Sponsored by

NIOSH @ 40 — Making work safer through science – since 1971

CDC Workplace Safety and Health

UIC SCHOOL OF PUBLIC HEALTH
UNIVERSITY OF ILLINOIS AT CHICAGO

Co-sponsored by

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health

NIEHS National Institute of Environmental Health Sciences

OSHA® Occupational Safety and Health Administration

EPA

AOEC

ACOEM American College of Occupational and Environmental Medicine

IOM The Institute of Medicine of Chicago

CSTE Council of State and Territorial Epidemiologists

ASSE 100 years 1911–2011

APHA American Public Health Association

Photos courtesy of Earl Dotter.

First national conference on

Eliminating Health and Safety Disparities at Work

Chicago, Illinois · September 14–15, 2011

Conference Sponsors

National Institute for Occupational Safety and Health (NIOSH)

University of Illinois at Chicago (UIC) School of Public Health

National Institute of Environmental Health Sciences (NIEHS)

Occupational Safety and Health Administration (OSHA)

Environmental Protection Agency (EPA)

Association of Occupational and Environmental Clinics (AOEC)

American College of Occupational and Environmental Medicine (ACOEM)

Institute of Medicine of Chicago (IOMC)

Council of State and Territorial Epidemiologists (CSTE)

American Society of Safety Engineers (ASSE)

American Public Health Association (APHA)

Table of Contents

Welcome Letter

Welcome to the First National Conference on Eliminating Health and Safety Disparities at Work!

In 2009, an estimated 3.28 million workers in private industry and 862,900 in state and local government experienced a nonfatal occupational injury or illness. Also in 2009, 2.6 million workers were treated in emergency departments for occupational injuries and illnesses, and 4,551 workers died as a result of an occupational injury. These numbers, which are already too high, likely underestimate the true impact as many additional work-related injuries and illnesses are never recorded.

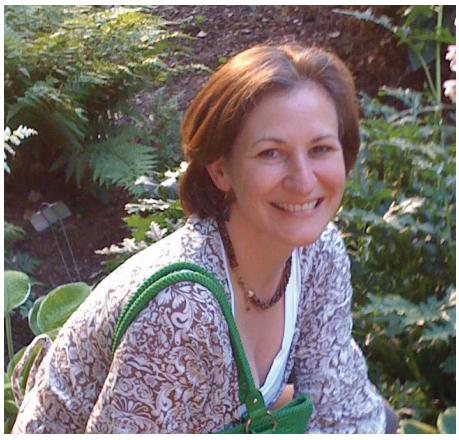
Because racial and ethnic minority and immigrant and low-wage workers are more likely to be employed in the most hazardous industries, they experience a disproportionate burden of injuries and illnesses. Other social and economic factors such as job insecurity, temporary employment, language and literacy barriers and discrimination on the job may further widen these disparities.

In response to these concerns, many in the health and safety community have designed innovative education, training and other intervention programs to reduce health and safety disparities at work. Others have suggested new policy initiatives that would reduce the underlying causes of some disparities.

This conference brings together a diverse group of researchers, safety and health trainers and practitioners, state and local health officials and community groups, workers, and employers—all of whom are concerned with eliminating health disparities.

We hope that this conference will promote active discussion and exchange of your ideas and generate strategies and recommendations for eliminating health and safety disparities at work.

Thank you for coming. Work hard and enjoy the diverse and exciting group we have brought together for this conference. Together we can work toward social justice and achieve greater health equity for all workers!



Andrea Steege

Sherry Baron

AGENDA

Day 1: Wednesday, September 14

7:00–9:00 a.m. Continental Breakfast

9:00–9:15 a.m. Welcome: J. Nadine Gracia MD, MSCE, Chief Medical Officer
Office of the Assistant Secretary for Health, US Department of Health and Human Services

9:15–9:45 a.m. Opening Keynote: Eliminating Health and Safety Disparities at Work
Linda Rae Murray MD, MPH, President, American Public Health Association and Chief Medical Officer, Cook County Department of Public Health

9:45–10:15 a.m. Icebreaker Activity: Who is Here and What Do We Hope to Accomplish?

10:15–10:45 a.m. Presentation of Five White Papers: 15-minute Summaries

10:45–11:00 a.m. Break

11:00–11:45 a.m. Presentation of Five White Papers (continued)

11:45–1:00 p.m. (Box Lunch Provided)
Worker Health and Safety: Voices of the Workers
Moderated by Jack Doppelt, Northwestern University
Workers from several workplaces and backgrounds discuss how health and safety issues have affected their lives

1:00–2:30 p.m. Concurrent Breakouts, Session I
White paper reactions from invited stakeholders and facilitated discussion among conference participants

2:30–3:45 p.m. Poster Session with refreshments

3:45–5:15 p.m. Concurrent Breakouts: Session II

7:00–10:00 p.m. Reception: Our Work, Our Food
Chicago History Museum 1601 N. Clark St.
Refreshments Provided, Cash Bar Available

Day 2: Thursday September 15

7:00–9:00 a.m. Continental Breakfast

9:00–10:00 a.m. Plenary Panel: Interventions that Work
Moderated by Sharon Beard, NIEHS
Presentations of four successful programs:
- Uyen Nguyen, Owner, Isabella Nail Salon, Oakland, California
- Chris Harley, National Healthy Nail Salon Alliance
- Faith Wiggins, Director, Bill Michelson Home Care Education Fund, 1199 Service Employees International Union
- Barbara Rahke, Philadelphia Area Project on Occupational Safety and Health (PhilaPOSH)
- Paulette Detillier, Era Environmental and Safety, Kansas City, Missouri, NIEHS Minority Worker Training Project
- Edwin Ayala, Graduate of Minority Worker Training Program, OAI, Inc.

10:00–10:15 a.m. Break

10:15–11:30 a.m. Concurrent Breakout Session: How Do We Tie It All Together?

11:45–12:45 p.m. (Box Lunch Provided)
Summary of Breakouts and Next Steps
Brief Update from the European Union's Report, Social Determinants of Health: Employment and working conditions, Ellen Rosskam, WHO Regional Office for Europe

12:45–3:00 p.m. Federal Panel on Environmental Justice Listening Session: What is the Role of the Work Environment in a Comprehensive EJ Program?
Moderated by Admiral James Galloway, MD, Region 5 Health Administrator, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services
Brief Remarks:
- Margaret Kitt, MD, MPH, Deputy Director for Program, NIOSH
- Michael G. Connors, Regional Administrator, OSHA
- Representative to be announced, EPA

Community Reactions and Input
J. Nadine Gracia, MD, MSCE: Closing and Next Steps

Wednesday, September 14, 7:00 -10:00 pm

Reception: Our Work, Our Food

Celebration of the Centennial of the Deneen Commission on the Extent of Occupational Illness in Illinois, Dr. Alice Hamilton, Lead Investigator

Chicago History Museum

The Naphtali ben Yakov Pritzker American History Wing

1601 N. Clark Street, Chicago 60614

Tour the Facing Freedom exhibit:

What does freedom mean? To whom should freedom be extended? How are denied rights gained? These are some of the questions the American history exhibition explores. Based on the central idea that the history of the United States has been shaped by conflicts over what it means to be free, this exhibition uses images, artifacts, and interactivity to explore familiar and not-so-familiar stories from the nation's past. From women's suffrage and the formation of unions, to Japanese internment, to a local school boycott, the exhibition highlights some of the ways Americans have struggled over the true meaning of freedom.

The Chicago History Museum is located at the south end of Lincoln Park, on the corner of Clark Street and North Avenue.

Walking Directions – 1.7 miles from the Doubletree Magnificent Mile

1. Start at the Doubletree Magnificent Mile, 300 E. Ohio St, Chicago IL 60611
2. Head west on E. Ohio St. toward N. Fairbanks Ct. 0.3 mi
3. Turn right onto N. Rush St. 0.7 mi
4. Continue onto N. State St. 0.1 mi
5. Turn left onto W. Division St. 0.1 mi
6. Turn right onto N. Clark St. Museum will be on the right 0.5 mi

By Taxi

Fare to the History Museum is approximately $10.00.

STATE OF ILLINOIS

EXECUTIVE DEPARTMENT

Proclamation

WHEREAS, Dr. Alice Hamilton, a pioneer in occupational health in the United States, was a physician and activist who dedicated her life to addressing human rights and social justice issues of workers; and,

WHEREAS, Dr. Alice Hamilton engaged in a lifelong pursuit of identifying, controlling, and preventing hazardous exposures in workplaces in early twentieth century United States, creating the foundation for the discipline of industrial hygiene; and,

WHEREAS, Dr. Alice Hamilton distinguished herself through a career of documenting what she believed was worthwhile to improve the lives of workers, particularly focusing on the themes of disciplined inquiry, evidence, objectivity, and gathering information through firsthand experiences in recognizing, assessing and controlling workplaces; and,

WHEREAS, workers' health, and especially low-income workers' health, was among the central concerns of the social reform movement to improve public health in the early 20th century; and,

WHEREAS, in 1910, Illinois Governor Charles Deneen created the Deneen Commission, charged with determining the extent of occupational illness in Illinois by defining and finding poisonous occupations and gaining access to those workplaces. Dr. Alice Hamilton was the lead investigator and general supervisor of the Commission; and,

WHEREAS, the outcome of the investigation, reported to the Governor in January 1911, had sentinel importance in Illinois and led to recommendations for legislation establishing an Illinois Occupational Disease Law, requiring employers working with certain hazardous materials to provide safety measures and monthly medical examinations; and,

WHEREAS, Dr. Alice Hamilton spent the next 25 years of her life after the conclusion of the Commission's work investigating, researching, educating, and reporting on hazardous work around the United States; and,

WHEREAS, this year marks the 100th anniversary of the publication of the Report on Occupational Disease in Illinois written by Dr. Alice Hamilton. This investigation made Illinois a model for other states and the federal government and resulted in great advancements in the field of occupational health and safety; and,

WHEREAS, in celebration of this milestone anniversary and in honor of Dr. Alice Hamilton and her legacy, the Illinois Occupational and Environmental Health and Safety Education and Research Center, Division of Environmental and Occupational Health Sciences, School of Public Health, University of Illinois at Chicago is planning a series of events in September, including an afternoon conference to be held September 13, 2011 at the Jane Addams Hull House Museum:

THEREFORE, I, Pat Quinn, Governor of the State of Illinois, do hereby proclaim September 13, 2011 as ***DR. ALICE HAMILTON DAY*** *in Illinois, in recognition of her lasting legacy and contributions to improving workplace health and safety in the Land of Lincoln and across the country.*

In Witness Whereof, *I have hereunto set my hand and caused the Great Seal of the State of Illinois to be affixed.*

Done at the Capitol, in the City of Springfield, this THIRTIETH *day of* JUNE*, in the Year of Our Lord two thousand and* ELEVEN*, and of the State of Illinois the one hundred and* NINETY-THIRD

Jesse White

SECRETARY OF STATE

Pat Quinn

GOVERNOR

The Role of the Work Environment in a Comprehensive EJ Program Listening Session

Thursday, September 15, 2011 at 12:45 p.m. • La Salle Ballroom
Doubletree Hotel Chicago Magnificent Mile, 300 E. Ohio Street, Chicago, Illinois

On September 14-15, 2011 in Chicago, the National Institute for Occupational Safety and Health (NIOSH), in partnership with the National Institute of Environmental Health Sciences (NIEHS), the Occupational Safety and Health Administration (OSHA) and EPA will bring together representatives from multiple disciplines to understand the social, cultural, and economic factors that create and perpetuate occupational health and safety disparities. The meeting will examine major research accomplishments and gaps and identify and share promising practices for eliminating disparities through innovative intervention programs.

Purpose and Scope

On the afternoon of Thursday, September 15th, the conference will conclude with an Interagency Working Group on Environmental Justice (EJ IWG) Town Hall meeting on environmental justice in the work environment to explore interagency solutions for alleviating health disparities in the workplace setting. Led by EPA, the EJ IWG includes several Federal agencies. Federal agency representatives will be prepared to listen to community concerns on work environment health issues. Participants from the occupational health disparities conference will share action steps and potential work environment interventions.

Who should attend?

Representatives from:
public health; community organizations; labor organizations; academia; state, local, and tribal governments; private sector organizations

Why attend?

Where people live, WORK, and play has an important role in our health. Environmental justice strives to address disproportionate environmental and human health burdens on minority and low-income populations.

Please RSVP to:

Sherry Baron
513-458-7159 • sbaron@cdc.gov
or
Andrea Steege
513-841-4538 • asteege@cdc.gov

NIOSH @ 40 Making work safer through science – since 1971

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health

NIEHS National Institute of Environmental Health Sciences

EPA

OSHA® Occupational Safety and Health Administration

Individuals with disabilities who need sign language interpreters and/or reasonable accommodation to participate in this event should contact Sherry Baron at voice: (513) 458-7159, or email: sbaron@cdc.gov. TTY users should contact the Federal Relay Service at 1-866-377-8642. Requests should be made at least 5 days in advance of the event.

Conference Speakers

J. Nadine Gracia, MD, MSCE, is the Chief Medical Officer in the Office of the Assistant Secretary for Health at the U.S. Department of Health and Human Services. A pediatrician with epidemiology training, Dr. Gracia has a portfolio that includes child and adolescent health, disaster preparedness, environmental health, global health, Haiti recovery, and the White House Council on Women and Girls. In 2008-2009, she was one of 14 White House Fellows. Previously, Dr. Gracia was a clinical instructor and general pediatrics research fellow at the Children's Hospital of Philadelphia. She received a Master of Science in Clinical Epidemiology at the University of Pennsylvania and her medical degree from the University of Pittsburgh School of Medicine. Dr. Gracia completed pediatrics residency and served as Chief Pediatrics Resident at Children's Hospital of Pittsburgh. A first generation Haitian-American, she earned a Bachelor of Arts with Honors in French at Stanford University.

J. Nadine Gracia

Linda Rae Murray MD, MPH, has spent her career serving the medically under-served. She has worked in a variety of settings, including practicing Occupational Medicine at a Workers' Clinic in Canada and serving as Residency Director for Occupational Medicine at Meharry Medical College and as Bureau Chief for the Chicago Department of Health under Mayor Harold Washington. Dr. Murray has also worked as Medical Director of the federally funded health center serving Cabrini Green Public Housing Project in Chicago. Currently she is the Chief Medical Officer for the Cook County Department of Public Health. She practices as a general internist at Woodlawn Health Center, is an attending physician in the Division of Occupational and Environmental Medicine at Cook County Hospital and an adjunct Assistant Professor at the University of Illinois School of Public Health (Occupational and Environmental Health and the Health Policy and Administration departments). An active member of a wide range of local and national organizations, she has been a member of the Board of Scientific Counselors for NIOSH; the Board of Directors of Trinity Health, a large health system; a member of the National Advisory Committee on Occupational Safety and Health; and is currently President of the American Public Health Association. Dr. Murray has been a voice for social justice and health care as a basic human right for more than 40 years.

Linda Rae Murray

Jack Doppelt

Jack Doppelt is Professor, Medill School of Journalism, Northwestern University. As publisher of Immigrant Connect and RefugeeLives, Jack's current focus is in advancing an online network for immigrants, refugees, their families and communities. He is co-author of Nonvoters: America's No Shows and The Journalism of Outrage: Investigative Reporting and Agenda Building in America. At Medill, he has served as both Acting Dean and Associate Dean, and as director of the Medill global journalism program for 11 years. His expertise is media law and ethics, and the reporting of legal affairs. He founded and for 10 years was the publisher of On the Docket (a web site on the U.S. Supreme Court). A graduate of Grinnell College and the University of Chicago Law School, Doppelt clerked for a judge on the Illinois Supreme Court before becoming an investigative reporter and news producer.

Sharon D. Beard

Sharon D. Beard, MS, is an industrial hygienist in the Worker Education and Training Program at the National Institute of Environmental Health Sciences (NIEHS) of the NIH within the Department of Health of Human Services (DHHS). Sharon is primarily responsible for coordinating, evaluating, and improving the training in the areas of hazardous materials and waste, emergency response, and nuclear weapons/radiation, especially through the Minority Worker Training Program (MWTP) initiative. She continues to facilitate and coordinate translational research, education and training through the NIEHS Partnership for Environmental Public Health (PEPH) Program and environmental justice activities within the DHHS Environmental Justice Strategic Planning Working Group.

Barbara Rahke

Barbara Rahke retired from the national staff of the United Auto Workers in 2003 where she had led many successful national organizing campaigns. In 2005 she became Director of PhilaPOSH. Since then she has worked with many local unions in the greater Philadelphia area to develop effective organizing strategies involving health and safety. In 2007 she led PhilaPOSH to focus on fall protection for residential construction workers through aggressive outreach and training.

Javier Garcia Hernandez

Javier Garcia Hernandez, trainer, immigrated to the U.S. in 1997 and became a member of the Laborers Union in 1998. He worked heavy highway construction while doing extensive volunteer work on workers' rights. In 2009 he began working with PhilaPOSH as a trainer and organizer. His focus is to organize immigrant construction workers and day laborers around safety and health as well as within the Latino community at large.

Uyen Nguyen is an entrepreneur and mother of two children. As the owner of Isabella Nail Spa, an eco-friendly nail salon in Montclair, CA, that uses only non-toxic nail and beauty products, Uyen aims to create a relaxing and healthy nail salon for both her clients and employees. The innovative and eco-friendly spa has been featured and recognized on multiple media outlets, including CBS5, Contra Costa Times, and The New York Times, for its green products and calming and hygienic environment. Uyen is exploring ways to improve the spa-going experience for her clients and to promote safer and greener nail salon practices. Prior to becoming an entrepreneur, Uyen worked as an engineer at a semiconductor company for more than 10 years.

Uyen Nguyen

Christine Soyong Harley is the Policy and Programs Director for the National Asian Pacific American Women's Forum (NAPAWF). In this capacity, Chris oversees the policy and advocacy efforts of NAPAWF, including the Reproductive Justice, Immigrant Rights, and Nail Salon advocacy programs. Chris started her social justice career as a community organizer but most recently worked as a Project Manager for the Assistant Secretary of Programs at the Illinois Department of Human Services (DHS). In her role as Project Manager, she was responsible for many of DHS' immigrant integration initiatives. She has a Bachelor of Arts in Politics from Oberlin College and a Masters from the University of Chicago's Harris School of Public Policy. In 2009, she was named a Future Leader by the Overseas Korea Foundation.

Chris Harley

Faith Wiggins, Director, Bill Michelson Home Care Education Fund, 1199 Service Employees International Union. She has been director since February 2002. Faith oversees grant and collective bargaining funded training programs for homecare workers and also serves on the Training and Employment Funds (TEF) leadership team. Before joining the TEF Faith was the director of Workforce Development at Cooperative Homecare Associates, a worker owned homecare agency. Faith has over 20 years of leadership experience in the healthcare, employment, community development, and financial services sectors. Faith earned a Bachelor of Arts degree from Barnard College, Columbia University, and received a HUD Fellowship to complete a Master of Science in City and Regional Planning, concentrating in economic development at Pratt Institute.

Faith Wiggins

Paulette Detillier

Paulette Detillier has over 25 years of experience in the environmental industry, specializing in the fields of asbestos, lead, hazardous waste, PCBs and mold. She has served as the President/CEO of Era Environmental and Safety, Inc., a SBA 8(a) WBE/DBE Environmental since 1991 coordinating operations from inception to completion. She has performed oversight and project management on government and public projects including DOE, EPA, DOT on the federal level, KDHE, MO DNR, MO DH on the state level and KCMO on the local level with values from as small as several hundred dollars to over eight million dollars. She has over 15 years of experience managing NIEHS Brownfields/Minority Worker Training Programs in the Kansas City, MO/KS area. She is a certified AHERA Inspector, HUD Lead Contractor Supervisor, OSHA Compliance Officer, Risk Assessor, Journey Level Cable Splicer, Asbestos Contractor and MO Air Sampling Professional. She serves as a Board Member on Kansas City Metropolitan Second Chance and Lion's Hiram Young Community Center. She has a passion for working with hard to serve populations and assisting others in pursing entrepreneurial opportunities.

Edwin Ayala

Edwin Ayala, who has worked in the renewable energy and weatherization fields for over three years, has a passion for home weatherization with the incorporation of renewable energies, specifically solar power. He completed the Minority Worker Training Program at OAI, Inc., the Building Energy Technology Program at Wilbur Wright College, and training at the Midwest Renewable Energy Association. He currently is working towards his bachelor degree in Environmental Sciences from Northeastern Illinois University and completing an internship with Earth Wind Solar Energy. He also provides training and tutoring for OAI, Inc. and Instituto del Progreso Latino trainees who are preparing for careers in environmental remediation, weatherization, and renewable energy. He plans to become a NABCEP certified solar thermal installer in the coming year.

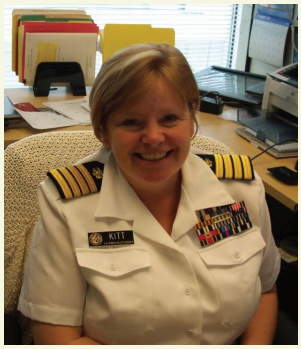
Ellen Rosskam

Ellen Rosskam, PhD, MPH, works at the nexus of global public health and policy development. A recognized expert and active researcher in global health and social protection, Ellen has worked with more than 40 countries providing policy advice and managing projects in developing/transitional economies. She has developed social policy/health recommendations for more than 100 countries. Author of numerous books and scientific publications, Ellen is Principal, Rosskam International Development Consulting, presently engaged in a European review of the social determinants of health and the health divide – the social gradient of work. Dr. Rosskam is also Senior Advisor, Global Health Programme, Graduate Institute for International and Development Studies, Geneva; Adjunct Professor, Work Environment Department, University of Massachusetts, Lowell; Senior Fellow, Faculty of Health/Medical Sciences, University of Surrey, England; Senior Scholar, Woodrow Wilson International Center for Scholars, Washington, D.C.; Vice President and Foreign Advisor, Center for Institutional Reform, Russia; and International Advisor, Terve Eesti HIV/AIDS Foundation, Estonia.

James M. Galloway

James M. Galloway, MD, FACP, FACC, FAHA, Assistant US Surgeon General; Rear Admiral, United States Public Health Service; Acting Regional Director for US HHS, Regional Health Administrator, Region V, Chicago, Illinois. Dr. Galloway has dedicated his career to prevention, improving access and providing high quality care to underserved populations. In 2007, after more than 22 years in caring for American Indians and Alaska Natives, he was selected as the US Department of Health and Human Services Regional Health Administrator for Region V. In this capacity, he serves as the lead federal physician, the principal federal public health official, and the senior USPHS officer for Region V. His leadership responsibilities include disease prevention, health promotion, women's and minority health, the reduction of health disparities, the fight against HIV/AIDS, the Medical Reserve Corps, pandemic influenza, and emergency planning and response. Recently, he was selected for the second time as the US Department of Health and Human Services Acting Regional Director for Region V. Dr. Galloway is currently an Adjunct Professor of Medicine at the Northwestern College of Medicine in the Departments of Cardiology and Preventive Medicine.

