The Year in U.S. Occupational Health&Safety

Fall 2011 – Summer 2012

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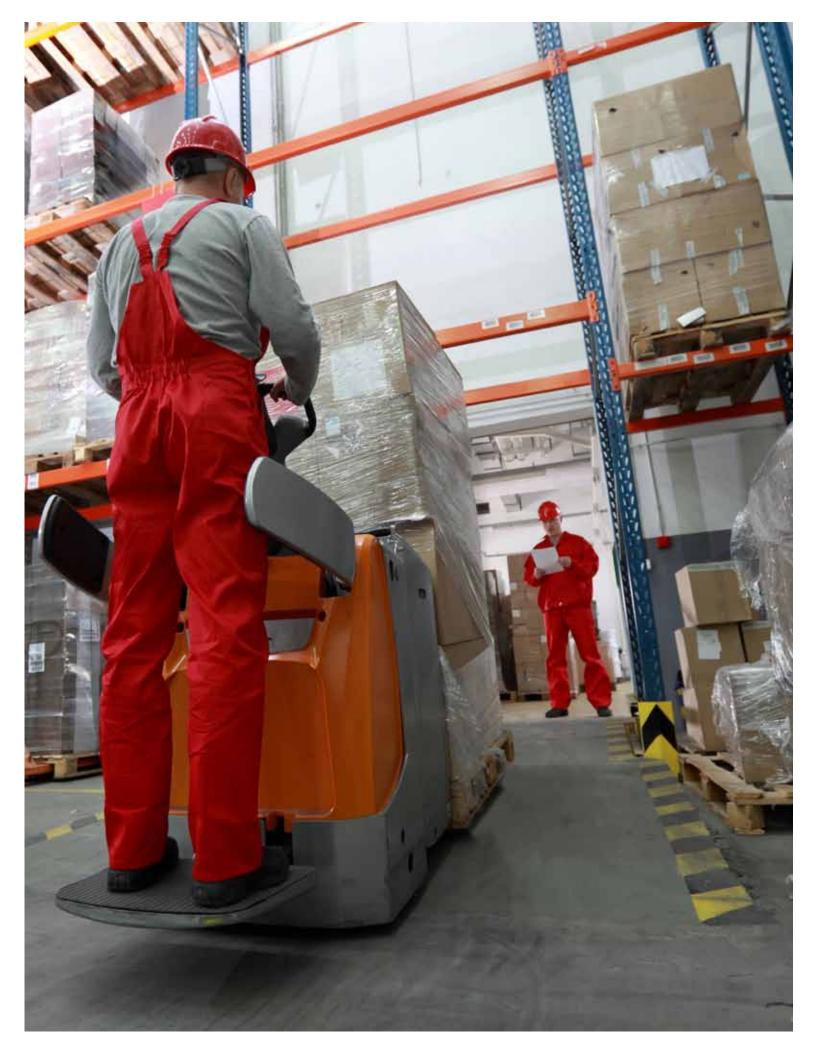
The authors thank Anthony Robbins, MD, MPA for editorial assistance.

This report was produced with funding from the Public Welfare Foundation, but the views expressed in it are those of the authors alone.

Graphic Design: TheresaWellingDesign.com

Table of Contents

INTRODUCTION & OVERVIEW	1
I. NEW RESEARCH ON WORKER HEALTH & SAFETY	3
Peer-Reviewed Literature on Costs of Unsafe Workplaces and Savings from Prevention	3
Peer-Reviewed Research on Latino Poultry Workers	5
Additional Peer-Reviewed Studies	7
Reports from Nonprofit Organizations	9
Legal Perspectives on Occupational Health & Safety	10
II. THE FEDERAL GOVERNMENT AND OCCUPATIONAL HEALTH & SAFETY	13
Children in Agriculture: Still Vulnerable	13
Black Lung in Young Miners	14
A Poultry Rule That's Dangerous for Workers	14
Anti-regulatory Fervor in Congress	15
Obama Administration Holds up Regulations	16
Department of Labor's Achievements and Setbacks	18
U.S. Chemical Safety and Hazard Investigation Board	22
The National Academies	22
III. ADDRESSING OCCUPATIONAL HEALTH & SAFETY	
AT THE STATE AND LOCAL LEVELS	25
New State and Municipal Laws	25
Reports Relevant for State and Local Governments	28
Local reporters draw attention to workplace health and safety problems	29
The Year Ahead	33
APPENDIX: PEER-REVIEWED RESEARCH ON OCCUPATIONAL	
HEALTH & SAFETY TOPICS (SUMMER 2011 THROUGH AUGUST 2012)	35



Introduction & Overview

n this report we capture some noteworthy happenings in occupational health and safety during the past year (mid-August 2011 through mid-August 2012) in the United States. We want it to be a resource for activists, regulators, researchers, and anyone else who values safe and healthy workplaces. Much as the AFL-CIO's annual *Death on the Job* report focuses attention on workplace injury and illness statistics each April, this report documents successes, challenges, and areas ripe for improvement in occupational health and safety.

Our report is not exhaustive. To keep it to a manageable length, we made some tough decisions about which activities and projects to include or omit. Blog posts published on the public health blog The Pump Handle (http://scienceblogs.com/thepumphandle/) during the week of Labor Day 2012 will invite readers to add their own stories about important worker health and safety happenings from the past year. Our report covers the following areas:

New Research on Worker Health and Safety: Several studies have added to a growing body of evidence demonstrating that unsafe workplaces impose enormous costs (financial and otherwise) on society, and that enforcement efforts can improve workplace safety without causing job loss. A series of research studies on Latino poultry workers documents hazards and risk factors in a vulnerable population. Nonprofit organizations and legal scholars have mounted a spirited defense of regulation – currently under attack by politicians on both sides of the aisle – and presented compelling visions for reform.

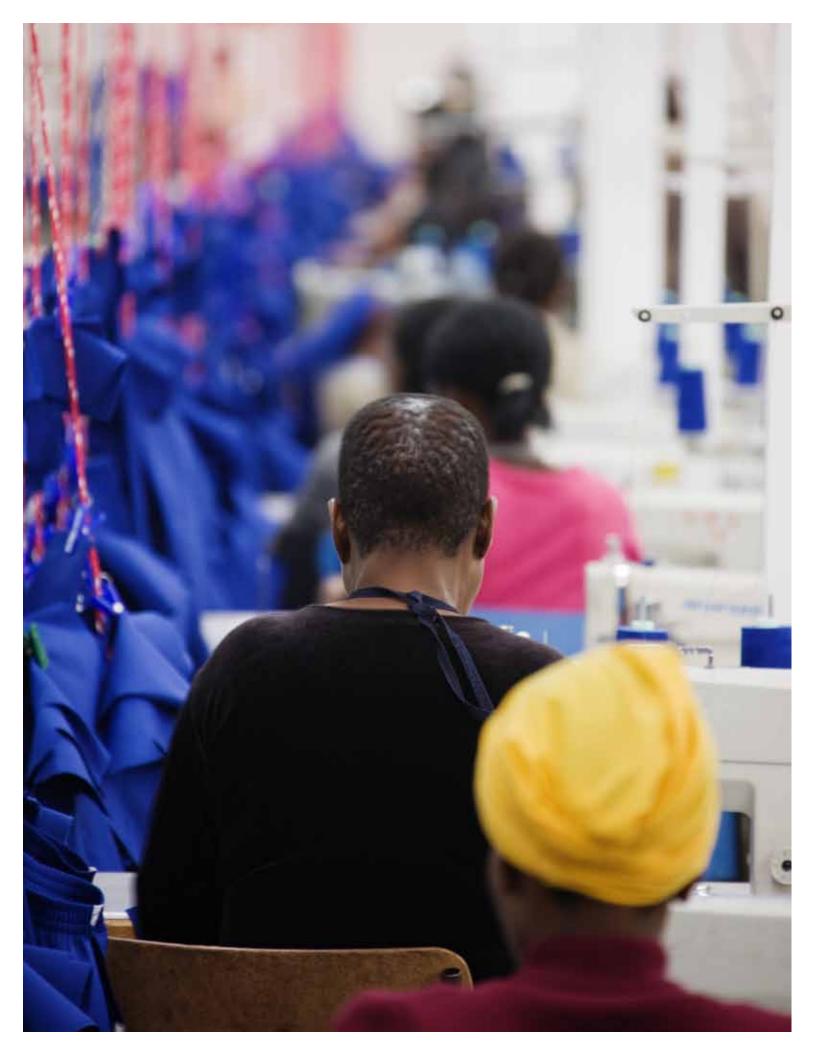
The Federal Government: The year just ending has been difficult for those who hoped the Obama Administration would bring substantial nationwide improvements to worker health and safety. Perhaps yielding to anti-regulatory rhetoric from Congress, the White House has been reluctant to advance workplace health and safety regulation. Progress by the Occupational Safety and Health Administration (OSHA) has come mainly in the form of memos, letters, and news releases about enforcement cases - all worthwhile accomplishments, but not the kind of lasting victories many advocates envisioned. The Administration's decision to withdraw a proposal to limit children's work in the most dangerous agricultural jobs left many feeling betrayed.

State and Local Activities: In contrast to their federal counterparts, state and local lawmakers and regulators have been active, passing laws and writing regulations to address on-the-job hazards. For instance, during the past year:

- Massachusetts passed legislation to end some of the worst abuses of temporary workers by staffing agencies;
- Durham, North Carolina strengthened its bidding process for city-funded projects to require that contractors provide information on their injury rates and safety and health programs;
- Wyoming adopted new rules to protect oil and gas workers;
- The state of Washington adopted a new regulation to protect healthcare workers from exposures to hazardous medications like anti-cancer drugs;
- California joined the list of states with safe patient handling regulations to limit musculoskeletal disorders in healthcare workers; and
- Seattle, Washington passed a law requiring paid sick leave for full-time employees.

Campaigns for such laws and regulations are often spurred by reports from local news organizations or nonprofit groups about the human and financial costs of unsafe workplaces.

As the 2012 election approaches, political battles threaten to overshadow the important work of individuals, organizations, and institutions. As this report documents, a vibrant movement of workers is demanding and progressing toward a safer and healthier future for workers nationwide.



I. New Research on Worker Health & Safety

he past year has been a fruitful one for occupational health and safety researchers. New studies on a range of topics have provided further insight into circumstances surrounding workplace injuries and illnesses and highlighted solutions. Some addressed topics particularly relevant to regulatory debates, including the influence of regulatory agencies on national employment and economic conditions as well as the working conditions of poultry workers.

Peer-Reviewed Literature on Costs of Unsafe Workplaces and Savings from Prevention

Lawmakers and public officials can benefit from having high-quality research to guide decisions about occupational health and safety rules and enforcement. Several studies have added to a growing body of evidence demonstrating that unsafe workplaces impose enormous costs (financial and otherwise) on society, and that enforcement efforts can improve workplace safety without causing job loss.

The economic burden of U.S. occupational injury and illness

J. Paul Leigh of the University of California Davis used data from more than a dozen sources to estimate the annual burden and economic cost of U.S. occupational injuries and illnesses. He began with U.S. Bureau of Labor Statistics data on fatalities, injuries, and illnesses, and then adjusted for underreporting. His cost estimates included spending on healthcare services, plus lost earnings, fringe benefits, and home or non-workplace production (e.g., home repairs, cooking, and childrearing tasks workers can no longer perform).

Leigh calculated that in the U.S. in 2007, the burden and costs of occupational injuries and illnesses totaled approximately:

- 5,600 fatal injuries, costing \$6 billion;
- 8,559,000 nonfatal injuries, costing \$186 billion;
- 53,000 fatal illnesses, costing \$46 billion; and

 427,000 nonfatal illnesses, costing \$12 billion.

Once the fatal illnesses are added to the far lower fatal-injury figure, the sum is an appalling total of 58,600 people killed by unsafe workplaces in 2007. The total dollar cost estimate was \$250 billion, up from an inflationadjusted cost of \$217 billion for 1992 (a widely cited estimate published by Leigh and colleagues in 1997). Leigh notes that employer-purchased workers' compensation insurance covers less than one-fourth of these costs, so "all members of society share the burden" of occupational injuries and illnesses.

Study citation: Economic burden of occupational injury and illness in the United States. Leigh JP. Milbank Q. 2011 Dec;89(4):728-72. http://www.ncbi.nlm.nih.gov/pubmed/22188353

Who's paying the costs of occupational injury and illness?

In a related study, J. Paul Leigh and James P. Marcin examined the costs of occupational injuries and illnesses to estimate how the economic burden is divided among workers and their families, workers' compensation insurers, non-workers' compensation insurers, and government programs. They started with Leigh's figure of \$250 billion in 2007 occupational injury and illness costs (described above). In that year, workers' compensation benefits, estimated at \$52 billion, paid just 21% of the total costs. Not covered by workers' compensation were \$37 billion in medical expenditures and \$161 billion in indirect costs.

Leigh and Marcin calculated that costs not covered by workers' compensation insurers fall

on the following entities. (We have rounded their numbers and as a result they may not sum; see the study text for exact figures):

- Private funds (e.g., private health and disability insurance): \$20 billion in medical expenditures + 138 billion in indirect costs
 \$158 billion total
- Out of pocket: \$6 billion in medical expenditures + 119 billion in indirect costs = \$125 billion total
- Private health insurance: \$14 billion in medical expenditures + \$19 billion in indirect costs = \$33 billion total
- Public: \$17 billion in medical expenditures
 + \$23 billion in indirect costs = \$40 billion total
- Federal: \$13 billion in medical expenditures + 14 billion in indirect costs = \$27 billion total
- State and local: \$5 billion in medical expenditures + \$9 billion in indirect costs = \$13 billion total

The authors noted, "Victims and their families absorb most of the cost shifting," and taxpayers and non-workers-compensation insurers also shoulder a substantial share.

Study citation: Workers' compensation benefits and shifting costs for occupational injury and illness. Leigh JP, Marcin JP. J Occup Environ Med. 2012 Apr;54(4):445-50.

http://www.ncbi.nlm.nih.gov/pubmed/22446573

Regulatory activity and workers' compensation claims in the state of Washington

Michael Foley and colleagues from the Washington Department of Labor and Industries investigated the effects of workplace inspections and voluntary consultation visits on subsequent occupational injuries by analyzing workers' compensation claims incidence rates and enforcement histories for Washington state employers during the years 1999 - 2008.

The 86,000 employers included in the study each had at least 10 full-time employees and a single business location. Compensation claims were classified as musculoskeletal disorder (MSD) or non-musculoskeletal, because inspections are more likely to focus on finding hazards for which the state has specific occupational health and safety regulations, and those hazards are generally related to non-musculoskeletal injuries.

The researchers found that inspections were associated with a 4% decline in the rate of compensable claims compared to uninspected workplaces. This effect strengthened when only non-MSD claims were considered. The analysis also found inspections that included citations to be more effective for reducing claims rates than inspections that did not include citations. The authors' results "suggest that while enforcement activity has significant impact in all industries, it is slightly greater in fixed-site workplaces," and consultation visits may have the most impact at non-fixed site workplaces. Both enforcement and consultation activity are associated with substantial decreases in the number and size of workers' compensation claims.

Study citation: The impact of regulatory enforcement and consultation visits on workers' compensation claims incidence rates and costs, 1999-2008. Foley M, Fan ZJ, Rauser E, Silverstein B. Am J Ind Med. 2012 Jun 19. doi: 10.1002/ajim.22084.

http://www.ncbi.nlm.nih.gov/pubmed/22715086

Inspections' economic impact on California companies

Noting that the Occupational Safety and Health Administration (OSHA) "is one of the most controversial regulatory agencies in the United States," researchers David I. Levine, Michael W. Toffel, and Matthew S. Johnson designed a study to test the oft-repeated claim that "workplace regulations damage firms' competitiveness and destroy jobs."

