Harvard School of Public Health
The HSPH Education and Research Center for Occupational Safety and Health
Annual Program Highlights
Reporting Period: July 1, 2012 – June 30, 2013
Principle Investigator: David Christiani

Center Highlights

Outreach
Program Director: Ann Backus

The Harvard ERC Outreach Program has worked on safety issues with the fishing industry in the Northeast for over 14 years. In 2012-2013 we undertook field research on trawler fishing vessels in Gloucester and New Bedford, Massachusetts under a NIOSH grant, Northeastern Drum Winch Safety Improvement Project, awarded to the Harvard ERC by the New York Center for Agricultural Medicine and Health. We surveyed trawler captains to determine whether the drum winches used to haul-back large fishing nets have an emergency shut-off within reach of the drum in the event that a crew member gets caught in the cable and to determine whether a crew member guides the cable onto the drum winch manually or uses a hydraulic level winder.

In the preliminary analysis of our partially completed study, 76% of the boats had a shut-off switch for the drum winches, but 1/3 of these shut-offs were not within an arm's length of the drum. With only one person operating the winch on 11 of the 25 boats in this first batch of 25 boats, it is questionable whether the operator could shut-off the winch quickly enough to avoid being caught and seriously injured. With respect to the process of level winding the cable on to the drum, 72% of the boats surveyed did have an hydraulic level winder, thus the winding process was less risky than it is when a crew member has to stand in front of the winch and manually guide the cable. Many captains, especially those with larger boats, believe that proper placement of the drum winches, for example, on the roof of the pilot house, rather than on the deck, greatly reduces the risk of someone being caught during the winding process and also reduces the need for either a manual or a hydraulic level winder. We also learned that 72% of the captains provide "training" to the crew on safe use of the drum winch. From these numbers, it appears that about ¾ of the trawler captains have taken steps to reduce the risk of being caught in a drum winch; our goal is to have 100% of the trawlers engage in safe drum winch use.

Occupational Hygiene
Program Director: Robert Herrick

In August 2102, NIOSH published an Impact Sheet: DHHS (NIOSH) Publication Number 2012-170 based upon our research on PCB exposures to construction workers. This sheet (A Story of Impact: NIOSH-funded Research Helps Reduce Occupational Exposure to PCBs When Renovating Schools) reported the finding that PCB caulk was commonly used to seal the joints of brick, masonry, stone, and metal window frames. Our findings have received widespread media attention, leading to an increase in public knowledge and awareness of PCB presence in older school facilities. As a result, there has been an increase in the testing of schools built before 1978 for PCBs before renovations begin. Furthermore, these research findings propelled some building owners and contractors to even require this testing be done as part of construction planning, and then require the use of full abatement procedures if PCBs are found. This testing helps inform employers about any potential hazards, allows them to take the necessary precautions to protect the workers, and increases the likelihood for preventing contamination.

Occupational Medicine Training
Program Director: Stefanos Kales

During 2012-2013, we recruited 3 new residents, and trained 6 and graduated 3 of these physicians. Our residents co-authored 7 publications in peer-reviewed journals, a book chapter and a book during the period 2012-2013. Additionally, two residents won Resident Research Awards from American College of Occupational & Environmental Medicine (ACOEM) at the American Occupational Health Conference.

The Initiative in Productivity and Health Management (PHM) held and sponsored its second international colloquium: “Sleep and Shift Work: Optimizing Productivity and Health Management in the 24/7 Global Economy” in 2012. It featured world-class speakers and attracted attendees from the US and multiple foreign countries. Program Director, Stefanos Kales received the prestigious Kehoe Award for 2013 from ACOEM for Excellence in Education or Research in Occupational and Environmental Medicine. in addition to his research, Dr. Kales was recognized by ACOEM as Director of Harvard’s OEM residency, where he has developed new approaches to train residents in health and productivity and disability prevention; and has motivated Harvard’s OEM residents to pursue a wide range of research projects, resulting in Harvard’s OEM residency having more trainees recognized with resident research awards at AOHC than any other institution.