



Course Description:

The COEH Builds Bridges symposium was launched in 2017 and rotates biannually between Berkeley and Sacramento, CA. The 2021 symposium was held on February 11 - 12 and served as a merger of the 43rd Annual UC Berkeley Lela Morris Symposium and 39th Annual UC Davis Occupational and Environmental Medicine Symposium.

The COVID-19 pandemic has required unprecedented collaboration and highlighted the complex relationship between work and health. This interdisciplinary symposium has been designed to advance knowledge and discussion among Occupational and Environmental Health and Safety and Allied Health communities.

Audience:

This symposium is intended for occupational and environmental health and safety professionals and clinicians including MD / DO, nurse practitioners, physician assistants, registered nurses, registered environmental health specialists, industrial hygienists, certified safety professionals, ergonomists, researchers, and other allied health professionals.

Disclosure:

This event is made possible through the joint providership of The Center for Occupational and Environmental Health UC Berkeley, and The Center for Occupational and Environmental Health UC Davis.

Helen Y. Chu, MD, MPH has disclosed research support from Gates Ventures, NIH, CDC, DARPA, Sanofi-Pasteur, and Cepheid; is a consultant for Merck, Pfizer, Ellume, and BMGF; and has served as a co-investigator on studies funded by Pfizer, Novavax, and Glaxo Smith Kline.

No other individuals involved in the planning or presentation of this activity have any relevant financial relationships with commercial interests to disclose.

Learning Objectives:

Interdisciplinary Action to Protect Workers (Thursday, February 11, 2021)

At the completion of this activity, the learner will be able to:

- Discuss the relationship between SARS-CoV-2 seroprevalence and reported personal protective equipment use among firefighters and emergency responders in San Francisco, CA
- Describe the evidence demonstrating disproportionate mortality in certain occupational groups by race and ethnicity, identify key elements of the Cal/OSHA Emergency Temporary Standards for COVID-19 Prevention, and describe the role of emergency legislation and regulations to protect workers
- Describe the components of a virtual ergonomics evaluation and summarize common home office ergonomic mistakes, symptoms, and strategies to mitigate risk
- Identify the impact of COVID-19 on grocery store workers, including physical and mental health risk
- Examine the impact of social and economic factors on work-related disease and illness and strategies to employ an occupational health equity approach in practice
- Discuss strategies and opportunities for interdisciplinary collaboration and research in occupational and environmental health

Ethical Response When Addressing Emerging Scientific Data (Friday, February 12, 2021)

At the completion of this activity, the learner will be able to:

- Discuss the application of epidemiological research to clinical care, and how to rapidly pivot public health practices and policies in response to emerging infectious diseases
- Apply the latest evidence from public opinion surveys about the U.S. public's attitudes, knowledge, and experiences with COVID-19 vaccinations to the learner's own practice
- Apply harm reduction principles from HIV, sexual health and addiction medicine to mask messaging, and discuss data on the relationship between viral dose and infectivity
- Practice interdisciplinary communication and utilize messaging strategies to combat misinformation and build trust
- Describe the structure and successes of international research collaboration N95DECON and discuss the challenges in maintaining collaborative efforts
- Identify recognized symptoms of Post-COVID Syndrome and utilize resources to refer and evaluate these patients for further treatment
- Discuss ethical considerations and ethical response when addressing emerging scientific data

Course Schedule:

Interdisciplinary Action to Protect Workers: Presentation Recordings

The "Other" Essential Workers: Implementation and Impact of COVID-19 Prevention on the Health of Unionized Grocery Workers with Sadie Costello, PhD, MPH, University of California Berkeley; Jim Araby, UFCW Local 5; and Matt Bell, UFCW 324 (35 minutes)

Despite the central role grocery stores play in our daily lives, virtually no research has been conducted to understand the impact of COVID-19 interventions on the health of workers. This presentation will explore findings from a survey of over 1000 Californian grocery store workers, collected through a collaborative research effort between academic researchers and a major union. Learners will discuss the physical and mental health risk for workers in grocery stores

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during the COVID-19 pandemic, and the implementation of protective practices in during the summer of 2020.

