

New Hampshire Occupational Health Surveillance Program: Fundamental Program
Grant #1U60OH009853
Annual Report of Major Outputs and Outcomes (2014 to 2015)

NH Division of Public Health Services, Bureau of Public Health Statistics and Informatics
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The overall objectives of the program are to:

- Establish the NH Occupational Health Surveillance Program (NH OHSP) within the Division of Public Health Services, Bureau of Public Health Statistics and Informatics
- Collect, analyze, and interpret surveillance data, addressing the utility and limitations of existing databases for collecting and analyzing occupational illnesses and injuries
- Develop new data sources and additional indicators
- Identify priority occupational safety and health conditions in the state
- Disseminate data on the magnitude of occupational injuries and illnesses
- Integrate activities with existing NH public health surveillance systems
- Work with occupational safety and health stakeholders to recommend prevention strategies and interventions

Major Accomplishments and Outcomes

Collect, analyze, and interpret surveillance data, addressing the utility and limitations of existing databases for collecting and analyzing occupational illnesses and injuries. Identify priority occupational safety and health conditions in the state

The NH OHSP continued analysis on a variety of existing and new occupational health indicators and new data sources, including work-related commercial motor vehicle crashes (Department of Safety crash reports); injuries in the construction industry (NH DOL First Reports of Injury); farm injuries in the hospital discharge data; and occupational poisonings (reported to the Northern New England Poison Center). In addition, we added one year of data to further characterize lower adult blood lead levels (2009-2014), and added one year of industry and occupation (I/O) data to our Behavioral Risk Factor Surveillance System survey (2011-2013). These studies involved some manual data collection; data base development; data cleaning; and merging of data elements across databases. Analysis included evaluation of utility of each data source to provide meaningful statistics on work-related injury and illness in New Hampshire.

Analysis of 13 of the 21 core NIOSH/CSTE occupational health indicators was completed plus analysis on indicators “modified” to utilize existing data for 2011, 2012, and 2013 where available. Hospital discharge data was not available to meet the reporting deadline. It is expected that by the end of this year, we will have 2011-2012 hospital discharge data completed, allowing for an up-to-date analysis of our indicators. All available indicator data was published in a comprehensive report, including NH demographic and workforce characteristic data (new analysis of “limited English speaking” by industry and occupation). Priority areas identified included incidence of malignant mesothelioma (higher than U.S. estimates for 3 years) and low back disorder hospitalizations (increasing rates).

An outcome of analyzing and producing data on a variety of occupational health indicators is the ability to identify priority areas for prevention strategies.

Enhancing the OHSP and Developing New Data Sources

Additional efforts to enhance existing data sources included adding industry and occupation questions to the 2013 and 2014 BRFSS, adding fields for industry and occupation to the poison center data; adding occurrence and condition (at work) codes to the hospital discharge data set (2010-2013), and working with partners to create a merged data set of hospital discharge and emergency medical services information to further explore traumatic work-related injuries. A new data source includes the Department of Safety Motor Vehicle Crash Data. We are also working with Department of Insurance to explore the feasibility of including workers’ compensation claims in the NH’s All Payer Claims Database.

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In addition, the NH OHSP is participating in the state-wide development of a web-based interactive system for direction and outcome measures, or WISDOM, which involves creation of both numerator and denominator data from a variety of data sources, including hospital discharge, vital records, workers' compensation, Census and Bureau of Labor Statistics. The addition of industry and occupation denominator data purchased through a private company (Claritas) that produces state and town level data along with the Quarterly Census of Employment and Wages will add to the functionality of calculating rates for some of our indicators, particularly for sub-state analyses.

We have produced several WISDOM occupational health indicator dash boards for public use allowing the user to make a variety of queries within an indicator or topic (<http://wisdom.dhhs.nh.gov/wisdom/>). Data points are presented by counts and rates, and by gender and geography where possible. WISDOM can be used as a tool for educating stakeholders from academia, nonprofit organizations, advocacy groups, etc. on workplace injuries and illnesses and other employment, demographic and/or exposure/hazard data that warrant targeted attention for prevention purposes.

An outcome of these efforts is the development of more comprehensive data sets and dissemination of more accurate and detailed information, including the investigation of injury and illness data by where a person works, what they do for work, and by a variety of demographic and employment parameters. This is an important aspect of increasing our knowledge and understanding of the true burden of work-related injuries and illnesses, and allows us to better prioritize resources. These data are used by state stakeholders to influence safety practices and minimization of workplace risks.