The researchers identified 409 workplaces that California's OSHA agency (Cal/OSHA) had inspected under its program of random inspections for workplaces in high-hazard industries and 409 comparison workplaces that were eligible, but not chosen, for inspection matched to the inspected workplaces for size, industry, and other characteristics. All workplaces were single-site companies, and the researchers gathered data on the companies' payroll, sales, credit ratings, and workers' compensation claims for the 1996-2006 study period.

In comparing the uninspected and inspected workplaces (adjusting for pre-inspection characteristics), the researchers found no statistically significant effects from inspections on creditworthiness, sales, or total employment - differences they would expect to see if the inspections were harming businesses as some claim. They did find that inspections reduced injuries by a statistically significant amount, and the effect endured three and four years after the inspections. Fewer injuries translates to lower workers-compensation costs for employers, and the researchers estimate that injury reductions in the five years following an inspection translated into a savings of \$355,000 in medical expenditures and lost earnings per workplace.

The authors suggest that their study be replicated in other settings and with other study designs to test their results' generalizability, but they conclude that their findings do not support claims that occupational safety and health regulatory agencies are bad for business.

Study citation: Randomized government safety inspections reduce worker injuries with no detectable job loss. Levine DI, Toffel MW, Johnson MS. Science. 2012 May 18;336(6083):907-11.

http://www.ncbi.nlm.nih.gov/pubmed/22605775

Peer-Reviewed Research on Latino Poultry Workers

A group of researchers from Wake Forest School of Medicine and the University of North Carolina Greensboro conducted several studies of Latino poultry workers that shed light on the kinds of health outcomes experienced disproportionately by this population. Their research was especially timely because in early 2012, the U.S. Department of Agriculture proposed to allow the line speed in poultry slaughter facilities to increase significantly (see p. 14). And, as researcher Michael Cartwright and colleagues explain in the study described below, poultry workers' job tasks already put them at high risk for musculoskeletal injuries:

Poultry processing involves strenuous and repetitive work, with workers at risk for overuse injuries. Live birds are received and then passed through a production line that requires workers to hang, kill, pluck, clean, eviscerate, cut, package, and box poultry parts at a rapid pace, and workers also clean and repair equipment, assemble boxes, and move pallets of packaged poultry. Potential risk for overuse injuries such as [carpal tunnel syndrome] exists with each of these occupational duties.

The initial study population of Latino workers was recruited, via community-based sampling



Researchers with Wake Forest School of Medicine who have spent a decade studying working conditions for poultry processing workers. Back row: Thomas Arcury, PhD, Sara Quandt, PhD, Dana Mora, MPH; front row: Lourdes Carrillo (HOLA of Wilkes County), Antonio Marín. MA.

of dwelling units, in four western North Carolina counties in 2009 and 2010. Those enrolled as subjects self-identified as Latino or Hispanic, were aged 18 years or older, and worked 35 hours or more per week in manual labor jobs. Of 957 eligible individuals, 742 completed face-to-face, interviewer-administered questionnaires in Spanish. Smaller subsets of this group completed one or more additional examinations, including nerve conduction studies, spirometry to assess respiratory health, etc. Findings from studies include the following:

Respiratory health: To evaluate associations between poultry-processing work and respiratory health, Maria C. Mirabelli and colleagues analyzed questionnaire responses and spirometry testing results (an assessment of lung function) from 279 Latino poultry processing workers and 222 Latino manual workers in other industries, and stratified them by sex. The reported prevalence of respiratory symptoms among poultry workers was lower than that of the comparison group. Adjusted mean scores on two tests (forced expiratory volume in one second and forced vital capacity) were lower in the poultry group, especially among men reporting sanitation job tasks, but the differences in lung-function measurements did not reach statistical significance. The authors suggest that the results be interpreted with caution, but that poultry processing may affect lung function; they state that the findings "justify efforts to evaluate and monitor the health of new employees and to reduce exposures to inhalation hazards in poultry processing."

Study citation: Poultry processing work and respiratory health of Latino men and women in North Carolina. Mirabelli MC, Chatterjee AB, Arcury TA, et al. J Occup Environ Med. 2012 Feb;54(2):177-83.

http://www.ncbi.nlm.nih.gov/pubmed/22237034

Carpal tunnel syndrome: To assess carpal tunnel syndrome among poultry and non-poultry workers, Michael S. Cartwright and colleagues compared results from nerve conduction studies and self-reported hand/wrist pain from 513 subjects, 287 of them poultry workers and

226 workers at other manual jobs. They found that among poultry processing workers, the odds of having carpal tunnel syndrome were 2.5 times greater than among non-poultry workers.

Study citation: The prevalence of carpal tunnel syndrome in Latino poultry-processing workers and other Latino manual workers. Cartwright MS, Walker FO, Blocker JN, et al. J Occup Environ Med. 2012 Feb;54(2):198-201. http://www.ncbi.nlm.nih.gov/pubmed/22258161

Chicken catching hazards: To learn more about a "3-D" - dirty, dangerous, and demanding - job, Sara A. Quandt and colleagues analyzed interviews with 21 Latino immigrant chicken catchers about their work and its hazards. Chicken catchers gather and cage chickens so they can be transported from confined animal feeding operations (CAFOs) to slaughtering facilities. Workers described a "highly contaminated and hazardous work environment" in which the work is fast-paced and they have little control over work intensity. These and other factors result in a high potential for occupational injuries and illnesses, including trauma and electrical shock as well as musculoskeletal injuries and respiratory disorders.

Study citation: 3-D jobs and health disparities: The health implications of Latino chicken catchers' working conditions. Quandt SA, Arcury-Quandt AE, Lawlor EJ, et al. Am J Ind Med. 2012 May 22. doi: 10.1002/ajim.22072. http://www.ncbi.nlm.nih.gov/pubmed/22618638

Musculoskeletal health: To study musculoskeletal health and its relationship to work organization factors, Joseph G. Grzywacz and colleagues used questionnaire data and physical examination findings on 552 workers (poultry and non-poultry). In the questionnaires, poultry workers reported being less able to exert control on their jobs and facing more psychological demands, more awkward postures, and more repetitive movements than their non-poultry-worker counterparts. Also, a greater proportion of poultry workers reported a poor safety climate. In this crosssectional study, researchers found that the odds of clinical identification of epicondylitis (tennis elbow), rotator cuff syndrome, and low back problems increased as reported awkward postures and repetitive motion increased, and workers reporting poor safety commitment by supervisors were more likely to have rotator cuff syndrome and low back problems. Odds of rotator cuff problems and low back pain increased as reported psychological demands increased. The odds of epicondylitis and rotator cuff problems decreased as job control increased.

Study citation: Work organization and musculoskeletal health: Clinical findings from immigrant Latino poultry processing and other manual workers. Grzywacz JG, Arcury TA, Mora D, et al. J Occup Environ Med. 2012

http://www.ncbi.nlm.nih.gov/pubmed/22821071

Musculoskeletal symptoms and language:

Mark R. Schulz and colleagues analyzed selfreported upper-body musculoskeletal symptoms and languages spoken at home during childhood for 403 Latino poultry processing workers and 339 Latino manual workers in other industries. They found that "the strongest predictors of the number of symptoms reported were hours worked per week and the childhood language." Workers reporting work of more than 40 hours per week and workers who reported an indigenous language being spoken in their childhood households had greater odds of reporting symptoms at four to six upper-body sites than counterparts working fewer hours or where the language in their childhood home was not an indigenous one. The authors note that many workers from Guatemala and southern Mexico grew up in communities where an indigenous language (e.g., Aguacateco or Quiche) was the primary language.

Study citation: Upper body musculoskeletal symptoms of Latino poultry processing workers and a comparison group of Latino manual workers. Schulz MR, Grzywacz JG, Chen H, et al. Am J Ind Med. 2012 Jul 27.

http://www.ncbi.nlm.nih.gov/pubmed/22847516

Work safety climate and personal protective equipment: In an examination of the work safety climate for Latino poultry-processing workers, Thomas A. Arcury and colleagues analyzed 403 poultry workers' responses on the 10-item Perceived Safety Climate Scale and to questions about 10 types of personal protective equipment (PPE). They found that work safety climate differed by employer, and that PPE use varied by type. While 85% of respondents reported receiving protective clothing at no cost, only 57% received hand protection and 27% received eye protection at no cost.

Study citation: Employer, use of personal protective equipment, and work safety climate: Latino poultry processing workers. Arcury TA, Grzywacz JG, Anderson AM, et al. Am J Ind Med. 2012 Jul 27. doi: 10.1002/ajim.22101. http://www.ncbi.nlm.nih.gov/pubmed/22847579

Additional Peer-Reviewed Studies

Other studies of interest from the past year include the following:

Job strain, job insecurity, and incident cardiovascular disease in the Women's Health Study: Results from a 10-year prospective study. Slopen N, Glynn RJ, Buring JE, et al. PLoS One. 2012;7(7):e40512. Epub 2012 Jul 18.

Researchers at Harvard University used data from the Women's Health Study to examine the relationship between work-related stressors and cardiovascular disease (CVD). After adjusting for other risk factors, women with high-demand, low-control jobs were 38% more likely to experience a CVD event than women in low-demand, high-control jobs. Women in high-demand, high-control jobs were also 38% more likely to experience a CVD event relative to women who reported low job strain.

http://www.ncbi.nlm.nih.gov/pubmed/22815754

 Paid sick leave and nonfatal occupational injuries. Asfaw A, Pana-Cryan R, Rosa R. Am J Public Health. 2012 Jun; 102 (9): e59-e64.

Researchers at the National Institute for Occupational Safety and Health (NIOSH) used National Health Interview Survey data on 38,000 working adults to examine the relationship between paid sick leave and incidence of work-related injury. With all other variables held constant, they found that workers with access to paid sick leave were 28% less likely to be injured on the job than workers without paid sick leave.

http://www.ncbi.nlm.nih.gov/pubmed/22720767

 The diesel exhaust in miners study: a cohort mortality study with emphasis on lung cancer. Attfield MD, Schleiff PL, et al. J Natl Cancer Inst. 2012 Jun 6;104(11): 869-83.

Researchers at the National Cancer Institute and NIOSH reported the results of their cohort mortality study of 12,315 U.S. workers exposed to diesel exhaust in underground mining operations. Lung and esophageal cancer death rates were higher among the exposed miners when compared to state cancer mortality rates. Differences in cancer mortality risk were also observed when the cohort was stratified by work location and cumulative exposure. http://www.ncbi.nlm.nih.gov/pubmed/22393207

• Fatal falls among older construction workers. Dong XS, Wang X, Daw C. Hum Factors. 2012 Jun;54(3):303-15.

Researchers at the Center for Construction Research and Training used data from the Bureau of Labor Statistics' Census of Fatal Occupational Injuries to examine differences in fatal falls between construction workers age 55 and older, and those younger than 55 years. After controlling for other factors, in 11 of 14 different construction occupations, older workers had statistically significantly higher rates of falls than the younger workers. This analysis suggests that age itself is a risk factor for fatal falls among construction workers. http://www.ncbi.nlm.nih.gov/pubmed/22768635

Lung cancer and elemental carbon exposure in trucking industry workers. Garshick
E, Laden F, Hart JE, et al. Environ Health
Perspect. 2012 May 31.

A collaborative team of Boston-based researchers complemented their previous research on lung cancer risk for trucking industry workers exposed to diesel exhaust. Their cohort included 31,135 Teamsters, in which estimates of personal historical exposure to elemental carbon (EC) were calculated as a surrogate for diesel engine exhaust. The authors observed a strong healthy worker survivor effect, and reported an association between cumulative EC exposure and lung cancer mortality.

http://www.ncbi.nlm.nih.gov/pubmed/22739103

 Multisource surveillance system for workrelated burns. Kica J, Rosenman KD. J Occup Environ Med. 2012 May; 54(5):642-7.

Researchers at Michigan State University's Division of Occupational and Environmental Medicine used data from the state's 134 acute-care hospitals, the state workers' compensation agency, and the state's poison control center to identify all cases of work-related burns occurring in 2009. The total of 1,461 cases they identified was substantially higher than the total of 450 cases reported in the U.S. Labor Department's annual survey. The authors reiterate the call for federal agencies to develop a multi-source occupational injury and illness surveillance system.

http://www.ncbi.nlm.nih.gov/pubmed/22513658

 Fatal exposure to methylene chloride among bathtub refinishers - United States, 2000-2011. MMWR Morb Mortal Wkly Rep. 2012 Feb 24;61(7):119-22.

Michigan State University researchers collaborated with NIOSH and OSHA to identify ten fatal incidents involving workers using methylene chloride-based paint stripping products in refinishing bathtubs. The authors warn that the widespread availability of these products for small contractors and do-it-yourselfers puts lives at risk.

http://www.ncbi.nlm.nih.gov/pubmed/22357403

Occupational injury and work organization among immigrant Latino residential construction workers. Grzywacz JG, Quandt SA, Marín A, et al. Am J Ind Med. 2012 Aug;55(8):698-706. doi: 10.1002/ajim.22014. Epub 2012 Jan 20.

Researchers at Wake Forest used a community-based sample of Latino residential construction workers to explore the relationship between work-related injuries and factors such as supervisory practices, power, safety climate, and job design. The authors observed systematic work organization differences across construction trades. Roofers, in contrast to general laborers or framers, reported the lowest skill variety, level of control, and safety climate, but were not typically subjected to long work hours or unfavorable supervisor practices.

http://www.ncbi.nlm.nih.gov/pubmed/22266800

 Association between poor sleep, fatigue, and safety outcomes in emergency medical services providers. Patterson PD, Weaver MD, Frank RC, et al. Prehosp Emerg Care. 2012 Jan;16(1):86-97.

Researchers at the Department of Emergency Medicine at the University of Pittsburgh used validated questionnaires to survey 547 emergency medical service (EMS) professionals to assess the relationship between sleep quality, fatigue, and safety. Fatigued respondents were nearly two times as likely to experience a work-related injury, more than two times more likely to make a medical error, and 3.6 times more likely to engage in a safety-compromising behavior.

http://www.ncbi.nlm.nih.gov/pubmed/22023164

This report's Appendix includes citations for a much longer list of occupational health and safety studies published over the past year.

Reports from Nonprofit Organizations

Several nonprofit advocacy organizations released reports in the past year. These address national issues of regulation (especially of occupational health and safety) and conditions for specific groups of workers – from Latino poultry workers to those working in Walmart's massive upstream distribution system.

"Saving Lives, Preserving the Environment, Growing the Economy: The Truth About Regulation," Center for Progressive Reform, August 2011.

Government regulations have made food and drugs for U.S. consumers safer, the air we breathe cleaner, and workplaces and roadways less deadly. The authors argue that despite these successes, an assault on regulations continues, using a tactic fueled by the untrue claim that high regulatory costs are responsible for our nation's slow economic recovery and job growth.

http://www.progressivereform.org/articles/Reg-Benefits_1109.pdf

"OSHA Inaction: Onerous Requirements Imposed on OSHA Prevent the Agency from Issuing Lifesaving Rules," Public Citizen, October 2011.

Despite evidence that OSHA standards are cost-effective at preventing fatalities, disabling injuries, and occupational illnesses, the agency faces legal and political obstacles that make new worker safety regulations a rarity. The authors examine the lengthy chronology of efforts to address several workplace hazards, such as silica and beryllium. http://www.citizen.org/documents/osha-inaction.pdf

"Latinos in the Poultry Industry," National Council of La Raza, May 2012.

Latino workers comprise at least 34% of the U.S. poultry processing industry. Despite consumers' growing demand for poultry products – about eight billion chickens per year – workers' hourly salaries keep them at the federal

poverty level. They also suffer well documented chronic and disabling injuries to their hands, wrists, shoulders, and backs because of the fast pace of the "disassembly" lines. The National Council of La Raza examines how a proposed USDA food safety regulation would adversely affect this vulnerable worker population. (Also see the organization's May 2011 report "We Needed the Work: Latino Voices in the New Economy.")

http://www.nclr.org/index.php/publications/latinos_in_the_poultry_industry/

"Chain of Greed: How Walmart's Domestic Outsourcing Produces Everyday Low Wages and Poor Working Conditions for Warehouse Workers," National Employment Law Project, June 2012.