Respiratory Protection & Seroprevalence of SARS-CoV-2 Among San Francisco Firefighters and Emergency Responders with Megan Grant, RN, NP, University of California San Francisco and Arlene Nunez, BS, MA, San Francisco Fire Department (21 minutes)

This presentation will discuss the experience of the San Francisco Fire Department during the COVID-19 Pandemic, particularly during the first 6 months of the pandemic. We found strikingly low Seroprevalence among firefighters and emergency responders and high levels of reported PPE use. Also unique was our orthogonal testing methodology to confirm positive results in a low prevalence population.

Fostering Occupational Health Equity: Strategies for Practice with Jacqueline Sivé, PhD, MA, MPH, CPH, National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention (30 minutes)

This presentation will discuss the value of an occupational health equity approach to reducing health inequalities in high risk worker populations. Learners will explore the impact of social and economic factors on work-related disease and illness via case studies.

Virtual Ergonomics Evaluations: Home Office Errors & Common Symptoms with Melissa Afterman, MS-HFE, CPE, Learn Ergo, UC Ergonomics Research & Graduate Training Program (24 minutes)

This presentation will explore employer responsibility in relation to home office ergonomics and how to modify an ergonomics program to include virtual evaluations. Learners will be presented with case studies highlighting common home office ergonomic mistakes and symptoms, and identify strategies to mitigate risk, prevent injury, and optimize worker performance.

Emergency Legislation & Cal/OSHA Regulations to Protect Workers from COVID-19 with Michael Wilson, PhD, MPH, Cal/OSHA (22 minutes)

This presentation will describe key elements of the Cal/OSHA COVID-19 Emergency Temporary Standards (ETS), and explore evidence demonstrating disproportionate mortality in certain occupational groups by race and ethnicity. Learners will also examine the role of emergency legislation and regulations to protect workers.

Interdisciplinary Action to Protect Workers: Discussion and Panel Recordings

Interdisciplinary Research Panel Discussion and Q&A with Sadie Costello, PhD, MPH; Matt Bell, UFCW Western States Council; Megan Grant, RN, NP; and Arlene Nunez, BS, MA (55 minutes)

Fostering Occupational Health Equity Discussion with Jacqueline Sivé, PhD, MPH, CPH (20 minutes)

Emergency Legislation and Regulations to Protect Workers Panel Discussion with Maggie Robins, MPH, Worksafe; Barbara Materna, PhD, CIH, CDPH; Richard E. Fairfax, BS, MA, National Safety Council (NSC); and Khalid Kaldi, One Fair Wage; moderated by Laura Stock, MPH, Labor Occupational Health Program (LOHP) (44 minutes)

Virtual Ergonomics Evaluations Activity and Q&A with Melissa Afterman, MS-HFE, CPE (30 minutes)

Ethical Response When Addressing Emerging Scientific Data: Presentation Recordings

Pandemic Preparedness and Response: Implications for Infectious Disease Research *with Helen Chu, MD, University of Washington (26 minutes)*

This presentation will explore the connection and application of epidemiological research to clinical care. Learners will examine The Seattle Flu Study as a case-study, and discuss how to rapidly pivot public health practices and policies in response to emerging infectious diseases.

Post-COVID Syndrome: Recognition, Diagnostics, and Treatment *with Christian Sandrock, MD, MPH, FCCP, University of California Davis (33 minutes)*

Providers need to be on high alert for symptoms of Post-COVID Syndrome, which are non-classic and continue to evolve. This presentation will provide an update on how to recognize long term symptoms of COVID-19 and how to plan a comprehensive approach to patient care. Learners will also discuss equity of care and the importance of identifying and treating post-COVID syndrome in underrepresented minority (URM) populations.

The State Of U.S. Public Opinion On COVID-19 Vaccination *with Liz Hamel, KFF (25 minutes)*

This presentation will explore latest evidence from public opinion surveys about the U.S. public's attitudes, knowledge, and experiences with COVID-19 vaccinations. Learners will review what is known about COVID-19 vaccine hesitancy confidence, hesitancy, and enthusiasm, as well as which messengers the public most trusts for information on the vaccine, and which messages are most likely to be effective at combating misinformation and vaccine hesitancy.