Margaret Kitt



Margaret Kitt MD, MPH, Deputy Director for Program, NIOSH, received a Bachelor of Science from The State University of New York at Albany, a Doctor of Medicine from the University of Rochester School of Medicine and Dentistry, and a Master of Public Health from the University of Washington. She served in the U.S. Air Force as a Senior Flight Surgeon for 14 years. In 2002, she joined CDC and the U.S. Public Health Service at the NIOSH Division of Respiratory Disease Studies and in 2007 became the NIOSH Associate Director for Emergency Preparedness and Response. In 2008, she served as the HHS Office of Global Health Affairs Coordinator for the HHS Secretary's Afghanistan Health Initiative. Dr Kitt returned to NIOSH in 2009 as the Deputy Director for Program.

Michael G. Connors

Michael G. Connors, Regional Administrator, OSHA, has served in that role since April 1988. Before that, he held various management positions in the Region, including Deputy Regional Administrator, Assistant Regional Administrator for Technical Support, and Supervisor of Industrial Hygiene in the Cincinnati Area Office. He started with the agency as an industrial hygienist in 1975. In 1996, he served as Deputy Assistant Secretary for OSHA. Mr. Connors is a Senior Executive Fellow of Harvard University, John F. Kennedy School of Government. He has a MS in Environmental Health from University of Cincinnati, Kettering Laboratory and is certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene. He has received numerous awards, including the Presidential Rank Award for Distinguished Service and The Phillip Arnow Award for superior performance and service to the Department of Labor, the Department's highest career service recognition.

Acknowledgements

For this conference, many people contributed in a myriad of ways. Below is a list of those who organized the conference's five white papers. For a complete list of contributors to the white papers, see the executive summary handouts.

White Paper Lead Organizers

Approaches to Education and Training

Michael Flynn

Michael Flynn, Public Health Advisor with the Training Research and Evaluation Branch of NIOSH, is the project officer for several multi-year field studies involving immigrant workers on topics from construction safety to tuberculosis. This research focuses on developing and evaluating tailored interventions promoting occupational safety and health as well as identifying pre- and post-training conditions that facilitate and hinder occupational safety among immigrant workers. Mike has an extensive history of working with the Latino community, including for non-governmental organizations in Guatemala, Mexico, Ohio, and California on projects ranging from rural development to human rights. He has a Master's degree in Anthropology from the University of Cincinnati.

Tom O'Connor

Tom O'Connor, MPH, is the Executive Director of the National Council for Occupational Safety and Health, the umbrella organization for 20 state and local Coalitions on Occupational Safety and Health. He has more than 20 years of experience working as an advocate for workers' health and safety. He also coordinates the national policy advocacy efforts of the Protecting Workers Alliance, a broad-based group of worker health and safety advocates. Tom has written extensively on issues affecting immigrant workers, including a 2003 study commissioned by the National Academy of Sciences entitled "Reaching Spanish-Speaking Workers and Employers with Occupational Safety and Health Information."

Discrimination, Abuse, and Harassment in the Workplace: The Contribution of Workplace Injustice to Occupational Health Disparities

Cassandra Okechukwu

Cassandra Okechukwu, ScD, MSN, is an assistant professor in the Department of Society, Human Development and Health at the Harvard School of Public Health. Her research focuses on the influence of work environments on the health, health behaviors, and families of disadvantaged workers. First trained in occupational health through the Johns Hopkins University NIOSH Educational and Research Center, Cassandra is a nurse with a doctoral degree in Public Health.

Kerry Souza, ScD, MPH, is an epidemiologist in the Surveillance Branch of NIOSH's Division of Surveillance, Hazard Evaluations and Field Studies. She is interested in improving surveillance of work-related illnesses among disparity groups and the identification of new sources of data for describing the occupational health of workers in general. Kerry received her doctorate in Epidemiology through the Harvard School of Public Health NIOSH Education and Research Center.

Kerry Souza

Effects of Social, Economic, and Labor Policies on Occupational Health Disparities

Celeste Monforton, DrPH, MPH, is a professorial lecturer in the Department of Environmental & Occupational Health at the George Washington University School of Public Health & Health Services. Her research includes evaluation of worker health and safety laws and policies, and their effectiveness in protecting workers from illness, disability and death. From 1991 to 2001, Celeste was a federal employee with the U.S. Department of Labor. She volunteers in leadership positions with the American Public Health Association and on the advisory board of United Support and Memorial for Workplace Fatalities.

Celeste Monforton

C. Eduardo Siqueira, MD, ScD, MPH, is an assistant professor in the Department of Community Health and Sustainability at the University of Massachusetts Lowell, where he has researched the political economy of the migration of hazards between developed and developing countries, healthcare workers' work environment policy issues, and environmental justice for immigrants. Eduardo was the principal investigator of Project COBWEB (Collaboration for a Better Work Environment for Brazilians) in Massachusetts and a co-investigator in Promoting Health and Safety Employment (PHASE) in Health Care, which studied health disparities in injuries and illnesses among health care workers of health care facilities located in Eastern Massachusetts.

C. Eduardo Siqueira

Megan Gaydos, MPH, is a Planning and Policy Analyst at the San Francisco Department of Public Health. Megan works to advance health equity and well-being in the built and work environment through policy and data analysis, health impact assessment (HIA), participatory research, evaluation, and training. She recently completed HIAs of proposed state domestic worker legislation and local public housing redevelopment and supports multiple community-based projects to improve low-wage and immigrant work conditions.

Megan Gaydos

Health of the Low Income Workforce: Integrating Public Health and Occupational Health Approaches

Sherry Baron

Sherry Baron, MD, MPH, is the Coordinator for Occupational Health Disparities for the National Institute for Occupational Safety and Health. She is an occupational physician and has worked at NIOSH for 22 years. Sherry's projects have included using community-based participatory research to develop health and safety intervention for homecare workers and other low-wage workers. She is also conducting epidemiologic research examining the contribution of the work environment to cardiovascular diseases.

Sharon D. Beard

Sharon D. Beard, MS, is an industrial hygienist in the Worker Education and Training Program at the National Institute of Environmental Health Sciences (NIEHS) of the NIH within the Department of Health of Human Services (DHHS). Sharon is primarily responsible for coordinating, evaluating, and improving the training in the areas of hazardous materials and waste, emergency response, and nuclear weapons/radiation, especially through the Minority Worker Training Program initiative. She continues to facilitate and coordinate translational research, education and training through the NIEHS Partnership for Environmental Public Health Program and environmental justice activities within the DHHS Environmental Justice Strategic Planning Working Group.

Work Organization

Joseph G. Grzywacz

Joseph G. Grzywacz, PhD, is Professor of Family and Community Medicine and Associate Director for Research in the Wake Forest School of Medicine Center for Worker Health. Joe is a family scientist whose research program has two main foci: the organization of work, particularly as it pertains to everyday work and family life, and health disparities. He currently directs a research portfolio comprised of four R01 grants and two R21 grants funded by the Eunice Kennedy Shriver National Institute for Child Health and Development and the National Institute for Occupational Safety and Health.

Paul Landsbergis

Paul Landsbergis, PhD, MPH, an epidemiologist and labor educator, is Associate Professor in the Department of Environmental and Occupational Health Sciences, State University of New York-Downstate School of Public Health in Brooklyn, NY. He is a co-editor of The Workplace and Cardiovascular Disease (2000), the first textbook on the subject, and Unhealthy Work (2009), on work stress and health. Paul has served as a member of the National Research Council's Committee on the Health and Safety Needs of Older Workers and NIOSH's Intervention Effectiveness Research Team, and is a Research Associate at the Center for Social Epidemiology.

Conference Organizing Committee

Sherry Baron, NIOSH
Sharon Beard, NIEHS
Peter Dooley, LaborSafe
Chip Hughes, NIEHS
Carol Lloyd, contractor
Leslie Nickels, NIOSH
Ted Outwater, NIEHS
Andrea Steege, NIOSH
Deborah Weinstock, MDB, Inc.

Conference Planning Committee

Anasua Bhattacharya, NIOSH
Pietra Check, NIOSH
Kristin Cummings, NIOSH
Letitia Davis, Massachusetts Department of Public Health
Sheli DeLaney, NIOSH
Barry Eisenberg, American College of Occupational and Environmental Medicine and Institute of Medicine of Chicago
Donald Eggerth, NIOSH
Mike Flynn, NIOSH
Constance Franklin, NIOSH
Abay Getahun, NIOSH
James Grosch, NIOSH
Kathy Kirkland, Association of Occupational and Environmental Clinics
Cammie Chaumont Menendez, NIOSH
John Myers, NIOSH
Jackie Nowell, United Food and Commercial Workers International Union
Tom O'Connor, National Council for Occupational Safety and Health
Teri Palermo, NIOSH
Rene Pana-Cryan, NIOSH
Rashaun Roberts, NIOSH
Teresa Schnorr, NIOSH
Rosemary Sokas, OSHA
Jennifer Swanberg, University of Kentucky
SangWoo Tak, NIOSH

Local Organizing Committee: University of Illinois at Chicago School of Public Health

Joseph Zanoni
Jennifer McGowan
Marsha Love
Marilyn Bingham
Lorraine Conroy
Linda Forst

Creative and Technical Assistance

Mike Fitzgerald, AOEC web page
Chris Hobbs, Hobbs Designs
Reed La Botz, web design and development
Mark J. Senk, NIOSH twitter
Kathleen Connick, NIOSH Library
Stephanie Holmgren and Ruth Crowe, NIEHS Library

National Occupational Research Agenda (NORA) Travel Scholarship Winners

Thanks to the generosity of the following NORA Sectors and Cross Sector Councils, these conference participants have received travel scholarships based on their poster submissions:

NORA Economics Cross-Sector Program
Daniel Lichtenstein- Boris

NORA Healthcare and Social Assistance Sector Program
Jiaxin Wu

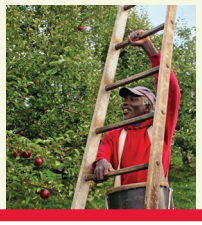
NORA Cancer, Reproductive, and Cardiovascular Research Program Cross-Sector Program
Rebecca Reindel

NORA Construction Sector Program
Barbara Rahke

NORA Wholesale and Retail Trade Sector Program
HeeKyoung Chun

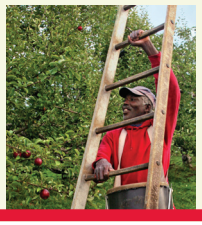
NORA Services Sector Program
Dolly John




Abstract Index




NIEHS Worker Training Programs: Training Disadvantaged Populations in Chicago, IL

Amanda Allen, OAI, Inc.
aallen@oaiinc.org

Tipawan T-Q Reed, OAI, Inc.; Alex Prentzas, OAI, Inc.; Montgomery Proffit, OAI, Inc.

Background and Objectives: The vision and mission of the National Institute of Environmental Health Sciences (NIEHS) Worker Education and Training Program (WETP) are to provide model health and safety training designed to protect workers and communities from exposure to hazardous materials and waste. As an NIEHS Hazardous Waste Worker Training (HWWT) and Minority Worker Training (MWT) Programs awardee since 1995, OAI Inc. has developed innovative new curricula to address evolving health & safety training needs of the disadvantaged and underrepresented populations we serve. OAI will highlight HWWT and MWT health & safety training programs in the Chicagoland area and their impact on low-skilled, unemployed or underemployed minority populations. Methods: Grounded in adult education traditions and best practices, OAI is a non-profit education and workforce development agency founded 34 years ago. Headquartered in Chicago's Loop and staffed by 23 diverse and seasoned professionals and support personnel, OAI currently delivers NIEHS-funded programs nationwide with key programs in 9 states (IL, MN, IN, KY, PA, ME, LA, KS, TX). OAI's mission is to enhance the quality of life and capacity of underserved individuals and their communities by applying innovative practices that contribute significantly to social-environmental equity, educational access, employment opportunities, economic self-sufficiency and self-determination. OAI conducts training for job seekers as well as workers who seek to upgrade their skills. OAI's programs target geographically and demographically underrepresented populations who are either already employed or who are being trained to work in a wide-range of environmental-related industries including emergency response, brownfields environmental cleanup, hazardous waste handling, lead abatement, asbestos removal, demolition, weatherization, and construction. Results: The HWWT program effectively provides OSHA CFR 1910: 120 training to protect approximately 3,000 first responders and hazardous waste workers annually and MWT Programs featured in the presentation enable low-skilled residents living in economically and environmentally depressed communities to learn to protect themselves and work safely. These programs seek to address all sectors by offering benefits to the community, residents, and businesses. The community benefits through increased community awareness and direct involvement in cleanup activities, resulting in environmental stewardship. Residents and workers benefit from improved health, reduced workplace accidents, increased employability skills, and the potential to obtain or advance in environmental employment, resulting in lower unemployment and increased worker protection. Contractors and businesses benefit from having a pool of trained local residents from which to find skilled and dependable employees. Highlights from OAI's training results, third party evaluation reports, and trainee success stories will be shared. Conclusion: Creating safe and healthy work environments is a critical issue, especially for disadvantaged, low-skilled populations who live in environmental justice communities. NIEHS job training programs address this concern through targeted recruitment and training initiatives for the most vulnerable workers.

OSHA Training Programs and Resources for Worker Safety and Health

James Barnes, OSHA Directorate of Training and Education
barnes.jim@dol.gov

Don Guerra, Kimberly Newell, Kimberly Mason, OSHA Directorate of Training and Education

This poster presentation will present the OSHA training programs and resources designed for the private sector. The programs focus on the development, delivery and sharing of occupational safety and health training and training materials for a variety of work forces. OSHA Training Institute (OTI) Education Centers: The OTI Education Centers are a national network of nonprofit organizations authorized by OSHA to deliver occupational safety and health training on behalf of DTE. There are currently 25 OTI Education Centers, comprised of 44 member organizations located throughout the United States. OTI Education Centers offer training courses designed for employers, managers, and workers. These courses include Outreach Training Program prerequisite, trainer and update courses on OSHA standards and topics such recordkeeping, ergonomics, machine guarding, confined space, excavation, electrical standards, and fall arrest systems. Outreach Training Program: The purpose of the OSHA Outreach Training Program is to train workers on their rights, employer responsibilities, how to file a complaint, and to identify, abate, avoid and prevent hazards on a job site. Although outreach training is voluntary, it is the principal way that OSHA participates in training workers in safety and health. Through OSHA s national network of OTI Education Centers, qualified safety professionals can become authorized OSHA Outreach trainers. In the past three years, over 2.2 million students have received training through this program. Susan Harwood Training Grant Program: The U.S. Department of Labor (DOL), Occupational Safety and Health Administration (OSHA) awards funds nonprofit organizations to provide occupational safety and health training and educational programs for workers and/or employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in the workplace, and to inform workers of their rights and employers of their responsibilities under the Occupational Safety and Health (OSH) Act. The grants typically target small businesses, non-English speaking, low literacy, young workers, hard-to-reach workers and workers in high-hazard industries. Resource Center Loan Program: The Resource Center offers occupational safety and health training videos for loan to OSHA employees, OSHA grantees, Consultation Programs, State Plan States, Voluntary Protection Program Sites, OTI Education Centers, Federal Agency Occupational Safety and Health Trainers, and OSHA Outreach Trainers. Training and grant produced materials are made available to help broaden employer and employee safety and health knowledge and reduce injuries and illnesses in the workplace. The Resource Center is a collection of over 600 training video covering more than 100 occupational safety and health subjects.

Role of Latino community health workers in construction safety intervention research

Maria Brunette, University of Massachusetts Lowell
maria_brunette@uml.edu

Doris Anziani, Promotoras Coordinator Proteccion en Construction Research Project; Sunilda Peguero, Juan Williams, Ceferina Williams, Eduardo Gonzales, Promotora Proteccion en Construction Research Project

1. Background and objectives A NIOSH-funded Community-Based Participatory Research (CBPR) project launched in 2007 at the University of Massachusetts Lowell provided the opportunity for academic researchers to partner and work closely with community health workers (promotores) in the city of Lawrence, Massachusetts, a city where the large majority of residents are of Latino origin. The project, aimed at promoting health and safety primarily among contractors, had a large initial multilevel needs assessment within the Latino working and living community followed by the intervention design and implementation phase. 2. Methods The Spanish-speaking, native-born Latinas and Latinos Promotores played a key role throughout the research activities. Their perspectives, opinions and feedback were considered part of the decision making process for conducting the research activities. For the most part a native-born Latina researcher facilitated the discussion sessions and this was perceived as a positive aspect not only due to the language comprehension but also for the cultural understanding aspect. The participatory methodology was respected throughout the various phases of the project. For the most part, all meetings and project documentation were produced in both Spanish and English. 3. Results Increased capacity building for both, academic and community researchers; Successful completion of need assessment phase; Improved project dissemination process to the Latino community via various mechanisms (charlas, social media, community gatherings) 4. Conclusions This CBPR project brought people from various disciplines and perspectives to address not only occupational safety and health issues but also other social-cultural factors inherent to a hard to reach low-income working population. Working together with Promotores benefited all including the Latino working community in Lawrence since safety & health awareness in the work environment was increased. Gain in knowledge and understanding of Latino workers realities was possible due to the work conducted by the Promotores.

Immigration, Work & Health: Critical perspectives from Latinas in the public health field

Maria Brunette, University of Massachusetts Lowell
maria_brunette@uml.edu

Diana Cortez Area Director and Regional Hispanic Coordinator for Region II OSHA; Deogracia Cornelio UCLA Labor Occupational Safety and Health Program; Doris Anziani Community health worker (Promotoras) coordinator Proteccion en Construccion Project - UMASS Lowell

The need to address the current safety and health inequalities for the hardworking Latino community in the U.S. is evident. Although the public health community is aware of the disproportional burden of fatality, injury and illness experienced by this vulnerable working group, issues behind the relationship between immigration, work and health have not been explored in depth. In this poster, perspectives from 4 Latino public health professionals are presented to raise a red flag about the realities and challenges facing Latino workers in the U.S. work environment and call for action to narrow health and safety disparities at work. Perspectives from a Latina scholar (Peru), a Latina safety and health director (Puerto Rico), a Latina adult/health educator (Dominican Republic), and a community health worker (Puerto Rico) were organized into seven critical areas. Shaped by our direct knowledge of the background of Latino immigrant workers and their current reality and developed from experience promoting safe and decent working conditions for this hard-to-reach worker population, these perspectives consider who Latino workers are and where they come from, including values and beliefs, and most importantly, the process of change and adaptation experienced as immigrants to this country. Although we conclude that reaching Latino and Latina workers in the U.S with appropriate research and practice mechanisms is a complex task, we strongly believe in the power of national and local orchestrated efforts to focus on this poorly understood and inadequately addressed reality. The seven perspectives include areas that are commonly simplified or insufficiently explored: 1. Educational levels of Latino workers (beliefs about Latinos being ignorant or incapable of learning, educational background in countries of origin); 2. Español? Aqui no hablamos español (language proficiency, confusion about types of Spanish, relationship to occupational health and safety literacy issues); 3. Hispanics are illegal residents (excuses to abuse or mistreat undocumented Latino workers, the psychosocial work environment, safety & health protections for all and Latino workers' awareness of rights); 4. The Latino culture, beliefs, and attitudes (we are not monolithic, what we bring here, the adaptation process, how the culture is being shaped in the U.S. work environment); 5. Hispanics are a disposable workforce (socio-economic reality of Latinos, immigration status and disposability, employers taking advantage of legal status of Latino workers and worker lack of knowledge of rights); 6. Hispanics are taking jobs away from American workers (some people feel they don't belong here, occupations filled by immigrant workers, Latino work ethics, H2B visa-temporary labor certification;) 7. A call for action (working with and for the community). Conclusions: We organize the points in 3 areas: a) Latinos are human beings too (decent and safe jobs in a time of immigrant scapegoating), a social justice issue; worker rights are human rights; b) Better for business? Vulnerability due to socio-economic status; and c) How could academic, professional and community organizations work together?

Si Se: Salud y Seguridad en el Trabajo Health and Safety Education for Forest Workers

Diane Bush, UC Berkeley Labor Occupational Health Program
dbush@berkeley.edu

Carl Wilmsen, Alliance of Forest Workers and Harvesters; Dinorah Barton-Antonio, UC Berkeley Labor Occupational Health Program; Andrea Steege, National Institute for Occupational Safety and Health

Background and Objectives: The purpose of this project is to create and evaluate a pilot lay health advisor, or promotora program targeting forest workers, many of whom are foreign-born guestworkers. The program will be evaluated for its effectiveness in 1) reaching forest workers; 2) increasing forest worker knowledge of specific things workers and employers can do to prevent injury and illness; 3) increasing workers' knowledge regarding job safety rights and how to use them; and 4) increasing workers' ability to address job-related health and safety problems. Forest work is some of the most dangerous work there is. Forest workers face many hazards on the job including falling branches, chain saw injuries, falling while working on slippery, uneven terrain, heat stress, exposure to gasoline (direct skin contact with the liquid as well as inhalation of the fumes), vehicular accidents during transportation to and from the work site, musculoskeletal disorders due to carrying heavy loads for long hours, and many other dangers. Although a few contractors provide extensive safety training to their workers, most workers do not receive any training whatsoever. Moreover, most workers do not know their rights. They are unaware of the laws entitling them to a safe work place and to medical care if they are injured. Many workers tell of delaying treatment for injuries on the job, and of tremendous difficulties in navigating the workers' compensation system. Methods: This promotora program is being developed as a pilot project for implementation during Summer 2011 among forest workers in southern Oregon, through a partnership between the Alliance of Forest Workers and Harvesters (a community worker center), the Labor Occupational Health Program at the University of California, Berkeley, and the National Institute for Occupational Safety and Health, with additional funding from a Susan B Harwood grant from federal OSHA. The pilot program will include training for several promotoras (family members of forest workers) to conduct training and outreach with at least 50 forest workers. Based on key concerns and issues identified in collaboration with forest workers, four 2-hour training workshops have been developed, covering workplace rights, outdoor hazards, chainsaw safety, and what to do if you are injured. Evaluation methods will include a short pre/post evaluation at each training session (combination of written and oral), and focus groups conducted 3-6 months after training. Results: Complete evaluation results will not be available until December 2011. Preliminary results will be reported at the conference.