Walmart's "everyday low prices" depend on a business model that outsources warehousing, transportation, and delivery systems to large firms that further subcontract the work, often to "temporary" workers supplied by staffing agencies. The report describes working conditions for the warehouse workers hired to load and unload shipping containers, and their struggles with wage theft and safety violations.

http://www.nelp.org/page/-/Justice/2012/ChainOf-Greed.pdf?nocdn=1

"The Next OSHA: Progressive Reforms to Empower Workers," Center for Progressive Reform, July 2012.

The authors identify improvements that could be made to the Occupational Safety and Health Act of 1970 to empower workers and strengthen their role in the occupational health and safety system. Ideas include citizen suits to compel employers to provide safe working conditions, mandatory paid safety training, and safety committees.

http://www.progressivereform.org/articles/Next_ Generation_OSHA_1207.pdf

Legal Perspectives on Occupational Health & Safety

Legal scholars have addressed several aspects of occupational health and safety, from the relationship between unionization and coalmine safety to how injured workers fare under the workers' compensation system. Below we describe some articles of interest that appeared in law review journals in the last year.

"Lessons from the North Sea: Should "safety cases" come to America?" Steinzor, R. Boston College Environmental Affairs Law Review, 2011 (38 B.C. Envtl. Aff. L. Rev. 417).

Professor Steinzor describes the "safety case" approach to assessing risk of harm to workers and the environment, a system used in some industries in the United Kingdom and elsewhere. She argues that confidentiality allowances for firms, the acceptable risk tolerances, and oversight obstacles for agencies make the "safety case" approach inappropriate for the U.S.

"The future of regulation: the truth about regulations in America." Steinzor, R. Harvard Law & Policy Review, Summer, 2011 (5 Harv. L. & Pol'y Rev. 323).

Professor Steinzor makes a compelling argument that stringent environmental, worker safety, and public health regulations enabled the U.S. to reach an outstanding level of industrialization without leaving a wake of destruction. Four decades of success have lulled the public into complacency, allowing regulated industries and their supporters in Congress to strip agencies of their funds and authority. Steinzor works to dissect the contradiction: the public despises "big government" while insisting that laws be enforced to protect the air we breathe and water we drink.

"Injured undocumented workers and their workplace rights: Advocating for a retaliation per se rule." Mondragon, R. Columbia Journal of Law and Social Problems, Summer, 2011 (44 Colum. J.L. & Soc. Probs. 447).

Ms. Mondragon describes how the Supreme Court's 2002 decision in *Hoffman Plastic Compounds, Inc. v. NLRB* makes injured undocumented workers even less willing and able to exercise their rights, and more vulnerable to employer retaliation. She argues that any inquiry into a worker's immigration status after a work-related injury should be a per-se violation of federal anti-discrimination protections.

"Employees should be treated fairly: a plea to change the workers' compensation retaliation statute." Kukreja, M. Capital University Law Review, Fall, 2011, (39 Cap. U.L. Rev. 961).

Ms. Kukreja explains how an injured worker's decision to report a work-related injury and enter the workers' compensation system creates a situation ripe for employer retaliation. She argues that current State law overlooks workplace realities where experiencing a work-related injury becomes part of an individual's employment record.

"'We'd love to match them, but...': How temporary employment agencies understand and use race and ethnicity." Sweeney, MM. Connecticut Public Interest Law Journal, Fall/ Winter 2011 (11 Conn. Pub. Int. L.J. 51).

Ms. Sweeney reports the results of seven interviews she conducted with staff of temporary employment agencies. Although federal and state laws explicitly prohibit hiring decisions based on race and class, some staffing agencies make recommendations to employers based on racial stereotypes.

"Does unionization strengthen regulatory enforcement? An empirical study of the Mine Safety and Health Administration." Morantz, A. New York University Journal of Legislation and Public Policy, 2011 (14 N.Y.U. J. Legis. & Pub. Pol'y 697).

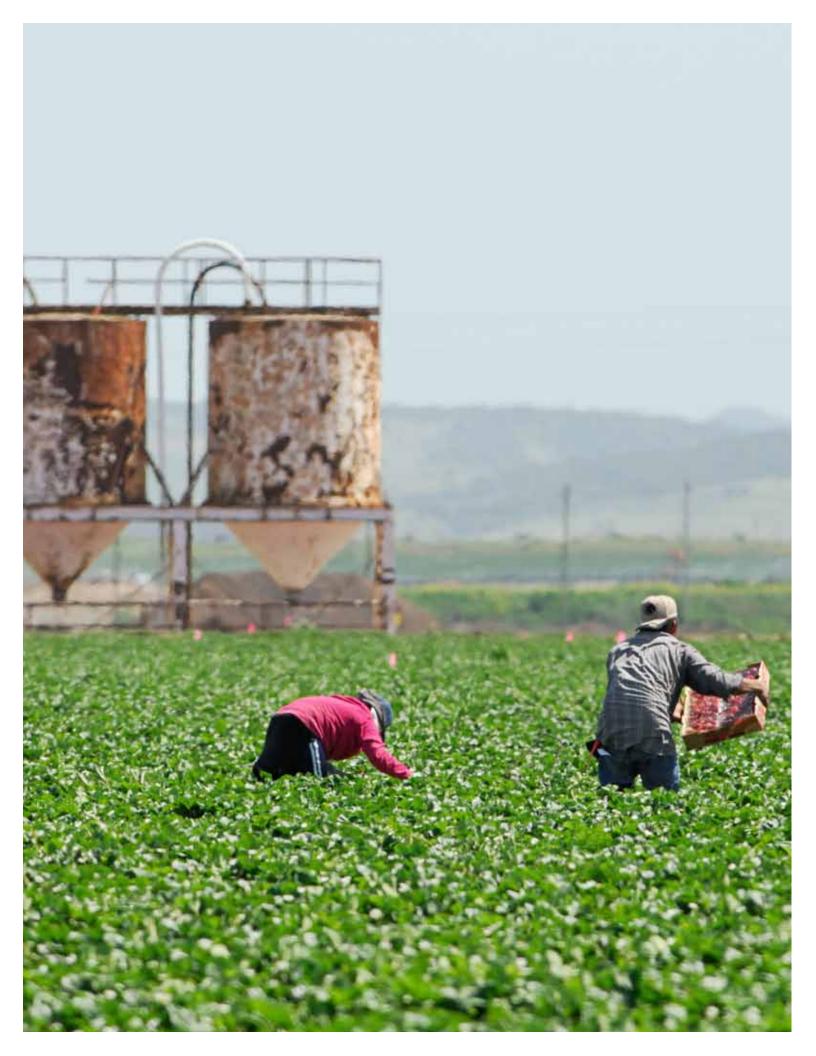
Professor Morantz of Stanford Law School analyzed inspection data from the Mine Safety and Health Administration for the period 1995 to 2009 and determined that the frequency, duration, or intensity of federal safety inspections was significantly greater at union mines compared to non-union mines. This paper complements her earlier analysis that showed that union coal mines have lower fatality and traumatic injury rates than non-union mines. ("Coal mine safety: do unions make a difference" (Stanford Law Sch. Law & Econ, Online Paper Series, Paper No. 413, 2011))

"Administrative law as blood sport: policy erosion in a highly partisan age." McGarity, TO. Duke Law Journal, May, 2012 (61 Duke L.J. 1671).

Professor McGarity has written extensively about health, safety, and environmental rule-making and the now-ingrained practices that go beyond the formalities of the Administrative Procedure Act. He suggests in this paper that regulated parties have taken their strategies to influence and derail rulemaking to a new level, and engaged new political actors to exert pressure on agencies.

Read more at The Pump Handle

Much of the occupational health research and activity described in this report is covered in more detail at the public health blog The Pump Handle, http://scienceblogs.com/thepump handle/. In particular, twice-monthly "Occupational Health News Roundups" highlight local, national, and international news stories on worker health and safety. All past Roundups are available at http://scienceblogs.com/thepump handle/category/occup-health-news-roundup/.



II. The Federal Government and Occupational Health and Safety

t the federal level, the past year has been a bad one for occupational health and safety. We learned that 4,690 workers were killed on the job in 2010 and that even young miners develop black lung disease despite legislation designed to prevent it. Rather than strengthening the regulatory system to address these and other problems, however, the U.S. House of Representatives passed multiple pieces of legislation that would make it far harder to protect workers.

The Obama administration abetted anti-regulatory zealots, issuing an executive order requiring that agencies conduct a "regulatory lookback," keeping proposed regulations stalled for months at a time, and abruptly withdrawing a proposed regulation that would have prohibited some forms of child labor in agriculture. Progress by the Occupational Safety and Health Administration (OSHA) came mainly in the form of memos, letters, and news releases about enforcement actions. Reports by the Government Accountability Office and the nonprofit Center for Public Integrity drew attention to how slowly the agency's standard-setting process moves.

The following section highlights some of the occupational safety and health issues on which noteworthy activity occurred during the past year, and describes specific actions by various federal entities.

Children in Agriculture: Still Vulnerable

In September 2011, the Department of Labor proposed revisions to the Fair Labor Standards Act (FLSA) that would bring limitations on child labor in agriculture closer to those that have existed for decades in other industries. Among other changes, the revisions would have required seatbelts and proper rollover protection in tractors operated by 14- and 15-year-olds; revised the training requirements for 14- and 15-year-olds using specific farm implements; and prohibited children under 18 from working in grain elevators, grain bins, stockyards, and other hazardous sites. Several existing aspects of the FLSA would have remained untouched, including that children, under certain conditions, can be employed to perform non-hazardous farm jobs outside of school hours (with parental permission required for children under 12), and that children of any age can perform any task on their parents' farms outside of school hours.

In a news release about the proposed revisions, Secretary of Labor Hilda L. Solis stated,

"Children employed in agriculture are some of the most vulnerable workers in America." Ten percent of all fatal injuries among young workers occur in the agriculture industry, as injuries from tractor rollovers, grain bin entrapments, electrocution, and other hazards can be severe. Weeks before the proposed rule was released, an incident in Oklahoma offered a stark reminder of the dangers of farm work with heavy machinery: Bryce Gannon and Tyler Zander, both 17, were trapped in a grain auger, and each lost a leg and spent weeks in the hospital enduring multiple surgeries. The boys' employer, Zaloudek Grain Co., had allowed its workers' compensation coverage to lapse. The youngsters' parents, the insurer, and Zaloudek Grain are now battling in court to determine who will pay for the expensive medical care and long-term rehabilitation costs.

Worker health and safety advocates praised the administration's proposed regulation, but the American Farm Bureau and Members of Congress from both parties were among those who attacked it. In April 2012, the Department of Labor shocked worker advocates by abruptly withdrawing the rule and announc-

ing that the proposal "will not be pursued for the duration of the Obama administration." In a strange twist, the Department of Labor not only withdrew the proposed rule, but erased all related documents from its website. The same URLs that days earlier held the proposed rule, fact sheets, and a side-by-side analysis of the current and proposed regulation suddenly said only "Page Not Found."

Black Lung in Young Miners

In July 2012, a group of news organizations published a series of stories on the alarming emergence of black lung disease among coal miners who had started working after the enactment of legislation designed to eliminate this disease (which is technically known as coal workers' pneumoconiosis, or CWP). The reports were no surprise to those who had heard of one (among many) alarming finding from the independent team appointed by then-West Virginia Governor Joe Manchin to investigate the 2010 Upper Big Branch mine explosion, which killed 29 miners: Of the 24 bodies with lung tissue for autopsy, 17 showed signs of black lung disease. A series of news reports by Chris Hamby of the Center for Public Integrity, Howard Berkes of NPR, and Ken Ward Jr. of the Charleston (WV) Gazette gave readers and listeners a detailed picture of the lives of miners now suffering from CWP, and the reasons why this disease is now affecting relatively young miners. In previous decades, the disease tended to afflict miners approaching retirement age, but today even miners in their thirties are being diagnosed with black lung.

Some members of Congress responded to the series of news reports by issuing statements calling for swift action on black lung. House Republicans not only failed to address the problem, but added language to a fiscal year 2013 appropriations bill specifically prohibiting the Mine Safety and Health Administration from using any of its appropriated funds to finalize an in-progress regulation to protect coal miners from developing black lung disease.

A Poultry Rule That's Dangerous for Workers

One regulation on which the Obama administration still has a chance to do the right thing is a proposed U.S. Department of Agriculture (USDA) rule on poultry processing. In January 2012, the USDA proposed a rule change it claimed would "modernize" the poultry inspection process by changing how chicken and turkey carcasses are inspected. The important occupational health and safety element is the provision to allow poultry processors to double the speed of the assembly line in slaughter establishments, from approximately 90 birds per minute to 175. Occupational health researchers have found a higher prevalence of musculoskeletal disorders among poultry workers compared to similar workers in other industries, and have concluded that 90 birds per minute is already too fast. Allowing further line-speed increases would mean even more health problems for a workforce that is largely Hispanic and vulnerable to exploitation by employers.

The Federal Register notice on the proposed rule explained that it was being revised in response to President Obama's Executive Order 13563, "Improving Regulation and Regulatory Review." The order asked federal agencies to review existing rules and to modify or repeal those that were excessively burdensome or otherwise problematic. USDA claimed that its proposal would improve food safety, "remove



Poultry processing workers dissembling chicken legs and thighs for packaging.

unnecessary regulatory obstacles to innovation," and save USDA money. But occupational health expert Ellen Silbergeld, PhD, noted in her comments to the agency, "the economic rationale for these proposals is unacceptable in that it considers mainly the savings of reducing inspections and increasing line speeds ... without examining costs of workplace injury and illness as well as foodborne illness among consumers."

The Obama administration did not withdraw the rule as worker advocates had asked, but the comment period was extended. Comments have poured in from members of the American Public Health Association, National Council of La Raza, Southern Poverty Law Center, and other organizations. Whether the administration acknowledges the rule's dangerous implications for poultry workers and modifies or withdraws the proposal remains to be seen.

Anti-regulatory Fervor in Congress

Far too many members of Congress operate under the mistaken notion that regulation is bad for business. They use the weak economy as a rationale for an anti-regulatory agenda. So far in the 112th Congress, the Republicancontrolled House of Representatives (but not the Senate) has passed three bills that would make it harder for OSHA and other regulatory agencies to fulfill their statutory missions to protect the public health:

• The "Red Tape Reduction and Small Business Job Creation Act" (HR 4978) would prohibit agencies from taking any significant regulatory action until the unemployment rate is at or below 6%. The Coalition on Sensible Safeguards (see http://www.sensiblesafeguards.org/fact-sheets) explains that the bill would prevent OSHA from issuing worker safety standards; continue to prevent EPA from implementing standards under the Clean Air Act to define power plants', industrial boilers', and cement plants' compliance; block rulemaking required under the Food

Safety Modernization Act; delay updates of energy efficiency standards for many products; and block rules that would help veterans take family and medical leave and receive retroactive stop-loss pay compensation. The House passed this bill on July 26, 2012.

- The "Regulations from the Executive in Need of Scrutiny (REINS) Act" (HR 10) would, in a radical departure from historical precedent, require that any major rule from a regulatory agency be approved by both houses of Congress within 70 days before it can take effect. Under this bill, regulatory decisions now made by subjectmatter experts at OSHA, EPA, and other agencies, where there is some insulation from political pressures, would be subject to action by members of Congress who often receive campaign contributions from regulated entities. Given today's Congressional gridlock, even noncontroversial regulations that do not upset campaign donors might die from Congressional neglect during the 70-day window. The House passed this bill on December 7, 2011.
- The "Regulatory Accountability Act" (HR 3010) would override the requirements of the Occupational Safety and Health Act, the Clean Air Act, and other landmark public-health legislation and create rulemaking requirements so extensive and open to industry influence that rulemaking would effectively grind to a halt. Agencies would be forced to adopt the least-costly rule (which is often not the best rule for public health) unless they could meet a new and higher threshold of proof than the one in place today. Regulated industries that already have ample opportunity to weigh in on proposed rules would be given even more influence over the formal rulemaking process, and could more easily challenge rules in court. The House passed this bill on December 2, 2011.