Masking, Messaging, and Harm Reduction in the COVID-19 Pandemic *with Monica Gandhi, MD, MPH, University of California San Francisco (26 minutes)*

Face masks decrease COVID-19 transmission and may also lead to more mild or asymptomatic disease if infected by reducing the viral inoculum to which the wearer is exposed. Data on the relationship between viral dose and infectivity will be explored. In the face of pandemic fatigue and a highly polarized political landscape in the U.S., a discussion of public health messaging for COVID-19 using harm reduction principles from HIV, sexual health and addiction medicine will also be discussed.

N95DECON: International Research Collaboration During COVID-19 *with David Rempel, MD, MPH, University of California San Francisco and Nichole Starr, MD, MPH, University of California San Francisco (16 minutes)*

Pop-up international research collaborations are not common, but they occurred at the beginning of the COVID-19 pandemic in response to the lockdown at universities and the desire of researchers to contribute what they could to protect the public. N95DECON was one such collaboration. At its height, N95DECON involved 120 researchers, faculty, post-docs and students from universities around the world. This presentation will discuss how the organization formed, goals were determined, communications were structured, and decisions were made. Learners will also explore how scientific reviews were conducted and translated into reports, factsheets, videos, and scientific publications; and what happened to the organization as

researchers returned to their laboratories and usual activities. Lessons from this experience can inform future collaborative research projects.

Ethical Response When Addressing Emerging Scientific Data: Discussion and Panel Recordings

Pandemic Preparedness and Response: Implications for Infectious Disease Research Q&A with Helen Chu, MD (32 minutes)

Post-COVID Syndrome Q&A with Christian Sandrock, MD, MPH, FCCP (30 minutes)

Harm Reduction Q&A with Monica Gandhi, MD, MPH (34 minutes)

Addressing Vaccine Hesitancy Panel Discussion and Q&A with Liz Hamel, KFF; Robert Harrison, MD, MPH, California Department of Public Health, University of California San Francisco; Julie Dang, PhD, MPH, University of California Davis; Small Group Discussion (39 minutes)

Research Collaboration Q&A with David Rempel, MD, MPH, University of California San Francisco; and Nichole Starr, MD, MPH, University of California San Francisco (24 minutes)

Accreditation:

Nurses:

Provider approved by the California Board of Registered Nursing, Provider Number 12983, for 10.0 contact hours.

Physicians:

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the California Medical Association (CMA) through the joint providership of The Center for Occupational and Environmental Health UC Berkeley, and The Center for Occupational and Environmental Health UC Davis. The Center for Occupational and Environmental Health UC Berkeley is accredited by the CMA to provide continuing medical education for physicians.

The Center for Occupational and Environmental Health designates this live activity for a maximum of 10.0 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Industrial Hygienists:

ABIH® Diplomates may be eligible to earn up to 10.0 contact hours for this event. Visit <http://www.abih.org/maintain-certification/cm-credit-education-events> for more information.

Safety Professionals:

Certified Safety Professionals may be eligible to earn up to 10.0 contact hours for this event. Visit <http://www.bcsp.org/Certifications/Recertification> for more information.

Speaker Biographies:

Melissa Afterman, MS-HFE, CPE

Ergonomist, Instructor

Learn Ergo; UC Ergonomics Research & Graduate Training Program

Melissa Afterman is a Board Certified Professional Ergonomist and the principal consultant at Learn Ergo. She also works with the team at the UC Ergonomics Research Lab and is an instructor in the COEH Online Ergonomics Training Program. For 20 years she has consulted with organizations to develop ergo programs, deliver training, and provide human-factors assessments for individuals, groups, tasks and equipment. She now continues to provide the same level of service, virtually from her own home office, during the COVID-19 pandemic. Melissa studied Ag Engineering at Cal Poly SLO and Human Factors Ergonomics Engineering at San Jose State and is an active member of both the Bay Area and Sacramento Ergo Roundtables, and the Human Factors and Ergonomics Society.