Work Conditions and Organization of Work Create Occupational Health and Safety Hazards for Immigrant Chicken Catchers

Lourdes Carrillo, HOLA of Wilkes County
lcarrillous@yahoo.com

Antonio Marín, MA (Wake Forest University School of Medicine) Thomas A. Arcury, PhD (Wake Forest University School of Medicine) Alice E. Arcury-Quandt (Wake Forest University School of Medicine) Emma Lawlor (Wake Forest University School of Medicine) Sara A. Quandt, PhD (Wake Forest University School of Medicine)

Background and Objectives: Minority workers are unequally represented in dirty, dangerous and difficult (3-D) jobs. Despite publicity occasionally afforded these jobs, many 3-D jobs are occupied by few enough or invisible enough workers that they remain largely hidden from public notice. Chicken catching, gathering and caging chickens in confined animal feeding operations (CAFOs), is one 3-D job. Chicken catchers are a small proportion of the estimated 250,000 US poultry processing workers, a workforce increasingly composed of immigrant workers, about half from Latin American. Occupational injuries and illnesses in the industry as a whole are high. However, no data exist on occupational health risks of catchers. This study uses data from a qualitative, exploratory study to (1) describe the tasks performed by chicken catchers, (2) describe their organization of work, and (3) identify health and safety hazards they encounter. NIOSH Grant OH008335 Methods: Data come from 21 immigrant Latino chicken catchers from three poultry companies in North Carolina. Catchers were recruited by word of mouth in the community. The data were collected using in-depth interviews with 10 catchers; interviews were recorded, transcribed, and translated into English. Additional data come from shorter interviews collected by lay health advisors with 11 catchers. Results: Chicken catchers described their job as being difficult and physically demanding because of work speed, weight of the chickens, repetitiveness, and awkward postures of grabbing the chickens. They described their work place, chicken houses, as being dusty and noisy, with a strong odor and limited lighting. Floors are normally covered in chicken feces and flooded with water, turning it to mud. Safety risks include slips and falls, as well as being hit by forklifts transporting cages that obscure driver vision in darkened chicken houses. Workers display hand deformities, which they consider an embarrassing mark of their work. Some report drug abuse to tolerate pain. Catchers are organized as teams paid a set amount per 1000 chickens caught per day, creating collective pressure to work as quickly as possible. Veteran workers and faster workers set the pace. The companies demand perfect chickens and punish workers for damages. Conclusions: Occupational health hazards identified were environmental (dust, ammonia, noise, biohazards), physical (posture, hand deformities), and mental (embarrassment, drug use) occupational health hazards. Occupational safety hazards were indentified (machinery working in low light, mud on flooring, pace of work). Findings suggest the need for focused study of occupational health and safety among chicken catchers.

Thinking ecologically: A participatory research study of worker health and safety in Chinatown restaurants

Charlotte Chang, Labor Occupational Health Program, University of California, Berkeley
cychang@berkeley.edu

Pamela Tau Lee (Labor Occupational Health Program, UC Berkeley, ret.); Alicia Salvatore, DrPH (Stanford University); Niklas Krause, MD, PhD (UCLA); Feiyi Chen, Shaw San Liu, Alex Tom (Chinese Progressive Association); Megan E. Gaydos, MPH, Rajiv Bhatia, MD, MPH (San Francisco Department of Public Health); and Meredith Minkler, DrPH (UC Berkeley School of Public Health)

1. Background and Objective A community-based participatory research partnership based in San Francisco's Chinatown took a holistic, public health approach to investigating and addressing the health and safety of low-wage, immigrant restaurant workers and job conditions from 2007-2010. The partnership consisted of a grassroots organization/worker center and worker members, schools of public health and medicine, and the local department of public health. Informed by an ecological model of health, the partnership collected data on multiple levels of analysis (environmental, organizational, and individual) using different methods and a broad conception of immigrant worker health as part of and inseparable from the health of the larger community of Chinese immigrants in the city. 2. Methods Two research methods included a third-party observational checklist of conditions in 106 of the 108 restaurants in Chinatown and a survey of over 430 current and former Chinatown restaurant workers. Checklist questions focused on presence of required labor law postings, occupational hazards, and safety measures and equipment. Survey items included questions about physical and mental health status, working conditions, job strain, and contextual factors such as wages, housing, family responsibilities, health and social service utilization, job training needs, and civic participation. 3. Results Findings showed that work-related injuries, violations of fair and safe labor practices, and other socioeconomic and community conditions of concern were common among the samples. Of all restaurant workers surveyed, 48% had been burned, 40% had been cut, and 17% had slipped or fallen at work in the last 12 months. Forty percent did not receive any breaks during the day, and 64% did not receive any training. Half of all surveyed workers and 70% of kitchen workers and dishwashers did not receive the City's minimum wage, and three-quarters of those working more than 40 hours per week did not receive overtime pay. Responses regarding housing conditions, health care coverage, and levels of civic participation also suggested areas of additional vulnerability. From the observational checklist, it was learned that 65% of restaurants did not have any of the required labor law postings displayed, 62% had wet and greasy floors, under half (48%) had non-slip mats, and 82% did not have fully stocked first aid kits. 4. Conclusion Ecological perspectives and participation of worker community members in the project were critical to improving the comprehensiveness, quality, and community relevance of the research and to the subsequent development of action.

Training for Action: Motivating Nail Salon Workers and Owners to Adopt Safer Practices

Helen Chen, Labor Occupational Health Program, University of California, Berkeley
helenchen@berkeley.edu

Background Over the last twenty years, nail salon services have tripled and cosmetology is now one of the fastest growing professions in California. Currently, there are approximately 300,000 nail salon technicians in California, with anywhere from 59% to 80% estimated to be Vietnamese immigrants. On a daily basis, nail salon workers are exposed to solvents, glues, and other nail care products, some of which can cause cancer, respiratory problems, skin problems, and reproductive harm. In addition, salon workers perform detailed, repetitive work that can result in ergonomic injuries and are exposed to a range of infectious diseases. Nail salon workers are at greater risk for health issues related to their work because of language and cultural barriers, and lack of access to health care. Methods The Labor Occupational Health Program (LOHP) at the University of California at Berkeley partners with the California Healthy Nail Salon Collaborative (CHNSC) to train nail salon workers to adopt safe and healthy practices at work. LOHP developed new training materials for salon workers including a booklet that provides nail salon workers with practical, low-cost suggestions for keeping healthy and safe while giving manicures and pedicures. Flashcards were also developed featuring seven different stories that enable workers to practice speaking English in response to difficult health and safety situations. Using a training-of-trainers model, LOHP trained CHNSC members to provide health and safety training to workers. The training uses participatory activities to trigger discussions with workers about how to minimize chemical exposures, prevent ergonomic injuries, and reduce exposure to infectious diseases in nail salons. The program also provides critical information about workers' rights including how to report hazards to Cal/OSHA. Results Trainings are currently underway in the San Francisco Bay Area, Los Angeles, and Orange County. Trainers have adapted the training curriculum to fit their needs and have developed creative ways to engage workers in making salons safer. The flashcards are an important way for workers to both apply what they have learned but to also feel confident in communicating with clients in English about health and safety matters. An evaluation component is forthcoming; LOHP will observe a sample of the trainings and will also interview a sample of workers and trainers to assess the effectiveness of training and to document changes that were made in salons.

Youth and High-risk subsectors in Wholesale and Retail Trade

HeeKyoung Chun, CDC/NIOSH
hchun@cdc.gov

Vern Anderson, Paul Schulte

Background: The wholesale and retail trade (WRT) has a larger percentage of younger workers. However, little is known about the information on type of workplace health problems among younger workers in the WRT industry. The analyses focused on identifying demographic features of the workforce as well as on identifying the characteristics of the workers' injuries and illnesses in high-risk subsectors. Method: Both publically and non-publically available 2007-2009 datasets from the Bureau of Labor Statistics (BLS) including Survey of Occupational Injuries and Illnesses (SOII), Census of Fatal Occupational Injuries (CFOI), and Current Population Survey (CPS) were reviewed to identify injuries, illnesses, fatalities, and to determine the impact of new sector-focused information and interventions in various subsectors of WRT described by NAICS codes of the 4 or 5 digit levels. Results: During 2007- 2009, 22.3-22.5% of younger workforce (under 24 years of age) in the WRT. In 2009, 19.9% of WRT workers were under 24 years of age, compared with 12.6% for all industries. Incidence rates per 100 full-time employees were 6.1-13.6 for the high-risk subsectors in the WRT, compared with a mean of 3.9 for the private sector in 2009. Injuries/illnesses occurred more frequently among younger workers in the high-risk subsectors than was generally found when compared with older age groups working in the same subsector. The younger age group experienced more injuries/illnesses as compared to their older counterparts: the beer, wine, and distilled alcoholic beverage merchant wholesalers (NAICS 4248), the grocery and related product merchant wholesalers (NAICS 4244), and the lumber and other construction materials wholesalers (NAICS 4233) in the wholesale trade. The number of injury and illnesses reported for the youngest age group (16-19) was greater in those subsectors in which younger workers are most often employed: the supermarket and other grocery (NAISC 44511), the department stores (NAICS 4521), the warehouse clubs and superstores (NAICS 45291), and the home centers (NAICS 44411) in the retail trade. The most common events and exposures associated with nonfatal injury and illness include contact with objects (41.9-43.8%) and overexertion (13.4-15.0%) among 16-19 age group. Specific sources include floor ground surface (14.3-16.0%) and containers (10.8-12.8%). Many are in a wide variety of jobs involving manual material handling, service and sales. Overexertion injuries due to lifting are high among the WRT workers. Conclusion: To focus intervention and social costs for youth, it is useful to identify high-risk subsectors in this large sector.

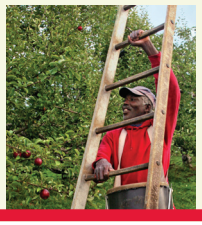
A mixed method study of barriers to health and safety in a multi-lingual high-hazard workforce

Allison Crollard, University of Washington , School of Public Health and Community Medicine - Department of Environmental and Occupational Health Sciences
crollard@uw.edu

Rick Neitzel, Carlos Dominguez, Noah Seixas All of University of Washington , School of Public Health and Community Medicine - Department of Environmental and Occupational Health Sciences

Immigrants, especially those with limited English language skills, may be at higher risk of occupational injury as a result of barriers to communication and discriminatory attitudes among managers or co-workers from the dominant culture. Such barriers may exist even in a unionized company with an established joint labor-management health and safety committee (HSC). In the context of a training intervention aimed at improving the effectiveness of the HSC at a scrap metal recycling yard, health and safety experiences and experiences of discrimination were assessed at baseline via questionnaire, and compared by English language proficiency and nativity. We surveyed, interviewed, and observed 4 supervisors who were primarily US-born English speakers and 42 workers, of whom 69% were born outside of the US or Canada, and 45% of whom stated that they spoke English well. Survey results revealed that compared to supervisors and workers with high English proficiency, the 23 workers with low English proficiency tended to report greater frequency of near miss incidents, as well as higher and more frequent exposures to a variety of workplace hazards including noise, machine hazards, and musculoskeletal hazards. This group also indicated receiving fewer health and safety trainings. Injury rates at the worksite were high, with almost one third reporting injuries in the past year. Injury rates were not significantly different between workers with high and low English proficiency. Workers with lower English proficiency were less likely to have refused unsafe working conditions, were more likely to feel that the language they spoke was a factor in how they were treated at work, and were less comfortable bringing health and safety issues to the attention of the HSC or supervisors. We noticed similar trends during informal interactions with the workers; non-native English speaking workers were hesitant to voice opinions in the presence of managers or supervisors, and spoke more when given the opportunity to speak in their native language. Immigrants reported essentially the same findings as did those with low English proficiency. Overall, we found English-language proficiency or nativity to be important barriers to effective health and safety communication as well as important factors in the health and safety experiences of workers. Effective interventions in multi-lingual and multicultural facilities must address these factors to improve safety and health performance.




Development and implementation of a culturally competent teaching template

Matthew DeAngelis, Stanford Medical Center and University of California, San Francisco
Matt.P.DeAngelis@gmail.com

Katrina Bjuhr, U.C.S.F.; Alexandra Rodionova, U.C. Berkeley

Background and Objective The objective of this project was to create a culturally competent teaching template (CCCT) aimed to reach the Hispanic custodial staff at university teaching hospital. The goal was to reduce the number of shoulder injuries among the custodial staff performing a specific trash disposal task. The work task involves repetitive unloading and lifting of heavy trash bags into a large dumpster. This task requires frequent extreme force on the shoulder, which puts these workers at an increased risk of shoulder injury. The 2010 OSHA 300 log revealed that among 140 custodial workers there were 5 shoulder injuries that could be specifically attributed to trash handling. These 5 injuries resulted in 89 lost calendar days. Method Known successful workplace education programs aimed at Hispanic workers were adapted to create the CCCT (identify and analyze, train, implement). Implementing this CCCT we identify and analyze a task that was particularly concerning. The analysis of the trash disposal task was analyzed through direct observation, measurements, and video recordings of two workers. The job analysis includes calculations of the moment about the shoulder and the duty cycle. Recommended rest allowances for workers were determined using the Rohmert curve. Our interventions are made beginning at the substitution and engineering levels. Findings Using the CCCT, a task that was concerning to the workers was identified. During this task workers exert frequent high force on their shoulder while disposing of trash. During the task they are working at 75-80% of maximum strength during the task. The duty cycle through the work task is nearly 100%. Instead of the 10+ minutes of rest recommended, the workers often have only about 30 seconds of rest between work cycles. Conclusions Equipment design and the frequency of exertion contribute to the risk of shoulder injuries. Modification to trash bin housing areas and trash compactor retrofits are both substitution intervention options that will eliminate the current risk of shoulder injury during this task. A change to the work process would allow for adequate rest between task cycles and slow the work process by <8%. The CCCT's collaborative approach to the shoulder injury problem led to ergonomic interventions that should be readily adopted and reduce the occurrence of shoulder injuries among this custodial staff. The staff's direct involvement in the project has helped facilitate the push toward implementation of these recommendations.

Occupational Health Disparities among Construction Workers

Sue Dong, CPWR-The Center for Construction Research and Training
sdong@cpwr.com

Xuanwen Wang, CPWR Christina Daw, CPWR

Background/Objectives: CPWR - The Center for Construction Research and Training has conducted research on occupational health disparities funded by NIOSH, focusing on Hispanic construction workers. This presentation summarizes our key findings from this project. Methods: Disparities in demographics, socioeconomic status, health and health services, and work-related fatal and non-fatal injuries were assessed by analyzing six large, nationally representative data sources: Census of Fatal Occupational Injuries (CFOI), Survey of Occupational Injuries and Illnesses (SOII), Current Population Survey, County Business Patterns, Medical Expenditure Panel Survey, and American Community Survey. Results: During the economic boom, Hispanic employment in construction hit an all-time high of 3 million workers. With the subsequent downturn, Hispanic construction workers were severely impacted in which one in every three lost their jobs between 2007 and 2009. Demographically, Hispanic workers are younger, less educated, recent immigrants, lack English fluency, are more likely to be employed in blue-collar occupations and small establishments, and less likely to be unionized or self-employed. In general, Hispanic construction workers have a greater risk of injury at worksites and experience higher rates of work-related deaths when compared with their non-Hispanic counterparts both during the economic boom and downturn. Even though non-fatal injury data from the SOII do not exhibit the same high rates as the fatality data from the CFOI, our findings from household surveys show that Hispanic construction workers are more likely to experience medical conditions resulting from work-related injuries. Unfortunately, less than 30% of Hispanic construction workers suffering from such injuries received workers' compensation. Furthermore, many Hispanic construction workers and their dependents lack health insurance and are less likely to receive needed healthcare compared with white, non-Hispanic workers. Conclusion: Evidence from national data lends insight into occupational health disparities in construction. In order to reduce such disparities, measures must be implemented at the worker, employer, and societal levels to reduce the impact of socioeconomic status and ensure safe and responsible worksites for all construction workers.

Using Community-Based Participatory Research to Address Occupational Hazards and Pregnancy Health of Farmworkers in Florida

Joan Flocks, Center for Governmental Responsibility, Levin College of Law, University of Florida
flocks@law.ufl.edu

Linda McCauley, Nell Hodgson Woodruff School of Nursing, Emory University

Background and Objective Few studies have examined the specific risks to pregnant women in the agricultural workforce. Exposure to agricultural chemicals is a major occupational and reproductive hazard. Other factors such as long periods of standing, musculoskeletal strain and exposure to heat and dehydration may also impact the health of pregnant women and their unborn children. This community-based participatory research (CBPR) study is a partnership between investigators from Emory University, the University of Florida, the Farmworker Association of Florida, and the Farmworker Health and Safety Institute. The eventual goal is to develop culturally appropriate educational materials for female farmworkers that emphasize health promoting and protective behaviors during pregnancy. These materials will be disseminated to farmworkers and the health and scientific community through farmworker community public forums, peer-reviewed journal articles, presentations at professional conferences and, and web-based publications. Methods A variety of research methods will be used during the life of the project. We have completed a preliminary phase of focus groups to examine perceptions of work hazards and pregnancy health among nursery and fernery workers in the central Florida region. Workers perceptions on pesticides, ergonomics, and heat stress were collected in three groups with nursery workers and two with fernery workers (four in Spanish and one in Creole.) A total of 35 workers participated with a mean age of 38 years and average of 3.4 children. Results Workers pesticide-related reproductive and pregnancy health concerns included infertility and male sterility, rashes in the female genital area, miscarriages, birth defects, developmental disabilities in children, and respiratory illness in children exposed in utero. Ergonomic-related reproductive and pregnancy health concerns were: frequent bending, prolonged sitting or standing, extreme physical exertion, and carrying heavy loads. Heat stress-related reproductive and pregnancy health concerns were: susceptibility to dizziness and fainting, exacerbation of pre-existing low or high blood pressure, nausea/vomiting, feverish chills, headaches, and heatstroke. Conclusions Most female workers expressed general knowledge of the risks and strategies of protection. Older workers showed a better understanding of these factors, ostensibly due to more experience at the worksite. More comprehension of the biomarkers of pesticide exposure and the extent to which heat exposures and ergonomic challenges impact pregnancy outcomes is currently being gathered through 250 interviews and 100 biological samples in the current year. At the end of the project the team will create educational material to improve the safety of the female workers and their children.

Community Health Workers in Occupational Health

Linda Forst, University of Illinois at Chicago School of Public Health
Forst-L@uic.edu

Eric Rodriguez, Elisa Ringholm, Adam Kader, Emily Ahonen, Alfreda Holloway Beth, Maria Gutierrez, Joseph Zanoni

Community health workers serve and come from populations that experience health inequities. CHWs have roles of connecting their peers to health related services, providing peer education related to prevention, and serving as liaisons between health researchers and their communities. In Occupational Health, the CHW model has developed in parallel, starting with promotores de salud among migrant farm workers, and peer trainers in many other worker populations. Low wage and immigrant workers are subject to inequities similar to underserved, community based populations in the forms of increased risk, poor access to appropriate health care and rehabilitation services, and worse outcomes after a work-related injury. We present a case study of worker leaders in the construction sector, which has a significant proportion of Hispanic and other immigrant workers. Construction workers are subject to conditions that can result in severe, disabling, and fatal injuries, and Hispanics and foreign born workers are at particular risk. Worker leaders, trained to deliver a course that covers the OSHA 10-hour construction health and safety curriculum, play the role of Community Health Worker (educator) for their peers. Parallels are drawn between worker leaders in this study and CHWs that address general health issues in at-risk populations.

A Conceptual Framework to Address Health, Educational and Occupational Issues among Hispanic Construction Workers: A Systematic Review

Somik Ghosh, Virginia Tech
ghoshsom@vt.edu

Dr. Jagdish Khubchandani, Ball State University; Dr, Suchismita Bhattacharjee, Ball State University; Dr. Deborah Young-Corbett, Virginia Tech; Dr. Joyce Balls-Berry, University of Florida;

Background and Objective: There has been a growth in Hispanic construction workers (HCW) with them making up 2.6 M of the 11.2 M workers in the US. This spurt in HCW places new demands on the labor force, government, society, and construction industry. The objective of this study is to develop a conceptual framework to understand the major health, educational, occupational issues among HCW, and suggest possible interventions to increase the quality of life and well-being of HCW. Methods: Data Sources: The authors searched Academic Search Premier, CINAHL with full text, ERIC, MEDLINE, Pubmed, and Psychology and Behavioral Sciences Collection databases for articles published from 2005 to 2011 on HCW health, education, and occupation. Data Synthesis: The template used for data synthesis was based on guidelines for Critical Review Form for Qualitative Studies (Version 2.0) revised from the McMaster University Occupational Therapy Evidence-Based Practice Research Group (Letts et al., 2007). Framework validation: A national panel of experts (n=9) in research on Hispanic adult education and health issues were invited to validate the conceptual framework for this study. Results: HCW have lower educational levels, higher rates of poverty, lower rates of health insurance coverage, higher rates of premature morbidity and mortality, and many are undocumented which leads to health disparities and inequity. These factors have serious implication on the safety and health of all workers. Additionally, injured HCW receive less compensation than their non-Hispanic counterparts (NHCW) counterparts. Some employers have lower expectations for HCW than NHCW. Furthermore, employers are less likely to offer training and educational opportunities to HCW. Conclusion: The disparities in health and job equity indicate a need for more educational opportunities for HCW and the persons who employ them. The conceptual framework developed from this study will show how the vertices of health, education, and occupation relate to the overall well-being of HCW. Moreover, the results of this study will lay out the foundation for the development of interventions to reduce health disparities in HCW.

Bridge to Immigrant Health: Addressing occupational health disparities by engaging workers as promotoras

Marcy Goldstein-Gelb, MS, MassCOSH
marcy.gelb@masscosh.org

Isabel Lopez, MA, MassCOSH

The promotora model is an evidenced-based approach that enables disenfranchised populations to gain greater control over and improve their health. The MA Department of Public Health uses the term Community Health Workers (CHW), defining them as public health workers who apply their unique understanding of the experience, language, and/or culture of the populations they serve to provide culturally appropriate health education, outreach, and advocacy, and improve access to key health services by creating bridges between individuals, communities and services. By engaging people from within their own community in educating, encouraging and supporting their neighbors and peers, the CHW model reaches more people, immediately instills trust amongst the target population, is effective at identifying priority concerns by the target population, and becomes a permanent resource for the community. The Massachusetts Coalition for Occupational Safety and Health (MassCOSH) promotes occupational safety and health by engaging workers as leaders in health education and action. MassCOSH employs a promotora-type, peer leadership model to provide culturally and age-appropriate occupational health education, outreach and advocacy for youth of color and immigrant adults, two populations at elevated risk. In the case of both the youth (Teens Lead At Work TLAW) and adult (Immigrant Workers' Center) programs, promotoras or peer leaders participate in an intensive leadership program to learn about hazards, means of reducing or eliminating exposures, and legal rights, as well as leadership skills such as facilitation, public speaking, developing an action plan and conducting peer to peer outreach. They then engage in developing plans and taking action in various arenas. 88 young people have served as peer leaders since TL@W was established in 2001and over 150 immigrant adults have served as promotoras for the Worker Center since 2006. When provided with training and support, both youth of color and immigrant adults have made important contributions to improving working conditions and impacting policy. Several examples of how this model has won both legislative and workplace victories will be presented. Engaging youth and adult workers as promotoras or peer leaders can have many positive effects, dramatically expanding the ability to reach and engage young people and immigrant adults in occupational health efforts. Through their participation, they are best able to identify the priority concerns and develop approaches that best fit their circumstances, and achieve meaningful impact both on conditions within individual workplaces and on policy. These two projects have demonstrated that the promotora/peer leader form of organizing builds sustainable, empowered community-based leadership in the community at risk and achieves results.