Information Dissemination and Communications Activities

- Added content (fact sheets, issue briefs and hazard alerts) to OHSP web page in DPHS: <http://www.dhhs.state.nh.us/dphs/hsdm/ohs/index.htm>. Personnel changes here have resulted in us not being able to post our documents via direct RSS feed to the NIOSH Clearinghouse, but we've been assured this will be reinstated soon. (See below for additional information about collaborations and publications).
- Published comprehensive indicator report, *Occupational Injury and Illness in New Hampshire: 2000-2013 Data Report to Inform Programs and Policies*, March 2015. Resulted in news articles by two media outlets (NH Public Radio and the Nashua Telegraph).
- Collaboration with the NH State Asthma Collaborative: *Healthy Body, Healthy Lungs, What Salon Workers Need to Know About their Risk for Work Related Asthma*, published and presented at two schools of hair and cosmetology.
- Published report, *Occupational Poisonings: Lessons Learned from Poison Center Narratives*, in February 2015
- Published issue brief, *Asthma Prevalence among New Hampshire Workers, Behavioral Risk Factor Surveillance System, 2011-2012*
- Published Hazard Alert, *Removing Snow from Rooftops is Dangerous*. Disseminated widely to business and industry groups and other OHS stakeholders.
- Published issue brief, *Utilization of the NH BRFSS to Better Understand Under-Reporting of Work-Related Injuries*. Results indicated that only about half of the injuries sustained by respondents serious enough to require medical attention were paid for by workers' compensation.
- Provided data on under-reporting of work related injuries to the NH Commission to Recommend Reforms to Reduce Workers' Compensation Costs.
- Represented Occupational Health Surveillance States as Co-Chair of national BRFSS Workgroup:
 - In progress: Analysis of 2011 data among 3 states (NH, MA, and WA), analysis of 2013 by NIOSH of all states that included industry and occupation on survey.
- Presented several studies at the Council of State and Territorial Epidemiologists Annual Meeting 2015, specifically:
 - Utilization of the New Hampshire Behavioral Risk Factor Surveillance System (BRFSS) work related injury data to better understand under-reporting to the workers' compensation system
 - Exploring the utility of the New Hampshire Behavioral Risk Factor Surveillance System (BRFSS) industry and occupation data for promoting seasonal flu vaccination at worksites
 - Roundtable: Practical Issues in Exploring Industry and Occupation in the BRFSS

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- Published one article in the NIOSH eNews Partners Section
 - New Report on behaviors of healthcare workers using BRFSS industry and occupation variables (July 2014 – submitted in June)
- Published BRFSS Success Story (in the CDC BRFSS Newsletter) on Health Behaviors of Healthcare Workers
- The Occupational Health Surveillance Advisory Committee met twice during Year 5. Topics covered in these meetings included: Dissemination of indicator data to better prioritize prevention efforts, engagement of committee members to develop outreach/communication plan for disseminating pertinent data/information, and priority areas for the next grant period.

An outcome to information dissemination and education is an increased use of occupational health data by our stakeholders and others who have an interest in the data. More people are looking to us as experts in occupational health surveillance. A more educated stakeholder population is more successful in implementing prevention strategies and effecting policy change.

Integrating Activities with Existing NH Public Health Surveillance Systems and Building Partnerships

- Adult Blood Lead Epidemiology Surveillance – Added another year of adult blood lead level data (2009-2013) to better characterize lower blood leads in working adults. Issue brief planned.
- Worked with the Communicable Disease Control and Surveillance Section to update the “Protect Yourself from Ticks Where you Work” fact sheet.
- Hosted a Dartmouth MPH/Leadership Program student to research and recommend requirements for radiation safety education for staff operating fluoroscopy equipment. This work was presented results at stakeholder meeting in July 2015.
- Behavioral Risk Factor Surveillance System - Worked with NIOSH on adding industry and occupation questions to 2013 and 2014 survey (currently 3 years of I/O data).
 - Collaboration with the Cancer Prevention and Control program to analyze cancer screening behaviors by industry and occupation.
 - Collaboration with the DPHS Chronic Disease Program to write issue brief on BRFSS chronic disease indicators by industry and occupation.
- Worked with the Department of Safety on the Commercial Motor Vehicle Crash Project.
 - Did preliminary exploration of the commercial motor vehicle crash data in NH. Future studies with a more comprehensive dataset are planned.
- Participating in the “Dialogue on Climate & Public Health Issues in NH” workgroup; representing surveillance advice on climate effects on vulnerable workers. Working on training materials for outdoor workers.
- Participating as a subject matter expert (SME) on the State Public Health Emergency Planning Team, Capability 14, Responder Safety and Health. Participating in the pilot testing of the NIOSH Emergency Responder Health Monitoring and Surveillance (ERHMS) system.
- Participating on Quality Improvement (QI) Council for the Division; tasked with overseeing and advising on Division-wide QI projects and meeting the standards QI and performance measurement of the Public Health Accreditation Board (PHAB).

As a result of these activities, the NH OHSP has produced more data, contributed to national occupational health surveillance discussions, explored injury and illness rates within several industries and occupations, and applied standards of quality improvement in all program areas.

Outcomes from collaboration include building awareness and educating various public health groups about the importance of occupational health as an integral part of public health (being a voice on various committees devoted to broader public health issues); advising on important topics such as emergency responders, and understanding the broader perspective of quality improvement at the program level.