Bills similar to these three have been introduced in the Senate (S. 1438, S. 299, and

S. 1606), but as of the August recess none had made it out of committee. If the 2012 election puts both houses of Congress in Republican hands, the chances of bills such as these making their way to the President's desk will increase.

Obama Administration Holds up Regulations

House Republicans may have little need to legislate new barriers for regulatory agencies as the White House is already erecting them. The White House Office of Management and Budget (OMB) reviews significant regulations before they are finalized, and has long been a bottleneck in the rulemaking process. President Obama selected legal scholar Cass Sunstein to head OMB's Office of Information and Regulatory Affairs (OIRA), and under Sunstein the office has quashed altogether or delayed several rules that would protect lives and health. During the past year, one of the delays that most frustrated health and safety advocates was that of OSHA's rule on respirable crystalline silica.

Respirable crystalline silica has been known to be an occupational hazard for several centuries. It can cause irreversible fibrotic lung disease, and an estimated 1.7 million U.S. workers are exposed to it. On February 14, 2011, OSHA sent OIRA a proposed rule to limit occupational crystalline silica exposure. The executive order that gives OIRA the authority to review such rules limits the office's review time to four months, but as of this writing, the proposed silica rule had been stuck at OIRA for a year and a half.

Such delays are problematic not only because they slow the adoption of rules that can save lives, but because in practice they seem to serve the interests of regulated industries. During the first year of OIRA's review of the proposed silica standard, OMB staff hosted at least nine private meetings on the proposal, most of them with individuals who represented companies with a direct financial interest in silica regulation. "These closed door meetings



Alan White, a 47-year-old foundry worker from Buffalo, N.Y., suffers from silicosis, a debilitating lung disease caused by exposure to silica dust.

with special interests are wholly inconsistent with your promise of openness and public participation," noted a January 2012 letter to President Obama from more than 300 scientists, physicians, and public health experts. They urged the President to direct OMB to complete its review of the proposed standard.

While making it difficult for agencies to finalize new regulations, the Obama administration has also required agencies to engage in a regulatory "look-back." A January 2011 executive order instructed each regulatory agency to submit to OIRA within 120 days a preliminary plan for reviewing significant existing regulations "to determine whether any such regulations should be modified, streamlined, expanded, or repealed so as to make the agency's regulatory program more effective or less burdensome in achieving the regulatory objectives." This is no doubt a worthwhile exercise, but creating new agency processes can draw resources away from more urgent needs. The USDA's hazardous-to-workers poultry rule is a product of this executive order, and suggests that agencies eager to comply with the President's instructions may overlook publichealth impacts of rule revisions.

In a May 2012 *In These Times* article "A Tale of Two Rules: Washington Bureaucracy and the Politics of Workplace Safety," Mike Elk

Family Members Make Visible the Toll of Unsafe Workplaces

The faces and stories of workers who've been killed on the job, and the responses of their grieving families, can motivate lawmakers and regulators to address workplace hazards. In several cases, on-the-job deaths of loved ones have turned surviving family members into powerful advocates. An April 2012 visit by several of these family members to Washington, DC is one example of family members' activities.

At a hearing on the slow pace of OSHA rulemaking held by the Senate Health, Education, Labor & Pensions Committee, Tom Ward Jr., a Michigan bricklayer, testified about his father's sandblasting work and his death from silicosis at age 39, when Tom Jr. was only 13. Today Ward, a member of the International Union of Bricklayers and Allied Craftworkers, provides safety training to apprentices and journeyworkers – but, he told the committee, it is hard to believe that since his father's death in 1982, OSHA silica exposure limits have remained unchanged. Behind him in the audience sat other family members who had lost loved ones to occupational injuries and illnesses, holding poster-sized photos of victims.

Ward and five other family members met with OSHA's assistant secretary David Michaels and with the director of the White House's Office of Information and Regulatory Affairs (OIRA). They spoke about their families' losses, why OSHA is important, and how employers should be held accountable for preventable work-related deaths. To our knowledge, this was the first time in OIRA history that a group of citizens suffering consequences from unsafe workplaces had met with the OIRA director.

Finally, the family members and other supporters brought stories and photos of victims to a demonstration outside the Chamber of Commerce. They delivered a formal request to the Chamber that it drop its opposition to new workplace health and safety regulations, and shared their stories of loss with lunchtime passers-by. Briefly, their stories are:

- Nicole Boone's and Danielle Dole's father, Sherman Lynn Holmes, 55, was killed on the job in February 2011 in Evert, Michigan.
- Albert DeLeon's son, Emilio, 19, was killed on the job in August 2010 in Grande Island, Nebraska.
- Tonya Ford's uncle, Robert Fitch, 51, was killed on the job in January 2009 in Lincoln, Nebraska.
- Tammy Miser's brother, Shawn D. Boone, 33, was killed on the job in October 2003 in Huntington, Indiana.
- Wendy Shurelds' mother, Yvonne Shurelds, 58, was killed on the job in August 2008 in Bluffton, Ohio.
- Tom Ward of Woodhaven, Michigan was 13 years old when his father, a bricklayer, died of silicosis at age 39.
- Alan White, 47, of Buffalo, New York is a foundry worker who suffers from silicosis.

The organization United Support and Memorial for Workplace Fatalities (USMWF) serves as a support network for many who have lost loved ones to on-the-job injuries and illnesses. It has helped many of its members become better informed about the U.S. regulatory system. Several USMWF members have become powerful advocates for improved workplace safety, speaking and testifying about the issues to local media and to state and federal lawmakers. Their work helps put a hard-to-ignore human face on the toll of unsafe workplaces.

contrasted the fate of OSHA's silica rule, which OMB has refused to release for public comment, to that of USDA's poultry rule, which OMB rushed to publish without even consulting OSHA officials about its likely impact on workers.

http://www.inthesetimes.com/working/entry/13114/obama_administration_approves_deregulatory_workplace_safety_rule_at_lightni/

In August 2012, Sunstein resigned his position as OIRA Director to return to his position at Harvard Law School.

Department of Labor's Achievements and Setbacks

The Department of Labor's abrupt withdrawal of its proposed rule on children in agriculture was one of its most significant – and distressing – actions of the past year. It could still make an important improvement to the Fair Labor Standards Act (FLSA) if it follows through with a rule proposed in December 2011 to extend minimum-wage and overtime pay protections to home care workers who assist elderly and disabled patients with their daily needs. Currently, "companions for the elderly" are among the categories of workers exempted from FLSA, and the predictable result is that in most states, average hourly wages for Personal Care Aides – who help clients with bathing, dressing, eating, wound care, and other essential activities - are below 200% of the federal poverty level wage for full-time workers in one-person households. The main rationale for this rule change is that Congress's intent in exempting "companions for the elderly" from FLSA protections was to make it easy for neighbors and friends to help out the elderly in their communities — not to keep two million home care workers from earning fair wages. DOL calculates that under the proposed rule change, FLSA restrictions on overtime would reduce overtime hours worked, which would benefit the health of workers and their patients alike. The agency still lists the proposal on its regulatory agenda, but has not given an anticipated completion date.

OSHA and the Mine Safety and Health Administration (MSHA) are the Department of Labor agencies that address worker health and safety most directly. Both had noteworthy achievements over the past year, particularly more effective targeting of inspections of problematic worksites. But on the whole, worker health advocates are disappointed by results from what they thought was an administration committed to significantly improving workers' lives.

OSHA

OSHA finalized one important new standard over the past year: revisions to the Hazard Communication (HazCom) standard to incorporate provisions of the Globally Harmonized System of Classifications and Labeling of Chemicals. The aim is to improve chemical safety by harmonizing hazard communication information across the world. The revised OSHA HazCom standard will provide a common approach to classifying chemicals and improve the quality, consistency, and accessibility of chemical labels and material safety data sheets that inform workers about appropriate handling and safe use of hazardous chemicals. The new rule takes full effect in June 2016.

"Everyone working around hazardous chemicals and other toxic substances has a right to know of possible dangers and how to protect themselves," explained David Michaels, Assistant Secretary of Labor for Occupational Safety and Health, in the March 2012 announcement. "But the right to have labels or Material Safety Data Sheets did not always mean that it was easy for workers to *understand* that information. Today, with the new, globally harmonized standard, workers are now getting the right to understand."

OSHA estimates that its HazCom revisions will affect 42 million workers, prevent more than 500 occupational illnesses and injuries and 43 fatalities each year, and save U.S. businesses around \$1 billion annually. The American

Chemistry Council, the National Grain and Feed Association, the American Tort Reform Association, and other industry trade groups challenged the rule in the U.S. Court of Appeals, DC Circuit. They will reveal the specifics of their complaints in future filings with the Court.

The HazCom revision was finalized nearly six years after OSHA began the process with an advance notice of proposed rulemaking in September 2006. It turns out that this six-year process is relatively fast for OSHA. In April 2012, the Government Accountability Office (GAO) issued a report on OSHA standard setting. They found that during the 1981 - 2010 time period, it took OSHA an average of 93 months (nearly eight years) to develop and issue safety and health standards. GAO blamed shifting agency priorities, mounting procedural requirements, and inefficient datagathering processes (among other factors) for the slow pace of OSHA standards.

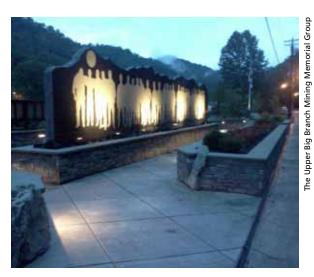
The Center for Public Integrity's Jim Morris highlighted the dragged-out process for OSHA standards on silica (the rule that has been stuck at OMB for 18 months now) and beryllium (an update of a woefully outdated exposure limit first calculated in 1949) in an in-depth article. Both silicosis and chronic beryllium disease leave workers struggling to breathe. Morris concludes that new regulations of these and other hazards would necessitate additional expenditures by employers – but he estimates that the price of inaction is 50,000 deaths from occupational diseases every year, and annual costs of \$58 billion for both fatal and non-fatal workplace illnesses.

Most of OSHA's accomplishments over the past year were not in rulemaking but in enforcement and educational efforts. They include:

Railroad whistleblowers: In response
to a growing number of whistleblower
complaints in the railroad industry, most
involving retaliation after a worker reported an on-the-job injury, OSHA signed a
memorandum of agreement with the Federal Railroad Administration to cooperate
on enforcement of the Federal Railroad

Safety Act's whistleblower provision, which protects workers from retaliation when they report safety violations or occupational injuries or illnesses. (OSHA is responsible for enforcing the whistleblower provisions of 22 statutes protecting workers in a wide range of industries.) Days after the agreement was announced (on July 16, 2012), OSHA ordered two railroad companies to pay a total of more than \$650,000 in back wages and damages to three workers who the agency found had experienced retaliation after reporting workplace injuries and safety concerns.

- Hazard alert on silica at frack sites: With the National Institute for Occupational Safety and Health (NIOSH), OSHA issued a June 2012 hazard alert on airborne exposure to silica among workers in hydraulic fracturing (fracking) operations. Sand is a key ingredient in these operations and a major source of occupational silica exposure. Recent NIOSH studies found dangerously high levels of airborne silica at several fracking sites. The hazard alert recommends air monitoring, engineering controls, and work practices to control dust exposure, plus respiratory protection when necessary.
- Emphasis on nursing home hazards: A
 National Emphasis Program (NEP) established in April 2012 targets and conducts programmed inspections of nursing and residential care facilities. OSHA compliance officers specifically address "ergonomic stressors in patient lifting, blood-borne pathogens, tuberculosis, workplace violence, and slips, trips, and falls."
- Communicating with victims' families:
 After the groups United Support and Memorial for Workplace Fatalities (USMWF) and Families in Grief Hold Together (FIGHT) made recommendations to OSHA regarding the way agency officials communicate with those who have lost family members to fatal on-the-job injuries, OSHA issued an April 2012 directive on OSHA staff's communication with victims'



The Upper Big Branch Miners Memorial in Whitesville, West Virginia was unveiled July 27, 2012.

families. Staff are instructed to explain the investigation process and timeline to family members; provide updates during the investigation; explain investigation findings to them and address any questions; and provide to the families copies of key documents, such as citations, settlement agreements, and OSH Review Commission decisions.

- Ergonomic risks for hotel housekeepers: Following injury complaints filed by workers at Hyatt Hotels (represented by UniteHere), OSHA wrote in April 2012 to the hotel chain detailing "the presence of ergonomic risk factors associated with the housekeeping tasks." The letter mentioned bending, twisting, and repeated heavy lifting and carrying. OSHA recommended using certain equipment such as longhandled mops, lighter-weight and better-designed vacuums, and kneepads for tasks involving kneeling.
- Health and safety problems at workplaces hiring foreign students: Following a complaint by the National Guestworker Alliance about treatment of foreign students working for the summer under the U.S. Department of State's J-1 visa program, OSHA in February 2012 cited Excel Inc. for nine safety and health violations (six of them willful) at a Hershey-owned facility

- operated by Excel in Palmyra, Pennsylvania. OSHA proposed penalties totaling \$283,000 for the nine violations, which included failing to record injuries and illnesses on the OSHA 300 log for four years.
- Hazard alert on hair-smoothing treatments: Following health complaints from salon workers, federal and state officials investigated hair-smoothing treatments like Brazilian Blowout and found that they release formaldehyde during use. OSHA issued an initial hazard alert on formaldehyde-releasing hair smoothing products in April 2011 and updated it in September 2011. During investigations, the agency also cited manufacturers and distributors of hair smoothing products for failing to list formaldehyde on product labels and material safety data sheets.

MSHA

Repercussions from the April 2010 Upper Big Branch (UBB) disaster - the worst coal mine disaster in 40 years – continued to focus MSHA's attention on improving the effectiveness of its inspections. As Assistant Secretary of Labor for Mine Safety and Health Joe Main said, the death of the 29 men "shook the very foundation of mine safety and caused us all to take a deeper look at the weaknesses in the safety net expected to protect the nation's miners." The agency continues its "impact inspection" program, in which teams of inspectors blitz high-risk mines; its defense of mine workers who have been retaliated against for complaining about safety concerns; and its publicizing of mine operators who fail to pay assessed penalties, even calling some of them "scofflaws" in news releases.

Massey Energy/Alpha Natural Resources' agreement with Justice Department

In December 2011, MSHA closed one chapter in the Massey Energy Upper Big Branch catastrophe by issuing its investigation report.

Alpha Natural Resources (ANR), the current owner of the mine, was assessed a \$10.8 million civil penalty for hundreds of safety violations identified after the disaster. The full penalty amount was paid by ANR as part of a non-prosecution agreement signed with the U.S. Department of Justice (DOJ). The firm agreed to spend at least \$209 million to fund safety improvements at its operations as well as academic research on mine safety, and to pay off Massey Energy's \$34.8 million in delinguent penalties and restitution to victims' families and two survivors. For two years, ANR will make progress reports at least every six months to the Justice Department. Part of the \$209 million is a \$48 million research fund that will be administered by Keith A. Heasley, PhD, MS of West Virginia University; Michael E. Karmis, PhD of Virginia Tech; and David H. Wegman, MD, MPH of the University of Massachusetts Lowell.

Reviews of MSHA's performance at Upper Big Branch

In March 2012, two other groups issued investigation reports on UBB. An internal review team comprised of MSHA staff found that inspectors had failed to inspect key parts of the mine prior to the disaster and that enforcement activities were compromised because both inspectors and their supervisors failed to follow established policies and procedures. The internal review team concluded, however, that missteps by MSHA staff did not cause the explosion. In contrast, a team convened by NIOSH at the request of Labor Secretary Hilda Solis opined that had the agency engaged in timely enforcement of its regulations, "it would have lessened the chance of – and possibly could have prevented - the UBB explosion."