Incivility and Job Insecurity: Impact on nurses' physical and psychological well-being

Purnima Gopalkrishnan, Bowling Green State University
purnimg@bgsu.edu

Background and Objective: Workplace incivility has been defined as low intensity deviant behavior with ambiguous intent to harm the target that is in violation of workplace norms. It typically takes the form of rude or impolite interactions (Anderson & Pearson, 1999). Approximately 70% of employees reported experiencing incivility in the past 5 years (Cortina, Magley, Williams & Langhout, 2001). Since most organizations do not have a system in place to avoid incivility it is important to study how it impacts employee well-being. Job insecurity on the other hand has been defined as powerlessness to maintain desired continuity in a threatened job situation (Greenhalgh & Rosenblatt, 1984). Given our current economic downturn, it is becoming increasingly important to understand how job insecurity is affecting employees in the workplace. Nurses have been recognized as one of the at risk populations by NORA and the current study aimed to look at how workplace incivility and job insecurity affected both physical and psychological well-being among nurses. This research study was partially supported by the NIOSH Pilot Research Project Training Program of the University of Cincinnati Education and Research Center Grant #T42/OH008432-05. Methods: The study used mail-in surveys to collect data from over 200 nurses registered in the state of Ohio. Incivility was measured using the Nursing Incivility scale (Guidroz, Burnfield, Clark, Schwetschenau & Jex, 2007), and measured incivility from other nurses, physicians, their supervisors, patients and their families as well as overall incivility (Cortina, et al., 2001). Physical well-being was measured using the physical symptoms inventory (Spector & Jex, 1998) while psychological well-being was measured using Zung s Depression Scale (Zung, 1965). Job insecurity was measured using a subscale of the Job Insecurity scale by Lee, Ashford & Bobko (1989). The regression analyses conducted on the data also controlled for gender, job tenure and negative affectivity. Results: Incivility from all sources was negatively related to both physical and psychological well-being among nurses. Also, job insecurity was negatively related to both physical and psychological well-being. Conclusion: The current study attempted to not only study workplace incivility and its effects on nurses well-being, but also looked into effects of job insecurity and its effects on their psychological and physiological health. Results indicated that incivility from various sources differentially predicted nurses physical and psychological well-being and explained different proportions of variances.

Racial/Ethnic Disparities in Job Strain

David Hurtado, Harvard School of Public Health
dhurtado@hsph.harvard.edu

Erika Sabbath, MSc Harvard School of Public Health Université Paris XI-Sud/INSERM U1018; Karen A. Ertel, SD Harvard School of Public Health; Orfeu M. Buxton, PhD Harvard Medical School Brigham and Women's Hospital; Lisa F. Berkman, PhD Harvard Center for Development and Population Studies Harvard School of Public Health

Aim: To examine racial/ethnic differences in job strain between Black (n=127) and White (n=110) immigrant and American direct care workers (total n=237). Background: Nursing homes are occupational settings where several psychosocial stressors intersect, with an increasing minority and immigrant workforce. Methods: Cross-sectional study with data collected at four nursing homes in Massachusetts, during 2006- 2007. We contrasted Black and White workers within higher-skilled occupations such as Registered Nurses (RNs) or Licensed Practical Nurses (LPNs, n=82) to lower-skilled staff such as Certified Nursing Assistants (CNAs, n=155). Results: Almost all Black workers (96 percent) were immigrant. After adjusting for demographic and occupational characteristics, Black employees were more likely to report job strain, compared to White (Relative Risk [RR]: 2.9, 95% CI: 1.3 to 6.6). Analyses stratified by occupation showed that Black CNAs were more likely to report job strain, compared to White CNAs (RR: 3.1, 95% CI: 1.0 to 9.4). Black workers were also more likely to report low control (RR: 2.1, 95% CI: 1.1 to 4.0). Additionally, Black workers earned $2.58 less per hour and worked 7.1 more hours per week on average, controlling for potential confounders. Conclusion: Black immigrant workers were 2.9 times more likely to report job strain than Whites, with greater differences among CNAs. These differences may reflect organizational and job characteristics, individual characteristics, or potentially interpersonal or institutional racial or ethnic discrimination. Further research should consider the role of race/ethnicity in shaping patterns of occupational stress.

Integrating occupational health and workers' compensation in the primary care setting for low-wage workers in California.

Dori Rose Inda, The Watsonville Law Center
dorir@watsonvillelawcenter.org

Consultants: Juliann Sum, UC Berkeley; Dr. Rachel Roisman, UC San Francisco

Background and Objectives: Over 5 million Californians work in low-wage occupations that make up nearly two-thirds of occupational injury and illness reports. When these workers experience a serious injury, less than 10 percent report the injury and request workers' compensation benefits. Of those workers, half of the time the employer is illegally uninsured or refuses to provide workers' compensation medical treatment. Community health centers (CHCs) frequently examine and treat workers with job injuries but are unprepared to deal with workers' compensation (WC). The costs belonging to WC are shifted to publicly supported healthcare providers. This project's goals are to increase access to medical treatment for injured workers through CHCs, increase employer compliance, and demonstrate the benefit of expanding this model throughout California. Methods: A four-pronged approach provides outreach and education, legal assistance, medical services and increased enforcement. WLC with Kaiser and UC Berkeley, has worked with SPLG (a CHC in rural central California) to provide WC medical treatment. Services include determining whether the patient's condition is work-related, identifying the employer and insurer, providing appropriate medical treatment, proper reporting and obtaining payment. Increased enforcement is accomplished through the WCEC, a group of government and CBOs committed to eliminating barriers faced by low-wage immigrant workers in the WC system. WCEC joined with the California Division of Workers' Compensation (DWC) to form an Initiative designed to expand services so injured workers can identify their employer and secure benefits when their employer is illegally uninsured. Results: This project has resulted in a sustainable model for integrating occupational health in the CHC setting. Collaborative enforcement has closed gaps on reporting and enforcement, shifting the cost of care for injured workers back to the businesses responsible. The partnership with DWC has reduced the time it takes for injured workers with illegally uninsured employers to access WC from two years to less than two months. Conclusion: Access to WC is critical to ensure injured workers receive adequate care. Low-income workers are particularly at risk for injury, not receiving adequate medical care and face barriers when accessing WC. CHCs absorb the cost of treating these low-income workers. This project demonstrates that a multi-disciplinary approach is necessary to ensure employers provide WC insurance and that employees have access to it. If replicated throughout the state, this model has the potential to save tax payers $100,000,000 a year (based on 15% injury rate for 5 million workers and one visit to a CHC).

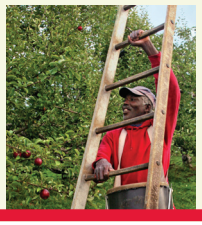
Perceptions of work-related stresses and their impact on safety and health among Vietnamese women employed in service occupations

Dolly A. John, Dept. of Society, Human Development and Health, Harvard School of Public Health
djohn@hsph.harvard.edu

Butch de Castro, PhD, MSN/MPH, RN, School of Nursing, University of Washington, Seattle, WA; Vu Le, MSW, Vietnamese Friendship Association, Seattle, WA; Diane P. Martin, MA, PhD , Department of Health Services, University of Washington, Seattle, WA; Bonnie Duran, DrPH, Indigenous Wellness Research Institute and Department of Health Services, University of Washington, Seattle, WA

Objective: Work-related stressors are common among people of lower socioeconomic status, minority and immigrant groups. Yet, gaps remain in our understanding of how they give rise to social inequalities in safety and health. This study examines the perceptions of work-related stressors and their impact on safety and health, help-seeking and health services use among adult Vietnamese women in service occupations, an understudied population with significant health and service needs. Methods: Partnering with community-based organizations, we conducted 3 focus group interviews with 25 eligible participants in the Seattle area. Group discussions were facilitated in Vietnamese by bilingual, trained facilitators who were well-known and trusted by recruited participants. Audiotape recordings were transcribed in Vietnamese and translated into English. Using an inductive approach and an iterative process of review, we uncovered themes related to the focus group topics. Results: Despite generally positive impressions of work, participants described numerous, inter-related work-related stressors that sometimes interacted to have significant immediate and cumulative health effects. Important work-related stressors salient to them pertained to informal employment conditions, discrimination -- particularly language-based discrimination, communication, high job demands, safety issues, and coworkers. Participants commonly described somatic manifestations of stress (e.g., sleep problems, fatigue, headaches, lack of appetite) and passive coping strategies. Barriers to help-seeking pertained to the affordability, accessibility and acceptability of health care and cultural competency of available care. Participants identified creative and comprehensive solutions from structural improvements in fair and adequate employment conditions (e.g., adequate hours, decent and living wages, benefits) to improved community-based programs and services that could better address their economic, social and health needs (e.g., employment services, childcare, English language classes). Conclusion: Participants described work-related stressors that were common, often interrelated and interactive with significant and cumulative, long-term impact. Findings support the need to adopt a systems perspective, consider macro factors and multiple levels of interventions -- from national and local policies that help assure fair, stable employment conditions and safe, decent work conditions to community-based, culturally-centered outreach and health promotion programs and services, particularly providing Vietnamese language services to address limited English proficiency and their social, health and health service needs. Our study supports the role of community-based participatory methods in more effectively working with the community to identify problems and feasible and meaningful solutions from the bottom up.




A Look at Meaningful Use. Occupational and Environmental History and the Coming of Electronic Health Records

Matthew Keifer, National Farm Medicine Center, Marshfield Clinic Research Foundation
KEIFER.MATTHEW@mcrf.mfldclin.edu

Amy K. Liebman, Migrant Clinicians Network

The Health Information Technology for Economic and Clinical Health Act, enacted as an additional component of the American Recovery and Reinvestment Act, promotes the development and utilization of Electronic Health Records (EHR). The potential benefits from widely adopting EHRs are substantial. EHRs are expected to meet meaningful use criteria. Recognized occupational illness and injury in 1992 were estimated to cost $170.9 billion, accounting for 3% of GDP. Occupation and environmental exposure/injury information is collected by clinicians in a minority of cases, most impacting patients who work in low wage, dangerous professions. These are most often the least educated, most poorly insured, least medically literate portions of our population. The question must be raised as to whether it is meaningful to include information on occupation and environment in the health record. With respect to meaningful use criteria addressing environmental and occupational health can provide value in the following four of the five required areas: Patient and Family Engagement in their Health Care: Clinicians who recognize potential worker exposure/injury can educate the worker and family about likely health impacts and prevention strategies, potentially preventing overexposure or intervening before serious conditions occur. Parents should know what their children face in the workplace and have an opportunity to assess the risks. Coordinated Care: From a diagnostic, management and funding perspective, prompt and appropriate diagnosis and referral could be facilitated by information collected on occupation and environment. Quality, Safety and Efficiency: If information for occupational and environmental illness were available, it would improve diagnosis and treatment, referral and billing intervention. Additionally, computer decision support tools targeting the management of the health effects of specific occupational or environmental exposures could be linked to the data collected, improving all of the above dimensions. Public/Population Health: Understanding disease processes and the epidemiology of work-related and environmental illness and injury will be greatly enhanced by having work and environmental exposure information available for population based studies using EHRs. Privacy and Security: are not likely to be influenced by inclusion of occupational or environmental information. The window of opportunity to improve the quality of work-related and environmental injury and illness is opening and the shape of the future of EHR's will be cast in the next two years. This is an opportunity to improve multiple dimensions of our population's health through better recording, diagnosis and management and improved education of clinicians and patients with respect to occupational and environmental health.

Enlaces de Seguridad: Creating Change in Residential Construction

Louis Kimmel, New Labor
lkimmel@newlabor.org

Betsy Marshall, UMDNJ; Michele Ochsner, Rutgers OTEC; Carmen Martino, Rutgers OTEC; Damaris Rostran, New Labor Marién Casillas Pabellón- New Labor

Background: Latino day laborers in residential construction face unsafe conditions. Employers have limited knowledge, resources, and motivation to reduce risks while providing workers with general health and safety training may not provide the means to make changes. This project assesses the effectiveness of trained safety liaisons, recruited from Latino day laborers in residential construction in Newark, to communicate about safe work practices and improve workplace conditions. Methods: Funded through the Center for Construction Research/NIOSH, a community-based labor organization, New Labor, is working with academic partners (Rutgers Occupational Training and Education Consortium/UMDNJ School of Public Health) and Laborers Local 55 to implement this five-year project. Key components include: *A five day train-the-trainer using a peer-based participatory methodology to cover OSHA 10 training, modules on conducting a residential safety audit, and activities to prepare liaisons to interact with supervisors and peers. *Additional training and leadership development through quarterly refresher training, weekly meetings, and phone contact. *Using safety audits to collect data on residential construction hazards. *Organizing a bi-weekly residential construction council (consejo) including recruiting attendees, and leading meetings. *Attending and asking questions at meetings and public forums with OSHA and other officials. *Recruiting fellow workers for OSHA 10 trainings. *On-going evaluation. Results: Preliminary experience shows that implementation extends our previous train-the trainer methods and curriculum for peer trainers: the safety liaisons understand that their responsibilities extend beyond teaching to collecting data and providing real world advice, leadership, and advocacy. Day laborers can complete five-day health and safety trainings and become effective peer trainers, maintain ties to the project, complete safety audits, and act as leaders in public forums. The presentation will chart the leadership growth curve of the Latino Safety Liaisons. Increasingly we find that these liaisons recognize unsafe working conditions, accept some safety and health responsibilities, and partner with New Labor/and our project team in decisions relevant to the experiences they need to grow as leaders. A weak construction sector continues to reduce safety liaisons' opportunities to maintain employment and negotiate health and safety conditions however other leadership opportunities, including participatory consejo meetings, have provided an important foundation for this role. Attrition from the program has been limited-most of the original safety liaisons continue to be involved while future liaisons are recruited. Conclusions: This model provides an effective strategy for other community based organizations and university based partners.

Time trends in psychosocial working conditions in a representative sample of working Australians 2000-2008: evidence of narrowing disparities?

Anthony D. LaMontagne, University of Melbourne, AUSTRALIA
alamonta@unimelb.edu.au

LaMontagne AD, Krnjacki L, Kavanagh AM, and Bentley R

Background & Objectives: Psychosocial working conditions are important, modifiable determinants of physical and mental health. Acknowledging previous research demonstrating cross-sectional disparities in psychosocial working conditions, we assessed time trends in job control and security in a representative sample of working Australians to determine whether disparities are narrowing. Cross-sectional and longitudinal disparities were assessed by sex, age, occupational skill level, and employment arrangement. Methods: Measures of job control (5 items) and job security (2 items) were collected in 8 annual waves (2000-2008) from a population-based Australian panel survey (n = 10608 individuals). Population-weighted measures of control and security were calculated for the whole population, and separately by sex, age, occupational skill level and employment arrangement. Model-predicted time trends were generated using population-averaged longitudinal linear regression models, with year fitted as a categorical variable, and adjustment for potential confounders of sex, age, education and Indigenous status. Differences in time trends by sex, age group, skill level and employment arrangement were tested as interactions with time. Results: Significant cross-sectional disparities were observed by sex, age, occupational skill level, and employment arrangement. Job control remained relatively flat over time, whereas job security increased from 2000-2007, followed by a decrease at the onset of the global financial crisis. There was little evidence of narrowing of disparities over time, with the exception of an improvement in job control among young workers compared to older groups, and an improvement in job security among casual workers compared to others. Conclusions: Most cross-sectional disparities in job control and security persisted over time, though two favourable trends were observed. Concerted policy and practice intervention could reduce persisting inequalities in psychosocial working conditions and associated illness burdens.

Health Disparities in the Meatpacking Industry

Daniel Lichtenstein-Boris, UCLA MPH Health Policy
danwlb@gmail.com

Jackie Nowell (United Food and Commercial Workers)

Background and Objectives This research project uses injury records to assist a labor union in identifying health and safety hazards in the workplace and provide a picture of the incidence and types of injuries that union members are suffering and what those injuries potentially cost employers. Meatpacking employees work in hazardous conditions where injuries are frequent, severe and employers may have little incentive to invest in prevention due to low workers compensation costs. Methods To calculate annual incidence rates, we manually tallied OSHA 300 Logs requested by local union officials from unionized meatpacking establishments. Researchers then assigned the types of injuries found into one of 12 categories based on interpretation of injury descriptions found on the OSHA logs. To estimate the costs to employers, injury counts in each category were multiplied by average costs for each injury type based on workers compensation spending for both indemnity and medical only claims. The author also used workers compensation insurance premium experience rated estimates for the industry from state workers compensation insurance ratings bureaus. Results In 32 union-represented meatpacking plants from 2004-2009, meatpacking companies reported 40,542 instances of injuries requiring more than first aid among 285,000 worker-years, an annual injury rate of 14% and an official Bureau of Labor Statistics incidence of almost 12%. Thirty-seven percent of these were due to upper extremity repetitive motion injuries. Workers compensation cost meatpacking employers $861 million dollars in 2009, 5.32% of payroll or 1,716.46 dollars per worker employed and 0.5 percent of industry revenue. Conclusion Analysis of the meatpacking industry's workers compensation experience ratings in workers compensation shows that employers face few financial incentives to prevent occupational injuries due to low workers compensation costs as a percent of revenue. Although severity level was not available for each injury sixty five to seventy percent of cases on average required days away from work or restricted duty, which is an accepted proxy for severity. Employers placed a majority of workers on restricted duty rather than paying out indemnity insurance claims, possibly to keep workers compensation premium costs low. Injury rates higher than the Bureau of Labor Statistics reporting may point to underreporting in non-union plants. With an average of 37% of injuries due to upper-extremity repetitive motion disorders, and 14 percent of workers injured every year, there is a clear public health imperative to identify, reduce, and eliminate occupational hazards in the meatpacking industry.

They Didn't Mean Ignore Us. How OSHA has inappropriately ignored the needs of agricultural work places.

Amy K. Liebman, Migrant Clinicians Network
aliebman@migrantclinician.org

Matthew Keifer, MD, MPH, National Farm Medicine Center, Marshfield Research Foundation

An estimated 3-4.5 million people earn their living from agriculture, an industry that suffers from the highest rates of work related death of any industry. US labor laws and health and safety standards consistently offer less protection to farm laborers than to workers in other industries and there is a systematic pattern of agricultural exceptionalism under the law that furthers occupational health disparities in one of the most hazardous occupations in the US. Federal statutes intended to protect workers remain deficient with respect to agricultural workers. Agricultural workers are largely excluded from protections under the Fair Labor Standards Act and the National Labor Relations Act. The Occupational Safety and Health Administration specifically excludes agriculture from a number of standards and has largely failed to proglumate standards particular to agriculture. Moreover, the federal funding appropriated to OSHA specifically restricts the agency's enforcement work in agriculture. The OSH Act calls for the National Institute for Occupational Safety and Health to conduct research into occupational hazards and methods for their reduction and develop education programs to provide qualified personnel to execute the OSH Act. It also requires the Department of Labor to establish education and training programs for of employers and employees to recognize, avoid and prevent unsafe or unhealthful working conditions. OSHA has invested millions of dollars in training of health and safety professionals in other industries, but has devoted almost no money to train health and safety professionals in agriculture. These portions of OSHA's mandate are not prohibited by either exclusionary language in the OSH Act or funding riders specific to agriculture. The US has few safety professionals who focus on agricultural and those that do have been largely self-taught. Despite agriculture's high injury and illness risk, limited enforcement to ensure safe working conditions, OSHA has failed to support even the training health and safety professionals in agriculture, an industry which most needs them. Given that 1/3 of hired agricultural workers are largely immigrant, non-English speaking and often unauthorized to work in the US and thus least able to assert their rights to a safe workplace, OSHA involvement remains particularly important to worker health and safety. OSHA continues to foster agricultural exceptionalism in training and education, an area of focus that has no regulatory exclusions. OSHA should refocus a legitimate proportion of its training funds on developing a safety and health workforce in one of the most hazardous industries -- agriculture.

Occupation as Socioeconomic Status and Environmental Exposure: Setting the Stage for Productive Collaborations between Occupational Health and Public Health Researchers

Leslie MacDonald, National Institute for Occupational Safety and Health (NIOSH)
lmacdonald@cdc.gov

Sherry Baron (NIOSH); Cecil Burchfiel (NIOSH)

Introduction: Research on the social and environmental determinants of health originating from work and community settings is needed to better inform how and where to direct prevention efforts for understudied populations, such as low-income workers. Seeking to overcome barriers associated with the study of hard-to-reach workers, enhance access to cohorts with extensive clinical and lifestyle data, and leverage existing federal research investments, we conducted a review of practices in the collection and use of occupational data among longitudinal community-based cardiovascular studies. Methodology: Studies were identified for review from the National Heart, Lung, and Blood Institute website and the biomedical database, Computer Retrieval of Information on Scientific Projects. Selection criteria included funding dates (through 1999 or later), health outcomes (cardiovascular disease), and study design (longitudinal community-based health study). Source documents (i.e., data collection instruments, data dictionaries, publication lists) were downloaded from study websites or were obtained by mail or fax from the study's Principle Investigator (PI). In a few instances, the PI summarized data verbally by telephone. Source documents for each study were then reviewed and all occupation-related measures were compiled and classified. Results: Data collection instruments and study publications were retrieved and reviewed for 30 of 33 studies (91%). Most of the studies (83%) collected at least descriptive occupational data, and more than half (60%) collected data on workplace hazards. The reviewed studies produced 80 publications in which occupational data were used in analyses, most often as an indicator of socioeconomic status. Authors rarely acknowledged known conceptual and empirical links among socioeconomic status, employment stability, and working conditions. Conclusions: while occupational data were collected in a majority of these studies, the data were often descriptive and used to represent SES rather than occupational exposure, limiting investigators' conclusions about where to direct prevention efforts. Afterward: Since completing our review, productive collaborations have been established with two of the reviewed study groups (Multi-Ethnic Study of Atherosclerosis (MESA) and the REasons for Geographic and Racial Differences in Stroke Study (REGARDS)). Collaborations between public health and occupational health researchers are unfortunately rare. The NIOSH collaborations with MESA and REGARDS provide a unique set of opportunities to examine the broad range of factors that may influence the health of low income and racial/ethnic minority workers and determine how to most effectively develop and direct prevention efforts within workplace and community settings.

Is Everyone Engaged? They Should Be! The Relationship Between Worker Commitment and Workplace Safety.

Deirdre McCaughey, The Pennsylvania State University
mccaughey@psu.edu

Erin Walsh, The Pennsylvania State University; Jiaxin Wu, The Pennsylvania State University; Gwen McGhan, The Pennsylvania State University

Background and Objective: Hospital support service workers are an understudied population that are critical to daily operations and represent a significant portion of a healthcare organization's workforce. Support service workers often face unique challenges to safety, including low decision-making autonomy and taxing physical demands. These challenges contribute to high levels of employee burnout and an elevated risk of workplace injury among support service workers. Employee engagement, the opposite of burnout, is characterized by employee dedication, enthusiasm, and satisfaction, and has been shown to influence worker safety. Improving employee engagement may be a key factor in reducing employee injury and improving employee safety perceptions. Methods: A multi-state study was used to examine workplace safety perceptions among hospital support service workers. Data (n=1307) was collected across 4 hospital systems in 11 hospitals with environmental, food and nutrition services workers. Using regression analysis, it was found that positive workplace safety perceptions are related to lower injury rates (β=.14, p-value <.001) and higher organizational safety ratings (β=.122, p-value <.001). It was also found that employee engagement is related to lower injury rates (β=.102, p-value =.001), better workplace safety perceptions (β=.727, p-value <.001), and higher organizational safety ratings (β=.511, p-value <.001). Gender, education, and race/ethnicity were examined in the model. Only race/ethnicity was found to be significant in relation to employee engagement and safety. Post-hoc ANOVA revealed that Caucasian workers reported significantly higher levels of employee engagement than African Americans (p<.05). Conclusions: Positive employee perceptions of workplace and organizational safety were shown to reduce employee injury such that employees who perceived their workplace and organization to be safer were less likely to be injured. In this study, employee engagement was significantly related to safety perceptions and worker injury: more engaged employees are more likely to report positive safety perceptions and lower rates of injury. Employee engagement represents a critical starting point from which to foster safer workplace environments. Within the sample data, the statistically significant difference in engagement between racial/ethnic groups poses a challenge to equitable workplace injury prevention training. Healthcare managers can use these results to identify means to engage their entire workforce and reinforce the importance of engaging all workers to avoid disparities in safety outcomes.

