

**New Hampshire Occupational Health Surveillance Program:
Fundamental Program
Grant #U60 OH010910
Annual Report of Major Outputs and Outcomes
(July 1, 2016 to June 31, 2017)**

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Program Objectives

- Assess the extent and severity of workplace injuries, illnesses, deaths, hazards and/or exposures
- Identify workers and occupations at greatest risk through data collection of industry, occupation, and work status
- Develop research and prevention (program) policies through partnerships with public health and non-public health organizations.
- Expand outreach and dissemination
- Continuous performance review (evaluation) of the accomplishments and impact of surveillance activities

Major Accomplishments and Outcomes

Assess the extent and severity of workplace injuries, illnesses, deaths, hazards and/or exposures; identify workers and occupations at greatest risk through data collection of industry, occupation, and work status

Activity Outputs

- Completed 18 of the core indicators and demographics for 2013 (and submitted to NIOSH). Updated indicators will be displayed in the NH Division of Public Health Services NH WISDOM web platform. WISDOM is a web-based data query tool that enables users to explore employment demographics, injury, illness, and exposure data through interactive dashboards.
- Completed participation in NIOSH National Occupational Mortality Surveillance (NOMS) project and received coded industry and occupation (I/O) fields for 10 years of NH death data. Worked with the NH Division of Public Health Services (DPHS) to create a linking table within the death data file for analysts to explore causes of death by industry and occupation. This benefits all internal DPHS program epidemiologists as well as outside data users to explore cause of death by I/O.
- Added industry and occupation questions to the Behavioral Risk Factor Surveillance System (BRFSS) survey for another year. Also added another year of questions on “injured at work” and “who paid for injury.” NH is leading a multi-state collaborative project (approximately 10 states) asking the same questions about injury at work and who paid for it for the 2017 BRFSS survey, with a goal of producing a multi-state report/article focused on under-recording of work related injuries.

- Worked with the New England Poison Center to add industry and occupation fields to case reports. Undergoing data quality check and analysis for three-year period.
- Worked with analysts at the UNH Institute on Disability (IOD) to explore disability status by industry and occupation for 3 years of BRFSS data, with a focus on social determinants of health indicators (income, education, access to healthcare, etc). Report published and disseminated widely (through the IOD website and a mailing to over 500 constituents).

Outcome

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 (including disability status). 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.

Develop research and prevention (program) policies through partnerships with public health and non-public health organizations

Activity Outputs

- ***Breastfeeding rates and worksite lactation policies***
 - Worked with Maternal and Child Health Section of NH DPHS to analyze breastfeeding rates by industry and occupation for NH resident births for 2014 and 2015. The NIOSH NIOCCS automated system was used to code for I/O. This analysis will be included in the report of Phase 2 of the study on Breastfeeding Rates and Worksite Lactation Policies (*see below for more detail*), scheduled for publication in September of 2017.
 - Worked with Maternal and Child Health Section of DPHS to survey moms in the NH WIC program to better understand the barriers to breastfeeding after childbirth, particularly focused on workplace policies and support practices that encourage or discourage breastfeeding after returning to work. **Results:** 35% of mothers reported that they would have continued breastfeeding if it was easier to pump at work. 62% responded that having flexible time or hours would have made it easier to pump at work. **Policy Impact:** Data from this study will inform the efforts of the NH Breastfeeding Task Force in influencing legislative efforts for improved lactation policies for breastfeeding moms at work. In addition, we are contributing to the NH DPHS ASTHO-funded project to develop and publish an on-line training program for NH business and industry for creating awareness and implementing supportive employer lactation policies. This work is positioned to provide opportunities to influence future legislation to support breastfeeding accommodations in the workplace for all working mothers. **Dissemination:** Results were presented in a poster at APHA in November of 2016 and in an oral session at the 2017 CSTE Annual Meeting. Report/article forthcoming.
- ***Vaccination rates of healthcare personnel and workplace influenza policies***
 - Worked with NH DPHS Bureau of Infectious Disease Control, Healthcare Associated Infections (HAI) Program to collect data on flu vaccination behaviors among all employees (including healthcare personnel) in NH hospitals through an anonymous survey and targeted focus group discussions. Focus is on better understanding of the impact of healthcare facility influenza

