

**Occupational Health Surveillance Program
Massachusetts Department of Public Health
Annual Performance Report - July 2007 through June 2008**

Principal Investigator: Letitia Davis ScD, EdM
Contact information: 617-624-5626; Letitia.Davis@state.ma.us

Type of Project: Fundamental Surveillance

Program Personnel

Shona Fang, ScD, Senior Epidemiologist (replacing Phillip Hunt)
Kathleen Grattan, MPH, Epidemiologist
Elise Pechter, MPH, CIH, Intervention Coordinator
Jim Laing, Administrative Assistant

Overview of Project and Key Accomplishments

The Occupational Health Surveillance Program (OHSP) has been conducting surveillance of select work-related injuries and illnesses in Massachusetts since 1986. This project builds on this experience to enhance surveillance and prevention activities fundamental to an established program. Aims of the project are to: conduct population-based surveillance using existing state data sources; continue case-based surveillance of serious work-related conditions that require immediate public health response; foster integration of occupational health into ongoing public health activities; and promote collaboration in the Northeast region to improve state occupational health surveillance capacity. Highlights this period include: inclusion of questions on health and safety programs in worksite wellness survey of 3,000 establishments; and a collaborative interagency initiative to collect data electronically on work-related injuries and illness among state employees.

This year, the Fundamental Project has: *(specific outputs are noted in **bold italics**)*

Occupational Health Indicators

- Generated 19 occupational health indicators (OHIs) for 2004 and 2005; posted OHIs on the OHSP website; and produced a state **OHI report** based on most currently available data (2004-2006). Findings in this report, released to coincide with Workers' Memorial Day, were cited in a community report covered by the local media. (Boston Globe 4/28/08).
- Several OHIs were included in the Department's new "Massachusetts by Numbers" report currently under development. ,
- Took a leading role, with Michigan, in coordinating the multi-state OHI process and producing the 2002-2003 **multi-state indicator report (www.CSTE.org)**
- Completed review of OHI evaluation tracking forms submitted to CSTE by 15 states, presented findings at the 11/07 COSS meeting and the public health indicator session at the 2008 CSTE Annual Conference.

Public sector workers

- Participated in an interagency team pursuing extension of OSHA coverage to state employees; initiated an analysis of workers' compensation claims filed by state employees to inform policy and planning.

- Collaborated with the MA Human Resources Division (HRD) to adapt the existing Workers' Compensation case tracking software used by state agencies to allow agencies to meet OSHA 300 log requirements and to centrally report injury data for surveillance.

Underreporting

- Collaborated with other states to develop analysis plan for questions about work-related injuries and workers' compensation included in the 2007 Behavioral Risk Factor Survey.

Mesothelioma

- Collaborated with Boston University and University of Massachusetts Lowell partners on a study of mesothelioma incidence in Massachusetts.

Case-based Surveillance of Burns and Poisonings

- Continued collaboration with the Massachusetts Burn Injury Reporting System (M-BIRS) ; received and triaged 41 reports of hospitalized burns; 10 referred to OSHA; completed summary ***analysis of work-related burns included in the annual M-BIRS report.***
- Participating in MDPH initiative to use real-time Poison Control Center data to respond to symptomatic, occupational acute poisonings.

Integrating Occupational Health into Mainstream Public Health

- Collaborated with the MDPH worksite wellness initiative to include questions on health and safety activities in a ***worksite wellness survey*** administered to 3000 Massachusetts establishments.
- Participated in team developing the new Massachusetts Trauma Registry; successfully advocated for inclusion of an "injury at work" variable in the Registry database that will include data on all injury hospitalizations from trauma as well as non-trauma centers.
- Continued to serve as a public health practice rotation site for residents (4) in the Harvard Occupational Environmental Medicine Residency Program.
- Collaborated with the OHSP Community Health Center Project to sponsor an MDPH ***Diversity Council Forum on Occupational Health Disparities***, presenting OHSP findings and showcasing activities by community partners to address occupational health of immigrant and minority workers.

Regional Collaboration

- With Connecticut, organized 20th Annual Northeast Regional Occupational Health Surveillance conference, held this year in conjunction with the first NE regional meeting of states' worksite wellness programs.
- Provided technical assistance on occupational health surveillance to NY, RI, and NH.