Insights on Keeping Our Workforces Safe: It's Good For Business

Deirdre McCaughey, The Pennsylvania State University
lmccaughey@psu.edu

Erin Walsh, The Pennsylvania State University; Jiaxin Wu, The Pennsylvania State University; Gwen McGhan, The Pennsylvania State University

Background and Objective: Home health aides face significant occupational demands that put this group of caregivers at nearly twice the national average risk of workplace injury. Home health aides experience physical and psychosocial work stress within a constantly changing work environment. Injured home health workers are more likely to report lower job satisfaction, higher turnover intention, and negative perceptions of their workplace. Safety training interventions reduce the incidence of workplace injury and improve the negative outcomes for the worker and organization. As employee safety training has been shown to reduce worker injury and improve employee perceptions, this study utilizes a large, national dataset to evaluate the relationships between worker safety training, injury, and employee and organizational outcomes. Methods: The 2007 National Home Health Aide data set (n= 3377) was used to examine the relationships between worker safety and outcomes and to investigate the existence of a relationship between race/ethnicity and employee and organizational outcomes. Results: Using regression analysis, it was found that injury prevention training is related to reduced employee turnover intent (β= .053, p-value =.002), higher job satisfaction (β= .081, p-value <.001), and greater willingness to recommend one's organization as a place to seek care (β= .061, p-value <.001) or to work (β= .078, p-value <.001). For employees who have been injured, injury is related to higher employee turnover intent (β= .063, p-value <.001), lower job satisfaction (β= .148, p-value <.001), and lower willingness to recommend one's organization as a place to seek care (β= .099, p-value <.001) or to work (β= .124, p-value <.001). Race/ethnicity was found to be a significant predictor of workplace injury variables. Post-hoc ANOVA revealed that there are significant differences between Caucasians and African Americans on frequency of workplace injuries (Caucasians higher, p-value = .017) and injury prevention training rating (African Americans higher, p-value <.001). Conclusion: As part of a healthy organizational climate, safety training represents an important aspect of reducing worker injury rates and improving worker outcomes. In this study, injury prevention training significantly improved worker satisfaction, turnover intentions, and organizational quality perceptions. By reducing employee injury rates, safety training may positively impact these significant areas. The existence of racial/ethnic disparities in workplace injuries and rating of injury prevention training suggest organizations focus on fully engaging all employees in safety training. The findings of this study offer managers a framework from which to enhance employee well-being and subsequently create safer work environments.

Gender disparities in risk-taking tendencies and workplace injury among teenagers

Teresa McGeeney, BA, University of Louisville, School of Public Health
tjmcge01@louisville.edu

Teresa J. McGeeney, BA; Erin C. Welsh, BS; and Kristina M. Zierold, PhD, MS.

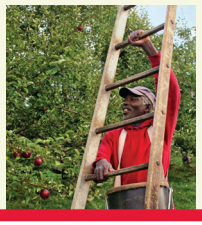
Background and Objective: Young workers are twice as likely as adult workers to be injured, and young males are at an even higher risk. Researchers have speculated that developmental and psychological characteristics of teenagers, especially males, make them more likely to take risks than adult workers, and this risky behavior may explain higher injury rates. Risky behavior in young workers could be due to workplace characteristics, such as power dynamics, or personal characteristics, like overconfidence. Little research exists on this type of risk-taking behaviors. This study was conducted to evaluate the effects of risk-taking behaviors at work on injury among teens and to assess the differences by gender. Methods: Data was collected from a racially diverse sample of teens from two large public high schools in Jefferson County, Kentucky. Both schools were magnet career academies, offering a variety of job training experiences as well as a traditional education. During spring 2010, focus groups and interviews were conducted with 42 working students aged 15-19. In spring 2011, a questionnaire was distributed to over 2,700 students within these two schools. Results: Overall 38% of teens were injured. Working males in our sample had a slightly higher injury rate than working females (39% M vs. 37.5% F). Teens who responded they would do something they felt was dangerous when asked by their supervisor had a 72% injury rate. Of those who would refuse the dangerous task, 36% were injured. There was a large gender divide in this type of risk-taking behavior: 22% of males were risk-takers, compared to only 6% of females. These findings mimic the results from the qualitative work, where females were much more outspoken than males about refusing to do a dangerous task, explaining, “even if they would fire me, go right ahead, but I am not doing anything that is dangerous to me.” Among males, after controlling for safety training, risk-takers were still almost twice as likely as non-risk-takers to be injured (60% vs. 33). Conclusion: Risk-taking behavior at work may play a role in the gender disparity in injury rates among teens. Males are much more likely than females to perform tasks they feel are dangerous, and this type of risky behavior is linked with higher injury rates, even if teens received safety training. This suggests that training should be gender-specific to best prevent risky behavior and work-related injuries in teens.

Job control, racial work discrimination and their joint effects on health

John D Meyer MD MPH, Stony Brook University School of Medicine
john.meyer.2@stonybrook.edu

Background and Objectives: The experience of racial discrimination is clearly associated with poorer self-assessed health, and contributes to health disparities between racial and ethnic populations. This study undertook an examination of pathways through which job-related discrimination may contribute to differentials in job control (work autonomy and decision latitude), and thereby influence health outcomes. Methods: Longitudinal data from the two waves of the Survey of Midlife in the United States (MIDUS I & II; 1995 and 2005) were used to examine between-group scores on the JCQ for job demands and control for black and white subjects, using a random-effects ANOVA model for occupation, controlling for demographic variables and educational attainment. Path analysis was used to model the effect of discrimination on job control in 1995, and their association with subsequent self-reported health in 2005. Results: Mean adjusted job control scores in white subjects were higher than in blacks (32.2 vs 30.4; diff = 1.8, p=0.003). Inclusion of an interaction term between race and occupation did not reduce the difference between the two groups (mean difference in control score 1.77; p=0.007). Incorporation of two discrimination measures (having been denied a promotion, and denied a job, because of race) into the ANOVA model reduced the differential markedly (score difference 0.6; p=0.50, non-significant). Inclusion of discrimination measures improved model fit and decreased the variance coefficient, adding to the evidence that individual experience of job discrimination had a substantive effect on assessment of job control. No difference was noted in job demand scores. Path analysis demonstrates an association of job discrimination with self-rated health, as well as a mediating effect via job control, in blacks but not whites. Job discrimination was more likely in more highly educated black subjects (OR 1.13), and in those already working in higher-control jobs (OR 1.23). Conclusion: Individual experience of job-related racial discrimination is an important mediator in the assessment of job control. This effect appears to be independent of structural segregation into jobs. These results suggest that educational attainment in blacks is not matched by equivalent gains in job autonomy and authority. Prolonged diminution of job control in blacks may play a role in “weathering” and the erosive effects of discrimination on health.




Planning occupational safety and health programs for Latino manual workers in New Settlement communitiesa review of jobs and hazards in rural North Carolina

Dana C. MORA, Wake Forest University School of Medicine
dmora@wfubmc.edu

Arcury, Thomas A. (Wake Forest Sch Med); Grzywacz, Joseph G. (Wake Forest Sch Med); Schulz,Mark R.(University of North Carolina at Greensboro); Mirabelli, Maria C. (Wake Forest Sch Med); Blocker, Jill (Wake Forest Sch Med); Anderson, Andrea M (Wake Forest Sch Med); Quandt, Sara A. (Wake Forest Sch Med).

Background and Objective: More than half of the Latino workforce in the United States is foreign born. In the 1990s Latinos became more dispersed and began to move to places that had not previously had a significant Latino population. These “New Settlement” communities are found in the South and Midwest. Many of these New Settlement communities are in rural areas where residents are often isolated and hard to reach. The isolation, together with low English proficiency, low educational attainment, and other factors, limits employment options to jobs that have low wages and are dangerous. Because they are new workers often in isolated communities, it is important to identify who these workers are, what jobs they are doing, and some of the hazards that they are exposed to in order to identity challenges and approaches for implementing safety training in this population. Methods: Community-based sampling was used to recruit 339 Latino manual workers (193 male, 146 female) in western North Carolina. A face-to-face interview was conducted to assess demographics, health and current occupational status. The job titles and descriptions workers provided were used to classify workers into the broad National Occupation Research Agenda industry sectors. Characteristic hazards for sectors were identified and compared. Results: Most workers were young, with 68% younger than 35 years. Over half were from Mexico (64%) or Guatemala (32%) and had 6 years of education or less (51%); 22% spoke indigenous languages. Workers had occupations in 6 of the 10 NORA Sectors; 32% were classified in the manufacturing sector, followed by construction with 23%. Workers differed across sectors by gender, education, and indigenous origin. Hazards to worker health and safety varied across sectors. Conclusion: Foreign-born workers in New Settlement communities hold jobs in a variety of industries and therefore are exposed to a diverse set of hazards. They face barriers to training that Latino workers in other areas do not, such as transportation and isolation in rural areas, and immigration status concerns. Implementing safety training in this population is important; however, it must take into account the limitations that exist in the New Settlement communities. NIOSH Grant R01OH009251

Health Hazards and safety measures taken by welders of Karachi, Pakistan

Syed Muhammed Mubeen, Hamdard College of Medicine & Dentistry, Hamdard University, Karachi, Pakistan
dr_mubeen@hotmail.com

Kazim Ali, Final year medical student (MBBS) Hamdard College of Medicine & Dentistry, Hamdard University

Background: Welding is an overlooked occupation in Pakistan concerning the occupational health hazards and the considerable morbidity that it accompanies. Mostly attracting the lower working class, this occupation is a source of income of a large number of households. The ignorance and preventability of the occupational hazards necessitates intervention. The objectives are to assess the utilization of safety practices, identify the existence of health hazards and the intervention taken by welders for various hazards. Objectives: 1) To assess the utilization of safety practices by the welders of Karachi. 2) To identify the existence of occupational health hazards among welders in Karachi 3) To list the interventions taken by the welders for various occupational health hazards. Methods: A structured questionnaire was administered on a cross-section of 300 welders in the city of Karachi in Pakistan. Information was sought on their socio-demographic characteristics, their awareness of occupational hazards and adherence to safety measures. All ethical considerations were taken into account. Results: All welders were males with a mean age of 31.74 ±11.02 years. The literacy rate was 73%. Overall, 58.3% responded that there is no risk to their health in welding profession. Although 93% respondents do have eye goggles, 34% never or occasionally utilizes. The most common injuries sustained were arc eye injuries/foreign bodies, cut/injuries to the hands and fingers, burns, back/waist pain. The majority (72.7%) of the respondents did not have any special training regarding their work. Seventy-six percent responded that it was not necessary to take safety measures and they could work easily without them. Conclusion: There is a lack of standard safety practices leading to injuries among welders. There is need for health and safety education of these workers for health and increased productivity.

Use of occupational safety measures and health hazards among coal mine workers in Sindh, Pakistan

Syed Muhammed Mubeen, Associate Professor
dr_mubeen@hotmail.com

Jawaria Khan, Final Year MBBS student, Hamdard College of Medicine & Dentistry, Hamdard University, Karachi, Pakistan

Background: Pakistan has huge coal reserves involving large number of workers for its extraction. These workers are at-risk for various health hazards especially related to lung. The Coal Mine Act of Pakistan documents separate sections of health and safety of coalmine workers. The objectives are to assess the safety measures adopted by coal mine workers working in Sindh, Pakistan. It further identifies the various occupational health hazards present among coal mine workers. Methods: A cross-sectional study done on 100 coal miner of Sindh by a structured questionnaire. Information was sought on their socio-demographic characteristics, their use of health safety equipments and the presence of health hazards. Peak flow meter and X-ray chest was done. All ethical considerations were taken into account. Results: All miners were males with a mean age of 31.64 ±10.1 years. The literacy rate was 23%. Overall, 62% coal miners do not possess a helmet and boots during their work. Only 5% miners posses face mask and jackets. The majority had hand and back pain (59%) and productive cough (55%). Others included burns (20%), injuries (24%), heartburn (39%) and difficulty in breathing (38%). Sixty-three percent miners have decreased vital capacity (FEV) whereas X-ray chest showed nodular densities (30%), fibrosis (24%) and flattening of domes of diaphragm (39%). Conclusion: There is a lack of use of protective equipment along with health hazards of varying degrees among coal miners. There is a dire need for developing awareness and training programmes for these workers.

Fatal and nonfatal mining injury rates and associated factors among operators and contractors

Saeher Muzaffar, University of Pennsylvania
saeher.muzaffar@uphs.upenn.edu

Kristin Cummings, National Institute for Occupational Safety and Health; Gerald Hobbs, West Virginia University; Paul Allison, University of Pennsylvania; Kathleen Kreiss, National Institute for Occupational Safety and Health

Background and Objective: Fatality and injury rates have been elevated historically for contract miners. This study explored recent trends in fatal versus nonfatal injuries and factors associated with these injuries among contractors and operators using the Mine Safety and Health Administration database. Methods: Cross-sectional surveillance data on 157,410 miners during 1998-2007 were analyzed using logistic regression to assess the association between injury outcomes and independent variables including employment type; age; mining type; work location; shift; hours at work before injury; and mining experience. Rate ratios based on full-time employee equivalents (FTEs) were computed using a binomial probability model. Results: Overall rates of fatal injury for contractors and operators were 36.5 and 22.6 per 100,000 FTEs, respectively, with a rate ratio for contractors versus operators of 1.62 [95% confidence interval (CI) = 1.35, 1.93]. In contrast, injury rates for contractors and operators were 3.4 and 5.1 per 100 FTEs, respectively, with a rate ratio of 0.65 (95% CI = 0.64, 0.67). Odds of fatal versus nonfatal accident were 2.8 (95% CI = 2.3, 3.4) times higher for contractors than operators in univariate analyses. In a multivariable model using multiple imputation for missing data and adjusted for age and year, fatality was associated with contractor, less experience at the current mine, and occurrence > 8 hours into the workday ($P < 0.05$ for each). Interaction terms indicated increased odds of fatality for underground non-coal mining, operators in underground mining, and contractors in surface mining. Conclusion: Contractors had higher rates of fatal injuries while nonfatal injury rates appeared higher among operators. Possible differential reporting of nonfatal injuries by contractors and operators warrants study. In addition to employment type, fatality varied by mine experience, number of hours worked before injury, work location, and mine type. Interventions addressing these factors may be beneficial.

Socioeconomic Disparities in Work-Related Injury Prevalence among Teens

Douglas J. Myers, Duke University
douglas.myers@duke.edu

Kimberly J. Rauscher West Virginia University Morgantown, WV krauscher@hsc.wvu.edu

Background and Objectives: Studies of work-related injuries among teenagers have largely been descriptive and few have considered whether social disparities exist in injury risk among young workers. We examined the relationship between socioeconomic status (SES) and the likelihood of reporting work-related injuries among a sample of working youth in the United States. Methods: Working teens from five metropolitan high schools with very different racial compositions (two on the west coast and three on the east coast) were surveyed. A total of 2,277 usable surveys were collected. Teens were asked if they ever experienced an injury while on the job. Mother s education (highest level achieved) was used as the primary measure of SES and was modeled a set of categorical variables (less than high school diploma, high school diploma/some college, college degree, advanced degree). A secondary SES measure was a dichotomous variable which indicated that financially supporting one's family was a motivation for working. The high prevalence of injuries led us to use Cox regression to model prevalence ratios and adjust for confounders. Results: A regression model adjusted for school, race, sex, age and duration since first employment showed that SES was inversely associated with work-related injury prevalence ($p=0.03$). However, in race-stratified models this inverse relationship occurred only among whites ($p<0.01$) but not among blacks ($p=0.41$), Hispanics ($p=0.81$) nor Asians ($p=0.71$). Those who said they work to financially support their families had elevated work-related injury prevalence (PR = 1.19, 95% CI [1.06-1.34]) after adjusting for school, race, sex, age and duration since first employment. In a race-stratified model, we found this association persisted among whites (PR = 1.21, 95% CI [1.00-1.48]), blacks (PR = 1.25, 95% CI [0.96-1.63]) and Hispanics (PR = 1.40, 95% CI [1.05-1.86]) but not among Asians (PR = 1.06, 95% CI [0.86-1.32]). Conclusion: These exploratory findings support the hypothesis that young workers of low SES, indicated by mothers' education, are more likely than their peers of higher SES to report having been injured at work. However, this association varied by race and ethnicity, which was clustered within high schools from the various metropolitan regions. A secondary measure of SES indicated that teens who work to support their families report higher prevalence of work-related injury for all races and ethnicities except Asians. Analyses of explanatory factors of the SES and injury prevalence association such as differences in work hazardousness and access to safety information are currently under way.

Sociodemographic Correlates of Workplace Eye Injuries

Manuel A Ocasio, Department of Epidemiology & Public Health, Miller School of Medicine, University of Miami
mocasio@med.miami.edu

Alberto J. Caban-Martinez1, Lora E. Fleming1, Kristopher L. Arheart1, Tainya C. Clarke1, Anat Galor2, Byron Lam2, D. Diane Zheng1, Kathryn McCollister1, David J. Lee1 University of Miami School of Medicine, 1Department of Epidemiology & Public Health and 2Bascom Palmer Eye Institute

Background and Objectives Evidence suggests that some groups are at a greater risk of work-related eye injuries. Despite health and safety requirements, eye injuries continue to occur in the workplace. This study seeks to identify sociodemographic correlates of lifetime workplace eye injuries among workers residing in 11 U.S. states (Alabama, Arizona, Florida, Georgia, Iowa, Louisiana, New York, Ohio, Tennessee, Texas, West Virginia). Methods Using the 2005-2007 Behavioral Risk Factor Surveillance System (BRFSS), a nationwide state-based telephone survey, we analyzed data on work-related eye injuries and associated lost work days from 69,558 participants in 11 states which included an ocular health module. Logistic regression analyses were performed to identify potential predictors of ever incurring a lifetime workplace eye injury. Results Lifetime workplace eye injuries were highest in West Virginia (12.7%±0.7) and lowest in Louisiana (6.6%±0.8). In pooled analyses, males (odds ratio; [95% confidence interval]; 6.51; [5.77-7.34]), persons with visual impairment (1.29; [1.17-1.43]), and overweight (1.12; [1.01-1.26]) and obese (1.19; [1.04-1.35]) individuals were significantly more likely to report incurring a workplace eye injury in their lifetime. Non-Hispanic blacks were significantly less likely to report incurring a workplace eye injury in their lives (0.52; [0.43-0.63]), but were more likely to miss 1-3 work days when injured (2.69; [1.02-7.40]). Compared to those who reported no visual impairment, those with visual impairment were significantly more likely to miss four or more days of work (2.47; [1.21-5.03]) than not miss any days of work due to the injury. Conclusions Occupational eye injuries are prevalent in the U.S. workforce with males at notably higher risk as well as variability in prevalence rates across examined states. Compared to Non-Hispanic whites, Non-Hispanic black workers had a lower likelihood of reporting an eye injury but were more likely to miss work due to the injury. This finding raises the possibility that non-Hispanic black workers may experience more severe occupational eye injuries. Visual impairment was associated with lifetime eye injury risk, although a causal association cannot be determined given the cross-sectional nature of the survey and lack of information on the long term consequences of the occupational eye injury. Additional emphasis and research on ways to reduce occupational eye injuries in the U.S. workforce is needed.

Workplace Age Discrimination and Psychological Health among Older Workers

YoungAh Park, Bowling Green State University, Psychology Department
ypark@bgsu.edu

Steve M. Jex (Bowling Green State University, Psychology Department)

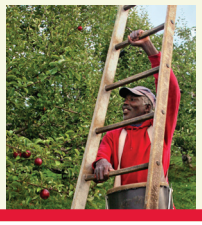
1) Background The number of all charges filed under the Age Discrimination in Employment Act (ADEA) in the U.S. has risen 145% over the past 10 years (U.S. Equal Employment Opportunity Commission, 2010). Older workers over 45 years old are projected to constitute almost half of the American workforce in the near future (Toosi, 2004). The increase in workplace age discrimination, combined with the growing number of older workers, poses concerns to society, organizations, and older workers. This study examined older employees' workplace age discrimination experience such as interpersonal mistreatment, unfair treatment regarding work assignment, training, and promotion, and social exclusion at work due to age and its association with four psychological health and well-being indicators (i.e., General Health Questionnaire, life satisfaction, self-esteem, vigor at work). 2)Method Data were collected from 193 employees over the age of 45 who worked in a variety of industry and organizations (age range = 45-73 years old). Participants responded to an anonymous on-line survey. All the study variables were self-reported: perceived age discrimination at work, General Health Questionnaire, life satisfaction, self-esteem, vigor at work, and organization-based self-esteem. Negative affectivity was controlled for in a series of hierarchical regression analyses along with demographic covariates (i.e., sex, race, marital status, income level, job tenure, employment status). 3)Results The results from regression analyses supported that older employees who were discriminated against in their workplace were more likely to experience psychological distress (i.e., depressed, sleep loss, worries, strains, lack of concentration, low self-esteem) and less likely to be satisfied with their life. They also reported experiencing a lack of vigor at work. Sobel and bootstrapping tests further showed that all the negative relationships between perceived age discrimination and well-being indicators were mediated by organization-based self-esteem. 4)Conclusion The findings suggest that workplace discrimination based on age played a role as a stressor to those older employees as it was consistently related to the multiple indicators of psychological health and well-being. Also, the results indicate that age discrimination threatens older employees' self-worthiness in organizations, namely organization-based self-esteem. Thus, workplace age discrimination may impose an additional health risk to the aging workforce beyond other psychosocial stressors at work. The lack of vigor at work that participants reported may also be a warning sign for health-related problems and inhibit older workers from working safely. Therefore, we call for more research attention to workplace age discrimination, its longitudinal impacts on health- and safety-related outcomes, and potential community and organizational interventions that can support aging workers.

Differences by ethnicity, language and immigrant status within jobs and within tasks and their impact on occupational health

Stephanie Premji, School of Labour studies, McMaster University, Ontario, Canada
spremji@mcmaster.ca

Background and objectives. In studies looking at the relationship between variables of race/ethnicity, language or migrant/immigrant status and rates of occupational health problems, differences between groups often persist in analyses that control for job title or task assignment. At the same time, studies that have examined individual occupations have found disparities in working conditions and associated health problems by social category. While a few conceptual works have provided frameworks for the understanding of social inequalities in occupational health, few and scattered information is available on social differences within jobs and within tasks that can influence exposure to risk. Methods. We examined empirical evidence from peer-reviewed articles and research reports on the links between racialized status and occupational health within the same jobs or tasks. The literature review included studies from developed and developing countries but focused on North America as it generates the bulk of research in this area. Results. We propose a conceptual framework that addresses the multiple ways in which the aforementioned social variables can influence occupational health within job categories and task assignments. We document differences in task assignments as well as social, cultural and economic factors that may influence within-task risk exposure for individuals of different groups. We also describe differences in access to medical care and workers compensation since occupational health services can mediate the effects of risk exposure in the workplace. The framework emphasizes the role of structural forces in creating or amplifying differences in occupational health. Conclusions. Mechanisms underlying these phenomena need to be explored since higher rates of accidents or illnesses among certain groups have been interpreted as reflecting an increased susceptibility rather than an increase in exposure. The identification of mechanisms also presents opportunities for action aimed at reducing inequalities. We propose that a multidimensional, systemic model is needed to properly frame results of epidemiological studies.