Jim Araby

Director of Strategic Com Director of Strategic Campaigns

UFCW Local 5

James Araby is the Director of Strategic Campaigns for UFCW local 5, a 30,000-member union based in the San Francisco Bay Area. Mr. Araby works across Northern California to build political power for UFCW members, who work in the grocery, retail, retail drug, cannabis, and agricultural industries. In addition to the political work, Mr. Araby leads UFCW 5's organizing department. In 2019 UFCW 5 was able to organize 500 new members into the union. Mr. Araby serves on the advisory board at the UC-Berkeley Labor Center, is an appointee on California's Interagency Advisory Committee on Apprenticeship (IACA) and is a former board chair for CORO Northern California. Before joining UFCW 5, Mr. Araby was the Executive Director of UFCW Western States Council, where he helped lead coalitions in California to pass first in the nation laws on: paid-sick days, banning plastic bags, worker retention in the grocery industry and regulating medical cannabis. Mr. Araby was born and raised in Boston, MA and attended school in Hawaii where he met his wife Trina Araby. Mr. Araby and Trina have two children and live in Briones, CA.

Matt Bell

Secretary Treasurer

UFCW 324

Matt Bell is the Secretary Treasurer of United Food and Commercial Workers International Union (UFCW) local 324. He has been with UFCW for 21 years serving as an organizer and Union representative. As Secretary Treasurer, he is involved in negotiations of union contracts and the direct advocacy of Grocery and Retail drug members in Orange County and South LA County

Helen Chu, MD

Associate Professor

University of Washington

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Dr. Helen Chu is an Associate Professor and Infectious Disease Physician-Scientist at the University of Washington in Seattle, Washington. Dr. Chu's research is focused on preventive interventions against influenza, RSV, SARS-CoV-2 and other emerging respiratory viruses. Dr. Chu conducts clinical-translational research on large-scale community-based studies of respiratory viruses, with a focus on vaccines, antivirals, and diagnostics. She is also interested in defining clinical and immune correlates of protection against respiratory viruses and describing mechanisms of maternal-fetal immunity against respiratory viruses.

Sadie Costello, PhD, MPH

Director; Assistant Researcher and Lecturer

Targeted Research Training Program; University of California, Berkeley

Sadie Costello, PhD, is an occupational epidemiologist in the Environmental Health Science department at the School of Public Health, UC Berkeley. Dr. Costello earned her PhD from UCLA in 2008, came to UC Berkeley for her postdoctoral research, and stayed on as a researcher and faculty member. Her academic focus has been to conduct exposure-response analyses and identify biases in large, occupational cohort studies. She is particularly interested in applying methods to allow for causal interpretation of results that can readily inform policy. She will be presenting results from this study on behalf of a larger, interdisciplinary research team and will be joined by leaders from United Food and Commercial Workers Union.

Julie Dang PhD, MPH

Executive Director, Office of Community Outreach and Engagement

UCD Comprehensive Cancer Center, University of California Davis

Dr. Julie Dang is a cancer health disparities behavioral scientist with 11 years of experience engaging diverse and underserved communities in cancer control and prevention. She is an assistant professor in the Department of Public Health Sciences at the University of California, Davis and also serves as the Executive Director of the UC Davis Comprehensive Cancer Center's Office of Community Outreach and Engagement (COE). She initiates, conducts, and oversees a range of COE programs and research studies focused on a broad range of cancers and cancer-related risk factors for all of the racial/ethnic populations of the UCDCCC catchment area. This includes programs and studies that have focused on increasing human papillomavirus (HPV) vaccine uptake among adolescents, increasing Asian American participation in biospecimen donation for cancer research, enhancing minority recruitment into cancer clinical trials, increasing hepatitis B testing and linkage to care for Asian American communities and improving colorectal cancer screening and mammography rates among the underserved.

Richard E. Fairfax BS, MA

Consultant

National Safety Council (NSC), ORCHSE

Richard Fairfax, (CIH retired 2017) joined the Occupational Safety and Health Administration (OSHA) in January of 1978 and retired in 2013 from OSHA. At OSHA he was a practicing field industrial hygienist, the Deputy Director and Director for Enforcement programs. In 2008, he was the Acting Director of Construction and in 2010, Mr. Fairfax was designated as the Deputy Assistant Secretary, Overseeing all field, enforcement, and training operations for OSHA. From 1993 through 2010, Mr. Fairfax wrote an

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industrial hygiene column entitled “OSHA Compliance Issues” for the Journal of Occupational and Environmental Hygiene and he still serves on the Editorial Review Board. Currently Mr. Fairfax works part time for NSC-ORCHSE.

