.org/> Updated website to be launched in September, 2017

### **Increasing expertise among researchers and practical applications of findings**

- 25 public health students trained in occupational surveillance
- 6 Occupational Medicine residents trained in occupational surveillance
- 7 abstracts by graduate students to international conferences (ICOH, EPICOH) using surveillance data