Small Residential Construction In Philadelphia: Reducing fatalities through enforcement,participatory training, and community involvement.

Barbara Rahke, Philadelphia Area Project on Occupational Safety and Health (PhilaPOSH)
Philaposh@aol.com

Nicole Charles, Philaposh Training Coordinator; Javier Garcia Hernandez, Philaposh Trainer and Latino Outreach Coordinator

1) Background and Objective. To reverse the flow of residents from Philadelphia, City Council enacted property tax abatement on newly constructed and rehabilitated homes in 1997. A residential construction boom followed, with tragic consequences for the workers. Starting in 2005 construction fatalities in the Philadelphia area began to spike to higher than national average. In response OSHA initiated a special emphasis program on residential construction for the Philadelphia area. In 2007 and 2009 PhilaPOSH received Susan Harwood grants to conduct fall protection training to small residential construction contractors and workers. This began an informal and unique partnership between OSHA and PhilaPOSH which combined stepped up enforcement of and free training for the smaller residential contractors who did not have resources, knowledge, or will to provide training for its workforce. PhilaPOSH had the experience to provide training to these hard to reach workers. 2) Methods. Multiple methods are used to set up and conduct training. Equal emphasis in the training is devoted to realistic discussion about the ways the knowledge gained in the training can be applied at the job site. Methods to set up training include: a)referrals by OSHA of contractors cited for fall protection violations; b) collaborations with community and faith based organizations; c) unscheduled visits to job sites by trainers who are bi-lingual and can speak directly with workers; and d) training with food at community activists' homes or centers, especially for immigrant workers. 3) Results. Residential construction fatalities have gone down and stayed down since the OSHA emphasis program and training collaboration with PhilaPOSH began. Repeat violations by contractors have occurred, but overall follow up evaluations have been positive. Contractors have called to set up additional training for new hires and sub contractors. Quantifiable follow up evaluations for workers are difficult because of the transitory pattern of this workforce. Anecdotal responses have been persuasively positive. Numerous calls from trainees about violations and requests for help have been received. PhilaPOSH is developing worker leaders to become advocates for workplace safety and health within their communities. 4) Conclusions. Aggressive OSHA enforcement of residential construction, coupled with effective, participatory training, has positive outcomes in reducing fatalities and changing employers' practices. In order to effectively train these workers and empower them to act on their training, there must be community based outreach and involvement that reflects the cultural diversity of the workforce and that builds trust and connection with the workers.

Silica Exposure in Decline, but Ethnic Workers Remain at High Risk

Rebecca L. Reindel, MS, MPH, CPH, George Washington University, Department of Environmental and Occupational Health
reindel8@gmail.com

David F. Goldsmith, PhD; George Washington University, Department of Environmental and Occupational Health, Washington, DC

BACKGROUND AND OBJECTIVES: In the United States and other industrialized nations, the risk of silicosis mortality has declined. This decline is largely a function of enhanced prevention practices in many dusty industries, including health surveillance, improved capture of silica dusts, use of wet methods and regulation. However, this decline masks concerns about the burden of silica-related diseases impacting minority ethnic groups in the U.S. and immigrant groups in a global context. METHODS: Current silica disease risks were analyzed to include trends of silica-exposed populations. In the past decade, recent immigrants from Latin America have tended to constitute the skilled and unskilled construction worker populations; among Mexican men sandblasting near Midland-Odessa, Texas in the early 1990s, the most serious finding was acute silicosis cases. Current construction practices include dusty cement sawing without using wet methods, and evidence points to silicosis cases arising from dry cement cutting. Another occupation, uranium mining, was common among Navajo Indians and white miners in the southwestern U.S. According to NIOSH data, Navajo workers have elevated risks for both silicosis and other pulmonary diseases, including lung cancer. Excess lung cancer among Navajo men is more remarkable given that these men smoke much less than the general U.S. population. Michigan Silicosis Registry data indicate African-American men have seven times the risk of whites, a function of black workers taking the dustiest jobs, including sand blasting and foundry work after World War II. RESULTS: Silicosis mortality risk is declining, but it remains a concern that residual risk falls within the lungs of minority workers. Worker education that includes effective ways to prevent silica inhalation must be a focus for global health leaders. Furthermore, the definition of silica-related illnesses should be expanded to include scleroderma, rheumatoid arthritis, kidney disease, and tuberculosis, as well as lung and other cancers. CONCLUSION: Occupational and environmental medicine leaders must sustain pressure for improvements to reduce silica dust exposures. These efforts must include international programs so that developing countries and their workers will see effective prevention policies for silica-related diseases. Health advocates must continue to warn minority workers of the dangers of unprotected silica exposure.

Investigating the influence of work stressors on the mental health of U.S. born and immigrant women: Results of a qualitative study

Rashaun Roberts, NIOSH
rsr3@cdc.gov

Background: Gender differences occur in rates of certain mental disorders including depression, anxiety and somatic complaints. For example, major depression, which is expected to become the second cause of global disability burden by 2020, is not only twice as common in women but may be more persistent in women than men. Further, women suffer from higher rates of anxiety. A number of investigations have been conducted to identify the contribution of work and the workplace to problems in women's mental health. Overall, these studies provide support for the idea that certain job and workplace stressors can have profound effects on the mental health status of women. For example, previous research has found that shift work, long hours of work, job insecurity, and low co-worker support are associated with increases in psychological distress among women. Although these investigations have cast an important light on the connection between work and women's mental health, study samples upon which conclusions have been based have tended to be comprised predominantly of non-Hispanic whites. While U.S.-born minority and immigrant women comprise a significant proportion of the total U.S. labor force, few studies have made identifying workplace stressors that affect their mental health a focal point of investigation. Minority and immigrant women may be at even greater risk for problems in mental health as they tend to be overrepresented in low paying jobs that are inherently stressful. Further, because of their multiple statuses, they may be exposed to stressors not only associated with gender but ones that are related to age, race, nationality, and other characteristics. Methods: In the current study, 16 focus groups were conducted. U.S. born groups consisted of Black, Hispanic, American Indian and White women while immigrant groups consisted of Polish, Mexican or Korean women. Results: All groups reported exposures to working conditions traditionally linked to poor health (high job demands, low control). Exposure to gender discrimination was also widely reported irrespective of age, race, ethnicity and nationality. In addition to gender discrimination, episodes of racial and ethnic discrimination were described by U.S. born and immigrant women of color. Immigrant women identified language and accent discrimination as additional workplace exposures. Conclusion: Immigrant and U.S. born minority women reported exposures to generic, ethnocultural, and gender-related stressors traditionally linked to poor mental health outcomes. Additional studies need to be conducted to help shed additional light on the health and safety burden these stressors place on these understudied populations. Studies are also needed to identify prevention strategies to help reduce and eliminate this burden.

Latina household workers in Los Angeles describe workplace hazards that occupational surveillance systems fail to capture

Michael Rodriguez, University of California, Los Angeles Department of Family Medicine
mrodriguez@mednet.ucla.edu

Adam Richards, UCLA Department of Neurology; Marlom Portillo, Instituto de Educacion Popular del Sur de California; Ruby Gonzalez, UCLA Geffen School of Medicine; Gery Ryan, RAND

Background: High demand for low cost labor in the United States has led to a rapid rise in the number of Latin American immigrants working in the informal sector, but little is known about the hazards faced by female household workers who remain largely invisible to occupational health surveillance systems. Published surveys suggest that non-payment of wages and exposure to toxic chemicals and violence is common. However, much remains unknown about the context of these risks, their relationship to mental health, or the coping strategies employed by household workers to reduce these risks. We used qualitative community partnered participatory research (CPPR) methods to explore occupational hazards and coping strategies female household workers use to promote their own health. Methods: The study arises out of a partnership between the Institute of Popular Education of Southern California (IDEPSCA), the UCLA Robert Wood Johnson Clinical Scholars Program, the UCLA Department of Family Medicine, and RAND Health. This qualitative study comprises the formative stage of a CPPR project whose primary aim is to develop a mobile phone platform for the surveillance of occupational hazards, their precipitating factors and health-related consequences among immigrant Latina workers in Southern California. We conducted five focus groups to explore the context and sequelae of occupational risks of household work. Primary exploratory domains included the relationship of working conditions to self-perceived health; threats to personal safety or security; and strategies to reduce occupational risk. Results: Twenty five household workers participated in five focus groups. In addition to chemical exposures and situational threats to their physical health, participants emphasized stressful and demeaning experiences that compromised their mental health, such as lack of honesty in wage negotiations, verbal harassment and sexual assault. Poor communication between workers and their employers regarding the scope, duration and compensation of household work contributed to many workplace hazards. Participants highlighted numerous coping strategies they believed might assist other workers to navigate their constrained risk environments. Conclusions: Household workers described relationships between workplace threats to their physical and mental well-being that traditional occupational health surveillance systems fail to capture. Surveillance efforts that incorporate worker-defined exposures as well as potential strategies to minimize workplace hazards may inform ongoing efforts to extend state and national occupational health and safety regulations to household workers, such as the California Domestic Work Employee Equality, Fairness, and Dignity Act currently under consideration by the California State legislature. Keywords: occupational health; community partnered participatory research; household worker; Latina immigrant; violence

Heat, health, and human casualty: Counting cases of occupational heat-related illness in California

Rachel Roisman, California Department of Public Health - Occupational Health Branch
rachel.roisman@cdph.ca.gov

Kathleen Fitzsimmons, Massachusetts Department of Public Health; Francisco Meza, California Department of Public Health EIS Field Assignment Branch, SEPDPO; Amalia Neidhart, California Division of Occupational Safety and Health (Cal/OSHA); Martha Jones, California Department of Industrial Relations; Janice Prudhomme, California Division of Occupational Safety and Health (Cal/OSHA); Dennis Shust

Background and Objectives: The death of a farmworker due to heat stroke prompted a United Farmworkers campaign and in 2005 California became the first state to develop a regulation to protect workers from heat-related illness (HRI). The regulation requires that employees be provided with water, shade, and rest and that employees and supervisors undergo heat illness training. Methods: We reviewed data from two sources to characterize HRI and to estimate the effect of the Cal/OSHA regulation on preventing severe HRI. We analyzed claims data from the Department of Industrial Relations Workers' Compensation Information System for HRI claims from 2000-2007. We calculated total numbers and rates of HRI claims and evaluated differences in claim rate by demographic characteristics including ethnicity, industry, occupation, and county. We analyzed enforcement data from Cal/OSHA for all serious or fatal HRI reported to and investigated by Cal/OSHA from 2005-2009. We compared numbers, demographics, severity, and prevention measures for each year. Results: The total percentage of claims in WCIS for HRI (69% vs. 31%), was greater for non-Hispanic workers than for Hispanic workers with 3.8 HRI claims per 100,000 claims for both groups. HRI claim rates (per 100,000 workers) were highest for mining (31) and public administration (22) with agriculture rates third (11). HRI claim rates were highest for fire fighters (308) and were 16.2 per 100,000 farmworkers. The Cal/OSHA data revealed that more than 50% of the total cases of serious and fatal HRI were in the construction and agriculture industries. Reductions in the total number of cases and fatal cases, as well as in the percentage of cases among Hispanic workers, corresponded to the implementation of the heat illness standard. Conclusions: We expect differential reporting to each system based on a variety of factors and we will discuss the challenges of surveillance of HRI among low-income, non-English speaking workers. In spite of the standard, farmworkers continued to die from HRI and in 2010 the Cal/OSHA Standards Board approved revisions to the standard and an ambitious heat illness prevention campaign was conducted focusing on low-wage, non-English speaking, agricultural workers. While the Cal/OSHA data suggests that the standard is effective at reducing HRI, environmental factors, such as climate change, are expected to increase the frequency and severity of heat waves and thus of HRI in the future. Therefore, adequate methods of tracking cases, particularly among the most high-risk, and difficult to count populations, are necessary.

Training and Community Partnerships: Successful Strategies for Workforce Development

Mitchel A. Rosen, UMDNJ-School of Public Health
mrosen@umdnj.edu

1) background and objectives The UMDNJ-School of Public Health, through the New Jersey/New York Hazardous Materials Worker Training Center provides job training programs for unemployed and under employed individuals. UMDNJ has provided this training since 1995 with funding from the National institute of Environmental Health Sciences. Key issues to successful partnerships will be identified in this presentation. 2) methods The training program is cooperatively conducted by a unique partnership of organizations that combines technical, outreach, educational, and community advocacy strengths. The partnership links minority-led environmental and community-based organizations with union and academic training programs in order to train underrepresented minorities to work safely in the successful restoration of contaminated sites. The training utilizes existing curricula that may be modified with enhancements to meet the needs of the target populations. 3) results The NJ/NY Center has provided training to community residents and has successfully graduated over 80% of program participants. As this initiative has matured, its performance has steadily improved and today achieves excellent training completion, job placement, and job retention of its graduates. In addition, engaging in continuous dialog with employers and policymakers to enhance and expand the curriculum to meet their needs as well as the graduates has kept the Program competitive. The training provided also enabled them to receive critical certifications and find jobs in the environmental industry. 4) conclusion The success of the program is measured by the number of program graduates that successfully gain employment due to our efforts. Collaborations between academia, unions, community based organizations, employers, and other community resources are essential to successfully impact job placement and community development. This presentation will identify successful collaborations that have effectively developed jobs in environmental clean-up, construction, and green jobs.

Farmworker Exclusions from Occupational Safety and Health Protections

Virginia Ruiz, Farmworker Justice
vruiz@farmworkerjustice.org

Agricultural work is one of the most dangerous jobs in the U.S. The hazards, in conjunction with the poverty, vulnerability, and lack of knowledge about workplace rights have exacerbated the safety and health of migrant farmworkers. Agriculture presents many occupational safety and health hazards, including exposure to pesticides, lack of adequate drinking water and unsanitary working conditions, musculo-skeletal injuries from lengthy stooping, lifting, and cutting farm machinery and equipment, including tractors, ladders and sharp tools, and exposure to extreme weather conditions. Despite the uniquely dangerous work and vulnerable workforce, few occupational health and safety laws protect farmworkers, and some specifically exclude them. Occupational Safety and Health Act: The OSH Act contains a large number of general safety and health standards. However, most of these standards do not apply to agricultural workplaces. Among the many OSHA standards that exempt agriculture are ladder safety requirements, protections against electrocution and unguarded machinery, requirements to inform employees about work hazards, and whistle-blower protections. There are only seven standards that do apply in agriculture, and even these are of limited value because Congress has forbidden funds made available for OSHA enforcement to be applied to farms with fewer than 11 employees. Pesticide Safety Protection of agricultural workers from pesticides falls under the jurisdiction of the EPA rather than OSHA. EPA s Worker Protection Standard is generally weaker than OSHA s standards. Moreover, the EPA s enforcement and inspection powers are much weaker than OSHA's. Workers' Compensation: In many states, agricultural employers are not required to provide farmworkers with workers' compensation insurance to protect them when they suffer a job-related illness or injury. Such coverage also creates an incentive for employers to lower their insurance premiums by providing safer workplaces. Only 13 states require employers to cover seasonal farmworkers to the same extent as all other workers. Farm work does not need to be so dangerous. Farmworkers should be included in standards currently being developed regarding fall protection and injury and illness prevention as well as existing, relevant regulations that protect workers in other occupations from hazards. Employers should be required to provide workers compensation coverage to farmworkers. The US EPA should act quickly to improve the Worker Protection Standard. Major reforms of the WPS are necessary to reduce the exposure of farmworkers and their families to pesticides.

Effort-Reward Imbalance & Mental Health among Restaurant Workers in San Francisco's Chinatown

Alicia L. Salvatore, DrPH, Stanford Prevention Research Center, Stanford University School of Medicine
asalvatore@stanford.edu

Catherine Heaney, PhD (Stanford University); Pamela Tau Lee, Charlotte Chang, DrPH (Labor Occupational Health Program, UC Berkeley); Meredith Minkler, DrPH (UC Berkeley School of Public Health); Shaw San Liu (Chinese Progressive Association); Megan E. Gaydos, MPH, Rajiv Bhatia, MD, MPH (San Francisco Department of Public Health); Niklas Krause, MD, PhD (UCLA)

Background and Objective: Adverse psychosocial working conditions pose numerous risks to workers' health and wellbeing. In particular, situations of effort-reward imbalance (ERI), a mismatch of perceived efforts (workplace demands) and workplace rewards (financial, esteem, job security, and promotion prospects) (Siegrist, 1996) have been found to be associated with poor health and adverse mental health outcomes. To date, few studies have examined the relationship between ERI and mental health among low wage, immigrant workers. Using data collected in an ecological, Community Based Participatory Research (CBPR) study carried out in San Francisco's Chinatown, we examined the relationship between ERI and depression and generalized anxiety among Chinese restaurant workers. Methods: The university-community-health department partnership conducted a survey of working conditions and health with 405 restaurant workers in 2008. Jointly developed questionnaires were administered in three languages by trained community residents. Siegrist's Effort-Reward Imbalance (ERI) scale was used to assess the psychosocial work environment. The Center for Epidemiologic Studies Depression Scale (CES-D) was used to screen for depression. The anxiety subscale of the Hospital Anxiety and Depression Scale (HADS-A) was used to screen for generalized anxiety. Individual worker characteristics (e.g., gender, age, education, time in the U.S., citizenship status) and other workplace factors were also measured. Multivariate regression models were constructed to assess the relationship between ERI and psychological outcomes. Models were adjusted for gender, age, time in U.S., and total weekly working hours reported by workers. Results: Ten percent of Chinatown restaurant workers who participated in the survey experienced effort reward imbalance (ERI>1). Twenty-two percent screened for depression and eighteen percent screened as anxious. ERI as well as the individual measures derived from Siegrist's ERI model (effort, reward, and ratio of efforts and rewards) were strongly and significantly associated with both depression and anxiety in the adjusted models. Conclusion: Although the cross-sectional nature of this study precludes establishment of causality, results suggest a need for interventions to improve Chinese restaurant workers' psychosocial working conditions. The high prevalence of generalized anxiety and depression among workers in this study call for culturally-appropriate mental health and supportive services for workers and their families. Additional research is needed to more fully understand the relationships between psychosocial and physical working conditions and worker's health.

Identifying and Addressing Health Disparities in the Low-Income Workforce within the Veterans Health Administration (VHA): Results from a National Wellness Survey

Tamara M. Schult, MPH, Office of Occupational and Environmental Hazards, Veterans Health Administration, Washington D.C.
Tamara.Schult@va.gov

Ebi R. Awosika, MD, MPH and Michael Hodgson, MD, MPH; Office of Public Health and Environmental Hazards, Veterans Health Administration, Washington D.C.

Background and Objectives: The Department of Veterans Affairs (VA) provides federal benefits for Veterans and their families. The Veterans Health Administration (VHA), the health care arm of VA, is the largest integrated health care delivery system in the U.S. In 2008, recognizing the need to improve employee health, VHA funded the development of a worksite health promotion program, including a national wellness survey. The objectives of the survey were to: 1) provide results on the prevalence of health behaviors and chronic health conditions in VHA employees, 2) highlight disparities that exist between occupations, and 3) identify strategic implications based on key findings and disparities to guide national program development. Methods: A national wellness survey of employees (n = 29,834 responses) was administered in 2010 to employees in VHA. Overall age-adjusted prevalence estimates for VHA employees were compared to national estimates from the Behavioral Risk Factor Surveillance System surveys. VHA estimates were also analyzed for physicians (MDs) and dentists; physician assistants (PAs) and nurse practitioners (NPs); registered nurses (RNs); licensed practical nurses (LPNs) and nursing assistants (NAs); other clinical; non-clinical; and wage grade (WG) staff who include trade, craft, and labor workers. Further subgroups within occupations were defined by ethnicity, race, and gender. Results: Overall, VHA employees have higher rates of unhealthy behaviors and chronic health conditions than U.S. adults, except for smoking (15.2% in VHA vs. 20.4% of U.S. adults). Smoking rates in low-income workers in VHA however are much higher. Results illustrated significant disparities between occupation groups and by demographics within occupation groups. Specifically, comparisons between the highest income workers (MDs and dentists; PAs and NPs) and the lowest income workers (LPNs and NAs; WG staff) are quite disparate (see table below). Health Behavior or Chronic Condition MDs/Dentists(%) PAs/NPs(%) LPNs/NAs(%) WG Staff(%) Smoking 3.5% 5.8% 28.9% 26.4% Obese 15.1% 24.9% 44.7% 40.8% Sedentary 16.3% 20.4% 33.6% 31.5% Diabetes 3.9% 2.7% 9.3% 7.7% HBP 19.6% 19.9% 26.5% 27.7% Arthritis 17.1% 31.7% 32.5% 32.3% Avg Base Salary $120,856 $82,220 $35,542 $38,520 Salary estimates do not include benefits or locality pay adjustments. Conclusions: Despite high rates of health insurance coverage provided in VHA through the Federal Employee Health Benefits Program (FEHBP), VHA's population appears less healthy than the U.S. general population. Of great concern are high rates of unhealthy behaviors and high rates of chronic conditions in VHA's lowest income workers. Disparities between occupation groups support the establishment of targeted health promotion programs.

Introduction to Health Disparities Calculator (HD*Calc)

Steve Scoppa, Information Management Services, Inc.
ScoppaS@imsweb.com

Nancy Breen, PhD 1, Steve Scoppa, BS 2, Sam Harper, PhD 3, Stephen Meersman, PhD 4, Antoinette Percy-Laurry, MPH 1, Dave Campbell, BS 2, John Lynch, PhD 5. (1) Applied Research Program, National Cancer Institute, Bethesda, MD 20892. (2) Information Management Services, Inc., . (3) Department of Epidemiology, Biostatistics, and Occupational Health, McGill University, (4) John Snow, Inc., Boston, MA., (5) Sansom Institute for Health Research, University of South Australia

Background and Objectives: This presentation will demonstrate the Health Disparities Calculator (HD*Calc). Quantitative estimates of the magnitude, direction, and rate of change of health inequalities play a crucial role in creating and assessing policies aimed at eliminating the disproportionate burden of disease in disadvantaged populations. It is generally assumed that quantitative measurement of health inequalities is a value-neutral process and that the resulting data provide an objective basis for creating and assessing value-driven policies, but this assumption is flawed. Descriptive measures of the magnitude of health inequalities often contain implicit judgments and different measures can yield conflicting results about the magnitude and direction of inequalities. Methods: Familiar and novel measures of health disparities were reviewed and applied to national data sets by our research team in two monographs and three published manuscripts (http://seer.cancer.gov/hdcalc/). The monographs concluded that to fully understand health disparities and to make progress in eliminating them, it is important to examine multiple summary measures. This work concentrates on the situation when a summary measure of disparity is needed across more than two groups, as for Healthy People disparity objectives; and it calls for greater transparency and more widespread acknowledgment of the normative justifications underlying measurement decisions. Results: The findings that two measures may lead to opposite conclusions as to whether a health disparity is increasing or decreasing over time and may vary by magnitude or strength of association led us to develop HD*Calc. HD*Calc software facilitates computation and graphic representation of 11 important summary disparity measures. Race/ethnicity, socioeconomic status and geographic areas can be used with HD*Calc to generate output that can be presented in both tabular and graphical formats. HD*Calc enables users to more fully explore their data and understand the implications of different measures. HD*Calc is flexible and can be used to specify a range of conditions and formats. Any data can be used with HD*Calc and several different data sets will be used to demonstrate HD*Calc. Conclusion: Values implicit in the generation of health inequality measures may lead to radically different interpretations of the same underlying data. HD*Calc helps researchers to explore this with their own data. HD*Calc is intended to arouse scientific curiosity and to enable users to more fully and easily interpret and summarize their findings with multiple approaches of measuring health disparities.