Peer Reviewed Publications

Cancer Incidence among Massachusetts Firefighters, 1987-2003. (Am J Ind Me 2008 Feb 27.)

Plans for Next Year

The Fundamental Project will continue as planned with increased emphasis on public sector health and safety. OHSP will complete reports on lost time workers' compensation claims filed by employees of state agencies and state authorities and will collaborate with HRD to analyze data from the new system for tracking all injuries and illnesses among state employees.

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Type of Project: Expanded: Surveillance and Prevention of Work-related Asthma in MA

Program Personnel

Letitia Davis: Principal Investigator
Coordinator

Elise Pechter: Intervention

Liza Lutzker: Project Coordinator
Assistant

James Laing: Administrative

(replacing Bonnie Tran)

Shona Fang: Senior Epidemiologist (replacing Phill Hunt)

Overview of Project and Key Accomplishments

The Occupational Health Surveillance Program (OHSP) has implemented statewide surveillance of work-related asthma (WRA) following the SENSOR model since 1993. The MA SENSOR asthma project uses multiple data sources to identify sentinel cases of WRA, conducts interviews to confirm and characterize cases, and analyzes and disseminates surveillance data both from the sentinel system and the Behavioral Risk Factor Surveillance System (BRFSS). Project staff conduct intervention activities and collaborate with government and community stakeholders to promote prevention. Highlights this period include: evaluation of emergency department (ED) records as a source for case ascertainment; new findings on WRA from the BRFSS asthma call back survey; and involvement in the Green Seal process encouraging consideration of asthma in their criteria for cleaning products – a policy change that has potential for national impact.

This year, the MA SENSOR has: (specific outputs noted in **bold italics**)

Case Ascertainment and Follow-up

- Ascertained 20 cases from health care providers, marking a continue in the decline from previous years and underscoring the need for continued outreach and education, as well as using new data sources to augment case ascertainment.
- Reviewed and refined search criteria for WRA among ED treated asthma cases, utilizing ICD9 codes, payer source and narrative text fields; 167 possible WRA cases were identified in FY06 records, 131 medical records were received and 38 were chosen for interview.
- Updated the **WRA questionnaire** and database systems.
- Increased dissemination of the Occupational Lung Disease Bulletin from 1600 to 1900.
- Collaborated with Massachusetts Health Quality Partners to include **a WRA fact sheet** in their dissemination of Adult Asthma Action Plans to 5500 physicians, available at:

<http://www.mhqp.org/guidelines/adultAsthma/adultAsthmaLetter.asp?nav=041453>

Data Analysis and Dissemination

- Analyzed and presented to NIOSH and WRA surveillance states data from analysis of 2006 Massachusetts BRFSS Adult Asthma Call-back survey, with striking findings that ~50% of adults with asthma report that their asthma was caused or made worse by work, but less than one-third had ever discussed the work-relatedness with their health care providers.
- Added **WRA data to MassCHIP**, MDPH's electronic public health information website.
- Analyzed three years of ED records, with attention to WRA case confirmation rate by ICD9 code, contribution to case ascertainment, demographic distribution of probable and confirmed cases and capacity to capture otherwise unrecognized cases. Results were presented at CSTE conference; a final report on findings is in progress.

Intervention and Prevention Activities

- Conducted three site visits: two to a commercial bakery with a largely immigrant workforce and one to large golf ball manufacturer. Conducted a walk-through of a flock manufacturer with NIOSH investigators to a company previously referred by OHSP. On all visits, physicians on rotation at OHSP accompanied staff, providing occupational medicine expertise.
- Continued OHSP's focus on intervention and prevention activities regarding cleaning products, including ongoing participation on Green Seal's Standard Development Team to revise the approval requirements for GS-37 industrial and institutional cleaners to include asthma prevention, and leading two **workshops, one presentation, two webinars**, and providing guidance to the MA Department of Early Education and Childcare on the topics of cleaning products, disinfectants, and asthma (with a focus on schools).