Federal prosecution of Massey Energy officials

Massey Energy's security director, Hughie Elbert Stover, 60, was sentenced in February 2012 for two felonies: lying to federal investigators and trying to destroy documents. U.S. District Judge Irene Berger imposed a penalty of 36 months in jail, two years of probation, and a \$20,000 fine, but rejected the U.S. Attorney's assertion that Stover was culpable in the disaster. Later in the month, mine superintendent Gary May, 43, was charged with conspiracy to "hamper, hinder, impede, and obstruct the lawful government functions of the Department of Labor and MSHA in the administration and enforcement of mine health and safety laws at UBB." The U.S. Attorney said his office had reached an agreement with Mr. May on future charges in exchange for his cooperation with DOJ's ongoing investigation of more senior Massey Energy officials.

One new regulation to better protect underground coal miners

The Upper Big Branch disaster created an opportunity for MSHA to propose and finalize improvements to its existing requirements for pre-shift, on-shift, and weekly examinations in underground coal mines. The new rule, which was issued in April 2012, requires mine examiners to identify and record hazardous conditions, as well as health and safety violations, and to post a notice in the area visible to anyone entering or passing by it. The rule took effect in August 2012.

Coal miners still waiting for new regulation to prevent black lung disease

When MSHA proposed in 2010 regulatory changes to help eliminate black lung disease, even Vice President Biden got in on the action. "In America in the 21st century," the Vice President said, "workers should not have to risk illness or death in order to provide for their families ... This rule will provide today's miners with long-overdue protections against needless threats to their health." The public comment period and hearings on the proposed rule ended in June 2011. MSHA has yet to submit a final rule to the White House's Office of Management and Budget for review.

U.S. Chemical Safety and Hazard Investigation Board

After engaging in roundtable discussions with accident victims, family members, and worker representatives, the U.S. Chemical Safety and Hazard Investigation Board (CSB) adopted a new policy in March 2012 to enhance the role of employees in the agency's accident investigations. The 10-point plan recognizes the expertise of employees and contract workers, and their value to on-site investigations as well as to the Board's written reports and recommendations.

In response to major chemical releases and explosions, the CSB deployed investigation teams to the Citgo facility in Corpus Christi, Texas (March 2012); to the site of an abandoned crude-oil storage vessel located near El Dorado, Arkansas, where three workers were killed (May 2012); and to the Chevron refinery in Richmond, California (August 2012). Other notable activities by the CSB included its July 2012 public hearing in Houston to release preliminary findings of its investigation of the April 2010 Deepwater Horizon well blowout, explosion, and fire in the Gulf of Mexico. The CSB and its expert panel chastised firms like Transocean and BP, as well as trade associations and U.S. regulators, for using lagging indicators to evaluate safety performance. Focusing on personal injury – such as dropped objects and slips, trips, and falls - can blind organizations to more meaningful indicators and their potential to foretell catastrophic accidents.

The National Academies

Occupational information in electronic health records

Nearly 60% of the U.S. population is employed, and most of these individuals spend more than half their waking hours at work. The work environment has a well-recognized influence on health through exposures to physical, chemical, biological, and other hazards, as well as stress that results from work

organization. Yet, information about patients' work is not routinely captured in medical records. The Institute of Medicine (IOM) of the National Academies released a report in October 2011 examining how employment and occupational information could be incorporated in patients' electronic health records (EHRs). They note such data would provide health care providers with critical clinical information to guide treatment, rehabilitation, and prevention of recurrence for both workrelated and non-work-related health conditions. The IOM report comes at a time when the standard core elements of EHRs are being developed pursuant to a 2009 federal law, known as HITECH, which also provides a financial incentive for EHRs to be widely adopted by healthcare providers.

Methyl isocyanate and risk-reduction practices

In May 2012, the National Academy of Sciences released a congressionally mandated report on the large inventory of highly hazardous methyl isocyanate (MIC) at the Bayer CropScience plant in Institute, West Virginia. MIC is the same deadly compound released from a Bhopal, India Union Carbide plant in 1984 that killed more than 8,000 residents. The NAS report and a related investigation by the CSB came following an August 2008 explosion in the pesticide manufacturing unit of the Bayer CropScience plant that killed workers Bill Oxley, 58, and Barry Withrow, 45. The NAS panel expanded the focus of their report to examine chemical manufacturers' risk-reduction decision-making, including how firms decide which products they make and use. These decisions have important implications for workers and the communities where the facilities are located.

Combustible Dust Explosions

In January 2012, the U.S. Chemical Safety and Hazard Investigation Board (CSB) released a report on three combustible dust fires that happened at the same facility in 2011. The fires at the Hoeganaes powdered metal plant in Gallatin, Tennessee killed a total of five workers and injured three others.

http://www.csb.gov/newsroom/detail.aspx?nid=395

Accumulations of dust – fine particles of metal, coal, wood, sugar, flour, or other substances – are fuel sources that can readily ignite into deadly fires. Engineering controls, housekeeping measures, and employee training on fire prevention can keep dust from accumulating and catching fire. The CSB investigation found that the Hoeganaes company knew combustible dust was present in the plant but failed to take the appropriate safety measures.

On January 31, 2011, particles of iron dust ignited while workers were fixing an elevator; on March 29, a similar flash fire burned another worker; and on May 27, a hydrogen explosion (due to leaking gas from a corroded furnace pipe) shook loose accumulated iron dust from high in the building, which quickly ignited and fell on the workers below. These three incidents killed workers Rick Lester, John Eric Holsey, Wiley Sherburne, Vernon Corley, and Fred Tuttle.

In May 2012, Chris Hamby of the Center for Public Integrity published an in-depth piece on the Hoeganaes fires and the combustible dust problem. A Center for Public Integrity analysis found that since 1980, more than 450 accidents involving dust have killed nearly 130 workers and injured more than 800 – and those are just the incidents that have been reported to OSHA and the CSB. "Yet a push to issue a rule protecting workers from the danger has stalled in the face of bureaucratic hurdles, industry pushback and political calculations," Hamby reports.

OSHA announced in 2009 that it was starting the rulemaking process for combustible dust, but made little progress on it and has moved the hazard to its "long-term actions" list. Hamby reports on the reaction of Chris Sherburne, whose husband Wiley Sherburne was fatally burned at the Hoeganaes plant, to the news that combustible dust rulemaking is no longer a top OSHA priority: "I just couldn't believe it," she said. "You put it on the back burner, and that's where it's going to stay."

http://www.publicintegrity.org/2012/05/29/8957/unchecked-dust-explosions-kill-injure-hundreds-workers



III. Addressing Occupational Health and Safety at the State and Local Levels

ith "gridlock" describing federal efforts, workers' rights and public health advocates have created opportunities at the state and local levels for new worker protections. California, Connecticut, and Washington State adopted new rules to protect healthcare workers – each addressing a different health and safety hazard. California's rule tackles musculo-skeletal injuries caused by moving and handling patients, Connecticut's rule focuses on violence in healthcare settings, and Washington's rule addresses exposure to hazardous medications. The U.S. healthcare workforce continues on a steep growth curve. In a recent Occupational Outlook Handbook, the Bureau of Labor Statistics projects that 28% of all new jobs created between 2010 and 2020 will be in the healthcare and social assistance industry.

New State and Municipal Laws

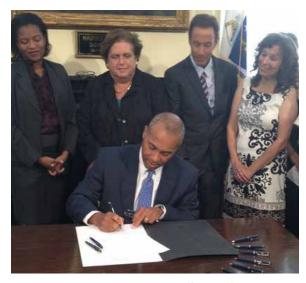
Keeping it REAL for Massachusetts temporary workers

Imagine being called to work without being told what your job will be, how much you'll be paid, or even the name of your employer. That's the situation faced by many of the nation's 2.3 million workers employed by temporary staffing agencies. For Massachusetts' low-wage temporary workers, all of that will change on January 1, 2013 thanks to the state's passage of the Temporary Workers' Right to Know Act.

A coalition of faith leaders, labor organizations, and safety and other advocacy groups worked with state agencies and representatives of the staffing industry to develop the legislation, known as the Reform Employment Agency Laws (REAL) bill. It was signed into law on August 6, 2012 by Governor Deval Patrick.

Juan Calderas worked a job peeling fruit for 10 hours with no break. "I was carrying a large bucket of fruit and fell. I broke two discs in my back," he said. "When the employer refused to pay my doctor's bills, that's when I learned that I wasn't working for the company at all, but instead for a temporary agency." Under the new law, staffing agencies will be required to provide employees the name, address, and telephone number of the staffing

agency, its workers compensation carrier, and the worksite employer; information about the type of job being assigned and any requirement for special clothing, tools, equipment, training, or licenses, and any costs charged to the employee; the designated pay day and the actual hourly rate of pay, overtime pay, and compensation; and the daily starting time, anticipated end time, and, where known, how long the job will last. The law also prohibits staffing agencies from charging employees for procuring a job, and from assessing other fees that would reduce a worker's pay below the minimum wage.



MassCOSH's Marcy Goldstein-Gelb (far right) watches Governor Patrick sign the REAL bill.

Marcy Goldstein-Gelb, executive director of MassCOSH and coordinator of the REAL Coalition, noted "this law will bring essential sunlight to the shadows where these abuses have taken place, and help ensure fairness for workers and employers who follow the state's labor laws."

City of Durham scrutinizes potential contractors' safety records

In June 2011, contractors Luis Castaneda Gomez, 34, and Jesus Martinez Benitez, 32, died in a manhole. Their deaths focused the city government's attention on worker safety. The city had contracted with the workers' employer, Triangle Grading and Paving, to make water line repairs, even though the firm had a history of serious violations of worker safety regulations, and a worker fatality.

Local television station NBC-17 investigated the company's record, and reporter Charlotte Huffman informed viewers that Triangle Grading and Paving had received more than 60 OSHA citations for construction-related safety violations – but had been awarded a city contract anyway. National COSH and other safety advocates forced attention to the inadequate screening process for city-hired contractors, and the City of Durham responded.

In May 2012, the city implemented a new policy that requires all bidders on city-funded projects to provide information on their injury rates; their workers' compensation rates, which are based on their safety records; and their safety and health programs. Worker advocates will now press other cities to require bidder reporting of occupational health and safety indicators and to give preference to safer companies when awarding contracts.

Wyoming responds to 'fracking' boom with new worker safety rules

For at least a decade, Wyoming has consistently ranked number one or two among states with the highest rate of fatal work-related injuries. The U.S. national average rate is about

3.6 deaths per 100,000 workers, while the rate in Wyoming approaches 12 per 100,000. In 2009, Governor Dave Freudenthal appointed a Workplace Fatality Prevention Taskforce and asked the group to recommend legislative actions to reduce the death toll. A subcommittee examining hazards in the oil and gas industry identified areas for improvement in the existing Wyoming OSHA rules on drilling. This sector has a higher-than-average fatality rate and is the state's most rapidly growing industry–9.2% from 2010 to 2011. That is a potentially deadly combination.

In December 2011, Wyoming's OSHA Commission held a public meeting on the proposed changes, which included "hot work" permits, emergency communication lines at a rig site to the nearest medical facility, and fall protection for work at heights over four feet. The new rules were approved by Governor Matt Mead in February 2012, with enforcement commencing in July 2012. Additional improvements, such as requiring flame-resistant clothing and reducing exposure to hydrogen sulfide, remain under consideration.

Washington: Healthcare workers and hazardous medications

Washington State became the first in the nation to adopt a specific regulation to protect healthcare workers potentially exposed to anti-neoplastic drugs and other hazardous medications. The state's Department of Labor & Industries issued the final regulation in January 2012 as directed by a state law passed in 2011. The rule will take effect in January 2014 and will apply to healthcare facilities in which employees are "reasonably anticipated" to have "occupational exposure to one or more hazardous drugs." The CDC's National Institute for Occupational Safety and Health (NIOSH) published a list of about 150 agents that meet its hazardous drug definition. The Washington State rule references the NIOSH list, which includes well-known chemotherapeutic drugs such as cisplatin, fluorouracil (5FU), methotrexate, and doxorubicin.



Personal care aides are currently exempt from the Fair Labor Standards Act and its provitions for minimum wage and overtime pay (see p. 18)

Under the rule, healthcare facilities with employees who are reasonably anticipated to have exposure to hazardous drugs will be required to develop a "hazardous drugs control program." Program components include a written inventory of hazardous drugs in the workplace, engineering controls such as biological safety cabinets and laboratory fume hoods, and spill control and waste handling procedures.

Healthcare workers in Washington State give credit to reporter Carol Smith of Investigate West for bringing attention to the issue of "second-hand chemo." Her July 2010 series "Lifesaving Drugs, Deadly Consequences" profiled several cancer-stricken healthcare workers and the public health researchers who have studied the problem for decades and urged safety protections for workers at risk of exposure.

California: Preventing career-ending injuries for healthcare workers

"Saving backs and bucks" is one way the Nurse Alliance of California described the safe patient handling law signed in December 2011 by Governor Jerry Brown. The Golden State's "Hospital Patient and Health Care Worker Injury Protection Act" makes it the tenth state to adopt regulations designed to protect healthcare workers from back injuries and other musculoskeletal disorders. The law is also expected to reduce patient injury rates and generate savings for employers because of fewer lost workdays and insurance claims.

Under the California law, acute care hospitals are now required to replace manual lifting and transferring of patients with mechanical devices or lift teams. The law gives registered nurses a special role to determine the appropriate patient handling technique, depending on the clinical situation. It also explicitly prohibits a hospital or its managers from disciplining a healthcare worker who refuses to lift, reposition, or transfer a patient due to concerns about patient or worker safety or the lack of trained lift team personnel or equipment.

In the past, the California Hospital Association had succeeded in blocking the legislation, but not this time. California healthcare workers convinced their state legislators that the law was necessary to improve patient safety and prevent career-ending injuries. The other states with safe patient handling regulations are Illinois, Maryland, Minnesota, New Jersey, New York, Ohio, Rhode Island, Texas, and Washington.

Advancing public health and worker safety in Seattle: Paid sick leave

The Seattle, Washington City Council took a historic step in September 2011 for public health and worker safety by requiring employers in the city to provide their full-time employees at least five days of paid sick leave per year. The new law takes effect in September 2012. "Going to work sick or losing pay" is not a choice that Seattle workers should be forced to make, said the bill's sponsor. Preventing the spread of infectious disease is an obvious benefit of the new law, but as NIOSH researchers reported earlier this year, workers with access to paid sick leave were 28% less likely to be

injured on the job than workers without paid sick leave (see p. 8). The State of Connecticut, and the cities of San Francisco, CA and Washington, DC also have paid-sick-leave laws.

Other notable worker safety improvements adopted in the states

California's Occupational Safety and Health Standards Board adopted more-protective permissible exposure limits (PELs) for workers exposed to carbon disulfide, hydrogen fluoride, and toluene, and added sulfuric acid to its list of regulated workplace contaminants. The new limits took effect in March 2012 and are substantially lower than federal OSHA's PELs for the same contaminants.

Window washers in Minnesota now have better protection from falls because of a new workplace safety regulation that took effect in March 2012. Minnesota OSHA issued the rules after conducting a local emphasis inspection program in the window-washing and building-maintenance industries. The agency also examined three separate fatalities involving workers washing windows: Jacob Jennings, 20, and Bryan Prairie, 24, in 2009 and Ryan J. Shannon, 25, in 2011. The state's investigation found that some employers failed to provide proper safety equipment for their crews and were not following the manufacturers' guidelines about how to erect and use suspension scaffolds and lifelines properly. The new rules include provisions on proper anchor points, use and inspection of equipment, and rope descent systems.