Improving Safety Training to Reduce Indigenous Nursery Workers' Pesticide Exposure: A Community-Based Participatory Research Study

Nargess Shadbeh, JD, Oregon Law Center
nshadbeh@oregonlawcenter.org

Linda McCauley, PhD, FAAN, RN - Emory University; Juan Muniz, PhD - University of Pennsylvania; Julie Samples, JD - Oregon Law Center; Melinda Higgins, PhD - Emory University; Virginia Ruiz, JD - Farmworker Justice; Santiago Ventura, BA - Oregon Law Center; Valentin Sanchez - Oregon Law Center; Carmen Gonzalez - Pineros y Campesinos Unidos del Noroeste

Background and Objective In Oregon, as many as 40% of farmworkers in labor-intensive crops speak indigenous languages such as Mixteco, Triqui, or Zapoteco, but pesticide safety training (when provided), is in Spanish or English, which many indigenous farmworkers do not completely understand. This insufficient training puts them at higher risk for pesticide exposure and its associated health effects. This poster presentation will describe a community-based participatory research study, funded by NIH (#5R24MD002798), to evaluate a specialized training intervention designed for indigenous nursery workers. Methods This multiyear study will test different training tools in combination. In 2010, the intervention consisted of an interactive training conducted by promotoras who speak indigenous languages; intervention group participants were also given an educational booklet with simplified language and many pictures. During the next round of testing in April 2011, the intervention will be supplemented with indigenous-language audio recordings of educational sociodramas dramatizing workplace safety themes. In 2010, we recruited 62 nursery workers who self-reported as indigenous and randomly assigned them to intervention and control groups. Before the intervention and approximately six weeks afterward, participants were given questionnaires in order to assess changes in their pesticide safety knowledge, and urine samples were obtained to assess the effect on pesticide exposure. Results In 2010, all participants had detectable levels of metabolites at baseline, with DMTP and DMP detected in 86% of the samples. Levels of metabolites decreased at post-test for both the intervention and control groups even though the workers reported that pesticide use had increased in the nurseries during that time period. In the intervention group, 65% of the intervention group had lower metabolite levels compared to only 46% in the control group (Chi-square=1.793, df=1, n=49, p=0.181). At baseline, the knowledge scores did not differ significantly between groups. Only 37.5% of the control group and 56.7% of the intervention group reported prior pesticide training. After the training, using a pairwise comparison, the intervention group showed a significant difference from baseline to post (p=0.050) while the control group did not (0.391). Over 50% of the intervention group improved their knowledge scores as a result of the training. Conclusion Indigenous farmworkers face numerous linguistic and cultural barriers in obtaining workplace safety information. Consistent with the initial study results, this poster presentation will demonstrate the feasibility and value of designing effective pesticide safety education materials for low-literacy and non-traditional language speakers.

Early occupational pesticide exposure in a migrant farmworker population

Ken Silver, D.Sc., East Tennessee State University
silver@etsu.edu

Amy Liebman, Migrant Clinicians Network; Karin Hoffman, Rural Medical Services; Alexis Andino, Rural Medical Services; Steve Manock, Rural Medical Services; Sheri Nsamenang, ETSU; Alex Munjal, ETSU; Sean O'Connor, ETSU; Sam Ashe, ETSU; Nathan Hitchcock, ETSU; Sharon Loury, ETSU; Joe Florence, ETSU

INTRODUCTION. The enhanced susceptibility of children and adolescents to the adverse effects of pesticides is a priority of regulatory agencies, whose primary concern is typically the development of risk-based regulations to protect consumers and the general population. An important subpopulation occupationally exposed to pesticides at an early age is the children of migrant and seasonal farmworkers. The extent to which such disparate exposures contribute to adverse health outcomes among members of this population is poorly characterized. Because this group is difficult to access, information is sparse on their age distributions and specific chemical exposures. METHODS. The regular summer health screenings performed on farms in East Tennessee by a health center afforded an opportunity for students and faculty in health professions to query farmworkers on issues of childhood and adolescent pesticide exposure. The health center is supported with funding from the Health Resources and Services Administration Migrant Health Center Program. For adults, routinely collected data on age and occupational history were used to infer the earliest age of potential exposure. In addition, parents were queried as to the amount of time their children spend in the fields, and their ages. Insights into chemical exposures were gained from publicly available crop-specific data on chemicals used by farms in the region. RESULTS. Data is presented on the earliest ages of potential exposure to pesticides among migrant and seasonal farmworkers and their children. Also, an overall picture of the demographics of this migrant population is shown. The findings are discussed in the light of data gaps identified by regulatory agencies on the differential susceptibility of children to specific pesticides. CONCLUSIONS. The migrant farmworker population is a largely untapped source of data on childhood and adolescent occupational exposure to pesticides. While this information may be useful to regulatory agencies concerned with protecting consumers from the risks of lower level pesticide exposure, it is also of intrinsic importance to evaluating potential disparities in health outcomes in farmworker populations.

Racial Differences in the Association between Socioeconomic Position and Mortality Among Working Adults in the U.S.: Does Occupation Matter?

Caroline K. Smith, Washington State Department of Labor & Industries, SHARP Program
smcb235@LNI.wa.gov

Hyeyoung Woo, PhD Department of Sociology Portland State University

Background Despite overall increases in life expectancy in the last 50 years, differential rates of mortality between blacks and whites still persist in the United States. In 2004, the average life expectancy was 4.5 years less for black versus white women and 6.2 years less for black versus white men (Arias, 2007). While it is well established that factors of socioeconomic position play substantial roles in mortality outcomes (Elo, 2009), the independent effects of each factor is less clear. The purpose of this study is to examine the effect of multiple measures of socioeconomic position, on rates of mortality, while including specific physical and psychosocial occupational risk factors. Because the labor market is often experienced differently by gender, all analyses are stratified by gender. Methods We use data from the National Health Interview Survey Linked Mortality File (NHIS-LMF). The NHIS is a multistage probability survey of the US non-institutionalized civilian population. The NHIS-LMF is ascertained by using a probabilistic match between NHIS and NDI death certificate records. We restricted our analytic sample to data from 1986-1994 for non-Hispanic white and non-Hispanic black, working aged adults (24-64 years old at time of survey). Using occupation information from the NHIS, we incorporate occupational information into our data from the Bureau of Labor Statistics Occupational Information Network (O*NET). O*NET provides a comprehensive standardized mechanism from which to evaluate the psychosocial, physical and worker characteristics by occupation. Results In multivariate survival analysis, stratified by gender, education, income, marital status and being non-Hispanic black, were all statistically significantly related to mortality for both men and women. When we used high-level Standard Occupational Classification (SOC) codes, occupational related risk is seen for both men and women, with women in Service Occupations having a 20% higher risk of mortality than women in Management, Professional and Related Occupations. When specific job characteristics from the O*NET replaced the SOC codes in the models, for women, jobs that frequently require specialized personal protective equipment (PPE), were 26% more like to be deceased than women who never had to use special PPE. Conclusion This study shows the distinct contributions of education, income and occupation on the risk of mortality in a nationally representative sample of employed people in the U.S. O*NET is a relatively promising tool for researchers who are interested in examining specific occupational exposures with outcomes such as morbidity and mortality, in datasets where occupational risk factors are lacking.

Health Disparities Among Hired Farmworkers at Work and at Home

Martha Soledad Vela Acosta, MD, PhD, MS, The Kresge Foundation
msvela-acosta@kresge.org

Don Villarejo, PhD

Background and Objective United States production of labor-intensive crops has increased rapidly in recent decades. Farmworkers and their families, the backbone of U.S. agriculture, are a vulnerable population: low-income; ethnic minority; mostly recent immigrants who lack authorization for U.S. employment; having low educational attainment, with limited English fluency; ineligible for nearly all needs-based government programs; and often without any social support. The goals of this paper are to: (1) summarize current knowledge about the health status of U.S. farmworkers and their families; (2) examine the relationship of farmworkers' health status to occupational, environmental and individual risk exposures as well as to regulatory policy; (3) assess the effects of the Patient Protection and Affordability Care Act (PPACA) of 2010 regarding farmworkers' access to care; and (4) propose a framework for substantially reducing health disparities among farmworkers and their families. Methods The study's criteria of inclusion were peer-reviewed publications dated from 2000 through March 2011,valid for the farmworker population as a whole. Reports were excluded if based on convenience samples or cross-sectional studies among larger population groups (of which farmworkers are a subset), unless findings demonstrated validity for a cross-section of farmworkers as well. Results Farmworkers are five times more likely to have an occupational fatality than workers in all industries combined. Among all major occupational categories, farmworkers rank worst in relation to health insurance: 75% of crop farmworkers are uninsured. They are less likely to seek and obtain health care services and therefore are more likely to have undiagnosed and untreated adverse health outcomes. Federal and State labor standards systematically exclude most farmworkers from protections afforded to other workers. Indigenous migrant newcomers are at high risk and some find themselves in debt-bondage. Adolescent newcomers are at even higher risk in the workplace, facing harassment, intimidation, or worse. The new PPACA laws will exclude most farmworkers from health insurance coverage subsidies. Conclusion As a marginalized workforce, the combined effects of low socio-economic status and the disparities described in health and workplace rights compel farmworkers to face health risks at home and at work that are unparalleled in the entire food system. The recently reported lack of association between crop farmworkers' use of health care services and county-based Federally Qualified Health Service resources underscores the need for effective programs to reach this workforce. A plan of priority action steps is proposed.

National assessment of health and working conditions of people working in informal economic activities in Colombia during 2006 and 2007

Monica-Lucia Soto-Velasquez, Universidad de Antioquia
monicaluciasotov.udea@gmail.com

Hernando Restrepo Osorio (Universidad de Antioquia); Elsa Maria Vasquez (Universidad de Antioquia); Jader Yepes Rojas (Universidad de Antioquia)

Background: During the last four decades, informal employment is expanding in developing countries. Although initially considered a temporary phenomenon, the rising unemployment, found the escape route through it. By 2011 more than 50% of Colombian workers work in informal conditions as an underserved population. Although they belong to the majority, we know little about them, as such, in Colombia research and occupational health legislation have been aimed at business and formal sector workers with better working, health and economic conditions. This is in part due to the characteristics of informal workers which make impossible to know the actual number and exact location. Objective: To conduct a national assessment of health and working conditions of people working in informal economic activities in trade and agriculture in Colombia, with the purpose of start a national surveillance program of occupational health conditions for informal workers. Methods: Of an estimated 4500000 persons employed in the informal sector in the country between 2006 and 2007, a sample of 17970 was taken. The workers were visited and interviewed and the workplace observed by occupational safety and health technicians. Results: 55.54% of respondents were in agricultural and the rest in trade of goods and services. 72.48% had more than 6 year-old in the informal employment turning from a transitional to a permanent activity. 69% were male, most of them aged between 18 and 59 years, however about 14% or more were above 60 years. 10.32% illiterate and 57.38% completed primary school. 2% of respondents had technical or university studies. 82% of respondents earned less than legal minimum wage. 66% were heads of households and 95% had one or more dependents. 68% were receiving state subsidies for health and only 2% for old age pension. Only 25.3% were homeowners. The 38.42% had unhealthy weight. In the past 6 months, 41.35% required a doctor visit. 21.54% reported suffering a work injury and 28.75% go to work even when sick. 60% worked more than 6 days a week and 42.5% worked 9 or more hours daily. 56.7% did not know how to act in case of an emergency. 76% of agricultural workers had exposure to biological risks, 89.9% to static and dynamic loads, 66% to psychosocial risks and 68% to pesticides.

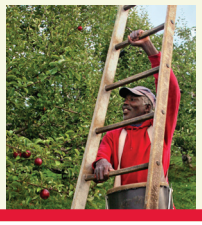
Work-related health disparities in Michigan

Martha Stanbury, Michigan Department of Community Health
stanburym@michigan.gov

Kenneth Rosenman, MD Michigan State University E. Lansing, Michigan

Background: In 2010 the president of the Association of State and Territorial Health Officials issued a public health challenge to the states to consider new ideas, become engaged, and work together to ensure that everyone in this country has equal potential for good health. In response, the Michigan Department of Community Health (MSCH) and Michigan State University collaborated to review occupational health disparities data and develop a report with recommendations that addresses health disparities in work-related illnesses and injuries in Michigan. Methods: Information about potential work-related health disparities was obtained from the U.S. Census Bureau's Current Population Survey (CPS). First, CPS was used to rank order the percent employed in each occupational group in Michigan for Hispanics, Asians, Whites, and African-Americans. Second, the CPS was used to identify the percent non-white in Michigan who worked in the 50 highest risk industries nationwide, as identified by 2009 data from the Bureau of Labor Statistics Survey of Illnesses and Injuries (SOII). Next, Michigan's occupational health surveillance system, which has been collecting and following up on mandatory reports of work-related illnesses and injury for 23 years, was reviewed to identify those conditions where minority groups were over-represented. Results: Michigan's workforce in 2009 was 15.8% nonwhite and 2.7% Hispanic. None of the five most common occupations for Hispanics and African-Americans were professional occupations, whereas four of the five most common occupations for Asians and three of the five for Whites were professional occupations. Fifteen of the 50 industry sectors ranked most hazardous nationally had a workforce that was more than 15% non-White; including, for example, 36% in nursing care facilities and 26% in motor vehicle manufacturing. Work-related disparities were evident in Michigan's surveillance systems for silicosis (41% African American), work-related asthma (19% African American), fatal occupational injuries (5.8% Hispanic), and lead poisoning (22% African-American among those with the highest blood lead levels). Conclusions: Work-related health disparities by race and ethnicity exist in work sectors in Michigan, although the data are incomplete because race and ethnicity are not collected in all data sets. Recommendations include: adding race/ethnicity to the BLS SOII, Michigan workers compensation data, and the Michigan Behavioral Risk Factor Surveillance System; collaboration with the MDCH Health Disparities and Reduction program to develop strategies to promote occupational health equity as part of their overall mission to reduce health disparities; and translation of occupational health and safety informational materials into languages of common immigrant groups.




"Caring for Yourself While Caring for Others": A Project to Engage Low-wage, Multilingual Homecare Workers and their Consumers in Taking Action Around Workplace Health and Safety

Laura Stock, MPH, Labor Occupational Health Program, UC Berkeley
lstock@berkeley.edu

Sherry Baron, NIOSH; Linda Ayala, Alameda County Public Authority for In-home Supportive Services; Suzanne Teran, Labor Occupational Health Program

Background/Objectives Homecare workers (HCWs) who provide personal care services and housekeeping to elderly or disabled individuals, constitute one of the fasting growing occupational groups. The BLS estimates that their number is projected to increase by 50% from 2008 to 2018. They are also low-wage, low-status workers and face multiple work-related hazards such as overexertion, bloodborne pathogens, chemical exposures, stress, and violence. Developing health and safety interventions for HCWs is particularly challenging due to the multicultural and multilingual nature of this population. HCWs are 90% women, and around 50% racial/ethnic minorities. In 2001, NIOSH, in partnership with SEIU Longterm Care Workers Union, Alameda County Public Authority for In-Home Supportive Services, and the Labor Occupational Health Program, initiated a multi-year participatory research project aimed at promoting health and safety among HCWs. The goals of the study were to 1) develop educational materials appropriate for the multilingual, multiethnic target population, 2) empower HCWs to work with their clients/consumers to use the materials, 3) facilitate discussions among stakeholders seeking to address institutional barriers to worker health and safety and 4) develop social marketing strategies to promote HCW health and safety. Methods Eleven focus groups were conducted with workers and consumers in multiple languages to gather information on issues of concern, identify possible educational strategies and obtain feedback on materials, training and social marketing messages. Based on focus groups results, prototype materials were developed and social marketing messages were extracted. A worker/consumer leadership group was established and trained to provide input on the project as well as pilot test materials with their peers. Several stakeholder meetings of agency and community partners were held to discuss institutional barriers to using educational materials. In the spring of 2011, a randomized controlled evaluation is being conducted to assess the impact of the intervention (a handbook for homecare workers, "Caring For Yourself While Caring for Others," and accompanying training workshop) on attitudes and practices among homecare workers and their consumers. Results This poster will: 1. Describe methods used to prepare consumer/ worker leaders to serve as lay researchers and the benefits of using members of the target community to guide the materials development process, particularly when working with immigrant communities. 2. Discuss the challenges of developing action-oriented materials for workers in unique and often isolated work settings—the home. We will describe how our materials are designed to empower workers to protect their own health as well as encourage effective communication with their consumers to promote working together to make the home and job safe. 3. Report on initial findings from our evaluation assessing the effectiveness of our intervention in promoting self efficacy and willingness/ability to take action around health and safety.

Concentration of Occupational Herbicides in Farmworkers' Homes in Yuma, Arizona

Anastasia Sugeng, Environmental Health Sciences, Mel and Enid Zuckerman College of Public Health, University of Arizona
asugeng@email.arizona.edu

Dr. Paloma Beamer, Dr. Eric Lutz, and Dr. Cecilia Rosales (all from Environmental Health Sciences, Mel and Enid Zuckerman College of Public Health, University of Arizona, Tucson, AZ, USA)

Background and Objectives: Farmworkers are a severely underserved population in the United States, and exposure to occupational pesticides is a continuous threat to farmworkers' health. There is increasing concern for auxiliary and chronic exposures to their families by pesticides tracked into their homes on the workers' clothing, footwear, and skin, as well as by pesticide spray drift and wind-driven resuspension of contaminated soil particles from nearby fields. Two agricultural herbicides, pronamide (also known as propyzamide) and trifluralin, were selected for evaluation due to their persistence in soil, heavy agricultural use in Yuma, and limited residential use. Prior to this study, minimal sampling for pronamide and trifluralin had been done despite their likely potential to cause adverse health effects. EPA classifies pronamide as a probable carcinogen, and the literature has been revealed pronamide to increase neoplasms in male mice. Pronamide is also a suspected endocrine disruptor, having shown evidence of thyroid cellular hypertrophy, hyperplasia, and a decreased thyroid hormone in rats. EPA lists trifluralin as a possible carcinogen, with a suggested link to colon cancer in humans. Exposure to trifluralin has also been associated with increased levels of cortisol and insulin in sheep. The objective of this study was to quantify the level of pronamide and trifluralin in farmworkers' homes. Methods: 10 farmworkers' homes were recruited in Yuma, Arizona and a series of soil, outdoor air and house dust samples were collected and analyzed for pronamide and trifluralin. This was coupled with a questionnaire, which addressed housing characteristics, in-home cleaning behaviors, personal hygiene routines, pesticide education and personal beliefs about pesticides. Expected results: Sample analysis is on going. Concentrations of pronamide and trifluralin in outdoor air, soil, and house dust will be reported. Factors from the questionnaire that are related to the measured concentrations will also be identified. An estimated dose will be computed and compared to the EPA reference dose (Rfd) of 7.5 x10-2 mg/kg-day for pronamide and 7.5 x10-3 mg/kg-day for trifluralin. Conclusions: Environmental sampling will result in quantification of pronamide and trifluralin in farmworkers' homes. These observations will be used as inputs to a model framework to assess the pathways for agricultural pesticides to enter the homes of farmworkers, contributing to chronic exposure among farmworkers and their families. This will help support the development of specific interventions aimed at reducing these exposures.

Marketing for Improved Working Conditions: A Look at the Domestic Worker and Heat Campaigns

Suzanne Teran, Labor Occupational Health Program, UC Berkeley
steran@berkeley.edu

Charlie Cardillo, Underground Advertising; Guillermina Castellanos, La Colectiva de Mujeres; Robin Baker, Labor Occupational Health Program, UC Berkeley

Two campaigns implemented in California in recent years used social marketing and health communication principles to improve working conditions and the health and safety of non-English-speaking workers. The Domestic Worker Safety and Dignity Campaign addressed the work life of Latina domestic workers, with the vision of transforming the conditions within and the perceptions of this industry from undervalued women's work to a respectable component of the economy. A San-Francisco-based social marketing and media campaign was implemented targeting household workers and the people who hire them, using local transit ads, community posters and outreach materials. The 2010 California Heat Illness Prevention Campaign represents an ambitious effort to reduce heat-related fatalities and illness among low-wage, non-English speaking outdoor workers, with a focus on the agriculture and construction industries. The campaign strategy involved working at multiple levels to educate workers, employers and the community as a whole about needed heat illness prevention measures both during and outside of work. Social marketing principles guided the formative research phase and design of the campaign, which involved outdoor advertising in the form of billboards and ads in local neighborhood stores, lunch trucks and vans in which workers are driven to the fields; radio; and a community education campaign. This poster will describe the process used to develop the messages and design of the campaigns, the evaluation results and the lessons learned for future use of social marketing in occupational health efforts. The use of social marketing and media can be useful for interventions involving low-wage, non-English speaking workers since they introduce socially-mediated pathways of message delivery and may also influence community norms that in turn support worker action.

Educating farmworker families about pesticide safety: Evaluation of an intervention to translate research to practice

Grisel Trejo, Division of Public Health Sciences, Wake Forest School of Medicine
gtrejo@wakehealth.edu

Thomas A. Arcury, PhD(2), Joseph G. Grzywacz, PhD(2), Maria C. Mirabelli, PhD(1), Jennifer W. Talton, MS(1), Janeth Tapia(3), Ralph D Agostino, Jr., PhD(1), and Sara A. Quandt, PhD(1). (1) Division of Public Health Sciences, Wake Forest School of Medicine,(2) Department of Family and Community Medicine, Wake Forest School of Medicine, (3) North Carolina Farmworkers Project.