Collaboration with Governmental and Community Stakeholders

- Developed unprecedented levels of collaboration and integration within MDPH on asthma.
- Participated in the Massachusetts Asthma Advocacy Partnership (MAAP), which voted to make increasing public awareness of WRA one of its five statewide priorities for advocacy.
- Participated with the New England Asthma Regional Council in regional data analysis and in a conference for health care providers and insurers to promote best practices in asthma.
- Conducted outreach at the Safety and Health Council of Northern New England and the annual meetings of the New England College of Occupational and Environmental Medicine/MA Association of Occupational Health Nurses, MA Thoracic Society and Northeast Occupational Health Surveillance regional conference.

Plans for Next Year

- Streamline ED case ascertainment by narrowing the search criteria to produce the highest predictive value positive.
- Finalize a protocol to use Workers' Compensation records for WRA case ascertainment.
- Explore the possibility of direct, real-time reporting of possible WRA cases from hospitals to improve the timeliness of ED case ascertainment.
- Analyze WRA data from the 2007 Massachusetts BRFSS Adult Asthma Call-back survey and report findings in a MDPH document.

List of Reports/Publications

- **Assessing work-related respiratory problems among Massachusetts elementary school staff: Results of a pilot survey**; disseminated to the MA Dept of Education, schools, unions, Healthy Schools Network, state occupational health surveillance partners.
- **Work-related asthma in the educational services industry: California, Massachusetts, Michigan and New Jersey, 1993-2000.** *AJIM* 2008 51(1):47-59
Mazurek et al.
- **What happens when I report a case of work-related asthma to the MDPH?** Fact sheet for healthcare providers
- **Workplace policies that address asthma:** policy recommendations included in new MDPH workplace wellness toolkit for employers
- **Occupational Lung Disease Bulletins:** Annual data report, and Occupational asthma in World Trade Center rescue and recovery :
<http://www.mass.gov/dph/workrelatedasthma>

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Contact information: 617-624-5626; letitia.davis@state.ma.us

Program Type: Expanded: Teens at Work: Injury Surveillance and Prevention Project

Program Personnel

Beatriz Vautin, MPH, Project Coordinator

Steven Sullivan, MBA, Interviewer

Valerie Machinist, MS, RD Outreach Coordinator

Julie Bulman, Interviewer

Elise Pechter, MPH, CIH, Investigator

James Laing, Administrative

Assistant

Overview of Project and Key Accomplishments

The Occupational Health Surveillance Program (OHSP) tracks work-related injuries to youths less than age 18 using multiple data sources. Follow-up interviews with injured teens are conducted to learn more about factors leading to incidents, health and safety training and injury impact. The surveillance system is designed both to identify sentinel cases for worksite follow-up and to generate summary data to inform broad-based prevention efforts. Prevention activities range from outreach and education activities targeting teens, employers, and schools to the development of public policies to protect working youths. Surveillance findings, for example, were used to promote changes in the Massachusetts Child Labor Laws, implemented in 2007. Teens at Work (TAW) Project staff work with a wide range of partners - in other public health programs, other state and federal government agencies, and the community - to address problems identified by the surveillance system. Highlights this period include a well received *TAW Surveillance Update*, new data on middle school student employment, training of culinary arts teachers and students, and increased collaboration among government agencies working to protect working teens.

This year, the Teens at Work (TAW) Project has: (specific outputs are noted in ***bold italics***)

Case Ascertainment and Case Follow-up

- Identified 344 teens injured at work using workers' compensation records and data from a sample of hospital emergency departments.
- Completed 107 interviews (by mail or phone) with injured teens.

Data Analysis and Dissemination

- Completed analysis of 2000-2004 data. Findings were summarized in the ***TAW Surveillance Update*** and broadly disseminated (1,300 paper copies and 3,000 electronic copies). Six ***industry specific fact sheets*** were also completed and are available on the OHSP website (www.mass.gov/dph/ohsp.)
- Mailed out nearly 20,000 TAW ***educational materials**** on request, including requests for 13,000 materials resulting from mailing the 2007 *TAW Surveillance*

* Educational materials developed by the TAW project during a previous budget period.

Update. (See above.) In addition, the TAW **child labor law poster*** together with the handout “**Employer Tips for Keeping Young Workers Safe on the Job**” * are now routinely mailed to employers of injured teens reported to the surveillance system.