Monica Gandhi, MD, MPH

Professor of Medicine

University of California, San Francisco

Monica Gandhi MD, MPH is an Infectious Diseases doctor, Professor of Medicine and Associate Chief in the Division of HIV, Infectious Diseases, and Global Medicine at the University of California, San Francisco (UCSF). She is also the Director of the UCSF Center for AIDS Research (CFAR) and the Medical Director of the HIV Clinic ("Ward 86") at San Francisco General Hospital. Her research focuses on HIV and women and adherence measurement in HIV treatment and prevention and most recently, on how to mitigate the COVID-19 pandemic.

Megan Grant MS, RN, NP

University of California, San Francisco

Megan is an Adult and Occupational & Environmental Health Nurse Practitioner. She completed her training in the School of Nursing at UCSF in 2020. She currently works as an NP in Hematology/Oncology and as a co-founder of the UCSF Street Nursing team, which provides nursing care to unhoused clients in San Francisco and Oakland. When she is not nursing, she tries to spend time in or near open water.

Liz Hamel

Vice President and Director

Public Opinion and Survey Research, Kaiser Family Foundation

Liz Hamel is Vice President and Director of Public Opinion and Survey Research at the Henry J. Kaiser Family Foundation, where she directs KFF's polling work including the monthly Health Tracking Poll and ongoing survey partnerships with news media organizations such as The Washington Post, Los Angeles Times, and CNN. Her public opinion research experience spans a wide range of health-related topics, including people's experiences in the health care system; views of the ACA, Medicare, Medicaid, and private health insurance; attitudes and experiences related to prescription drugs; and the role of health care in elections. Hamel is an active member of the American Association for Public Opinion Research (AAPOR) and its Pacific chapter (PAPOR), and has served on the Executive Council of both organizations. She holds a Bachelor of Arts degree from Harvard University.

Robert Harrison MD, MPH

Clinical Professor of Medicine; Public Health Medical Officer

University of California San Francisco; California Department of Public Health

Dr. Robert Harrison is a clinical professor of medicine at UCSF. He founded and has directed UCSF Occupational Health Services for more than 15 years, and now is a senior attending physician. He has diagnosed and treated over 10,000 patients with work- and environmental-induced diseases and injuries. He also directs the worker tracking investigation program for the California Department of Public Health.

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He has served on the California Occupational Safety and Health Administration (Cal/OSHA) Standards Board, and authored numerous publications in the area of occupational medicine.

Khalid Kaldi

*CA Lead Organizer
One Fair Wage*

Khalid Kaldi is the California lead organizer at One Fair Wage. He lives in Oakland, CA, is building power through organizing, and is at work on a master's in public policy from the University of California, Berkeley.

Barbara Materna PhD, CIH

*Chief, Occupational Health Branch
California Dept. of Public Health*

Barbara Materna, Ph.D., CIH is the Chief of the Occupational Health Branch, in the California Department of Public Health, a position she has held for the last 18 years. Dr. Materna is a Certified Industrial Hygienist whose career in occupational health has primarily been in state and local government public health programs. Some of the worker health topics she has studied include perchloroethylene in dry cleaning, exposures to wildland firefighters, occupational lead poisoning, lung disease in flavor manufacturing workers, aerosol transmissible diseases, respiratory protection for healthcare workers, and Valley fever. She has a Ph.D. in Environmental Health Sciences from the University of California at Berkeley.

Arlene Nunez BS, MA

*Firefighter; Former Infectious Disease Scientist
San Francisco Fire Department*

Prior to becoming a firefighter, Arlene Nunez was a research scientist for about 20 years. Her field of expertise and Masters degree is in Molecular Microbiology. She is able to detect human, animal and plant pathogens from their DNA/RNA, and to culture pathogens to show they are alive and infectious. Arlene has worked at UCSF on HIV/AIDS research, the CDC on Bio Warfare detection and WMD surveillance, and multiple local Biotechnology Companies in their R&D Divisions as a Sr. Scientist. She has also worked closely with the FBI, EPA Special Agents and the Military while working for the CDC and Biotechs to design and develop robust and reliable detection systems/devices for deadly human pathogens/diseases.