Background and Objective: Migrant and seasonal farmworker families are exposed to pesticides through occupational and paraoccupational pathways. This population is largely Latino and foreign born. The EPA Worker Protection Standard mandates pesticide safety training for farmworkers, but family members are not required to receive training despite their need to protect against paraoccupational exposure. Several limited studies have demonstrated the effectiveness of pesticide education programs for farmworker families, but there have been no large, carefully evaluated demonstration projects placing these in the public health sphere. This project translates an effective intervention to improve farmworker family knowledge of pesticide safety to a broader public health context. Methods: This demonstration project was based on a community-university partnership. Under the direction of the North Carolina Farmworkers Project, six public health agencies in eastern North Carolina recruited promotoras from the farmworker community. Promotoras were trained to enroll Latino families with at least one child ≤ 12 years and to administer a culturally and educationally appropriate pesticide safety intervention (La Familia Sana). Promotoras taught participants in their homes over five different visits using a six lesson curriculum designed for low literacy adults. Independently conducted pre and post tests, supervised by the university partner, evaluated 17 learning objectives that measured knowledge and behavioral change. Results: Adults (mostly mothers) in 610 families completed the study over 18 months. Most (92%) were from Mexico; 62% had<9th grade education; and 16% reported speaking an indigenous language as a child. The vast majority of participants (90%) reported five or more promotora visits. Significant increases in knowledge occurred across all 17 learning objectives. Correct knowledge of long-term consequences of pesticide exposure increased (20% to 90%), as did how pesticides enter the home from work (24% to 89%), how to protect family from pesticide drift (5% to 68%), integrated pest management approaches (1% to 56%), how to convince others to adopt pesticide safety behaviors (8% to 52%), and minimizing the exposure of unborn babies and children (52% to 99%). Summary scores combining all 17 objectives increased from a mean (SD) of 4.2 (2.7) correct to 12.5 (2.9) ($p<0.0001$). Conclusion: Results demonstrate that the La Familia Sana curriculum produces improvements in participants' knowledge of pesticides and strategies for minimizing paraoccupational exposure to pesticides. It also shows that women from the farmworker community, with limited training, can reach this marginalized population and effectively carry out this program.

Study to find out HIV- AIDS awareness among contract workers working in Industries.

Dr. Ashish Trivedi, SBKS Medical Institute & Research Center
trivediaa@gmail.com

Dr. Devashish Raval

Background: HIV-AIDS is a global epidemic, affecting 33.4million people worldwide and 2.5 million in India. In relation to workplace, it mostly affects the age group of 15-45 years, most productive age of life; it erodes the growth of economies through its direct effect on the Labour supply and productivity. Effective education and awareness is the main tool to protect workers against HIV infection and also reduces HIV-related stigma, and bring about behavioural change. This study was carried out to find out the awareness of contract workers about HIV-AIDS. OBJECTIVES : To find out the Awareness of Industrial Workers about HIV-AIDS. MATERIALS AND METHOD: A cross Sectional Study, of 104 contract workers from 3 industries around Vadodara. A predesigned proforma in Gujarati language was used for data collection. Data entry was done in Microsoft Excel and analysis was carried out by Epi-info 2002. Results: Most of the workers were of 20-30 years of age. 63.5% were aware about the sexual route of transmission while awareness about other routes of transmission was lesser. Only 15% were aware about all the routes of transmission while 16.3% had myths related to transmission of HIV-AIDS. Conclusion: Though HIV-AIDS is almost 30 years old, still the complete awareness is lacking among workers. There are myths and stigmas exists which affect the curative and preventive efforts for HIV-AIDS.

From Training to Action: How UAW's NIEHS-sponsored Hazardous Materials Training Made a Difference During a Chemical Emergency in Puerto Rico

Luis Vazquez, UAW
lvazquez@uaw.net

Background: The Junta de Calidad Ambiental (JCA) is the Puerto Rico equivalent of the US EPA. The agency oversees facilities discharging contaminants to the environment, and the lead agency in the response to releases of hazardous materials or weapons of mass destruction. Methods: The UAW Education/Health & Safety Department trained 172 members of UAW Local 2337 and management. Hazmat training was delivered with bi-lingual trainers, using hands-on, and Small Group Activity Method techniques. Evaluation feedback indicated JCA trainees learned valuable skills unobtainable elsewhere. Results: Ten of the UAW trained JCA trainees put the skills learned into practice as responders during a refinery explosion and fire that occurred October 23, 2009 in San Juan. Some were assigned to work at the Emergency Operations Center, and other personnel set up air/water monitoring and sampling regimens, assessed health of co-responders, and provided reports to the Puerto Rico Governor's Office. Prior to being deployed to this disaster, these responders identified critical gaps in respiratory protective equipment, and outdated calibration of air monitors. These items were taken out of service, meters were calibrated, and missing parts of respiratory equipment were purchased. No JCA responder personnel experienced health effects from the incident or response. Actions taken by the JCA responders played a critical role in protecting their health and safety. Conclusions: The training methods used by UAW demonstrate effectiveness, and cut across cultural and language barriers. UAW continues to develop bi-lingual trainers, work on translating hazmat curricula modules into the Spanish language, and delivering additional hazmat training as opportunities emerge.

How collaboration of community coalitions and public health helps to integrate wellness in the workplace

Kathleen A. Weeks MLT(ASCP) SCRMC Occupational Health Coordinator, St. Croix Regional Medical Center St. Croix Falls, WI
kathy.weeks@scrmc.org

Background: The Polk County Worksite Wellness committee was established in 2009 as a means of sharing what works at the worksite for nutrition and physical acitivity. This was in conjunction to the ACHIEVE grant received through the public health department to establish community based practice for wellness. Objective: To support the community NPA coalition by involving worksites to participate and establish wellness goals and objectives that include the diverse population of workers, thus implementing these activities into the worksite. Methods: Quarterly meetings of worksite coalition members at varous locations to share current programing, health and wellness related education/information, guest speakers, community activity collaboration with other coalitions: school, nutrition, physical activity and public health, friendly wellness competitions (i.e., Survivor Island) and community initiatives to improve walk ability, bike ability, farmers markets, breast feeding, healthy vending, parks and recreation, etc. Results: the 2nd annual Survivor Island has increased participation; worksite coalition continues to grow with 35 memberships, best wellness practices which include all 3 healthcare organizations within the county helping worksites with occupational medicine needs, including schools to encourage staff, student and parent wellness activity invovlment. Conclusion: Having the repeating messages thru work, school, community, public health and healthcare communities creates continuity of wellnesss and establishes policy for future generations to improve nutrition and physical activity, thus decreasing dollars spent in healthcare and allowing reform to happen on a community base level.

Racial differences in supervision among teens injured at work

Erin C Welsh, University of Louisville
erin.welsh@louisville.edu

Teresa J McGeeney (University of Louisville); Kristina M Zierold, PhD (University of Louisville)

Background and Objective: Although labor force participation by teens has declined over the last fifteen years, nearly 80% of teenagers work at some point during high school. Due to their inexperience and lack of skill, teens are at increased risk for occupational injury, with minorities possibly being at highest risk. The role of the supervisor in workplace injury occurrence among teen workers has not yet been studied. Quantity and quality of supervision as well as differences in supervision by race could influence the frequency and outcome of workplace injury in teens. Methods: This study utilizes mix-methods techniques. Initially teenagers aged 15-19 were recruited from two large public high schools in Jefferson County, KY during spring 2010 to participate in focus groups and interviews. In total, five focus groups and seven interviews were conducted, involving 42 teenagers. Following the qualitative part of the study, a questionnaire was administered to over 2,700 students within the high schools. The schools were chosen based on diversity of the students and variety of job training opportunities. Results: White teens reported more injury than African American teens in our sample (56% W vs. 32% AA). When asked whose fault the injury was, more white teens showed self-blame (80% W vs. 69% AA). Supervision was more common in white teens. Eighty-three percent of white teens talked to their supervisor at least several times a week, compared to 72% of African Americans. While supervision was more common in white teens, 22% of white teens said they would do something they felt was dangerous if their supervisor asked them to, compared to 9% of African American teens. Conclusion: In this population, injury was more prevalent in white than in African American teens. Qualities of supervision differed as well. Although white teens were more communicative with their supervisor, they were more likely to perform a task they felt was dangerous if their supervisor asked them to. Furthermore white teens were more likely to blame themselves for their injury. Supervision alone does not seem protective against injury and is perceived differently by white and African American teens. The relationship between supervisor and teen may explain behavioral differences. For example, perceiving a supervisor as a friend could lead to different behaviors than perceiving a supervisor as a boss. Further analysis of recently collected data will help to explain racial differences and the role of supervision in injury.

Information from the community: A survey of Latino forest workers in Southern Oregon

Carl Wilmsen, Alliance of Forest Workers and Harvesters
alliancefwh@sbcglobal.net

Diane Bush, UC Berkeley Labor Occupational Health Program;Dinorah Barton-Antonio, UC Berkeley Labor Occupational Health Program

Background and Objectives: This project is a small community-based participatory research project. The objective is to document occupational injuries and illnesses and related medical treatment among immigrant, Spanish-speaking forest workers in Southern Oregon. This project will inform the development of a pilot job health and safety promotora program for these workers that our partnership is developing, described in a separate abstract. Although forest services work is very dangerous, occupational injuries and illnesses among the workers who perform this work has rarely been studied. In this project, we are collaborating with workers on gathering information on work-related injuries and illnesses and the workplace practices that could be changed to improve worker safety. This project helps address the first three overarching goals of the NIOSH National Agriculture, Forestry, and Fishing Agenda, targeting improved surveillance focused on some of the most vulnerable workers in the forestry industry, utilizing a partnership between university and community resources. Methods: The project is using an interviewer-guided survey to collect information from forest workers in Jackson and Josephine counties. An advisory group including Latino forest workers was involved in identifying key occupational safety and health issues, and in refining and testing the actual survey. Based on the information gathered through this process, and using the National Agricultural Workers Survey Occupational Health Survey and other validated worker surveys as guiding frameworks, the Alliance of Forest Workers and Harvesters and UC Berkeley s Labor Occupational Health Program developed the 103-question survey instrument. Community members (family members of forest workers) were recruited to assist with field-testing and to conduct the survey. They will also eventually serve as the promotoras in the promotora program. There is no comprehensive list of forest workers from which to draw a random sample. Instead, the promotores and other active Alliance worker members assisted with snowball sampling-working through their networks and the network the Alliance's outreach worker has spent years developing in southern Oregon, workers are identified to interview. Interviews will be conducted from March-July with at least 150 workers. Once the promotoras have completed the interviews, the data will be entered in SPSSx and frequency tables will be generated. The partnership will meet with workers to conduct a joint analysis, and plan for use and dissemination of the results. Results: Complete results will not be available until September. Preliminary results will be reported at the conference.

Local Health Department's Enforcement Efforts To Eliminate Health Disparities from The Work Environment

Karen Yu, San Francisco Department of Public Health
karen.yu@sfdph.org

Tomás Aragón, MD, Dr.PH; San Francisco Department of Public Health; Rajiv Bhatia, MD, MPH; San Francisco Department of Public Health; Megan Gaydos, MPH; San Francisco Department of Public Health

Wage theft is a working condition that affects health since income is one of the strongest predictors of health. Low-wage and immigrant workers are disproportionately impacted by illegal underpayment or nonpayment of wages. Recent studies found wage theft to be rampant in certain sectors, with up to 68% of workers experiencing at least one pay-related violation in the previous work week. These workers are also less likely to have access to workers' compensation benefits. Inadequate enforcement is one cause of the disparity. The San Francisco Department of Public Health's Environmental Health Section (SFEHS) has established a policy to decrease occupational health disparities by holding its permitted businesses accountable for compliance with labor laws. Since SFEHS does not have authority to enforce labor laws, SFEHS designed three new practices that stay within its authority while facilitating compliance by businesses. These practices use SFEHS' existing consumer protection authority, enforcement processes, and personnel. First, information regarding minimum wage, paid sick leave, workers compensation, and injury and illness prevention has been incorporated into the curriculum of required food safety classes for restaurant workers. Second, before issuing or renewing permits, applicants are required to submit proof of workers' compensation coverage in compliance with state law. Businesses that fail to provide proof of insurance during permit renewal do not receive renewed permits, causing the businesses to be operating without a valid permit. The Director of Public Health (Director) can then suspend or revoke the permits. A random sample of permitted businesses revealed that at least 10% started carrying insurance because of the new permit renewal requirement. And third, SFEHS collaborates with local Office of Labor Standards Enforcement (SFOLSE) to enforce a minimum wage ordinance. Upon SFOLSE request, SFEHS uses its routine enforcement process to gain compliance by petitioning the Director to suspend/revoke a business permit on the basis that permit holders are required to comply with all applicable laws. Co-enforcement with SFEHS has shortened SFOLSE's enforcement process and the time within which workers would receive their back owed wages. Businesses who fail to comply with the Director's directive have had their permit either suspended or revoked. SFEHS' experiences illustrate that it is possible for local environmental health agencies to use its existing resources to facilitate compliance, to assist in enforcement of labor laws, and to decrease disparities.

Latino peer educators creating dialogue: documenting capabilities in structural and instructional critical components.

Joseph Zanoni, University of Illinois at Chicago School of Public Health
jzanoni@uic.edu

Background and Objective: The goal of my inquiry is to examine the complexities of peer education dialogue manifest through varieties of Spanish used in the discourse of occupational health group discussion in workers' centers (Baltodano, Choudry, Hanley, Jordan, Shragge, & Stiegman, 2007; Bobo, 2009; Fine, 2006). To uncover the capabilities of peer educators developing language practices, I am conducting a case study of the impact of Spanish language varieties in a participatory OSHA 10 hour construction safety program called More than Training (UIC, 2010). Curriculum that focuses on production of content knowledge rather than a balance of content and practice of participants may seem neutral but could end up effectively reproducing inequitable power relationships and maintaining domination of participants. I will utilize the Fidelity of Implementation (FOI) framework (Century, Rudnick, & Freeman, 2010) to analyze both the structural and instructional critical components that relate to discussion in Spanish language occupational health sessions. Methods: My methods of inquiry are to interview 10 worker trainers, organizers, OSHA authorized trainers, and researchers who are bilingual Spanish/English speakers about their use or observation of Spanish in the training sessions. I am particularly interested in how dialogue may have been impacted and the language practices they used to promote discussion. Through constant comparison thematic analysis of the interviews I will gain understanding about how worker leaders learn to guide informal discussion, called charlas in Spanish. I received ethical review from the UIC IRB: Protocol number 2010-0445. Expected Outcomes: Themes that I hope to uncover in this inquiry are related to pedagogical instructional critical components of teacher facilitation of participant discussion, participant risk taking, and assessment to inform instruction. I hope to document that worker leaders displayed a balance of content and practice oriented outcomes as a move toward educational intervention for immigrant workers who face occupational health disparities. Conclusion: I seek to describe the elements of the More than Training OSHA 10 hour Spanish Construction project that move toward decolonization, and to understand the dialectics, tensions, and alignments this case study may show (Borg & Mayo, 2006). I hope to show that the worker leaders developed discussion facilitation skills that promoted trust between participants and deepened the connection of participants to the workers' center to support their ongoing struggle to protect themselves at work, ultimately reducing occupational health disparities.

Part of the Job? Disparities in who is at risk for workplace violence in Massachusetts social service agencies.

Jennifer R. Zelnick, Touro College Graduate School of Social Work
jennifer.zelnick@touro.edu;jzelnick@gmail.com

Elspeth Slayter, PhD, MSW, Salem State University School of Social Work; Beth Flanzbaum, LICSW, Y.O.U,.Inc. Worcester, MA; Nanci Ginty Butler, LICSW, Riverside Community Care, Needham MA; Beryl Domingo, LICSW, Department of Children and Families, Boston MA; Judith Perlstein, MSW, Boston University School of Social Work; Carol J. Trust, LICSW, National Association of Social Workers - MA Chapter

Background and Objective: While under-studied, workplace violence is a significant issue for social/human service workers. The Massachusetts Task Force to Maximize Social Worker Safety sought to assess and characterize risk of workplace violence in Massachusetts social service agencies. In particular, we wanted to know if education and job category were associated with increased likelihood of physical assault or threat of assault. Methods: An anonymous, internet based survey was distributed to 200 public, private and non-profit agencies in Massachusetts. The survey was developed by a team that included social work academics, leaders from public and non-profit agencies, and representatives from the National Association of Social Workers, Massachusetts Chapter. Incidents of assault or threat of assault involving direct care staff (defined as those having a bachelors degree or less) were compared with incidents among clinical staff (defined as those with a Masters degree or higher). Incidence rates and odds ratios were calculated using SPSS version 19.0. Results: Forty agencies serving from 120-89,000 clients (Median 4,407) and employing 10-3,500 staff (Median 117) reported on 1,049 incidents of physical assault and threat among 9,022 staff in fiscal year 2009. Direct care staff were twice as likely to suffer a restraint-related injury during a violent episode with a client than were clinical staff (O.R. 2.02; 95% CI 1.34-3.06); nearly 3 times more likely to experience a non-restraint related incident of assault or threat (O.R. 2.75; 95% CI 2.23-3.39), and almost 5 times as likely to experience a physical assault (O.R. 4.91; 95% CI (3.15-7.73). However, the only death reported for FY 2009 was a clinician. Most incidents occurred in an inpatient or office setting, but home of client/community were perceived as more dangerous. Agencies used incident reports and workers compensation claims to document incidents, safety committees with staff representation were rare. Participants expressed concern that incidents were underreported and that staff saw workplace violence as part of the job. Conclusion: Workplace violence is a significant issue at Massachusetts social service agencies that demands further research, agency-based prevention, and public policy response. Risk disparities between clinicians and direct care staff should be better understood. It is of particular concern that those who have less education and occupy lower status and lower paid positions face significantly increased likelihood of threat and assault. Further research is needed to identify the mechanisms associated with increased odds of assault and threat in terms of setting, job characteristics, and client population.

"Double Jeopardy": How work organization in social services leads to occupational health disparities that impact the workforce and the clients they serve

Jennifer R. Zelnick, Touro College Graduate School of Social Work
jennifer.zelnick@touro.edu;jzelnick@gmail.com

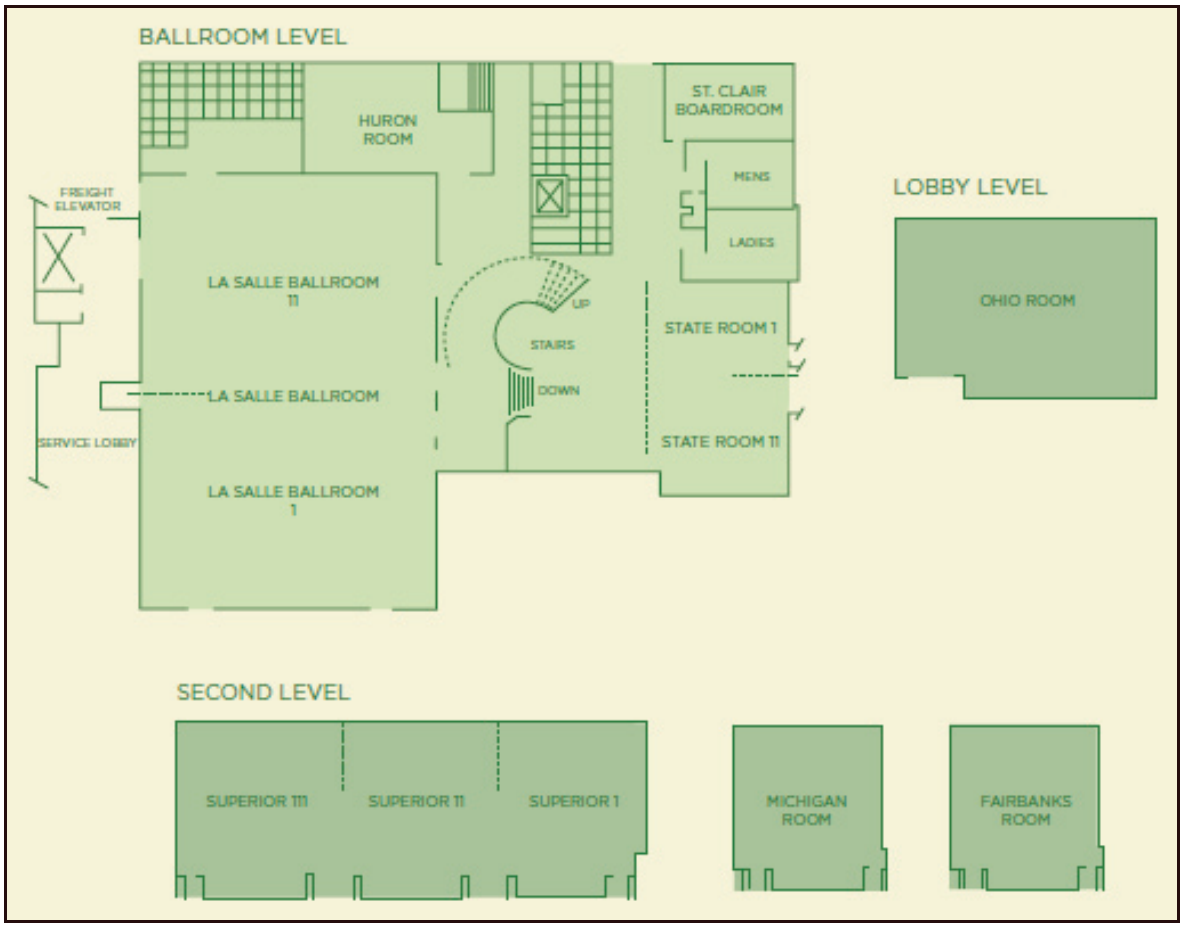
Mimi Abramovitz, Bertha Capen Reynolds Professor of Social Work, Hunter College School of Social Work

Background and Objective: Factors related to work organization and working conditions including employment insecurity, precarious employment, long working hours, dangerous environments, and noxious psychosocial environments contribute to chronic stress at work that has been linked to mental and physical illness (Landsbergis et al, 2008). Poor working conditions in public and non-profit social service employment in the U.S. have been exacerbated during the last 30 years as the effort to end the era of big government has disproportionately targeted local state and federal spending on health and social services. However, the social service sector remains understudied by those committed to improving workplace health and safety. The social service sector is staffed largely by women and persons of color, groups known to be at risk for health disparities in the community (Abramovitz, 2011). Low status/paid work in the social service sector suggests that, via work organization and working conditions, occupational health disparities may play a role in adverse health outcomes for the social service workforce. Poor health of service providers can have a negative effect on the quality of services provided to clients/patients. The latter typically seek assistance due to adverse consequences of their exposure to poverty, discrimination and other community-based heath hazards. These twin realities create a situation of double jeopardy, where factors that adversely impact the workforce also impact quality of services received by clients/patients. Methods: The objective of this project is to develop a conceptual framework to understand how work organization in social services contributes to occupational health disparities. In order to develop this framework, we will conduct 1) a systematic review of studies of occupational illness and injuries in the U.S. social service sector, 2) identify external factors, organizational characteristics, and job characteristics that lead to hazardous working conditions in specific social service delivery areas. Results: Expected results include 1) The first systematic review of occupational health hazards in U.S. social service employment, 2) An empirically based framework that identifies practices that lead to adverse health outcomes, 3) case studies that apply the framework to explain how work organization leads to occupational health disparities in social service settings. Conclusion: Reductions in social welfare resources result in "Double Jeopardy" that puts the health of staff and clients at risk. The public health dimensions of under-funding social services need to be understood as part of the effort to eliminate health disparities for the social service workforce and those they serve.

NOTES

DOUBLETREE MAGNIFICENT MILE

FLOOR PLAN



"Where people **live, learn, work** *and play*

affects their health *as much as their*

access to health care.

We have to **confront the social, economic**

and environmental factors

that contribute to health disparities."

—Garth Graham, MD, MPH, Director of the HHS Office of Minority Health