- Included two questions about work in the 2007 MA Youth Health Survey of middle and high school students; **findings** indicate that 25% of middle school students in MA are working. (Included in *Health and Risk Behaviors of Massachusetts Youth 2007 Report.*)
- The TAW “**How-to**” **Guide*** on teen injury surveillance was brought to India by a colleague for an international meeting on child labor.

Intervention and Prevention

- Referred 9 cases to external partners resulting in fines being issued to 3 companies; 11 internal referrals were made, resulting in 4 site visits and 7 letters or calls to employers.
- Modified the “Talking Safety” curriculum for high school students in culinary arts programs; nearly 90 high school teachers were trained to teach the curriculum during **3 train-the-trainer sessions**. Follow-up surveys with teachers six months later indicated that nearly 600 students had received all or some of the training. (The **modified curriculum** is available on request.) TAW received requests for additional trainings for both culinary arts and other vocational education disciplines. The Department of Industrial Accidents subsequently allocated new funds for young worker training.
- Presented at the following meetings: two Department of Elementary & Secondary Education “Connecting Activities” conferences; the annual conference of the MA Association of Vocational Administrators; the Council for State & Territorial Epidemiologists; and a CEU course for occupational nurses.
- Continued to participate in a Child Labor Community Task Force, organized by the MassCOSH Teens Lead @ Work project; participated in a 3-day April leadership conference for teens on workplace health and safety.
- Provided **technical assistance** to government and community stakeholders from New York and Rhode Island regarding surveillance and intervention activities conducted by TAW and the MA Youth Employment & Safety (YES) Team.

Collaborations

- Continued to coordinate the YES Team, which meets quarterly; this past year the YES Team added a member from the Department of Workforce Development, worked together on an educational campaign about the new state child labor laws, and conducted a **training** for employers on Cape Cod, sponsored by the Cape Cod Chamber of Commerce and the local School-to-Career Partnership.
- Continued ongoing agreement with the Department of Elementary and Secondary Education (ESE) to conduct investigations of injuries in vocational education; this was included in the ESE’s Perkins Plan for Vocational and Technical Education.
- Continued to participate in the MA Youth Violence Prevention Coalition leading to the inclusion of workplace violence in MDPH funding announcement, channeling state youth violence prevention funds to the community. One grant addressing workplace violence was awarded resulting in the health and safety leadership conference for teens cited above.

Plans for next year

The TAW project will continue as planned. On the surveillance front, we will explore linking workers' compensation and new statewide emergency department data and the use of the employment data from the American Community Survey in calculating rates. We will continue outreach and education activities with a focus on teens employed in restaurants and in health care. The YES team will also pursue incorporating health and safety in workforce development programs.

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Project Type: Expanded: Fatality Assessment Control and Evaluation (**FACE**) Project

Project Personnel

Michael Fiore, MS Project Coordinator
Investigator

Elise Pechter, MPH, CIH

Kathleen Grattan, MPH Epidemiologist

Jim Laing, Administrative Assistant

Overview of Project and Key Accomplishments

Since 1991, the Occupational Health Surveillance Program (OHSP) has tracked fatal occupational injuries and conducted research oriented investigations of targeted deaths using the NIOSH FACE model. Targeted incidents include deaths of young workers, Hispanics, immigrants, and public sector employees and deaths involving machines and work zones. Each fatality investigation results in a FACE report that includes recommendations to prevent similar incidents. FACE reports as well as shorter FACE Facts and summary data reports are disseminated widely to stakeholders throughout the Commonwealth. FACE staff work with a wide range of partners to promote prevention efforts. This period, increased emphasis was placed on evaluating FACE materials.

This year, the Massachusetts FACE Project has: (specific outputs are noted in ***bold italics***)

Surveillance and Investigations

- Maintained our 24-hour Occupational Fatality Hotline, newspaper clipping service and other avenues for timely notification of fatalities.
- Identified and documented 73 fatal injuries and initiated 14 investigations.
- Completed nine FACE investigations: five machine-related, one Hispanic worker, one immigrant worker, one chemical-related, and one motor vehicle.