David Rempel MD, MPH

*Professor Emeritus, Department of Medicine
University of California, San Francisco*

Dr. David Rempel is Professor Emeritus in the Department of Bioengineering at UC Berkeley and Professor Emeritus in the Department of Medicine at UC San Francisco. Dr Rempel founded the UC Ergonomics Program in 1991. He has been teaching, conducting research, and consulting in the field of human factors engineering and ergonomics for over 30 years. He continues his research and mentoring

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of graduate students part-time through the UC Ergonomics Laboratory. He is active in professional societies including the ACGIH, HFES, ACOEM, WOEMA, ICOH, and IEA.

Margaret Robbins MPH

*Occupational & Environmental Health Specialist
Worksafe*

Margaret Robbins has 3 decades of experience as an occupational safety and health professional, working for unions, NGOs, a labor education program and as a writer. She has primarily worked in the US, but also in the United Kingdom and South Africa. A common thread of this work has been to help workers advocate and negotiate for better protections at work, to understand their rights and how to use them, and to understand the fundamentals of safety and health to enable them to advocate for more effective safety programs.

Christian Sandrock MD, MPH, FCCP

*Director of Critical Care, Professor of Medicine
University of California Davis*

Dr. Sandrock has clinical interests in respiratory infections, community-acquired and viral pneumonia, and ICU-acquired infections. His research interests include emerging infectious diseases at the animal and human interface, particularly respiratory infections such as avian influenza, SARS, and other diseases acquired by humans.

Jacqueline Sivé n PhD, MA, MPH, CPH

*Research Behavioral Scientist
National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention*

Jacqueline Sivé n, PhD, MPH, CPH is a Research Behavioral Scientist at the National Institute for Occupational Safety and Health (NIOSH) of the U.S. Centers for Disease Control and Prevention. Dr. Sivé n is a trained medical anthropologist and public health researcher, experienced in qualitative research and mixed methods. Dr. Sivé n's current work centers on health equity among vulnerable worker populations.

Nichole Starr MD, MPH

*General Surgery Resident, Lifebox Senior Fellow, NIH Fogarty International Scholar
University of California, San Francisco*

Dr. Nichole Starr is a general surgery resident at UC, San Francisco, the senior fellow at Lifebox Foundation, and a NIH Fogarty Scholar. Her areas of interest are in academic global surgery, surgical quality improvement and infection prevention, and strengthening trauma care systems in resource limited environments, as well as trauma induced coagulopathy and platelet function in injured patients. Dr. Starr served in the Peace Corps in Ethiopia from 2007 - 2009, and has worked in Ethiopia, Brazil and Liberia on health services research and improving care for HIV/AIDS, TB, and surgical quality improvement.

Laura Stock MPH

Director

Labor Occupational Health Program

Laura Stock is the director of the Labor Occupational Health Program (LOHP). She directs and administers LOHP's programs providing training, research support, materials development and technical assistance for workers, employers, health professionals, and the general public. She also provides direction to staff on translating research findings to practice and to public policy (R2P2P). In her over thirty years at LOHP, she has developed various training programs and educational materials on occupational safety and health issues and have provided technical assistance and consultation to workers, unions, joint labor/management committees, employers, policymakers and others on how to set up comprehensive and effective health and safety programs. Ms. Stock is currently principle investigator on a number of statewide worker education initiatives including WOSHTEP (Worker Occupational Safety and Health Training and Education Program), and is a member of the Cal/OSHA Standards Board, charged with developing occupational safety regulations for the state of CA as well as the NIOSH/ NORA Committees on Healthy Work Design.

Michael Wilson PhD, MPH

Senior Industrial Hygienist

Research and Standards, Cal/OSHA

Mike Wilson, Ph.D, MPH, is working on the state's pandemic response as a senior industrial hygienist in the research and standards unit at Cal/OSHA. He previously served as national director for occupational and environmental health with the BlueGreen Alliance; as chief scientist with the California Dept of Industrial Relations; and as director of the Labor Occupational Health Program at UC Berkeley. He is a former firefighter/paramedic and past president of International Association of Firefighters Local 1270. He studied under Professor S. Katharine Hammond in earning his MPH and PhD in industrial hygiene/EHS at UCB.