Connecticut's law to protect healthcare workers from work-related violence took effect in October 2011. Public Act No. 11-175 requires employers with 50 or more full- or part-time employees, including those employed at substance abuse and residential treatment facilities, to establish a labor-management committee to address issues related to health and safety, to conduct an annual risk assessment of workplace violence, and to collaborate with the safety committee to implement a violence

prevention program and response plan. The law also defines an assault on a healthcare worker as a class C felony, a status previously reserved for assault of police officers, fire fighters, and public transit workers.

Reports Relevant for State and Local Governments

State and local legislators interested in improving their states' economies and quality of life can turn to these reports for ideas about initiatives and legislation that can improve working conditions – with implications for the broader economy.

"The Price of Inaction: A Comprehensive Look at the Costs of Injuries and Fatalities in Maryland's Construction Industry," Public Citizen, August 2012.

In the three-year period of 2008 through 2010, 55 construction workers in Maryland were killed on the job, and an estimated 11,000 construction workers were injured. The authors assembled data on the direct, indirect, and quality-of-life costs associated with Maryland incidents to calculate their total economic burden: \$712.8 million. Public Citizen recommends the state pre-qualify firms for public contracts using a variety of safety criteria.

http://www.citizen.org/price-of-inaction-maryland-worker-safety-report

"Houston, We Have a Wage Theft Problem: The Impact of Wage Theft on our City and the Local Solutions Necessary to Stop it," Houston Interfaith Worker Justice, May 2012.

Over the last five years, the staff and worker leaders at Houston Interfaith Worker Justice have recovered nearly \$700,000 in stolen wages from employers who failed to pay properly workers they had hired for construction, restaurant, and other work. The authors examined the economic, social, political, and legal contexts that allow wage theft to con-

tinue nationwide, and makes Houston-specific recommendations to solve the problem. http://www.hiwj.org/images/stories/Wage_Theft_Report_May_2012.pdf

"Contract Killers: Government Agencies Award Taxpayer Dollars to Contractors That Disregard Worker Health and Safety," Public Citizen, March 2012.

California-based RPI Coating, Inc. and North Carolina-based Triangle Grading and Paving, Inc., have a history of serious workplace safety violations, creating situations so grave that workers have died on the job. That didn't stop local government agencies from contracting with them, leading to more disastrous results and worker deaths. Public Citizen profiles these and similar cases, and recommends that federal, state, and local agencies assess a firm's safety performance before doling out taxpayer funds.

http://citizen.org/contract-killers-worker-safetyreport

"Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries," National Employment Law Project, October 2011.

Studies and audits conducted in 20 states find consistent and troubling evidence of employees being misclassified by their employers as independent contractors. The rate of misclassification ranges from 10% to 62%. The annual losses to state unemployment and income tax funds exceed hundreds of millions of dollars.

http://www.nelp.org/page/-/Justice/2010/IndependentContractorCosts.pdf?nocdn=1

"Prevention Pays: Solutions to Help Workers and Businesses Thrive," WorkSafe, August 2011.

The California-based worker justice organization wants to advance a dialogue about workplace hazards. "It's time to shift from a focus on 'the problem,' and how bad it is, to a prevention framework that emphasizes solutions," the report explains. The authors offer can-do examples from auto body shops

to hospitals to construction sites on ways to redesign tasks to prevent injuries and save employers money.

http://worksafe.typepad.com/files/prevention_pays_web.pdf

Local reporters draw attention to workplace health and safety problems

Across the country, local reporters are investigating and spotlighting the workplace health and safety problems in their communities. As in the case of NBC-17 reports in Durham, North Carolina about workers killed by a contractor with a poor safety record (see p. 26), journalists' reports can help catalyze efforts to solve problems and improve workplace safety and health. Reports from the past year cover a wide range of issues, including the following:

NBC Bay Area, the NBC News affiliate in San Francisco, California, produced a multi-part investigative series examining workers as young as 10 years old working on California and North Carolina farms. Stephen Stock and his colleagues interviewed dozens of young workers to learn how their days are spent in the fields, harvesting tomatoes, peppers, berries, and tobacco. Their parents described the challenges of migrant life and their hopes that their children can break free from a farmworker's life.

NBC Bay Area, "Children in the field: American kids pick your food," August 2012.

http://www.nbcbayarea.com/investigations/series/children-in-the-field/

In Wisconsin, the average penalty for a worker fatality is just over \$4,000. Those were the findings of Gannett's *Post-Crescent* reporter Nick Penzenstadler after he reviewed the 240 fatalities at Wisconsin workplaces between 2000 and 2011. His interest was piqued by a spate of worker fatalities during road construction projects on U.S. 41 and a connection with the family of Brandan Kalmerton, 26, who was killed in a trench in Oshkosh. Kalmerton's family members, like others Pen-

zenstadler interviewed, were shocked by the inconsequential penalties imposed by OSHA and laws that prevent victims' families from suing the responsible employer.

Nick Penzenstadler, "Wisconsin companies insulated from stiff penalties in worker deaths," Appleton (WI) Post-Crescent, July 21, 2012. http://www.postcrescent.com/article/20120722/ APC0101/307220165/Wisconsin-companies-insulated-from-stiff-penalties-worker-deaths

Northwest Public Radio's Jessica Robinson drew attention to the disparity in federal safety rules for underground metal miners compared to their coal mining counterparts. Her investigation started after the April 2011 death of Larry Marek, 53, in Hecla Mining's Lucky Friday mine, where it took nine days to recover his body from 6,000 feet underground. While Robinson was exposing the company's and MSHA's failure to implement recommendations from the agency's geologist that could have prevented the rockburst that killed Marek, another miner, Brandon Gray, 26, was killed at the same mine. Seven miners were injured in another event, just a month later. Robinson interviewed survivor Mike Marek, Larry's brother and mining partner, who spoke about feeling guilty for not speaking up about how management's decisions created new hazards.

Jessica Robinson, "Family of killed miner says company's decision caused collapse." Northwest Public Radio, July 11, 2012.

http://nwpr.org/post/family-killed-miner-says-company-s-decision-caused-collapse

California Watch, in collaboration with the Investigative Reporting Program at UC Berkeley's Graduate School of Journalism, delved into city and state records and found evidence of inadequate oversight for the state's composting industry. In October 2011, brothers Armando Ramirez, 16, and Heladio Ramirez, 22, were fatally poisoned by hydrogen sulfide gas, which is often released from sewage, while cleaning out a storm water drain at the Community Recycling & Resource Recovery facility near Bakersfield, California. William Harless reported that although composting fa-

cilities have been cited for serious health and safety violations, no government agency was regularly monitoring Community Recycling for hydrogen sulfide, and the facility was not on Cal/OSHA's radar.

William Harless, "Growth of composting strains oversight of industry." California Watch, March 7, 2012.

http://californiawatch.org/dailyreport/growth-composting-strains-oversight-industry-15166

In the Washington, DC region, the Washington Post interviewed Metrobus drivers and learned about an easy-to-overlook health hazard: inadequate time and facilities for bus drivers to take bathroom breaks. Reporter Dana Hedgpeth talked to Amalgamated Transit Local 689 President Jackie Jeter and learned that Jeter "hears of at least one incident each guarter where a Metrobus operator has developed a problem, usually a urinary tract infection, related to having to wait too long to use a bathroom." Drivers may or may not have time to use restrooms during layovers between routes. A workaround used often by drivers in the past - stopping by a federal office building and using their facilities - has become harder as building security has tightened.

Dana Hedgpeth, "Metrobus drivers say tight schedules don't leave enough time for bathroom breaks." Washington Post, December 30, 2011

http://www.washingtonpost.com/local/commuting/metrobus-drivers-say-tight-schedules-dont-leave-enough-room-for-bathroom-breaks/2011/12/22/gIQAZLdbQP_story.html

No one is better positioned to make comparisons between OSHA's and MSHA's inspection systems than the *Charleston (WV) Gazette's*Ken Ward Jr. He did exactly that in stories examining worker fatalities at several West Virginia companies. The paper's readers are familiar with federal inspectors' frequent presence at the state's coal mines, but with Ward's reporting, they learned that a decade may pass before some large plants ever see an OSHA inspector. Those infrequent inspections may come only after a worker is killed on the

job. On the Gazette's blog Sustained Outrage, Ward has kept readers apprised of the U.S. Chemical Safety Board's activities, several of which involve worksites in West Virginia;

the love-hate relationship between chemical workers in Nitro, West Virginia and their employer Monsanto; and the Obama Administra-

Los Angeles District Attorney Charges UCLA in Burn Death of Lab Worker

Efforts to improve workplace health and safety often focus on passing legislation, but the extent to which lawbreakers are cited and prosecuted also influences employers' policies and practices. The death of University of California Los Angeles (UCLA) lab assistant Sheri Sangji is just one of many occupational fatalities that resulted from inadequate employer safety practices – but, unlike most work-related deaths in the US, it has resulted in felony charges against those involved.

Sheri Sangji, 23, had been working for only three months in the laboratory of UCLA chemistry professor Patrick Harran,



UCLA lab assistant Sheri Sangji, 23, was an avid soccer player and participated in a Los Angeles women's soccer league. She is shown here at a soccer tournament shortly before her January 2010 death.

PhD when she suffered severe burns from tert-butyllithium, a substance the spontaneously ignites when exposed to air. She died 18 days later from her injuries.

A year after the tragedy, Cal/OSHA's Bureau of Investigations recommended that Professor Harran and the University of California Board of Regents be charged with involuntary manslaughter and felony labor code violations. In December 2011, the Los Angeles District Attorney filed felony charges against Harran and the Board of Regents. The counts included violations of occupational safety standards adopted by California OSHA on hazardous chemicals in laboratories and training on their safe use, on personal protective equipment, and on emergency response procedures. Felony charges against the University of California regents were dropped in July 2012 when the University system agreed to implement extensive safety measures and establish a scholarship in Sangji's name. Harran is due back in court in early September 2012.

In an in-depth July 2012 article about this case, the Center for Public Integrity's Jim Morris reported that criminal repercussions are not unprecedented in California; between 2001 and 2011, Cal/OSHA referred 486 cases, most of them worker deaths, to district attorneys, and 174 of them resulted in criminal charges. "You know, we have put owners of companies, supervisors, foremen in jail," Cal/OSHA chief Ellen Widess told Morris. "That is noticed. We're definitely looking for these cases to make ... an impression, leave nothing unspoken and unclear about the severity of the punishment that will be meted out." http://www.publicintegrity.org/2012/07/27/10313/landmark-worker-death-case-continues-against-ucla-chemistry-professor

tion's broken promise to address the hazard of combustible dust.

Ken Ward, Jr., "OSHA hadn't inspected fatal plant since 2000." Charleston (WV) Gazette, September 19, 2011.

Sustained Outrage blog: http://blogs.wvgazette.com/watchdog/

http://wvgazette.com/News/201109191293?page= 2&build=cache In Pennsylvania, *The Morning Call* interviewed current and former workers at Amazon.com's **Lehigh Valley warehouse**. They told of conditions inside a sweltering, high-pressure environment. Spencer Soper painted a vivid picture of workers in an environment "where temperatures soar on hot summer days, production rates are difficult to achieve, and the permanent jobs sought by many temporary workers hired by an outside agency are tough to get." His story was picked up by several

Reporters Document the Toll of "Ghost Policies" in North Carolina

The Charlotte, North Carolina *News & Observer* investigated and reported on the deceptive practice of some businesses that misclassify their employees as contractors, with consequences that can be devastating for workers and costly for law-abiding businesses and the state. Journalists Mandy Locke and David Raynor reported that at least 30,000 firms in the state should have workers' compensation insurance for their employees, but don't. Some construction companies deceive insurers by claiming they have no employees, allowing them to purchase a "ghost policy" of bare-bones insurance coverage. About 16,000 high-risk-industry employers in North Carolina have these policies.

Law-abiding business owners find themselves competing on an un-level playing field with the cheaters who buy ghost policies, pay their workers under the table, and evade state, federal, and unemployment taxes. When one of these companies' workers is injured on the job, the medical costs and financial consequences fall on the worker's family and government services. Clemente Hernandez Gonzalez suffered a life-altering spinal cord injury at work, but it's unclear who will pay his expected \$8 million in lifetime medical care costs, because his employer didn't list him on a workers' compensation policy. The employer admits he took a risk when he decided to erroneously classify his work-



Whitman Masonry owner Doug Burton plays by the rules, but knows far too many of his competitors cheat the system.

ers as independent contractors – and he has now lost his business. He says, "It tears me up know [Hernandez is] paralyzed from the neck down."

The News & Observer team also provides examples of firms that hide behind layers of subcontractors, violating labor and tax laws for years, yet still receive tens of millions in government contracts for construction projects. Equally troubling is the inability or unwillingness of the state agencies and lawmakers to address employee misclassification and the resulting cascade of social and economic consequences.

http://www.newsobserver.com/tags/?tag=Ghost+Workers

national media outlets, and complaints from customers poured in to the company, prompting it to provide further details about working conditions and the numbers of full-time and temporary employees at the warehouse in question.

Spencer Soper, "Inside Amazon's Warehouse: Lehigh Valley workers tell of brutal heat, dizzying pace at online retailer." The Morning Call, September 18, 2011.

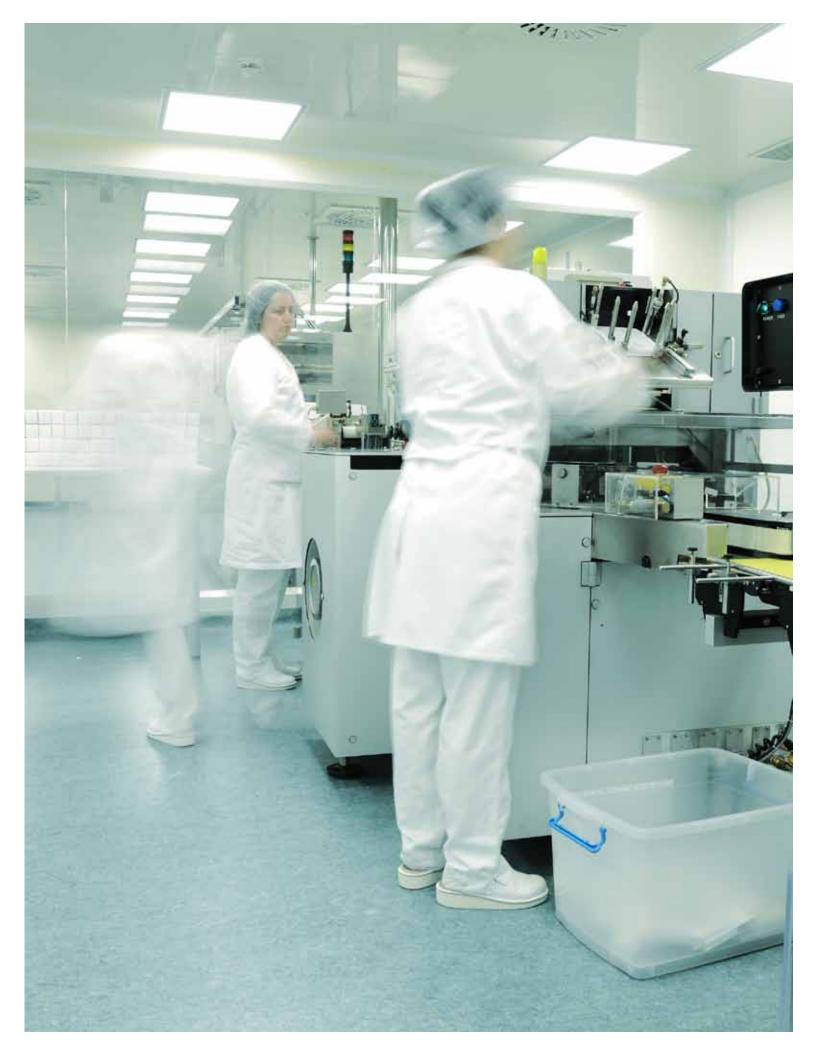
http://www.mcall.com/news/local/mc-allentown-amazon-complaints-20110917,0,7937001,full.story

The Year Ahead

We do not know what kinds of changes the 2012 elections will bring. It is likely that workers and their advocates will have to continue defending our imperfect but necessary regulatory system against political attacks. It is shameful that thousands of workers are killed on the job each year and thousands more are injured and sickened, but the figures may rise far higher if current laws and enforcement efforts are weakened.