Material Development

- Finalized seven ***FACE reports***.
- Completed a ***FACE Facts on carbon monoxide*** (CO) poisoning (English and Spanish) and two short ***data reports: falls from ladders and Brazilian worker deaths***.
- Collaborated with the MA Census of Fatal Occupational Injuries to issue a joint report ***Fatal Injuries at Work; Massachusetts Fatality Update 2005***. (2006 Update is in review.)
- Published three documents based on MA FACE reports in trade journals
 - ***CONN-OSHA Quarterly (Oct. 07, #51)***;
 - ***American Society of Safety Engineers technical publication, Blue Print magazine (2007 Vol. 7, No. 1)***;
 - ***Occupational Health and Safety eMagazine (Feb. 08)***.
- Contributed to the NIOSH/FACE states' MMWR article "***Work-Related Injury Deaths among Hispanics --- United States, 1992--2006***." (June 6, 2008 / 57(22); 597-600).

Materials Dissemination and Evaluation

- Provided final MA FACE reports individuals involved in the incidents as well as victims' families and disseminated reports broadly to the community using **mailing databases** specifically developed for each incident (to between 130-250 companies per incident) as well as a core list of health and safety stakeholders)
- Disseminated the *Fatality Update 2005* to over 2,000 individuals, e.g. police, fire and health departments, town clerks, health/safety professionals, employers, medical examiners, and unions.
- Developed **audience/incident specific feedback forms**, and disseminated these with hardcopy and electronic FACE reports and FACE Facts. While response rates were low, feedback received was overwhelmingly positive. Dissemination of hard copy reports with FAX feedback forms resulted in feedback whereas electronic dissemination did not. Findings suggest a trade-off between expanding electronic dissemination and receiving feedback.
 - **FACE Facts on stone slab hazards*** (English and Portuguese) to 691 stone industries and rack manufacturers, with requests for 472 more copies. Conducted email dissemination with links to our Web site to an additional 222 companies.
 - **FACE Facts on overhead powerlines*** (English, Spanish and Portuguese) to 2,247 residential construction contractors, unions, municipal public works departments, community health centers and immigrant groups with requests for 678 more copies. Conducted email dissemination to additional 505 residential construction contractors.
 - **FACE Facts on CO poisoning*** to 1,067 fire and inspectional service departments, manufacturers, companies renting generators/power washers, and power washing companies with requests for 826 more copies. Conducted email dissemination to 505 residential construction contractors.
 - **Secondary dissemination** by three organizations of the powerline and CO FACE Facts through member list serves: MA Health Officers Assoc. (400 members), Small Property Owners of America (450 members), MA Dept of Housing and Community Development (251 locations).

Prevention Activities and Collaborations

- Worked with the MA Division of Occupational Safety (DOS) to conduct outreach to municipalities, which are not covered by OSHA. Materials on fall prevention from FACE, DOS and the Center to Protect Workers' Rights were disseminated to all 384 local municipalities.
- Held two meetings of the MA Working Group on Fall Prevention in the construction industry
- Provided technical assistance to Protección en Construcción: Lawrence Latino Safety Partnership project, a community-initiated project studying area Latino construction workers with a focus on construction falls and silica exposure.
- Continued participation in the Floor Finishing Task Force with local industry, union, and community stakeholders promoting changes to reduce hazards of floor finishing.
- Collaborated with faculty at UMass Lowell in designing final project based on FACE reports for safety engineering course.
- Enlisted a medical resident to work with the International Brotherhood of Electrical Workers (IBEW) Local 103 to improve medical assessment of electrical shock injuries.

* Material developed by the MA FACE Project during a previous budget period. .

Developed a power point presentation for union to use for apprentice training and a draft pocket card for electricians to assist first responders treating electrical shock injuries.

- Recruited director of the Brazilian Immigrant Center to Participate in OHSP Advisory Board; supplied copies of our Portuguese materials to the Brazilian Immigrant Center, subsequently used in their Portuguese language OSHA 10 hour training.

Plans for Next Year

MA FACE will continue as planned with increased emphasis on obtaining input from newcomer community representatives on recommended measures to reduce risks to immigrant workers and expanded outreach to the public sector employers and workers.