vaccination policies on HCP influenza vaccination rates, and better targeting of interventions, outreach, and education to inform both HCP and healthcare facilities about the development and impact of these policies. **Results:** Of 518 total respondents, 85% worked full time and had been working in the healthcare field for over 10 years; the majority of respondents worked in administrative or clerical (28%) with registered nurse or LPN at 26%. 83% reported their facility required flu vaccination; of those with this requirement, 395 received the flu vaccine and 13 did not. The top reason for receiving the flu vaccine was reported as, “my employer requires me to be vaccinated for the flu.” The top reason for not receiving the flu vaccine was, “I feel it infringes on my rights.” 83% of the respondents reported that educational information provided by the employer did not have an influence on receiving the flu vaccine. Policy Impact: NH hospitals may use the data from the our study to improve efforts around training and education of hospital staff on the importance of flu vaccination. **Dissemination:** Report forthcoming.

- **Collaboration with the NH State Cancer Registry (NHSCR)**

- Worked with the NHSCR and NIOSH to explore the quality of industry and occupation data in the NH cancer registry compared with the industry and occupation data reported on the NH death certificate for cancer deaths.
 - **Results:** For data 2009-2011, of the 4624 cases included in the study, 42% (n=1940) of NHSCR had the same occupation reported in the death certificate. 43% (n=1963) cases had the same industry. NHSCR had more unknown I and O (~30%) than what was reported on the death certificate.
 - **Impact/Implications** for future surveillance improvements: It may be feasible to improve I/O data in the NHSCR for cases who have died. However, data may not be comparable to those still alive. Therefore, it may be useful to introduce separate fields for I and O from NH death data and NHSCR, so that the distinction is retained. The plan is to continue this research with more years of data for publication in a peer reviewed journal.
 - **Dissemination:** Presented study in a poster session at the NAACCR (North American Association of Central Cancer Registries) 2016 annual conference.

- **Adult Blood Lead Epidemiology Surveillance**

- Continued data collection of all adult blood lead cases through the CDC Healthy Homes and Lead Poisoning Surveillance System (HHLPSS), including assignment of NAICS and/or SOC codes (where available). Clinical call-back is conducted to follow up with laboratories and testing physicians to obtain employer and/or occupation where missing.
 - **Dissemination:** Report forthcoming in 2018.
- Also working with HHLPSS to develop a Lead Risk Indicator map, including both childhood and adult lead cases; explore co-occurrence of child/adult lead poisoning; and help refine a case definition for “elevated blood lead levels.”

- **Additional Partnerships** - aimed toward integration of occupational health in mainstream public health programs

- NH Asthma Collaborative, chair of the Asthma and Work subcommittee.
- NH DPHS Chronic Disease section - exploring chronic disease by industry in the BRFSS.
- NH DPHS – Subject Matter Expert - Public Health Emergency Plan to inform and plan for protection of emergency response workers in Capability 14 (Worker Safety and Health).

- University of California Berkeley – wrote grant for NIOSH R21 announcement to evaluate a worker safety and health training program for workers with intellectual disabilities.

Outcome

An important outcome of efforts to partner with other public health programs and organizations is increased awareness of the importance of occupational health (i.e. WORK) in assessing health status of all populations, investigating health problems and health hazards in the community, informing and educating people about these issues, and developing laws and policies that protect health and ensure safety. The goal is for stakeholders to use these outputs to support policies that incorporate occupational health status/indicators in building evidence for a more inclusive implementation of prevention and health promotion efforts.

Expand outreach and dissemination

Activity Outputs

- Publications
 - [Industry and Occupation Data from Cancer Registry and Death Certificates Poster Presentation, NAACCR, \(posted February 2017\)](#)
 - [Exploring barriers associated with discontinued breastfeeding after returning to work among NH WIC mothers, APHA, November 2016, CSTE, June 2017 \(posted to program website and the NIOSH Clearinghouse\)](#)
- OHSP Communications Metrics - July 2016 through June 2017
 - Mass Emails: 6 NH OHSP eNewsletters were produced and sent to 257 recipients
 - Social Media: There were 8 posts about NH OHSP on the IOD's Facebook page (3,329 followers) and 7 tweets on the IOD's Twitter account (3,482 followers).
 - IOD Newsletter: NH OHSP was not featured in Vision & Voice during this time-period.
 - The OHSP project description page has had 273 Page views
 - The OHSP publication page has had 142 Page views
 - The entire collection of ALL OHSP pages have had 507 Page views

Outcome

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.