State and local efforts are likely to be where we see actual improvements in working conditions. Worker centers, COSH groups, and other community-based organizations are helping workers become powerful advocates for justice and dignity, in efforts that address related concerns like wage theft and unsafe work practices simultaneously. Bolstered by research and news stories that document the human and financial costs of unsafe workplaces, cities and states are adopting laws and regulations to prevent occupational injuries and illnesses. Across the country, reporters, researchers, workers, victims' families, faith organizations, and local groups, plus better-known national advocacy organizations and unions, are learning more about workplace problems and coming together to address them.

This report is our first annual overview of U.S. occupational health and safety activities. Until all workplaces are, in the words of the Occupational Safety and Health Act, "free from recognized hazards that are causing or are likely to cause death or serious physical harm" to workers, we will have more to report.



Appendix: Peer-Reviewed Research on Occupational Health & Safety Topics (Summer 2011 through August 2012)

Parental involvement with their working teens. Runyan CW, Vladutiu CJ, Schulman MD, Rauscher KJ. *J Adolesc Health. 2011 Jul;49(1):84-6.*

http://www.ncbi.nlm.nih.gov/pubmed/21700162

The nature of occupational violence against taxicab drivers. Gilbert B. *Public Health Nurs.* 2011 Jul-Aug;28(4):335-48.

http://www.ncbi.nlm.nih.gov/pubmed/21736612

Increasing incidence of malignant mesothelioma after exposure to asbestos during home maintenance and renovation. Olsen NJ, Franklin PJ, Reid A, de Klerk NH, Threlfall TJ, Shilkin K, Musk B. *Med J Aust.* 2011 Sep 5;195(5):271-4. http://www.ncbi.nlm.nih.gov/pubmed/21895596

Job activities and respiratory symptoms among farmworkers in North Carolina. Mirabelli MC, Hoppin JA, Chatterjee AB, et al. *Arch Environ Occup Health*. 2011;66(3):178-82.

http://www.ncbi.nlm.nih.gov/pubmed/21864106

Persistence of multiple illnesses in World Trade Center rescue and recovery workers: a cohort study. Wisnivesky JP, Teitelbaum SL, Todd AC, et al. *Lancet*. 2011 Sep 3;378(9794):888-97. http://www.ncbi.nlm.nih.gov/pubmed/21890053

The persistent gap in health-care coverage between low- and high-income workers in Washington State: BRFSS, 2003-2007. Fan ZJ, Anderson NJ, Foley M, Rauser E, Silverstein BA. *Public Health Rep.* 2011 Sep-Oct;126(5):690-9. http://www.ncbi.nlm.nih.gov/pubmed/21886329

A qualitative investigation of Hispanic construction worker perspectives on factors impacting worksite safety and risk. Roelofs C, Sprague-Martinez L, Brunette M, Azaroff L. *Environ Health.* 2011 Sep 30;10:84. http://www.ncbi.nlm.nih.gov/pubmed/21962128

A 21st century approach to assessing the protection of workers' health. Rosskam E. *Work.* 2011;38(3):265-78.

http://www.ncbi.nlm.nih.gov/pubmed/21447887

Medical care surrounding work-related back injury claims among Washington State Union Carpenters, 1989-2003. Kucera KL, Lipscomb HJ, Silverstein B. *Work*. 2011;39(3):321-30. http://www.ncbi.nlm.nih.gov/pubmed/21709368

Promoting job safety for workers with intellectual disabilities: the staying safe at work training curriculum. Dewey R. *New Solut*. 2011;21(4):591-601.

http://www.ncbi.nlm.nih.gov/pubmed/22202591

National trends in occupational injuries before and after 1992 and predictors of workers' compensation costs. Bhushan A, Leigh JP. *Public Health Rep.* 2011 Sep-Oct;126(5):625-34. http://www.ncbi.nlm.nih.gov/pubmed/21886322

Protecting disaster responder health: lessons (not yet?) learned. Newman DM. *New Solut*. 2011;21(4):573-90.

http://www.ncbi.nlm.nih.gov/pubmed/22202590

Work-related mild-moderate traumatic brain injury and the construction industry. Liu M, Wei W, Fergenbaum J, Comper P, Colantonio A. *Work.* 2011;39(3):283-90.

Coal dust exposure and mortality from ischemic heart disease among a cohort of U.S. coal miners. Landen DD, Wassell JT, McWilliams L, Patel A. *Am J Ind Med.* 2011 Oct;54(10):727-33.

http://www.ncbi.nlm.nih.gov/pubmed/21761428

Incidence of workers compensation indemnity claims across socio-demographic and job characteristics. Du J, Leigh JP. *Am J Ind Med.* 2011 Oct;54(10):758-70.

Injuries among solid waste collectors in the private versus public sectors. Bunn TL, Slavova S, Tang M. *Waste Manag Res.* 2011 Oct;29(10):1043-52.

http://www.ncbi.nlm.nih.gov/pubmed/21746757

Injuries to hired crop workers in the United States: a descriptive analysis of a national probability survey. Wang S, Myers JR, Layne LA. *Am J Ind Med.* 2011 Oct;54(10):734-47. http://www.ncbi.nlm.nih.gov/pubmed/21692097

Longitudinal assessment of noise exposure in a cohort of construction workers. Neitzel RL, Stover B, Seixas NS. *Ann Occup Hyg.* 2011 Oct;55(8):906-16.

http://www.ncbi.nlm.nih.gov/pubmed/21825303

Effects of parkinsonism on health status in welding exposed workers. Harris RC, Lundin JI, Criswell SR, Hobson A, Swisher LM, Evanoff BA, Checkoway H, Racette BA. *Parkinsonism Relat Disord*. 2011 Nov;17(9):672-6. http://www.ncbi.nlm.nih.gov/pubmed/21724446

Nonfatal occupational injury rates and musculoskeletal symptoms among housekeeping employees of a hospital in Texas. Salwe K, Kumar S, Hood J. *J Environ Public Health.* 2011;2011:382510.

http://www.ncbi.nlm.nih.gov/pubmed/21776437

Collaboration between infection control and occupational health in three continents: a success story with international impact. Yassi A, Bryce EA, Breilh J, Lavoie MC, Ndelu L, Lockhart K, Spiegel J. *BMC Int Health Hum Rights*. 2011 Nov 8;11 Suppl 2:S8. http://www.ncbi.nlm.nih.gov/pubmed/22166059

Work-related falls from ladders – a follow-back study of US emergency department cases. Lombardi DA, Smith GS, Courtney TK, Brennan MJ, Kim JY, Perry MJ. *Scand J Work Environ Health*. 2011 Nov;37(6):525-32. http://www.ncbi.nlm.nih.gov/pubmed/21670941

Living and working safely: challenges for migrant and seasonal farmworkers. Arcury TA, Quandt SA. *N C Med J.* 2011 Nov-Dec;72(6):466-70. http://www.ncbi.nlm.nih.gov/pubmed/22523856

*Economic burden of occupational injury and illness in the United States. Leigh JP. *Milbank Q.* 2011 Dec;89(4):728-72.

http://www.ncbi.nlm.nih.gov/pubmed/22188353

Group medical claims as a source of information on worker health and potentially work-related diseases. Bushnell PT, Li J, Landen D. *J Occup Environ Med.* 2011 Dec;53(12):1430-41. http://www.ncbi.nlm.nih.gov/pubmed/22076036

Implementation and adoption of mechanical patient lift equipment in the hospital setting: The importance of organizational and cultural factors. Schoenfisch AL, Myers DJ, Pompeii LA, Lipscomb HJ. *Am J Ind Med.* 2011 Dec;54(12):946-54.

http://www.ncbi.nlm.nih.gov/pubmed/22068725

Preventing eye injuries among citrus harvesters: the community health worker model. Monaghan PF, Forst LS, Tovar-Aguilar JA, et al. *Am J Public Health.* 2011 Dec;101(12):2269-74. http://www.ncbi.nlm.nih.gov/pubmed/22021291

This study is described in the Section I of this report.

Respiratory protective equipment, mask use, and respiratory outcomes among World Trade Center rescue and recovery workers. Antao VC, Pallos LL, Shim YK, et al. *Am J Ind Med.* 2011 Dec;54(12):897-905.

http://www.ncbi.nlm.nih.gov/pubmed/21932428

Work-related injuries and illnesses reported by world trade center response workers and volunteers. Perritt KR, Herbert R, Levin SM, Moline *J. Prehosp Disaster Med.* 2011 Dec;26(6):401-7.

http://www.ncbi.nlm.nih.gov/pubmed/22559304

An aging workforce and injury in the construction industry. Schwatka NV, Butler LM, Rosecrance JR. *Epidemiol Rev.* 2012 Jan;34(1):156-67.

http://www.ncbi.nlm.nih.gov/pubmed/22173940

*Association between poor sleep, fatigue, and safety outcomes in emergency medical services providers. Patterson PD, Weaver MD, Frank RC, et al. *Prehosp Emerg Care*. 2012 Jan;16(1):86-97.

http://www.ncbi.nlm.nih.gov/pubmed/22023164

Employer provision of personal protective equipment to Latino workers in north Carolina residential construction. Grzywacz JG, Quandt SA, Mills T, et al. *New Solut*. 2012 Jan 1;22(2):175-90.

http://www.ncbi.nlm.nih.gov/pubmed/22776579

Increased rates of asthma among World Trade Center disaster responders. Kim H, Herbert R, Landrigan P, et al. *Am J Ind Med.* 2012 Jan;55(1):44-53.

http://www.ncbi.nlm.nih.gov/pubmed/22068920

Occupational eye injuries experienced by migrant farmworkers. Quandt SA, Schulz MR, Talton JW, Verma A, Arcury TA. *J Agromedicine*. 2012 Jan;17(1):63-9.

http://www.ncbi.nlm.nih.gov/pubmed/22191504

Young worker safety in construction: Do family ties and workgroup size affect hazard exposures and safety practices? Rauscher KJ, Myers DJ, Runyan CW, Schulman M. *Work*. 2012 Jan 1;42(4):1-12.

http://www.ncbi.nlm.nih.gov/pubmed/22523046

Safety climate and workplace violence prevention in state-run residential addiction treatment centers. Lipscomb JA, London M, Chen YM, Flannery K, Watt M, Geiger-Brown J, Johnson JV, McPhaul K. *Work*. 2012;42(1):47-56

http://www.ncbi.nlm.nih.gov/pubmed/22635149

Evaluating progress in reducing workplace violence: trends in Washington State workers' compensation claims rates, 1997-2007. Foley M, Rauser E. *Work.* 2012;42(1):67-81. http://www.ncbi.nlm.nih.gov/pubmed/22635151

Carpal tunnel syndrome and its relationship to occupation: a meta-analysis. Barcenilla A, March LM, Chen JS, Sambrook PN. *Rheumatology (Oxford)*. 2012 Feb;51(2):250-61. http://www.ncbi.nlm.nih.gov/pubmed/21586523

*Fatal exposure to methylene chloride among bathtub refinishers - United States, 2000-2011. MMWR Morb Mortal Wkly Rep. 2012 Feb 24;61(7):119-22.

http://www.ncbi.nlm.nih.gov/pubmed/22357403

Has European Union legislation to reduce exposure to chromate in cement been effective in reducing the incidence of allergic contact dermatitis attributed to chromate in the UK? Stocks SJ, McNamee R, Turner S, Carder M, Agius RM. *Occup Environ Med.* 2012 Feb;69(2):150-2.

http://www.ncbi.nlm.nih.gov/pubmed/21849347

Piloting a personal protection equipment distribution program among Chicago day laborers. Contreras E, Buchanan S. *Am J Ind Med.* 2012 Feb;55(2):159-66.

[♦]This study is described in the Section I of this report.

*Poultry processing work and respiratory health of Latino men and women in North Carolina. Mirabelli MC, Chatterjee AB, Arcury TA, et al. *J Occup Environ Med.* 2012 Feb;54(2):177-83.

http://www.ncbi.nlm.nih.gov/pubmed/22237034

12-h or 8-h shifts? It depends. Ferguson SA, Dawson D. *Sleep Med Rev.* 2012 Feb 1. http://www.ncbi.nlm.nih.gov/pubmed/22306236

Identification of work-related injuries in a State Trauma Registry. Sears JM, Bowman SM, Silverstein BA, Adams D. *J Occup Environ Med.* 2012 Mar;54(3):356-62.

http://www.ncbi.nlm.nih.gov/pubmed/22361989

Musculoskeletal injuries among hospital patient care staff before and after implementation of patient lift and transfer equipment. Schoenfisch AL, Lipscomb HJ, Pompeii LA, et al. *Scand J Work Environ Health*. 2012 March. http://www.ncbi.nlm.nih.gov/pubmed/22396049

Occupational injury surveillance using the Washington State Trauma Registry. Sears JM, Bowman SM, Adams D, Silverstein BA. J Occup Environ Med. 2011 Nov;53(11):1243-50. http://www.ncbi.nlm.nih.gov/pubmed/22068129

Association between perceived union connection and upper body musculoskeletal pains among unionized construction apprentices. Kim SS, Perry MJ, Okechukwu CA. *Am J Ind Med.* 2012 April.

http://www.ncbi.nlm.nih.gov/pubmed/22544333

On the recurrence of occupational injuries and workers' compensation claims. Galizzi M. *Health Econ.* 2012 April.

http://www.ncbi.nlm.nih.gov/pubmed/22539203

*The prevalence of carpal tunnel syndrome in Latino poultry-processing workers and other Latino manual workers. Cartwright MS, Walker FO, Blocker JN, et al. *J Occup Environ Med.* 2012 Feb;54(2):198-201.

http://www.ncbi.nlm.nih.gov/pubmed/22258161

Short sleep duration among workers – United States, 2010. *MMWR Morbidity and Mortality Weekly Rep.* 2012 Apr 27;61(16):281-5. http://www.ncbi.nlm.nih.gov/pubmed/22534760

States with low non-fatal injury rates have high fatality rates and vice-versa. Mendeloff J, Burns R. *Am J Ind Med.* 2012 Apr 2. doi: 10.1002/aiim.22047.

http://www.ncbi.nlm.nih.gov/pubmed/22473632

Use of statewide electronic emergency department data for occupational injury surveillance: a feasibility study in Massachusetts. Davis LK, Hunt PR, Hackman HH, et al. *Am J Ind Med.* 2012 Apr:55(4):344-52.

http://www.ncbi.nlm.nih.gov/pubmed/22125024

Worker populations at risk for work-related injuries across the life course. Kachan D, Fleming LE, LeBlanc WG, et al. *Am J Ind Med.* 2012 Apr;55(4):361-6.

http://www.ncbi.nlm.nih.gov/pubmed/22170632

*Workers' compensation benefits and shifting costs for occupational injury and illness. Leigh JP, Marcin JP. *J Occup Environ Med.* 2012 Apr;54(4):445-50.

http://www.ncbi.nlm.nih.gov/pubmed/22446573

Enhancing surveillance of injuries and disease among agricultural youth. Stallones L. *J Agromedicine*. 2012;17(2):94-108.

http://www.ncbi.nlm.nih.gov/pubmed/22490024

Chronic back pain among older construction workers in the United States: a longitudinal study. Dong XS, Wang X, Fujimoto A, Dobbin R. *Int J Occup Environ Health*. 2012 Apr-Jun;18(2):99-109.

http://www.ncbi.nlm.nih.gov/pubmed/22762489

Disposal of sharps medical waste in the United States: impact of recommendations and regulations, 1987-2007. Perry J, Jagger J, Parker G, Phillips EK, Gomaa A. *Am J Infect Control*. 2012 May;40(4):354-8.

[♦]This study is described in the Section I of this report.