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Contact Information: 617-624-5626; Letitia.Davis@state.ma.us

Type of Project: Expanded: Occupational Health Surveillance through Community Health Centers

Program Personnel

Lenore Azaroff, ScD, Project Coordinator

Kerry Souza, MS, Epidemiologist

Brief Overview of Project and Key Accomplishments

OHSP is committed to developing innovative approaches for gathering data on occupational injuries and illnesses among immigrant and minority workers that are not well documented in conventional occupational health data sources. The Community Health Center (CHC) project builds on results from OHSP's previous CHC study, which surveyed over 1400 patients at five Massachusetts CHCs, identifying substantial health and safety needs and lack of awareness of health and safety resources on the part of patients. Providers also lacked health and safety resources. The current project partners OHSP with four CHCs to build their capacity to identify and address the occupational health needs of their patients. Project staff is working with CHCs to modify their health records systems to capture patient occupation and potential work-relatedness of diagnosed conditions, improve compliance with state reporting requirements for work-related conditions, promote community-based surveillance of occupational health, and increase access to occupational health resources for clinicians and patients.

OHSP is working with the four CHCs sequentially over the project period. This year, OHSP engaged the last two clinics to participate in the project. Baseline surveys of providers at both CHCs were completed describing providers' knowledge, attitudes, and practices around occupational health. Both new CHCs have modified their electronic health record systems (EHRs) to collect occupation information and suspected work-relatedness. Notably both have identified registration staff to collect occupation data rather than medical assistants selected by the first two participating CHCs. Staff worked with one new CHC to develop a pick list of common patient occupations to be used by registration staff. The new CHCs will submit case reports of work-related conditions required to be reported to the Massachusetts Department of Public Health (MDPH) over secure fax lines. For conditions not required to be reported to MDPH, plans are in place to produce periodic reports of work-related conditions with personal identifiers removed. To date, one of the four CHCs has submitted mandatory case reports, and one CHC is providing monthly submissions of anonymous data of work-related conditions.

The project also involves provision of training and clinical and patient education resources to the participating CHCs. This year training sessions for providers were held at all four CHCs on a range of occupational health topics. All CHCs have been provided with electronic patient education and provider education materials for posting on their intranets. These include a new fact sheet "What Happens When I Report a Case of Work-related Asthma to MDPH?" developed jointly with the MA SENSOR asthma project.

Lessons Learned

During the previous year, OHSP has learned that

- Electronic health records (EHR) systems vary widely in their capabilities and flexibility. The involvement of information technology staff is key to projects aiming to modify EHRs.
- Knowledge and use of workers' compensation insurance differ across health centers.
- Free continuing education may not represent an attractive incentive for providers with little free time in their schedules.

Related Initiatives

Work on this project has led to several related initiatives undertaken by project staff:

- Interactions with CHC staff have revealed a broad range of obstacles to use of workers' compensation insurance resulting in OHSP designing a questionnaire on this topic to be administered to CHCs across the state next year. Staff is also collaborating with the Massachusetts Medical Society and the New England College of Occupational Medicine on a provider survey regarding use of Workers' compensation.
- CHCs, like many other health facilities and providers, are in the process of transitioning to EHRs. Our experience in working with CHCs to amend these systems to include new variables on occupation and work-relatedness has underscored the importance of working to influence this process at a more central level. The principal investigator is now participating in a MDPH working group addressing the public health functionality of EHRs.
- Project staff organized a MDPH ***Diversity Council Forum*** on Occupational Health Disparities, presenting OHSP findings and showcasing activities by community partners to address occupational health of immigrant and minority workers. The forum aimed to increase the broader public health community's awareness of the contribution of working conditions to racial and ethnic disparities in health and to foster cross program collaborations to address the range of health disparities in communities served by MDPH programs.
- CHC project staff together with FACE Project have been approached by the MDPH Office of Multicultural health to develop Pod Casts on construction safety in Portuguese and Spanish.

Plans for Next Year

Given resource constraints, OHSP will be working with four CHCs over the course of the project rather than five as initially proposed. Otherwise the project will continue as planned. Follow-up surveys will be conducted with staff and providers of the first two partner CHCs to identify changes in knowledge, attitudes, and behavior regarding occupational health. Exit interviews with these CHC partners will also be conducted. The two most recent partner CHCs will start automatic submission of data on patient occupation and potential work-relatedness of diagnosed conditions to OHSP. In addition, the statewide survey of CHCs about workers' compensation will be carried out.

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Type of Project: Expanded surveillance: Surveillance and Prevention of Sharps Injuries to Hospital Workers.

Program Personnel

Angela Laramie, MPH – Project Coordinator
Vivian Pun - Research Assistant (replacing Natalia Firsova)

Overview of Project and Key Accomplishment

State law in Massachusetts requires hospitals licensed by the Massachusetts Department of Public Health (MDPH) to record sharps injuries among employees and to report these injuries to MDPH on an annual basis. The Massachusetts Sharps Injury Surveillance System (MSISS) collects, analyzes and disseminates data on sharps injuries reported by hospitals. Project staff provides technical assistance to individual hospitals regarding sharps injury surveillance and prevention and work with stakeholders within MDPH and the health care industry to promote prevention activities.

MSISS provides both statewide and hospital specific data essential to guide prevention efforts. Findings to date underscore the need to address both the continued use of conventional hypodermic needles, in spite of the availability of alternative devices with safety features, as well as problems with these alternative devices. The inclusion of conventional devices in procedure kits prepared by kit packers has also emerged as a concern. The surveillance system has continued to serve as an important vehicle for sharing information about successful prevention strategies among Massachusetts hospitals and been used as a model for conducting surveillance in the home care industry. This year, MSISS has: (specific project outputs are highlighted in ***bold italics***)

Data Collection

- Collected data on over 3,000 sharps injuries from all 99 MDPH licensed hospitals maintaining reporting by 100% of hospitals for the 7th consecutive year; 99% of the data for 2007 was reported electronically using a simple MExcel tool developed by MSISS. For the first time, MSISS collected information on whether the device associated with the injury was part of a pre-packaged kit.
- ***Updated pick lists*** to be used by hospitals in maintaining their Sharps Logs and provided these electronically to hospitals to facilitate standard data collection.
- Piloted a new ***MExcel tool*** allowing hospitals to create standard graphs and charts based sharps injury data to promote use of the data for prevention.
- Developed new follow-up protocols and ***automated methods for coding*** that significantly shorten the lag between initial data submission and preparation of data for analysis.

Data Analysis and Dissemination

- Completed analysis of 2005 sharps injury data and presented findings to hospitals (see below), and at other state and national meetings including the APHA and CSTE annual conferences.
- Issued a report “**Sharps Injuries in the Operating Room, 2004**” that was disseminated to hospitals together with prevention information from the World Health Organization and CDC/NIOSH.
- Disseminated to hospitals a report “MDPH-OHSP Sharps Injury Surveillance and Prevention Project: Summary of Findings from Hospital Site Visits in 2006” based on worksite evaluations at 20 hospitals that had been completed by MSISS previously.

Intervention and Prevention

- Held the 7th annual sharps injury prevention meeting, sponsored by Massachusetts Hospital Association, with Massachusetts hospitals to present data from 2002-2005 and share injury prevention measures.
- Conducted site visits at two hospitals to address issues regarding sharps injury surveillance and prevention; provided additional technical assistance to hospitals via phone and email on request.
- Conducted a webinar hosted by the International Sharps Injury Prevention Society. The presentation “State-Based Surveillance of Sharps Injuries among Hospital Workers, Massachusetts, 2002-2004” was available to hospitals across the country.

Collaborations

- Coordinated a new MDPH working group on sharps disposal in the community to ensure that occupational health issues are addressed at disposal sites as new regulations regarding sharps disposal are enacted.
- Collaborated on a **manual regarding HIV/AIDS in the school setting** with other programs in MDPH and the Department of Elementary and Secondary Education.
- Worked with Sustainable Hospitals Project (SHP) at the University of Massachusetts at Lowell in reviewing inclusion of standard devices in pre-packaged kits.; jointly wrote the article “**Procedure Kits & Trays: A call to action for sharps safety**” accepted for publication in Nursing 2008. Also collaborated with SHP on a separately funded project to document sharps injuries in home health care.

Proposed worker survey

MSISS had originally proposed to conduct a worker survey at three hospitals to assess underreporting of sharp injuries. Several hospitals agreed to participate. Given concern about completing a reliable worker survey with the limited resources available, the decision was made not to move forward with this survey at this time.

Plans for next year

MSISS will continue as planned with an increased emphasis on examining the specific types and manufacturers of devices involved in reported sharps injuries.