Dump truck-related deaths in construction, 1992-2007. McCann M, Cheng MT. *Am J Ind Med.* 2012 May;55(5):450-7.

http://www.ncbi.nlm.nih.gov/pubmed/22113947

Evaluation of direct workers' compensation costs for musculoskeletal injuries surrounding interventions to reduce patient lifting. Lipscomb HJ, Schoenfisch AL, Myers DJ, Pompeii LA, Dement JM. *Occup Environ Med.* 2012 May;69(5):367-72.

http://www.ncbi.nlm.nih.gov/pubmed/22199366

Fatal injuries among grounds maintenance workers: United States, 200 – 2008. MMWR Morb Mortal Wkly Rep. 2011 May 6;60(17):542-6.

http://www.ncbi.nlm.nih.gov/pubmed/21544043

Fifteen years of occupational and environmental health projects support in Brazil, Chile, and Mexico: A report from Mount Sinai School of Medicine ITREOH program, 1995-2010. Peres F, Claudio L. *Am J Ind Med.* 2012 May 16. doi: 10.1002/aiim.22066.

http://www.ncbi.nlm.nih.gov/pubmed/22593011

Healthcare cost usage for hospitalised injuries sustained in industrial settings in the USA. Lander L, Shah RK, Li Y, Mahalingam-Dhingra A, Smith LM, Sorock G. *Inj Prev.* 2012 May. http://www.ncbi.nlm.nih.gov/pubmed/22627781

Leukemia among male construction workers in California, 1988-2007. Luckhaupt SE, Deapen D, Cress R, Schumacher P, Shen R, Calvert GM. *Leuk Lymphoma*. 2012 May. http://www.ncbi.nlm.nih.gov/pubmed/22563817

Lung cancer risk among construction workers in California, 1988-2007. Calvert GM, Luckhaupt S, Lee SJ, Cress R, Schumacher P,

Shen R, Tak S, Deapen D. *Am J Ind Med.* 2012 May;55(5):412-22.

http://www.ncbi.nlm.nih.gov/pubmed/22237930

*Lung Cancer and Elemental Carbon Exposure in Trucking Industry Workers. Garshick E, Laden F, Hart JE, et al. *Environ Health Perspect*. 2012 May 31.

http://www.ncbi.nlm.nih.gov/pubmed/22739103

* Multisource surveillance system for work-related burns. Kica J, Rosenman KD. *J Occup Environ Med.* 2012 May;54(5):642-7. http://www.ncbi.nlm.nih.gov/pubmed/22513658

A new estimate of the impact of OSHA inspections on manufacturing injury rates, 1998-2005. Haviland AM, Burns RM, Gray WB, Ruder T, Mendeloff J. *Am J Ind Med.* 2012 May. doi: 10.1002/ajim.22062.

http://www.ncbi.nlm.nih.gov/pubmed/22566135

Occupational coccidioidomycosis in California: outbreak investigation, respirator recommendations, and surveillance findings. Das R, McNary J, Fitzsimmons K, et al. *J Occup Environ Med.* 2012 May;54(5):564-71.

http://www.ncbi.nlm.nih.gov/pubmed/22504958

A qualitative evaluation of owner and worker health and safety beliefs in small auto collision repair shops. Parker DL, Bejan A, Brosseau LM. *Am J Ind* Med. 2012 May;55(5):474-82. http://www.ncbi.nlm.nih.gov/pubmed/22392733

*Randomized government safety inspections reduce worker injuries with no detectable job loss. Levine DI, Toffel MW, Johnson MS. *Science*. 2012 May 18;336(6083):907-11. http://www.ncbi.nlm.nih.gov/pubmed/22605775

A systematic review of the effectiveness of occupational health and safety training. Robson LS, Stephenson CM, Schulte PA, et al. Scand J Work Environ Health. 2012 May;38(3):193-208. http://www.ncbi.nlm.nih.gov/pubmed/22045515

*3-D jobs and health disparities: The health implications of Latino chicken catchers' working conditions. Quandt SA, Arcury-Quandt AE, Lawlor EJ, et al. *Am J Ind Med.* 2012 May 22. doi: 10.1002/ajim.22072.

[♦]This study is described in the Section I of this report.

Work-related asthma—38 states and District of Columbia, 2006-2009. *MMWR Morb Mortal Wkly Rep.* 2012 May 25;61(20):375-8. http://www.ncbi.nlm.nih.gov/pubmed/22622093

Work safety climate, musculoskeletal discomfort, working while injured, and depression among migrant farmworkers in North Carolina. Arcury TA, O'Hara H, Grzywacz JG, et al. *Am J Public Health*. 2012 May;102 Suppl 2:5272-8.

http://www.ncbi.nlm.nih.gov/pubmed/22401520

Setting an agenda for advancing young worker safety in the U.S. and Canada. Runyan CW, Lewko J, Rauscher K. *Public Health Rep.* 2012 May-Jun;127(3):246-52.

http://www.publichealthreports.org/issueopen.cfm?articleID=2838

Adoption of safety eyewear among citrus harvesters in rural Florida. Monaghan PF, Bryant CA, McDermott RJ, et al. *J Immigr Minor Health*. 2012 Jun;14(3):460-6. http://www.ncbi.nlm.nih.gov/pubmed/21643727

*The diesel exhaust in miners study: a cohort mortality study with emphasis on lung cancer. Attfield MD, Schleiff PL, et al. *J Natl Cancer*

http://www.ncbi.nlm.nih.gov/pubmed/22393207

Inst. 2012 Jun 6;104(11):869-83.

* Fatal falls among older construction workers. Dong XS, Wang X, Daw C. *Hum Factors*. 2012 Jun;54(3):303-15.

http://www.ncbi.nlm.nih.gov/pubmed/22768635

Health-related quality of life among adults with work-related asthma in the United States. Knoeller GE, Mazurek JM, Moorman JE. *Qual Life Res.* 2012 June.

http://www.ncbi.nlm.nih.gov/pubmed/22661107

Immigrant workers and worker's compensation: the need for reform. Rebecca Smith JD. *Am J Ind Med.* 2012 Jun;55(6):537-44. http://www.ncbi.nlm.nih.gov/pubmed/22457221

*Paid Sick Leave and Nonfatal Occupational Injuries. Asfaw A, Pana-Cryan R, Rosa R. *Am J Public Health.* 2012 Jun 21. http://www.ncbi.nlm.nih.gov/pubmed/22720767

Pneumoconiosis and advanced occupational lung disease among surface coal miners--16 states, 2010-2011. *MMWR Morb Mortal Wkly Rep.* 2012 Jun 15;61(23):431-4. http://www.ncbi.nlm.nih.gov/pubmed/22695382

Prevalence of dermatitis in the working population, United States, 2010 National Health Interview Survey. Luckhaupt SE, Dahlhamer JM, Ward BW, Sussell AL, Sweeney MH, Sestito JP, Calvert GM. *Am J Ind Med.* 2012 June. doi:10.1002/ajim.22080. http://www.ncbi.nlm.nih.gov/pubmed/22674651

Reexamining workers' compensation: a human rights perspective. Boden Ll. *Am J Ind Med.* 2012 Jun;55(6):483-6. http://www.ncbi.nlm.nih.gov/pubmed/22570018

10-Year prospective study of noise exposure and hearing damage among construction workers. Seixas NS, Neitzel R, Stover B, et al. *Occup Environ Med.* 2012 June. http://www.ncbi.nlm.nih.gov/pubmed/22693267

The US/Mexico Border: A Binational Approach to Framing Challenges and Constructing Solutions for Improving Farmworkers' Lives. Rosales C, Ortega MI, De Zapien JG, et al. *J Environ Res Public Health*. 2012 Jun;9(6):2159-74. http://www.ncbi.nlm.nih.gov/pubmed/22829796

Worker injuries and safety equipment in Ohio nursing homes. Stanev S, Bailer J, Straker JK, Mehdizadeh S, Park RM, Li H. *J Gerontol Nurs*. 2012 Jun;38(6):47-56.

^{*}The impact of regulatory enforcement and consultation visits on workers' compensation claims incidence rates and costs, 1999-2008. Foley M, Fan ZJ, Rauser E, Silverstein B. *Am J Ind Med.* 2012 Jun 19. doi: 10.1002/ajim.22084. http://www.ncbi.nlm.nih.gov/pubmed/22715086

^{*}This study is described in the Section I of this report.

Age in relation to worker compensation costs in the construction industry. Schwatka NV, Butler LM, Rosecrance JC. *Am J Ind Med.* 2012 Jul 10. doi: 10.1002/ajim.22093. [Epub ahead of print]

http://www.ncbi.nlm.nih.gov/pubmed/22782837

Analysis of Ethnic Disparities in Workers' Compensation Claims Using Data Linkage. Friedman LS, Ruestow P, Forst L. *J Occup Environ Med.* 2012 July.

http://www.ncbi.nlm.nih.gov/pubmed/22776807

The burden of full and subsyndromal posttraumatic stress disorder among police involved in the World Trade Center rescue and recovery effort. Pietrzak RH, Schechter CB, Bromet EJ, et al. *J Psychiatr Res.* 2012 Jul;46(7):835-42. http://www.ncbi.nlm.nih.gov/pubmed/22464942

Determinants of early-stage hearing loss among a cohort of young workers with 16-year follow-up. Marlenga B, Berg RL, Linneman JG, Wood DJ, Kirkhorn SR, Pickett W. Occup Environ Med. 2012 Jul;69(7):479-84. http://www.ncbi.nlm.nih.gov/pubmed/22447644

*Employer, use of personal protective equipment, and work safety climate: Latino poultry processing workers. Arcury TA, Grzywacz JG, Anderson AM, et al. *Am J Ind Med.* 2012 July. http://www.ncbi.nlm.nih.gov/pubmed/22847579

Engaging Latino Farmworkers in the Development of Symbols to Improve Pesticide Safety and Health Education and Risk Communication. Leprevost CE, Storm JF, Blanchard MR, Asuaje CR, Cope WG. *J Immigr Minor Health*. 2012 July.

http://www.ncbi.nlm.nih.gov/pubmed/22833257

The epidemiology of fatal occupational traumatic brain injury in the U.S. Tiesman HM, Konda S, Bell JL. *Am J Prev Med.* 2011 Jul;41(1):61-7.

http://www.ncbi.nlm.nih.gov/pubmed/21665064

Identifying work-related motor vehicle crashes in multiple databases. Thomas AM, Thygerson SM, Merrill RM, Cook LJ. *Traffic Inj Prev.* 2012 Jul;13(4):348-54.

http://www.ncbi.nlm.nih.gov/pubmed/22817549

*Job Strain, Job Insecurity, and Incident Cardiovascular Disease in the Women's Health Study: Results from a 10-Year Prospective Study. Slopen N, Glynn RJ, Buring JE, et al. *PLoS One*. 2012;7(7):e40512. Epub 2012 Jul 18. http://www.ncbi.nlm.nih.gov/pubmed/22815754

The prevalence of selected potentially hazardous workplace exposures in the US: Findings from the 2010 National Health Interview Survey. Calvert GM, Luckhaupt SE, Sussell A, Dahlhamer JM, Ward BW. *Am J Ind Med.* 2012 Jul 20. doi: 10.1002/ajim.22089. [Epub ahead of print]

Oh, their aching backs!: occupational injuries in nursing assistants. Graham P, Dougherty JP. *Orthop Nurs.* 2012 Jul;31(4):218-23. http://www.ncbi.nlm.nih.gov/pubmed/22828524

http://www.ncbi.nlm.nih.gov/pubmed/22821700

Physician-patient communication regarding asthma and work. Mazurek JM, Storey E. *Am J Prev Med*. 2012 Jul;43(1):72-5. http://www.ncbi.nlm.nih.gov/pubmed/22704750

Prevalence of hearing loss in the United States by industry. Masterson EA, Tak S, Themann CL, et al. *Am J Ind Med.* 2012 July. http://www.ncbi.nlm.nih.gov/pubmed/22767358

*Upper body musculoskeletal symptoms of Latino poultry processing workers and a comparison group of Latino manual workers. Schulz MR, Grzywacz JG, Chen H, et al. *Am J Ind Med.* 2012 July. http://www.ncbi.nlm.nih.gov/pubmed/22847516

This study is described in the Section I of this report.

*Work Organization and Musculoskeletal Health: Clinical Findings From Immigrant Latino Poultry Processing and Other Manual Workers. Grzywacz JG, Arcury TA, Mora D, Anderson AM, Chen H, Rosenbaum DA, Schulz MR, Quandt SA. *J Occup Environ Med.* 2012 July.

http://www.ncbi.nlm.nih.gov/pubmed/22821071

Buyer beware: personnel selling nail guns know little about dangerous tools. Lipscomb HJ, Nolan J, Patterson D, Fullen M, Takacs BC, Pompeii LA. *Am J Ind Med.* 2011 Aug:54(8):571-8.

http://www.ncbi.nlm.nih.gov/pubmed/21472746

Evaluation of a nationally funded state-based programme to reduce fatal occupational injuries. Chaumont Menendez C, Castillo D, Rosenman K, Harrison R, Hendricks S. *Occup Environ Med.* 2012 August.

http://www.ncbi.nlm.nih.gov/pubmed/22864251

Exploratory study of the occupational health and health-seeking of migrant and seasonal farmworkers on the U.S.-Mexico border. Weigel MM, Armijos RX. *J Immigr Minor Health.* 2012 Aug;14(4):648-56.

http://www.ncbi.nlm.nih.gov/pubmed/21789560

Longitudinal lung function declines among California flavoring manufacturing workers. Kreiss K, Fedan KB, Nasrullah M, et al. *Am J Ind Med.* 2012 Aug;55(8):657-68.

http://www.ncbi.nlm.nih.gov/pubmed/21932425

Needlestick injuries among nursing staff: association with shift-level staffing. Patrician PA, Pryor E, Fridman M, Loan L. *Am J Infect Control*. 2011 Aug;39(6):477-82.

http://www.ncbi.nlm.nih.gov/pubmed/21612843

*Occupational injury and work organization among immigrant Latino residential construction workers. Grzywacz JG, Quandt SA, Marín A, et al. *Am J Ind Med.* 2012 Aug;55(8):698-706. doi: 10.1002/ajim.22014. Epub 2012 Jan 20.

http://www.ncbi.nlm.nih.gov/pubmed/22266800

Social marketing to plan a fall prevention program for Latino construction workers.

Menzel NN, Shrestha PP. *Am J Ind Med.* 2012

Aug;55(8):729-35.

http://www.ncbi.nlm.nih.gov/pubmed/22495878

Stress and cognitive function in Latino Farmworkers. Nguyen HT, Quandt SA, Grzywacz JG, et al. *Am J Ind Med.* 2012 Aug;55(8):707-13. http://www.ncbi.nlm.nih.gov/pubmed/22431234

Workforce implications of injury among home health workers: evidence from the national home health aide survey. McCaughey D, McGhan G, Kim J, Brannon D, Leroy H, Jablonski R. *Gerontologist*. 2012 Aug;52(4):493-505. http://www.ncbi.nlm.nih.gov/pubmed/22217463

Work safety climate and safety practices among immigrant Latino residential construction workers. Arcury TA, Mills T, Marín AJ, et al. *Am J Ind Med.* 2012 Aug;55(8):736-45. http://www.ncbi.nlm.nih.gov/pubmed/22544480

The epidemiology of chemical eye injuries. Blackburn J, Levitan EB, Maclennan PA, Owsley C, McGwin G Jr. *Curr Eye Res.* 2012 Sep;37(9):787-93.

http://www.ncbi.nlm.nih.gov/pubmed/22667345

Nonoccupational and Occupational Injuries to US Workers With Disabilities. Price J, Shi J, Lu B, Smith GA, Stallones L, Wheeler KK, Xiang H. *Am J Public Health*. 2012 Sep;102(9):e38-46. http://www.ncbi.nlm.nih.gov/pubmed/22742060

This study is described in the Section I of this report.



